



**Comments of the Rhode Island Office of Energy Resources in Docket #4780 re: National Grid's proposed Power Sector Transformation (PST) Vision and Implementation Plan**

*April 25, 2018*

The Rhode Island Office of Energy Resources (OER) respectfully submits these comments regarding the Power Sector Transformation (PST) Vision and Implementation Plan filed by National Grid (the Company) on November 28, 2017 in Docket #4780. As the lead energy policy agency for Rhode Island, OER works to ensure that the state's energy initiatives align with a long-term vision of a reliable, affordable, and clean energy system. To that end, in Docket #4780, OER focused on evaluating consistency of the Company's PST proposals with the state's energy, environmental, and economic public policy objectives.

As OER stated in our previous comments filed in Docket #4770, OER believes that the Company's base distribution rate case is a key moment for Rhode Island to move forward on our collective energy priorities. Over the past fifteen years, Rhode Island has enacted bold goals and energy policies aimed at increasing fuel diversity, reducing costs, and promoting clean energy.<sup>1</sup> Furthermore, today's energy markets are undergoing rapid change, with clean energy technologies such as solar photovoltaics becoming more affordable and appealing to a broader segment of consumers. The rapid pace of market transformation as well as the clear policy direction provided by Rhode Island's statutory framework underscores the pressing need to prepare for a distributed, clean, and resilient energy future. Within the context of Docket #4770 and Docket #4780, we have an important opportunity to firmly integrate the state's public policy objectives into the core mission and financial interests of our state's primary electric distribution utility.

OER believes that the Company's proposal in Docket #4780 addresses key areas critical to advancing Rhode Island's policy objectives for a clean, affordable, and reliable energy system. In particular, OER was pleased to see the Company address performance incentive mechanisms, grid modernization investments, and Advanced Metering Infrastructure (AMI) deployment. Additionally, OER was pleased to see electrification of transportation, heat, and energy storage addressed. However, while OER believes that the Company has identified many of the correct areas of focus, we believe that the substance of the Company's proposals merit modification and improvement before Commission approval. Our comments on the Company's proposals are as follows:

**Performance Incentive Mechanisms**

The current return on equity profit model gives the Company an incentive to build conventional grid infrastructure, but not to reduce the long-term costs of the system, promote distributed energy resources (DER), or address other critical objectives. A set of thoughtful performance incentive mechanisms (PIMs) are essential to focus the attention of utility management on these important policy areas. Rhode Island has demonstrated success with performance incentives in its nation-leading energy efficiency programs.

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<sup>1</sup> Among the most prominent energy policies are Least-Cost Procurement, various renewable energy statutes, biodiesel blending, coordinated multi-state energy procurements, the Regional Greenhouse Gas Initiative (RGGI), and the 2014 Resilient Rhode Island Act.

OER Recommendation: OER supports the Division's PIM proposal as outlined in the Direct Testimony of Tim Woolf and Melissa Whited in Docket #4770. The Division's proposal addresses appropriate policy areas and priorities. OER agrees with the Division that PIMs are most appropriately considered as part of the Company's base distribution rate case in Docket #4770.

### **Grid Modernization**

Today's electric grid was designed to support one-way flow of power and is ill-equipped to integrate growing amounts of DER and control the long-term costs of the electric system. A modernized grid will provide the operational flexibility and visibility required by the Company to operate, plan, and invest in a high-DER system that supports bi-directional energy flows. A modernized grid will also enable the creation and collection of a wealth of system and customer data that could be used by the Company and third-party providers to provide value to the system and reduce long-term system costs.

OER Recommendation: OER supports the Division's recommendations on grid modernization as outlined in the Direct Testimony of Greg Booth in Docket #4770. The Division appropriately notes that the Company's grid modernization proposals cannot be considered separately from the Company's core business, and in fact, many of the Company's self-described PST grid modernization activities are more appropriately categorized as core business functions. Therefore, OER agrees with the Division that the Company's grid modernization proposals should be considered as part of the Company's base distribution rate case in Docket #4770. Finally, OER agrees with the Division that the Commission should require the Company to develop a comprehensive Grid Modernization Plan (GMP) in collaboration with stakeholders that describes the Company's long-term plans for modernization strategies and deployment of technologies.

### **Advanced Metering Functionality**

As indicated by the consensus achieved in Docket #4600, Rhode Island plans for a future with time-varying rates (TVR). TVR could provide significant savings to ratepayers and the system, and requires Advance Metering Functionality (AMF) for implementation in a way that allows customers meaningful opportunities to engage and respond to price signals. AMF also enables other important outcomes such as outage protection, faster outage restoration, access to clean energy programs tailored to customers' usage, and more efficient use of the distribution system.

OER Recommendation: OER supports the Division's recommendation for the Company to develop a study plan for AMI as outlined in the Direct Testimony of Tim Woolf and Melissa Whited in Docket #4770. Given AMI's role as a critical enabling technology for the modern grid and the promising initial benefit/cost analysis provided by the Company in Docket #4770, further study is merited. OER agrees with the Division that the AMI study should consider multi-jurisdictional deployment, shared communication infrastructure, enabling access to third party providers, and investigating procurement of AMI as a service.

### **Electric Transportation and Heat**

As indicated by the State Energy Plan and the EC4 GHG Plan, decarbonization of the thermal and transportation sectors is key to meeting long-term emissions reduction goals. At present there are limited policy tools in Rhode Island to make meaningful advancements in these key areas. Therefore, OER strongly supports the opportunity to make headway with a set of well-designed electric transport and electric heat initiatives.

OER Recommendation: OER commends the Company for identifying electrification of transportation and heat as important areas of focus. OER offers the following comments on the Company’s proposed electric transportation initiatives:

- Off-Peak Charging Rebate: OER supports the intended outcome of this initiative — to incentivize EV customers to charge at off-peak periods. OER believes that there may be opportunities to reduce program costs by trimming administrative costs relative to rebate payments and shifting from a simple off-peak rebate to a time-of-use structure.
- Charging Station Demonstration Program: OER supports the Company’s proposed charging station demonstration program. OER also supports the Company’s proposed Make-Ready approach, as well as the Company’s proposal to limit Company-operated sites to no more than 50% of the targeted number of Level 2 sites in each segment. It should be noted that State agencies are currently examining opportunities to invest Volkswagen Settlement Funds to support clean transportation initiatives. To the extent Rhode Island’s Beneficiary Mitigation Plan invests in charging infrastructure, the Company should be explicitly encouraged to work with State agencies to optimize and assist with station deployment. In this regard, any investment of ratepayer funds should enhance and be supplemental to — not duplicative of — any State efforts.
- Discount Pilot for DC Fast Charging Station Accounts: OER supports the Company’s proposed discount pilot for DC fast charging station accounts. The Company’s proposed approach appears to address the objective of lowering the cost for customers to use DC fast charging stations, thereby aiding the growth of Rhode Island’s nascent electric vehicle market. OER believes the time-limited nature of the discount is reasonable; discounts should be revisited over time with the long-term goal of price signals that reflect system costs.
- Transportation Education and Outreach: OER has concerns whether the Company is the entity best situated to administer this activity. OER is open to opportunities to repurpose such funds towards activities more tailored to address market barriers to electric vehicle adoption, such as dealership education.
- Company Fleet Expansion: OER does not support the Company’s proposed fleet expansion. This proposal does not help with broader market transformation efforts, which should be prioritized activities under this initiative.
- Initiative Evaluation: OER supports the Company’s proposed initiative evaluation to provide information and analysis for future decision-making relative to electric transportation planning and investments.

OER offers the following comments on the Company’s proposed electric heat initiatives::

- Ground-Source Heat Pump Program: OER does not support the Company’s proposal for a ground-source heat pump with partial Company ownership. OER has concerns about the strategic advantage or value of utility ownership of a customer’s heating equipment.
- Equipment Incentives: OER supports the Company’s proposal to issue rebates to customers to defray the up-front cost of converting from fossil fuel heating sources to air-source or ground-source heat pumps. The concept of providing up-front incentives for energy-saving improvements in customers’ homes is a proven strategy with demonstrated success in the state’s energy efficiency programs. Any equipment incentives for heating conversions must be closely coordinated with the energy efficiency programs and delivery channels.
- Community-Based Outreach: OER supports the general concept of a community-based outreach proposal for clean heating systems (e.g., a “Solarize” campaign for heat pumps). However, OER has concerns whether the Company is the entity best situated to administer this activity. Such an initiative would likely need to be developed and implemented as a partnership between state agencies, heating industry professionals, municipalities, and the Company.

- *Oil/Propane Dealer Training Programs*: OER is a steadfast advocate of helping oil and propane companies transition into new clean energy market opportunities. The Company’s proposed training programs, however, do not appear to have been vetted with delivered fuels industry stakeholders, nor do they appear to respond to the applicable barriers those workers face in entering the heat pump sector. For example, the Company’s proposed trainings may already be offered for free by manufacturers. OER is open to a redesign of such a program to meet the needs of the delivered fuels industry, who are uniquely situated with industry knowledge and the technical skillsets to help grow the state’s clean heating sector.

### Energy Storage

Advanced energy storage technologies are gaining traction due to falling costs and emergent policy support in certain markets. A unique characteristic of energy storage is its flexibility; for instance, storage can act as generation, load, or even as grid infrastructure (e.g. providing peak reduction or voltage regulation). Due to this flexibility, storage can serve in diverse applications and could produce a wide variety of potential benefits to Rhode Island’s customers, electric system, and environment.

OER commends the Company for identifying energy storage as an important emerging technology and potential area of investment. OER does not believe, however, that the Company’s proposal passes muster as currently framed. OER’s primary concerns are:

- *The size of the program*: OER believes that the target — 2 MWh — is much too small. Other states have implemented energy storage targets approximately equivalent to between two and five percent of their peak loads (e.g., California, Massachusetts and New York). For Rhode Island this would equate to an energy storage target roughly between 40 MW and 100 MW.
- *The proposed ownership structure*: OER does not believe the Company has made a compelling case for utility ownership, nor has the Company proposed to leverage the third-party market, which could potentially reduce the need for ratepayer funds if the third-party can leverage other sources of revenue (e.g., wholesale market revenues).
- *The benefit/cost ratio*: The benefit/cost ratio (BCR) of 0.45 is low (below 1), which indicates that it is not cost-effective. The Company has achieved a positive BCR with a third-party owned energy storage system in the System Reliability Procurement (SRP) Plan.
- *Value to the distribution system*: A significant potential benefit of storage is its ability to defer distribution system-related costs. Yet the Company has not articulated a well-formulated strategy to target energy storage development toward areas of the distribution network that require peak load relief, voltage support, or other distribution services that storage would be well positioned to provide. OER believes that is critical for the Company connect any storage activities with its distribution system planning, SRP, and/or heat map initiatives in a meaningful way.

OER Recommendation: OER sees energy storage as a key emerging technology with the potential to provide significant benefits to Rhode Island ratepayers by supporting key policy goals such as increasing system efficiency and integrating renewable energy. However, given OER’s concerns about the Company’s energy storage proposal, OER instead supports advancing energy storage via the PIM mechanisms described in the Division’s PIM proposal. Under the Division’s PIM proposal, the Company could support the deployment of between 12 MW and 24 MW of cost-effective energy storage (behind-the-meter and utility-scale) between 2019 and 2021. Furthermore, OER’s understanding is that additional energy storage capacity could potentially qualify under the system efficiency PIMs and the NWA PIM. Finally, the energy storage projects would need to create net benefits per the shared savings construct contemplated by the Division. OER believes there is likely further room for growth in the energy storage market in Rhode Island beyond what is proposed under the current PIM proposal, but that the PIM

proposal provides a good start. OER advocates for the following principles in implementing the 12 MW to 24 MW of cost-effective energy storage via the PIM mechanisms:

- *Third-party market*: Any storage activities undertaken by the Company should leverage the third-party market in order to minimize use of ratepayer funds, leverage innovative private sector business models, and maximize opportunities for cost-effective projects. For example, the Company could issue all-source RFP's to address an identified need such as a reduction in the annual forward capacity market (FCM) peak demand to reduce the Company's share of annual FCM costs. Storage technologies may be ideal candidates to respond to these needs.
- *Distribution value*: Storage activities should be guided by and integrated with the Company's distribution system planning and heat map activities. For example, the Company should issue RFP's for distribution system needs related to contingency, peak demand, voltage support, or otherwise. Storage technologies may be ideal candidates to respond to these needs.

### **Income-Eligible Solar**

The Company has proposed to develop utility-owned solar PV installations up to 3.75 MW near affordable housing developments, with revenues from systems to lower income-eligible customer bills. OER strongly supports efforts to reduce energy burdens for low-income customers and expand access to clean energy products and services for the income-eligible customer segment. OER, however, does not support the Company's income-eligible solar proposal due to the following reasons:

- *Utility ownership*: Rhode Island is home to a vibrant and growing solar industry, where numerous solar projects are privately developed and owned. OER does not believe the Company has made the case that utility ownership of solar generation is necessary or justified in Rhode Island.
- *Environmental justice*: Per the Company's proposal, the Company intends to locate at least some of the proposed solar projects near affordable housing developments. OER understands that this proposed siting is per the requirements of Rhode Island General Laws § 39-26-6. However, OER does not believe that siting an energy project next to income-eligible customers can be fairly represented as bringing value to those customers.
- *Benefit/cost ratio*: The proposed initiative has a BCR of 0.85 (below 1) suggesting that the costs outweigh the benefits.

**OER Recommendation**: OER does not support the Company's income-eligible solar proposal. Instead, we do support the Division's more significant approach to lowering bills for income-eligible customers as outlined in Docket #4770 including: an increase in the income-eligible discount from ~15% of the bill to 25% of the total bill; the introduction of a "tiered" discount to provide an additional 5% discount to those most in need; and supporting the Company's proposal to add consumer agents to help low-income residents. OER supports policies to make clean energy program participation available for all, but in our view, merely siting solar projects in low-income communities does not advance that goal.

### **Cost Recovery**

The Company has proposed to establish a separate Power Sector Transformation cost-tracker to recover the costs of PST initiatives implemented by the Company.

**OER Recommendation**: OER does not support the Company's proposed PST tracker. The Company's PST tracker proposal runs counter to the Commission's stated desire in Docket #4600 to align programs. The annual, reconciling structure of the tracker would reduce risk to the Company while adding complexity to stakeholder and regulatory review in the context of multiple related annual dockets (e.g.,

energy efficiency, renewable energy, SRP). Instead of a PST tracker, OER supports the Division's counterproposal to recover the costs of applicable PST activities via base distribution rates within the context of a Multi-Year Rate Plan (MRP) construct. The MRP will impose fiscal discipline on the Company by holding them accountable to a three-year budget. This is consistent with integrating and coordinating existing processes and maintaining a principle of simplicity in our regulatory processes.

OER appreciates the opportunity to weigh in on the Company's PST proposals. In conclusion, OER would like to reiterate the following high-level principles and priorities for consideration by the Commission as they weigh the Company's proposals:

- The Company's base distribution rate case proposals and PST proposals should be properly integrated to ensure that the utility's financial interest is aligned with the public interest.
- This integration should reflect and build on Rhode Island's forward-thinking energy policy and statutory framework by aligning the Company's activities with state objectives.
- Given the pace of technological change and the ambitious policy goals of the state, now is the appropriate time to advance bold regulatory action commensurate with the central role of the regulated utility and the grid in our future clean, distributed energy system.

OER appreciates the opportunity to comment and looks forward to ongoing conversations with the Commission, the Division, the Company, and other intervenors as Docket #4770 and Docket #4780 proceed.

Sincerely,

A handwritten signature in black ink, appearing to read "Carol J. Grant". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Carol J. Grant  
Commissioner  
Office of Energy Resources