

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION**

IN RE: THE NARRAGANSETT ELECTRIC	:	
COMPANY d/b/a NATIONAL GRID’S 2018	:	DOCKET NO. 4755
ENERGY EFFICIENCY PROGRAM PLAN	:	
AND 2018 SYSTEM RELIABILITY	:	DOCKET NO. 4756
PROCUREMENT REPORT		

ORDER

I. Introduction

On November 1, 2017, The Narragansett Electric Company d/b/a National Grid (National Grid or Company) filed with the Public Utilities Commission (PUC or Commission) the Energy Efficiency Program Plan for 2018 (2018 Plan or Efficiency Plan) and its 2018 System Reliability Procurement Report (SRP Report). Each was filed as a settlement agreement executed by National Grid, the Division of Public Utilities and Carriers (Division), the Office of Energy Resources (OER), the Energy Efficiency and Resources Management Council (EERMC), Acadia Center, and People’s Power and Light, (collectively the Settling Parties).¹ The Efficiency Plan and SRP Report were submitted pursuant to the System Reliability and Least-Cost Procurement statute which establishes a framework for PUC review and approval of these filings. The framework consists of three-year planning periods and savings goals, the development and implementation of annual plans, as well as a long-term goal of achieving all cost-effective energy efficiency.² In addition, the Standards for Energy Efficiency and Conservation Procurement and System Reliability (Standards) guide the PUC in the exercise of its authority over energy efficiency and system reliability procurement.³

¹ The Energy Council of Rhode Island (TEC-RI) did not execute the Settlement Agreement.

² See R.I. Gen. Laws § 39-1-27.7; <http://webserver.rilin.state.ri.us/Statutes/TITLE39/39-1/39-1-27.7.HTM>.

³ The PUC approved the Standards in Docket No. 4684 during an Open Meeting on April 27, 2017; <http://www.ripuc.org/eventsactions/minutes/042717.pdf>.

On December 20, 2017, after careful review and consideration of the filings through discovery and hearings, the PUC rejected the 2018 Energy Efficiency Plan, and ordering the Company to submit a revised annual plan that included updated electric and gas fund balances and excluded research and development budgets from the shareholder incentive calculations. The PUC approved the SRP report as filed. On December 26, 2017, National Grid filed an Amended 2018 Energy Efficiency Plan. On January 5, 2018, the Company submitted a request that the electric and gas Energy Efficiency Program Charges be effective January 11, 2018. At an Open Meeting held on January 9, 2018, the PUC approved the Company's compliance filing, with charges for effect January 11, 2018.

II. National Grid's Energy Efficiency Program Plan for 2018

A. Overview of Costs, Benefits and Savings

National Grid proposed a budget of \$94.6 million to deliver electric efficiency programs in 2018 which is expected to create yearly energy savings of 186,855 MWh and lifetime energy savings of 1,735,472 MWh.⁴ The Company also proposed a budget of \$28.1 million to support gas efficiency measures which are projected to create annual savings of 414,795 MMBtu and lifetime savings of 4,756,052 MMBtu.⁵ These investments in 2018 are projected to generate \$443.9 million in benefits over the life of the efficiency measures, with electric efficiency generating \$342.4 million in benefits and gas efficiency adding \$101.5 million in benefits.⁶

⁴ National Grid's 2018 Energy Efficiency Program Plan at 1-3 and Table E-1 [hereinafter Efficiency Plan]; [http://www.ripuc.org/eventsactions/docket/4580-NGrid-2016-EEPP\(10-15-15\).pdf](http://www.ripuc.org/eventsactions/docket/4580-NGrid-2016-EEPP(10-15-15).pdf). All filings in this docket are available at the PUC offices, located at 89 Jefferson Boulevard, Warwick R.I. or at <http://www.ripuc.org/eventsactions/docket/4755page.html>.

⁵ Efficiency Plan at 1 and Table G-1.

⁶ *Id.* at Table E-5 and Table E-6.

Additionally, the Efficiency Plan is expected to avoid over 1.2 million tons of carbon over the lifetime of the installed measures.⁷

National Grid asserted that the 2018 Plan is cost-effective. Using the Rhode Island Test (RI Test),⁸ the Company calculated a benefit-cost ratio of 2.84 for electric efficiency programs, meaning that for each dollar invested, electric programs will generate \$2.84 of economic benefits over the lifetime of the investment.⁹ The 2018 Plan projected an overall gas efficiency program benefit-cost ratio of 2.76.¹⁰

The Company also asserted that the 2018 Plan satisfies the statutory requirement that the cost of procuring energy efficiency, as provided for in the 2018 Plan, is less expensive than the cost of acquiring additional energy supply. The Company calculated the cost of achieving the lifetime savings for the electric efficiency portfolio at 5.19¢ per lifetime kWh saved, which is 5.15¢ less than the weighted average cost of electric supply.¹¹ The cost of gas efficiency was calculated at \$5.63 per lifetime of MMBtu saved, which is \$1.39 less than the weighted average cost of gas supply across all customer sectors.¹²

B. Programs

The Company proposed to continue the residential, commercial, and industrial energy efficiency programs offered in 2017.¹³ An overview of the programs was included in Tables E-2

⁷ *Id.* at 2. The Resilient Rhode Island Act, R.I. Gen. Laws § 42-6.2, sets forth a goal to reduce greenhouse gas emissions to 80% below 1990 levels by 2015. According to National Grid, the anticipated lifetime carbon reductions of this Plan represent 10% of the states total emissions. *Id.*

⁸ Prior to 2018, the cost-effectiveness of energy efficiency plans was evaluated based on the Total Resource Cost Test. For further explanation, *see infra* p. 4.

⁹ Efficiency Plan at 4-5 and Table E-5.

¹⁰ *Id.* at 4-5 and Table G-5.

¹¹ *Id.* at 5.

¹² *Id.*

¹³ *Id.* at 11 and 14. For a summary of programs included in the 2018 Efficiency Plan that were not included in the 2017 Efficiency Plan *see*, National Grid's Resp. COMM 1-5; [http://www.ripuc.org/eventsactions/docket/4755-NGrid-DR-PUC1\(12-6-17\).pdf](http://www.ripuc.org/eventsactions/docket/4755-NGrid-DR-PUC1(12-6-17).pdf).

and G-2 of the filing and the specific programs were set forth in detail in the Efficiency Plan.¹⁴ Most of these programs were previously approved in some form by the Commission. In addition, the Efficiency Plan provided for administration, evaluation, and reporting of programs.¹⁵

The Efficiency Plan contemplated two notable changes from the previously approved plan with respect to calculating cost-effectiveness and calculating the cost of energy supply and the cost of energy efficiency. First, in prior years, the cost-effectiveness of the portfolio of programs was calculated according to the Total Resource Cost (TRC) test. On April 27, 2017 in Docket No. 4684, the PUC approved revised Least Cost Procurement Standards that set forth new requirements for a cost-effectiveness test, called the Rhode Island Test (RI Test), designed to more fully reflect state policy with regard to energy, its costs, benefits, and environmental and societal impacts. The new RI Test included two additional benefits: greenhouse gas reduction values and economic development impacts.¹⁶ According to National Grid, the RI Test is intended to capture all benefits and costs of interest in Rhode Island energy policy and will allow a fair comparison of diverse resources in Rhode Island.”¹⁷

Second, National Grid revised the methodology for calculating the additional requirement that the cost of acquiring energy savings is less than the cost of acquiring additional energy supply. In prior plans, customer contributions were included when calculating the total cost of procuring

¹⁴ The non-income eligible residential programs are: (1) Residential New Construction; (2) Energy Star® HVAC; (3) EnergyWise; (4) EnergyWise Multi-Family; (5) Energy Star® Lighting; (6) Residential Consumer Products; (7) Home Energy Reports; (8) Energy Efficiency Education Programs; (9) Residential Demonstration and R&D; (10) Community Based Initiatives – Residential; and (11) Comprehensive Marketing – Residential. The income eligible residential programs are: (1) Single Family – Income Eligible Services; and (2) Income Eligible Multi-Family. The commercial and industrial programs are: (1) Large Commercial New Construction; (2) Large Commercial Retrofit; (3) Small Business Direct Install; (4) Commercial Demonstration and R&D; and (5) Commercial and Industrial Multi-Family. Efficiency Plan at Tables E-2 and G-2 and Attach. 1 and 2.

¹⁵ Efficiency Plan at 32-33 and Attach. 3 (outlining the verification and measurement plan). For information regarding National Grid’s planning and administration budgets, *see id.* at Table E-2 and G-2.

¹⁶ *See* PUC Minutes of Open Meeting (Apr. 27, 2017); <http://www.ripuc.org/eventsactions/minutes/042717.pdf>.

¹⁷ Efficiency Plan at 3; National Grid’s Resp. to PUC 1-4.

efficiency savings. The Company explained that, in order “to reflect industry best practices” the 2018 Plan proposes to exclude customer costs from this calculation.¹⁸

C. Comparison with the Three-Year Plan

National Grid reported that the energy savings, benefits, budgets, and Energy Efficiency Charges differ for the 2018 Annual Plan as compared to the Three-Year Plan.¹⁹ First, National Grid reported that the energy savings proposed for the 2018 Plan are ambitious and exceed the savings targets proposed in the 2018-2020 Three-Year Plan which the PUC approved in Docket 4684. The Company proposed an electric savings target of 186,855 MWh, which is 6,887 MWh more, or an increase of 4% over the savings target set forth in the Three-Year Plan. On the gas side, the savings goal for 2018 was 414,795 MMBtu, which is an additional 18,682 MMBtu or an increase of 5% over the Three-Year Plan targets.²⁰ Second, National Grid explained the impact of the 2018 State Budget that required the transfer of \$12.5 million from the 2018 Energy Efficiency Program budget to the State general revenue fund and capped the 2018 energy efficiency budget at 2017 levels.²¹ Total benefits decreased in the annual plan as compared to the Three-Year Plan due to the loss of energy savings from the \$12.5 million budget cut. In addition, the budget cap reduced the amount of cost-effective electric savings that could be achieved, which also resulted in lower associated Annual Peak kW savings. According to National Grid, without the budget cap

¹⁸ Efficiency Plan at 5, n. 12.

¹⁹ *Id.* For a detailed comparison of the Three-Year Plan and 2018 Efficiency Plan, *see* Efficiency Plan at 8, Table-2.

²⁰ *Id.* at 8.

²¹ 2017- H 5175 Sub Aaa, Budget Article I Sub Aaa, Section 17 provides: “[T]he Electric and Gas Distribution Company shall transfer to the State Controller the sum of twelve million and five hundred thousand dollars (\$12,500,000) by June 30, 2018 from the Public Utilities Commission approved 2018 System Reliability and Energy Efficiency and Conservation Procurement Programmatic Budget Plan. The 2018 program year plans total budget shall not exceed the commission-approved total budget for the 2017 system reliability and energy efficiency and conservation procurement program plan.”

in place, the 2018 Plan could have saved an additional 3,612 annual MWh and 54,191 lifetime MWh, while on the gas side, could have saved 72,902 more lifetime MMBtu of oil.²²

D. Funding

The 2018 Energy Efficiency Plan budget of \$94.6 million included funding from several sources. On the electric side, the primary funding source proposed is an Energy Efficiency Program charge of \$0.01000 per kWh which is projected to generate revenues totaling about \$72.9 million.²³ This amount is funded by ratepayers and appears on the electric bill as an Energy Efficiency Program charge. Additional funding sources include proceeds from the Forward Capacity Market totaling \$26.1 million and a projected positive carryover fund balance of \$8.9 million from the 2017 program year.²⁴ The bill impact for an average residential customer consuming 500 kWh per month would be a decrease of \$0.65.²⁵

On the gas side, the primary funding source proposed is an energy efficiency program charge of \$0.898 per dekatherm for residential customers (income eligible and non-income eligible) and \$0.727 per dekatherm for non-residential customers, which is projected to generate combined revenues totaling about \$30.1 million.²⁶ This amount was slightly offset by a negative carryover fund balance of \$2.3 million from the 2017 program year, resulting in a net gas budget of \$28.1 million.²⁷ The annual bill impact for an average residential customer (income eligible and non-income eligible) consuming 846 dekatherms a year would be an increase of \$0.88.²⁸

²² Efficiency Plan at 9.

²³ Efficiency Plan at Table E-1. The proposed energy efficiency charge is composed of the existing energy efficiency charge of \$0.01124 per kWh, plus a fully reconciling funding charge of \$0.00124 per kWh, and the System Reliability charge. R.I. Gen. Laws §39-1-27.7(c)(5)

²⁴ Efficiency Plan at Table E-1.

²⁵ National Grid's Attach. to PUC 1-21.

²⁶ Efficiency Plan at Table G-1. The proposed energy efficiency charge includes fully reconciling mechanisms of \$0.010 per dekatherm for residential customers and \$0.001 per dekatherm for non-residential customers.

²⁷ Efficiency Plan at Table G-1.

²⁸ National Grid's Attach. to PUC 1-21.

E. Written Comments

On November 20, 2017, the Division and OER submitted joint comments in support of the 2018 Plan for several reasons. First, the agencies stated that the plan represents the beginning of a longer-term transformation of Rhode Island's energy efficiency programs, reflected in the multiple pilots and support of broader state policies that are meant to inform future program changes. Second, to comply with the budget cap established by the General Assembly for 2018, the Efficiency Plan includes equitable budget cuts across all customer sectors except income-eligible. Third, the 2018 Plan increased the weatherization incentive level for delivered fuel customers from 25% to 50%, representing significant progress toward a fuel-blind energy efficiency future. Finally, the Division and OER highlighted efforts to bundle direct efficiency incentives with financing programs, such as the Commercial Property Assessed Clean Energy (C-PACE) Program and the Efficient Building Fund, which have the potential to decrease the cost of delivering energy efficiency.

On November 17, 2018, the EERMC submitted to the PUC its Cost-Effectiveness Report for National Grid's 2018 Energy Efficiency and System Reliability Procurement Plan.²⁹ The report concluded that the 2018 Plan is cost-effective according to both the recently adopted RI Test and the historically referenced Total Resource Cost (TRC) Test. The report also concluded that the energy savings are projected to cost less than the acquisition of additional supply according to the Company's proposed method to demonstrate this requirement.³⁰ The report explained that the decision for the utility is to either procure energy through efficiency or through supply contracts,

²⁹ EERMC's Cost-Effectiveness Report: National Grid's 2018 Energy Efficiency and System Reliability Procurement Plan (Nov. 17, 2017); [http://www.ripuc.org/eventsactions/docket/4755-4756-EERMC-Rept\(11-17-17\).pdf](http://www.ripuc.org/eventsactions/docket/4755-4756-EERMC-Rept(11-17-17).pdf). See also R.I. Gen. Laws § 39-1-27.7(c)(5).

³⁰ *Id.* at 9. Least Cost Procurement and R.I. Gen. Laws § 39-1-27.7 (a)(2) and the Least Cost Procurement Standards require that the energy savings shall cost less than the acquisition of additional energy supply.

thus “the costs of the programs to the utility alone (i.e., not including customer contribution) is the appropriate basis for comparison.”³¹

III. 2018 System Reliability Procurement Report

A. Rhode Island System Data Portal

The System Reliability Procurement process requires the Company to identify infrastructure projects for which non-wires solutions may be cost-effective through their ability to defer or avoid more costly investments.³² First, the Company proposed several initiatives for 2018 which are designed to support future investments in system reliability through NWA resources. These include developing maps that identify system loading constraints (heat map) and areas where distributed generation (DG) may provide the most value from a reliability perspective (DG focused map). The Company proposed a stakeholder review process intended to identify location-based avoided costs for each substation on the distribution system, relying on the framework outlined in Docket No. 4600 Guidance Document.³³ These initiatives and other relevant information pertaining to the distribution grid will be made available on the Rhode Island System Data Portal. The Company also proposed issuing at least two new requests for proposals from third-party developers for the purchase of NWA resources.³⁴

B. Little Compton/Tiverton Load Curtailment Pilot

National Grid’s 2018 SRP Report proposed to discontinue the Load Curtailment Pilot (Pilot) that was approved by the PUC in Docket No. 4296.³⁵ The Pilot, begun in 2012, tested the use of targeted energy efficiency and demand response to reduce energy consumption attributable

³¹ *Id.* at 9.

³² See Least Cost Procurement Standards (July 27, 2017); http://www.ripuc.org/eventsactions/docket/4684-LCP-Standards_7-27-17.pdf.

³³ SRP Report at 8.

³⁴ SRP Report at 9-10.

³⁵ See PUC Order 20262 (Feb. 12, 20112) (Docket No. 4296); [http://www.ripuc.org/eventsactions/docket/4296-NGrid-Ord20662\(2-29-12\).pdf](http://www.ripuc.org/eventsactions/docket/4296-NGrid-Ord20662(2-29-12).pdf).

primarily to customer air conditioning, lighting and other summer-peaking loads in the Tiverton/Little Compton area. The Company's 2017 strategy decreased efforts on targeted energy efficiency and demand response and proposed an RFP process to procure a peak-shaving solution from a third-party vendor. In January 2017 National Grid selected a battery storage vendor but could not implement the project in 2017 because of delays affecting the interconnection process.³⁶

According to National Grid, several factors contributed to its recommendation to discontinue the Pilot. First, while the Pilot generated peak load relief each year, the amount of peak load relief has consistently decreased. Second, targeting customer participation in the same area year after year, has resulted in fewer incremental participants each year. Finally, as more expensive marketing initiatives are needed to encourage customers in the Pilot area, fewer energy savings are achieved per dollar spent on marketing, making the savings less cost-effective.³⁷

The goal of the six-year Pilot was to provide one MW of load reduction by the end of 2017 which would allow the deferral of \$2.9 million of substation upgrades. To reach this goal, the Company calculated that approximately 330 kilowatts of savings were needed by the end of 2017. The Company projected that the Pilot would only achieve 21% of the target amount because 250 kW of savings was associated with the battery storage project that did not go forward.³⁸ National Grid reported, however, that the Pilot remained cost-effective over its life, with an overall benefit-cost ratio of 1.25. With the exception of 2017, each year of the Pilot was cost-effective. According to National Grid, the delay in implementing the battery storage project was the primary driver reducing the 2017 benefit cost ratio.³⁹

³⁶ National Grid's 2018 System Reliability Procurement Report (Nov. 1, 2017) (SRP Report). All filings in this docket are available at the PUC offices, located at 89 Jefferson Boulevard, Warwick R.I. or at <http://www.ripuc.org/eventsactions/docket/4756page.html>.

³⁷ SRP Report at 21-22.

³⁸ *Id.* at 19. The cost of the substation feeder was based on 2014 estimates.

³⁹ SRP Report at 23-24. The Pilot's cost-effectiveness was evaluated using the Total Resource Cost Test.

C. Little Compton Battery Storage Project

For 2018, the Company proposed a four-year Little Compton Battery Storage Project (Battery Storage Project) which consists of a battery storage system to be installed in the same geographical footprint as the Pilot. According to the Company, the Battery Storage Project will provide one MW of energy storage at a level 250 kW of peak load relief during the months of June through September. The PUC approved the RFP for this project as part of the 2017 System Reliability Procurement Plan in Docket No. 4655. The Company completed the RFP process in early 2017 and selected the Battery Storage Project as the winning bid, but the project was delayed due to equipment selection affecting the interconnection process. However, “in recognition of the...value of implementing this energy storage project,” the Company proposed to continue it as a stand-alone NWA project.⁴⁰ The Company estimated that a four-year deferral of substation upgrades will provide approximately \$647,599 of localized distribution investment savings.⁴¹ The Company asserted that the four-year project is cost effective for ratepayers, with a benefit-cost ratio of 1.65.⁴² Finally, the Company proposed an SRP incentive that consists of action-based and savings-based incentives. The action-based incentives would allow the Company to earn up to 6% of the SRP budget, a total of \$23,958, for completing certain initiatives as follows:

Action	% of 2018 SRP Budget
Distribution System Loading Map	1%
DG Focused Map	1%
Avoided Cost Stakeholder Process	1%
Marketing & Engagement Plan	1%
Issue RFPs for NWA Resources	2%

⁴⁰ SRP Report at 19, 25.

⁴¹ SRP Report at 26. According to the Company the Project’s costs and savings were evaluated using the RI Test to determine whether the benefits of implementing the Project outweigh the costs. *Id.*

⁴² SRP Report at 27.

The savings-based incentives are intended to encourage additional NWA projects which would be administered by the Company and third-party developers. The Company proposed sharing net benefits associated with eligible projects by allocating 20% of the net benefits to the Company and 80% to customers. Using the RI Test, the Company estimated net benefits over four years for the Storage Project of \$283,326.⁴³ Allocating 20% of these benefits to the Company results in an incentive of \$56,666 over four years or \$14,166.50 annually.⁴⁴

D. Budget and Funding

The Company proposed a budget of \$80,000 to fund the initial development of the heat map and other initiatives related to the Rhode Island System Data Portal. The Company also requested \$124,800 to support a stakeholder marketing and engagement plan to promote the Rhode Island System Data Portal and heat map resources.

The Company also requested a budget of \$109,500 to implement the Battery Storage Project in 2018, which includes \$87,500 to the vendor and \$22,000 to the Company for costs associated with managing the vendor and monitoring and evaluating the project. The Company indicated that it would include similar funding requests for the second, third and fourth years of the Project. Finally, the Company requested an additional \$85,000 to fund the final evaluation activities associated with the discontinued Pilot, including analysis of energy efficiency and demand response impacts for 2017 and costs related to the final evaluation.⁴⁵

The Company proposed a total 2018 SRP budget of \$399,300.⁴⁶ The Company projected a 2017 carry-over balance of approximately \$322,000, requiring additional funding from

⁴³ *Id.* at 27-29.

⁴⁴ *Id.* at 29.

⁴⁵ *Id.* at 23.

⁴⁶ SRP Report at 30 (Table S-1). Even using five decimal places, the factor still resulted in a zero adder to the energy efficiency charge.

ratepayers of approximately \$77,000. As in past years, the Company proposed including the SRP funding in the existing energy efficiency program charge. The incremental funding did not result in a chargeable factor. The total combined Energy Efficiency Program charge was \$0.0100 per kWh.⁴⁷

E. Written Comments

The Division and OER (agencies) submitted joint comments in support of the 2018 SRP Report, citing several reasons.⁴⁸ First, the agencies asserted that the 2018 SRP Report reflects a new direction for non-wire alternatives which will allow third parties greater visibility into the distribution system. The agencies also support the Company's proposed incentive mechanism that encourages completion of short-term planning milestones and the sharing of long-term cost savings between the Company and customers. The Division and OER, however, stated that there was insufficient data to support the Company's findings that the Little Compton Battery Storage Project is cost-effective. The agencies also needed additional clarification regarding how the Company proposed to calculate the SRP incentive for the battery storage project.⁴⁹ The Company subsequently provided the Division with information addressing both potential refinements. OER and the Division informed the PUC that the new information supported the Company's findings that the Battery Storage Project is cost-effective and that the illustrative incentive calculation is generally consistent with the proposed savings-based SRP incentives.⁵⁰

⁴⁷ SRP Report at 30 (Table S-1). Includes uncollectible rate of 1.25%.

⁴⁸ Division and OER Joint Letter (Nov. 20, 2017); [http://www.ripuc.org/eventsactions/docket/4756-OER-DPU-JtComments\(11-20-17\).pdf](http://www.ripuc.org/eventsactions/docket/4756-OER-DPU-JtComments(11-20-17).pdf).

⁴⁹ *Id.*

⁵⁰ Division's Resp. to PUC 1-3; OER's Resp. to PUC 1-3.

On November 17, 2018, the EERMC submitted to the PUC its Cost-Effectiveness Report for National Grid’s 2018 Energy Efficiency and System Reliability Procurement Plan.⁵¹ The report asserted that the Company’s proposed investment in grid reliability described in the 2018 SRP Report is cost-effective, and will defer a substation upgrade for four years, generating substantial benefits for ratepayers.⁵²

IV. Hearing

The PUC held two hearings on December 13, 2017. The first hearing addressed National Grid’s Energy Efficiency Program Plan for 2018. The second hearing addressed National Grid’s 2018 System Reliability Procurement Report.⁵³

A. Public Comment

During the public comment period, Ms. Kat Burnham, on behalf of People’s Power & Light, strongly encouraged the Commission to approve the Efficiency Plan, noting the strong savings targets, the focus on income-eligible and moderate income ratepayers, and the integration of the RI Test which properly accounts for reduced carbon dioxide emission.⁵⁴ Additionally, Ms. Burnham stated that General Assembly’s budget scoop, “unfortunately, was bad public policy and a disservice to ratepayers” and would lead to reduced energy savings and a slight increase in the system benefit charge.⁵⁵ Ms. Burnham expressed disappointment that the incentives for heating oil customers are less than incentives for electric and gas customers.⁵⁶

⁵¹ EERMC’s Cost-Effectiveness Report: National Grid’s 2018 Energy Efficiency and System Reliability Procurement Plan (Nov. 17, 2017); [http://www.ripuc.org/eventsactions/docket/4755-4756-EERMC-Rept\(11-17-17\).pdf](http://www.ripuc.org/eventsactions/docket/4755-4756-EERMC-Rept(11-17-17).pdf). See also R.I. Gen. Laws § 39-1-27.7(c)(5).

⁵² *Id.* at 1, 9-10.

⁵³ This docket contains two transcripts dated December 13, 2017. The first transcript began at 9:30 A.M. and addresses public comment and Docket No. 4755, energy efficiency. The second transcript began at 2:18 P.M. and addresses Docket No. 4756, System Reliability Procurement.

⁵⁴ Efficiency Hr’g Tr. at 6 (Dec. 13, 2017) (Docket No. 4755).

⁵⁵ *Id.* at 6-7.

⁵⁶ *Id.* at 8.

Ms. Erika Niedowski, on behalf of the Acadia Center, respectfully urged the PUC to support the proposed 2018 Efficiency and SRP plans. Regarding the SRP Plan, Ms. Niedowski stated that development of the system data portal, including heat maps, will accelerate the process of identifying opportunities for non-wire alternatives. Regarding the Efficiency Plan, Niedowski asserted that the it is cost-effective, creates significant economic and environmental benefits, and offers innovative programs and strategies. Ms. Niedowski stated that the plan “has two regrettable limitations.” First, the budget cap will force cuts of approximately \$10.7 million for the 2018 program year, requiring Rhode Islanders to purchase 3,600 megawatt hours more of electricity in 2018. Second, the legislatively mandated transfer of \$12.5 million of ratepayer funds to the state for unrelated budget purposes amounts to an exergy tax. Finally, Ms. Niedowski testified that Acadia Center welcomes the use of the new RI Test which ensures that the full range of economic and environmental benefits is appropriately captured in the evaluation of efficiency programs.⁵⁷

The Energy Council of Rhode Island (TEC-RI) Executive Director, Douglas Gablinske stated he was pleased that the energy efficiency charge did not increase this year. Mr. Gablinske believed that “the General Assembly sent a message to people in this room with a scoop and cap that these costs have gotten too high.”⁵⁸ Mr. Gablinske stated that TEC-RI could not support the 2018 Plan because the method for calculating whether the cost of efficiency is less than supply now excludes the customer contribution. Mr. Gablinske also objected to the timing of the change which was presented in the final draft to the EERMC with no opportunity for substantive discussion. Mr. Gablinske believed that eliminating customer costs prevents an accurate

⁵⁷ *Id.* at 9-14.

⁵⁸ *Id.* at 15.

assessment of the cost of efficiency and will result in an easy justification for future energy efficiency charge increases.⁵⁹

B. National Grid's 2018 Energy Efficiency Plan

National Grid's witness, Courtney Lane, Lead Analyst in the Strategic Business Policy and Evaluation Group, addressed the change in the methodology for the cost of procuring energy efficiency versus the cost of procuring supply. According to Ms. Lane, the Company worked in consultation with the EERMC consultants and reviewed industry best practices regarding this methodology. Ms. Lane asserted that two changes were vetted by the collaborative and supported by the EERMC except for TEC-RI. Ms. Lane stated that EERMC legal counsel found the changes to be in accordance with the least cost procurement statute.⁶⁰

Ms. Lane testified that the first change modifies how the cost of energy supply is calculated. Ms. Lane explained that instead of using the residential standard offer service cost to compare against the cost of efficiency, the Company proposed using the average of all customer classes and weighting that by each sector's contribution to the lifetime savings of the annual plan. Ms. Lane stated that this method lowers the cost of supply.⁶¹

Ms. Lane testified that the second change modifies the calculation for the cost of energy efficiency by including only the Company's cost to procure energy efficiency savings in the plan.⁶² Ms. Lane suggested that the new method should be viewed from a resource acquisition approach: the utility's cost to either procure the energy supply through contracts or procure energy efficiency through the plan. Ms. Lane testified that this method is supported by the Lawrence Berkley National Lab, the American Council for an Energy Efficiency Economy, and is in place in

⁵⁹ *Id.* at 15-18.

⁶⁰ *Id.* at 59.

⁶¹ *Id.* at 59-60, 68-69.

⁶² *Id.* at 60. *See also* Efficiency Plan at Attach. 5 and 6.

Maryland. Ms. Lane emphasized that the current plan remains less than the cost of supply under both the previous methodology and the currently proposed methodology.⁶³

Division witness, Timothy Woolf of Synapse Energy Economics, added that, in his opinion, the comparison analysis is secondary to the RI Test which is the primary test used to evaluate cost-effectiveness of efficiency measures. According to Mr. Woolf, the former analysis is a narrow definition intended to illustrate, in a general sense, how efficiency resources compare to supply side resources. Mr. Woolf also noted that participant benefits are not included in the comparative analysis. Thus, adding participant costs, but not participant benefits, results in a skewed test that lacks symmetry. For these reasons, Mr. Woolf supported the Company's proposal to exclude customer costs from the analysis.⁶⁴

Regarding the budget, Ms. Lane confirmed that the Company originally projected a positive carryover on the electric side and a negative carryover on the gas side for a net year-end fund balance of approximately \$6.6 million. Ms. Lane also confirmed that during discovery the Company updated the net year-end fund balance at \$10.2 million which reflected three additional months of actuals (August through October) and updated projections for the two remaining months (November and December). Ms. Lane explained that this updated figure would not be the actual net year-end fund balance because, at this time of year, the budgets are in flux. The Company provided the updated year-end fund balances for informational purposes only and was not revising its original filing or the system benefit charge to reflect the more recent projections.⁶⁵ Company witness Rachel Henschel, Manager of the Rhode Island Strategic Business Evaluation and Policy

⁶³ Efficiency Hr'g Tr. at 60-61.

⁶⁴ *Id.* at 74-80.

⁶⁵ Hr'g Tr. at 102-105. The Company originally projected Attachment 5, page 1 projects an \$8.9 million carry over from 2017 to 2018 (electric budget). On the gas side, Attachment 6, page 1 projects a year end negative fund balance for 2017 of \$2.3 million. Efficiency Plan at Attach. 5, p. 1 and Attach. 6, p. 1. With three additional months of actuals for August through October and updated projections for November and December, the Company's updated year end fund balances were \$10.9 million (electric) and negative \$701,147 (gas). PUC 1-24.

Group, added that updating the year-end balances may have unintended consequences, for example, impacting the EERMC's and OER's budgets.⁶⁶ Ms. Henschel was unaware of the PUC's practice in other dockets to require, when available, updated numbers to include more actuals and require rates to reflect those actual numbers.⁶⁷

According to Ms. Lane, the increase in the electric budget carryover of approximately \$3.6 million would result in a \$0.15 per month decrease for the average residential customer. A large electric customer could potentially save hundreds, perhaps thousands of dollars.⁶⁸ Ms. Lane testified that updating the year-end balances and recalculating the Energy Efficiency charge would not significantly hinder the Company's ability to implement the 2018 Plan. Ms. Lane, however, indicated that if the Energy Efficiency charge were revised, the Company may need to refile the plan with revised bill impact analysis and reduced payments to EERMC and OER.⁶⁹

Regarding research and development, Ms. Lane stated that the residential electric budget for pilots and demonstrations has decreased slightly while the commercial budget has increased slightly. Ms. Henschel added that, on the gas side, the residential research and development budget decreased and the commercial budget increased.⁷⁰ Ms. Lane confirmed that the pilots and demonstrations are included in the spending budget for the 2018 Plan which flows into the shareholder incentive calculation. Ms. Henschel asserted that pilots and demonstrations should be eligible for a shareholder incentive because these projects are an investment in future energy savings. Ms. Lane added that while the Company does not claim any energy efficiency savings

⁶⁶ R.I. Gen. Laws § 39-2-1.2(i) and (j). (Authorizing 2% of the system benefit charge to be allocated equally between the EERMC and OER).

⁶⁷ Efficiency Hr'g Tr. at 109. For example, see PUC Order 23097 (Apr. 5, 2018); http://www.ripuc.org/eventsactions/docket/4762-Pascoag-Ord23097_4-5-18.pdf.

⁶⁸ Hr'g Tr. at 105-109

⁶⁹ *Id.* at 112-113.

⁷⁰ *Id.* at 159.

from pilots and research and development, the Company's investments in these projects generate energy savings and further the goals of least cost procurement.⁷¹

EERMC witness Emily Levin, remarked that that the EERMC considers this a time of rapid market transformation and innovation for energy efficiency programs. Any program or incentive structure must ensure that the Company is not discouraged from investing in research and demonstrations which is a very high priority for the EERMC.⁷² Ms. Henschel acknowledged that an incentive attached to the cost recovery for pilots is not needed because the Company has a statutory commitment to future energy efficiency. However, Ms. Henschel stated that such an incentive would push the Company to prioritize development and implementation of technology for the benefit of customers.⁷³

C. National Grid's 2018 System Reliability Procurement Report

National Grid's witness Ryan Constable, Acting Director of Distribution Planning and Asset Management, testified that the proposed data portal will be a website where the public can access information regarding National Grid's electric system, capacity loading limits, and potential areas with lower interconnection costs for distributed energy resources. The portal will also assist stakeholders by provide criteria, guidelines and regulatory documents regarding National Grid programs.⁷⁴ Mr. Constable stated that the Company requested a budget of \$80,000 for initial development of the data portal with an additional investment of \$2.2 million over five years from 2019 through 2023 proposed in Docket No. 4780, Power Sector Transformation (PST). Mr. Constable acknowledged that the 2018 SRP Report did not reference the proposed \$2.2 million proposed in the PST docket. Mr. Constable explained that the Company's goal was to accelerate

⁷¹ *Id.* at 163-165.

⁷² *Id.* at 170-172.

⁷³ *Id.* at 174-176.

⁷⁴ SRP Hr'g Tr. at 17-18.

the development of the data portal by proposing initial funding for the heat map in the SRP docket which would be approved prior to the PST docket.⁷⁵ Mr. Constable acknowledged that the Company proposed different performance incentive mechanisms in the SRP and PST dockets, creating “a complicated review for the PUC.”⁷⁶

Division witness Tim Woolf testified in support of the Company’s proposed incentive mechanism which consisted of action-based incentives and energy savings-based incentive. Mr. Woolf stated that the original energy efficiency plans contained a fair number of action-based incentives as well as savings incentives. As the energy efficiency programs matured, there was less uncertainty regarding the incentives which were modified over time and are now based solely on energy savings. With SRP being newer, Mr. Woolf contended that it is not clear what the Company can or should do with SRP, which creates more uncertainty. Mr. Woolf stated that the combination of incentives is also intended to send a clear message to the Company that SRP is a priority for the PUC and stakeholders. Mr. Woolf opined that for these reasons, it is appropriate to have both action-based incentives and shared savings. Over time, Mr. Woolf predicted that SRP will evolve in a similar fashion to energy efficiency. As the Company and stakeholders gain an understanding of SRP, the uncertainty will be diminished and there will be more opportunities to adopt shared-savings incentives.⁷⁷

Tim Roughan, Director of Retail Regulatory Strategy, confirmed that, if approved by the PUC, the incentives the Company would be eligible to receive in 2019 as a result of actions in 2018, would be about 9.5% of the requested 2018 SRP budget. Mr. Roughan stated that the Company’s goal would be to have a total incentive that would approximate what the Company

⁷⁵ *Id.* at 19-23.

⁷⁶ *Id.* at 22.

⁷⁷ *Id.* at 56-57.

could earn from a standard wires investment. Mr. Roughan acknowledged that the approved rate of return does not mean that the Company earns that much in one year.⁷⁸

VI. Commission Findings

A. 2018 Energy Efficiency Program Plan

At an Open Meeting on December 20, 2017, the PUC voted unanimously to reject the 2018 Energy Efficiency Plan and ordered National Grid to refile the plan consistent with its findings as discussed below.

1. Budget Carry-Over

The PUC first addressed the projected electric year-end fund balance and carry-over in the November 1, 2017 filing which totaled \$8,895,800.⁷⁹ The PUC noted that during discovery the Company updated this projection to a total of \$10,898,353, using three additional months of actuals from August to October, and two months of projections for November and December expenses and revenues.⁸⁰ Based on the updated information, the PUC found that the 2018 Energy Efficiency Plan as filed would be projected to substantially over-collect from electric customers.

On the gas side, the PUC noted that the projected year-end fund balance and carry-over in the November 1, 2018 filing was negative \$2,260,100.⁸¹ During discovery, the Company updated this projection to be negative \$701,147, using three additional months of actuals and two months of projections.⁸² The PUC found that if the 2018 Efficiency Plan were to be updated and refiled to include the more recent electric fund balance, the customer funding for energy efficiency would decrease by approximately \$2.0 million and the System Benefit Charge would decrease to 0.0096

⁷⁸ *Id.* at 54-55.

⁷⁹ Efficiency Plan at Table E-1.

⁸⁰ National Grid's Resp. to PUC 1-24.

⁸¹ Efficiency Plan at Table G-1.

⁸² National Grid's Resp. to PUC 1-24.

cents per kWh. On the gas side, the PUC found that the customer funding required would decrease by approximately \$1,558,953 and the average System Benefit Charge would decrease to \$0.747 per Dth from \$0.788.

The PUC found that using updated projections would pose little risk to the utility because any budget overspending could be reconciled in 2019. Moreover, updating the budget to reflect more recent data should not impact National Grid's ability to achieve energy savings. The PUC acknowledged that one consequence would be to reduce EERMC and OER budgets by approximately \$20,000 each. Finally, noting that the legislature has raised the issue of unused budget in the past, the PUC is of the opinion that the Company should strive for budgets to have zero carry-over.

For the above reasons, the PUC rejected the 2018 Energy Efficiency Plan and directed the Company to refile the plan with updated projected year-end carry overs, consistent with the projections the Company provided during discovery, and update any impacted schedules. The PUC stated that it would review and rule on a compliance filing quickly. In the meantime, National Grid will continue to collect the System Benefit Charge at the current level, which is higher than what is needed to procure efficiency for 2018 program year.

2. Performance Incentives for Pilot Projects

The PUC found that the shareholder incentive should not apply to the budget for pilots and research and development because providing a shareholder incentive for the pilots, as well as for the future, resulting energy savings amounts to multiple or different incentives for attaining the same objectives. The PUC found that the Company already has a compelling incentive to have a robust pilot program: the ability to achieve future energy savings goals and earn their performance

incentive.⁸³ In a competitive environment, private businesses shoulder all risk associated with research and development with the hope of developing future products which will earn a return for the company. The Division's witness supported that general logic.⁸⁴ Similarly, if National Grid does not innovate and stay on the cutting edge, the Company will not meet future energy savings goals and will miss the opportunity to earn their incentive.

The PUC further found that applying the shareholder incentive calculation to the proposed pilot budget did not meet other requirements of Section 1.5.C of the Least Cost Procurement Standards:

The PI shall state clearly each specific objective it is designed to direct the distribution company to achieve and the reason it is needed to do so. The design of the PI shall be clear and focused, have clear metrics for determining performance, not duplicate incentives, and not provide multiple or different incentives for attaining the same objective.

The evidence in the record showed a lack of clearly defined metrics to support a shareholder incentive. There was no evidence identifying defined outcomes for the pilots, as required by the Standards. There was no evidence in the record to indicate that proposed pilots were actually completed. Finally, the record lacked any indication that the Company would report on lessons learned or how the projected benefits of those piloted technologies and innovations would be used in future plans. For the above reasons, the PUC rejected the 2018 Energy Efficiency Plan and directed National Grid to re-file the plan with a budget carve-out for research and development and pilots.

⁸³ Efficiency Hr'g. Tr. at 163.

⁸⁴ *Id.* at 169-70.

3. Defining Less than the Cost of Supply

Least Cost Procurement law and the Standards that guide development of National Grid's annual efficiency plans require efficiency measures to cost less than supply, but do not define a methodology for comparing these costs.⁸⁵ The Company proposed to update this methodology and exclude the customer contribution when determining the cost of efficiency. The PUC noted that the record indicated that there are various ways to define "less than the cost of supply." The Division's witness opined that the RI Test, which measures cost-effectiveness, should be the primary test and the cost comparison test should be a secondary analysis. The EERMC argued that cost-effectiveness itself meant that the resource was less than the cost of supply. Public comment from TEC-RI asserted that eliminating customer costs prevents an accurate assessment of the cost of efficiency and will result in an easy justification for future energy efficiency charge increases. Evidence in the record supported a finding that the 2018 portfolio of efficiency would cost less than supply regardless of whether the customer contribution was included or excluded in the cost of efficiency. The record also identified a legitimate concern that required further vetting. Accordingly, the PUC approved the Company's proposed methodology for comparing these costs and also ordered the EERMC to propose revisions to the Standards that define a methodology for calculating the cost of efficiency and the cost of supply, for approval by the PUC.

1. National Grid's Compliance Filing

On December 27, 2017, the Company filed with the PUC a revised 2018 Energy Efficiency Annual Plan which included updated electric and gas fund balances⁸⁶ and excluded research and

⁸⁵ R.I. Gen. Laws § 39-1-27.7(a)(2) provides: "Least-cost procurement, which shall include procurement of energy efficiency and energy conservation measures that are prudent and reliable and *when such measures are lower cost than acquisition of additional supply.*" (emphasis added); Least Cost Procurement Standards Section 1.3(B).

⁸⁶ The electric and gas fund balances were updated consistent with the Company's response to the PUC 1-24.

development budgets from the shareholder incentive calculations.⁸⁷ On January 5, 2018, Company requested that the revised Energy Efficiency charges, if approved by the PUC, have an effective date of January 11, 2018.⁸⁸

For the electric energy efficiency programs, the revisions resulted in a decrease of \$0.00028 in the Energy Efficiency charge from the originally proposed \$0.01 per kWh to \$0.00972 per kWh. The EERMC and OER budgets, which are tied to the Energy Efficiency charge, also decreased by \$20,010 each, for a total of \$40,020. The Company's planned shareholder incentive also decreased by \$89,350.⁸⁹ On the gas side, the revisions resulted in a decrease of \$0.041 per Dth in the average Energy Efficiency charge from the originally proposed \$0.788 per Dth to \$0.747 per Dth. The EERMC and OER budgets decreased by \$15,357 each, for a total of \$30,714. The Company's planned shareholder incentive also decreased by \$22,428.⁹⁰ The decreases in the EERMC, OER, and shareholder gas and electric budgets totaled \$182,512. The Company, in consultation with the settling parties, allocated these funds across all programs in the Evaluation Budget.⁹¹

At an Open Meeting on January 9, 2018, the PUC voted unanimously to approve the Amended 2018 Energy Efficiency Plan and approved the Company's request that the revised Energy Efficiency charge be effective January 11, 2018. The PUC, however, expressed frustration that instead of returning the \$182,512 to ratepayers, the Company re-allocated the savings to evaluation across several programs. The compliance filing did not provide an explanation for the re-allocation of the funds. The PUC found, however, that the compliance filing met the primary objectives of the Commission by removing the shareholder incentive for research and development

⁸⁷ National Grid's Amended 2018 Energy Efficiency Program Plan (Dec. 26, 2017) (Amended 2018 Efficiency Plan); http://www.ripuc.org/eventsactions/docket/4755-NGrid-Rev2018EEPlan_12-26-17.pdf.

⁸⁸ Letter of Raquel J. Webster (January 5, 2018); [http://www.ripuc.org/eventsactions/docket/4755-NGrid-2018EEPP-Amendment\(1-5-18\).pdf](http://www.ripuc.org/eventsactions/docket/4755-NGrid-2018EEPP-Amendment(1-5-18).pdf).

⁸⁹ *Id.* at Revised Attach. 5.

⁹⁰ *Id.* at Revised Attach. 6.

⁹¹ *Id.* at Revised Attach. 5 and 6.

and pilots, and by updating gas and electric budget projections. The PUC acknowledged that its December 20, 2018 Open Meeting decision did not specify how the savings should be allocated. The PUC also ordered the Company to report on pilots in future energy efficiency annual reports. Finally, the PUC directed the Company to seek its guidance regarding any uncertainty with respect to PUC orders.

B. 2018 System Reliability Procurement Report

At the December 20, 2017, Open Meeting the PUC expressed initial concern that that the record was incomplete regarding the cost-effectiveness of the proposed Battery Storage Project. During discovery, however, OER and the Division informed the PUC of additional information that supported the Company's findings that the Battery Storage Project is cost-effective. Based on the fully vetted record, the PUC unanimously approved the Company's 2018 System Reliability Procurement Report as filed. The PUC also encouraged the Company in future filings to provide a budget and more comprehensive description for each component of the SRP Report, as well as identifying funding sources in other dockets, when appropriate.

Accordingly, it is hereby

(23385) ORDERED:

1. The Narragansett Electric Company d/b/a National Grid's Energy Efficiency Program Plan for 2018 which was submitted to the Commission on November 1, 2018 is rejected;
2. The Narragansett Electric Company d/b/a National Grid's Amended 2018 Energy Efficiency Program Plan filed on December 26, 2017 is approved.
3. The Narragansett Electric Company d/b/a National Grid's 2018 System Reliability Procurement Report is approved for effect on January 1, 2018.

4. The Narragansett Electric Company d/b/a National Grid's electric Energy Efficiency Program charge of \$0.00972 per kWh is hereby approved for effect on usage on and after January 11, 2018.
5. The Narragansett Electric Company d/b/a National Grid's residential gas Energy Efficiency Program charge of \$0.869 per dth is hereby approved for effect on usage on and after January 11, 2018.
6. The Narragansett Electric Company d/b/a National Grid's Commercial and Industrial gas Energy Efficiency Program charge of \$0.671 per dth is hereby approved for effect on usage on and after January 11, 2018.
7. Any and all tariff provisions filed by National Grid pertaining to the Energy Efficiency Program Plan for 2018 and/or the 2018 System Reliability Procurement Report, and any and all customer charges relating thereto, shall be in full compliance with the terms and provisions of this Order.
8. The Narragansett Electric Company d/b/a National Grid shall comply with all other findings and instructions contained in this order.

EFFECTIVE AT WARWICK, RHODE ISLAND, ON JANUARY 11, 2017, PURSUANT
TO OPEN MEETING DECISIONS ON DECEMBER 20, 2017 AND JANUARY 9, 2018.
WRITTEN ORDER ISSUED JANUARY 8, 2019.

PUBLIC UTILITIES COMMISSION



Margaret E. Curran

Margaret E. Curran, Chairperson

Marion Gold

Marion Gold, Commissioner

Abigail Anthony

Abigail Anthony, Commissioner

NOTICE OF RIGHT OF APPEAL: Pursuant to R.I. Gen. Laws §39-5-1, any person aggrieved by a decision or order of the PUC may, within seven (7) days from the date of the order, petition the Supreme Court for a Writ of Certiorari to review the legality and reasonableness of the decision or order.