

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

<b>IN RE: THE NARRAGANSETT ELECTRIC</b>	<b>:</b>	
<b>COMPANY d/b/a NATIONAL GRID’S 2017</b>	<b>:</b>	<b>DOCKET NO. 4654</b>
<b>ENERGY EFFICIENCY PROGRAM PLAN</b>	<b>:</b>	
<b>AND 2017 SYSTEM RELIABILITY</b>	<b>:</b>	<b>DOCKET NO. 4655</b>
<b>PROCUREMENT REPORT</b>	<b>:</b>	

**ORDER**

**I. Introduction**

On October 14, 2016, 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 2017 (2017 Plan or 2017 Efficiency Plan) and its 2017 System Reliability Procurement Report (SRP Report). Each was filed as a Stipulation and Settlement 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, The Energy Council of Rhode Island (TEC-RI), People’s Power and Light, and Emerald Cities Rhode Island (collectively the Parties). The Efficiency Plan and SRP Report were submitted: pursuant to R.I. Gen. Laws § 39-1-27.7, which establishes a framework for PUC review and approval of such filings, and the Standards for Energy Efficiency and Conservation Procurement and System Reliability (Standards), approved by the PUC in Docket No. 4443.<sup>1</sup>

The Commission conducted discovery and, on December 8, 2016, had hearings on both the 2017 Efficiency Plan and the System Reliability Procurement Report. At an Open Meeting on December 20, 2016, after review and consideration of the Stipulation and Settlement filings, the PUC approved them both. The PUC determined that both the 2017 Energy Efficiency Plan and the

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<sup>1</sup> See Commission Order 21767, Docket No. 4443 (Dec. 31, 2014); [http://www.ripuc.org/eventsactions/docket/4443-EERMC-Ord21767\\_12-31-14.pdf](http://www.ripuc.org/eventsactions/docket/4443-EERMC-Ord21767_12-31-14.pdf).

SRP Report met the requirements of system reliability and least cost procurement set forth in R.I. Gen. Laws §39-1-27.7 as well as the Standards. The PUC concluded that the Settlements were reasonable plans and would provide net positive environmental and economic impacts for Rhode Island.

## **II. National Grid's Energy Efficiency Program Plan for 2017**

### **A. Overview of Costs, Benefits, and Savings**

National Grid noted that the overarching goal of the 2017 Efficiency Plan was to create energy savings as well as economic and environmental benefits for Rhode Islanders through the procurement of cost-effective energy efficiency measures.<sup>2</sup> In support of that goal, the Parties proposed a budget of \$94.6 million to deliver electric efficiency programs in 2017. Those programs are expected to create yearly energy savings of 201,347 MWh and lifetime energy savings of 2,065,732 MWh.<sup>3</sup> The Parties also proposed a budget of \$29.7 million to support gas efficiency measures projected to create annual savings of 414,606 MMBtu and lifetime savings of 4,945,564 MMBtu.<sup>4</sup> These investments in 2017 are projected to generate \$314 million in economic benefits over the life of the efficiency measures, with electric efficiency generating \$247.9 million in economic benefits and gas efficiency adding \$66.6 million in economic benefits.<sup>5</sup> Additionally, the 2017 Efficiency Plan is expected to reduce greenhouse gas emission and avoid 970,894 tons of carbon over the lifetime of the measures.<sup>6</sup>

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<sup>2</sup> National Grid's 2017 Energy Efficiency Program Plan at 1 (Efficiency Plan) (Oct. 17, 2016); [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).

<sup>3</sup> *Id.* at 1 and Table E-2.

<sup>4</sup> *Id.* at 1 and Table G-2.

<sup>5</sup> *Id.* at 1.

<sup>6</sup> *Id.* at 2.

The Parties also agreed that the 2017 Efficiency Plan is cost-effective. Using the Total Resource Cost (TRC) Test,<sup>7</sup> the Company calculated a benefit-cost ratio of 2.0 for electric efficiency programs. That means that for each dollar invested, electric programs will generate \$2.00 of economic benefits over the lifetime of the investment.<sup>8</sup> The 2017 Plan projected an overall gas efficiency program benefit-cost ratio of 1.63.<sup>9</sup>

The Company asserted that the 2017 Plan satisfied the statutory requirement that the cost of procuring energy efficiency, as provided for in the plan, is less expensive than the cost of procuring an equivalent amount of energy supply. The Company calculated the cost of electric efficiency at \$.0579 per lifetime kWh saved, which was \$.0349 less than the estimated cost of supply, which was \$.0928 per kWh.<sup>10</sup> The cost of gas efficiency was calculated at \$7.96 per lifetime of MMBtu saved, which was \$0.85 less than the cost of supply for residential heating customers, \$8.81 per MMBtu.<sup>11</sup>

## **B. Programs**

The Parties proposed to continue most of the 2016 efficiency programs for the various rate classes into 2017.<sup>12</sup> The Efficiency Plan, however, contemplated three significant departures from previously approved plans.

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<sup>7</sup> The 2015-2017 Least Cost Procurement Standards, which were approved by the PUC in Docket No. 4443, authorizes the use of the TRC Test.

<sup>8</sup> Efficiency Plan at 3.

<sup>9</sup> *Id.*

<sup>10</sup> *Id.* The numbers are based on the kWh saved over the aggregated lifetime of the Efficiency Plan.

<sup>11</sup> *Id.*

<sup>12</sup> For a summary of programs included in the 2016 Efficiency Plan that were not included in the 2017 Efficiency Plan see, National Grid's Resp. COMM 1-3; <http://www.ripuc.org/eventsactions/docket/4654-NGrid-DR-PUC1.pdf>. An overview of the programs was included in Tables E-2 and G-2 of the settlement filing and the specific programs were set forth in detail in the Efficiency Plan. 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 residential programs are: (1) Large Commercial New

First, incentives for compact fluorescent lamps (CFLs) that were offered in 2016 were not offered in the 2017 Plan. The Company explained that most CFL lighting will no longer meet voluntary efficiency standards established by the United States Environmental Protection Agency.<sup>13</sup> Other products with advanced technology-light emitting diode (LED) products-have decreased in price significantly and provide better lighting.<sup>14</sup> For these reasons, the 2017 Plan discontinued incentives for CFLs in residential programs.<sup>15</sup> Similarly, commercial and industrial programs, except for the Small Business program, would no longer incentivize fluorescent lamps and luminaries.<sup>16</sup>

Second, the 2017 Plan proposed several enhanced financing opportunities to help municipal, commercial, and industrial customers overcome cost barriers that affect investments in energy efficiency. The Company currently offers financing for large and small customers through on-bill repayment from its revolving loan fund.<sup>17</sup> The Company proposed an additional \$1.8 million for its electric and gas revolving loan funds as follows: \$1.3 million from electric ratepayers, with \$1 million for large commercial and industrial customers and \$0.3 million for small commercial and industrial customers; and \$0.5 million from gas ratepayers.<sup>18</sup>

At the request of the Rhode Island Infrastructure Bank (Infrastructure Bank), the Company also proposed a \$5 million transfer to the Infrastructure Bank to support municipal energy

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Construction; (2) Large Commercial Retrofit; (3) Small Business Direct Install; and (4) Commercial Demonstration and R&D. Efficiency Plan at Tables E-2 and G-2.

<sup>13</sup> ENERGY STAR® is an EPA voluntary program that helps businesses and individuals save money and protect climate through superior energy efficiency; <https://www.energystar.gov/>.

<sup>14</sup> National Grid's Resp. to COMM 1-3.

<sup>15</sup> The following programs would no longer support CFLs: ENERGY STAR® Lighting; Energy Wise Single Family, Multi-Family and Income Eligible Multi-Family; Residential New Construction; and Income Eligible Services. *Id.*

<sup>16</sup> National Grid's Resp. to COMM 1-4. According to the Company, projects that only install LED lighting may not be cost-effective for small businesses.

<sup>17</sup> Efficiency Plan at Tables E-10 and G-10.

<sup>18</sup> *Id.*

efficiency upgrades financed through the Efficient Building Fund.<sup>19</sup> The Company stated that it would not administer any of these funds but would collaborate with the Infrastructure Bank to develop reporting metrics and to ensure that the funds were achieving energy efficiency goals.<sup>20</sup> In addition, the Company stated that that it would support energy efficiency in municipalities by offering technical assistance, energy audits, and existing energy efficiency incentives for cost-effective retrofit projects.<sup>21</sup>

Third, the Company proposed a change to the calculation of its performance incentive.<sup>22</sup> The Company noted that the goal in transferring energy efficiency funds to the Infrastructure Bank was “to spur the financing of energy efficiency projects that would not otherwise occur.”<sup>23</sup> For this reason, the Company proposed that the 2017 Plan should no longer exclude the energy efficiency investment funds, discussed above, from the spending budget for the purpose of calculating the Company’s performance incentive.<sup>24</sup> Including financing of \$6.8 million in the 2017 spending budget would increase the Company’s performance incentive an additional \$340,000.<sup>25</sup> The proposal represented a departure from the 2016 Efficiency Plan which included a transfer of approximately \$1.9 million to the Infrastructure Bank’s Efficient Building Fund. That transfer was excluded from the spending budget when calculating the Company’s performance incentive for that year.<sup>26</sup>

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<sup>19</sup> Efficiency Plan at 14-15. The \$5 million transfer to the Infrastructure Bank would be funded by both electric customers (\$4.9 million) and gas customers (\$100,000). *Id.* at Tables E-2 and G-2.

<sup>20</sup> Efficiency Plan at 14-15

<sup>21</sup> *Id.* at 82-83.

<sup>22</sup> R.I. Gen. Laws §39-1-27.7(e) requires the Commission to establish a performance based incentive plan for National Grid.

<sup>23</sup> *Id.* at 32.

<sup>24</sup> *Id.* Funds that cycle back into the Efficient Building Fund, the Company’s revolving loan fund, and finance funds received from outside sources, such as RGGI, will continue to be excluded from the spending budget.

<sup>25</sup> Calculated as follows: total financing dollars (\$6.8 million) x performance incentive (5%) = \$340,000.

<sup>26</sup> This transfer was made pursuant to R.I. Gen. Laws § 39-2-1.2. *See also*, National Grid’s Energy Efficiency Program Plan for 2016 (Docket No. 4580) at Tables E-2 and G-2; [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).

### C. Comparison with the Three-Year Plan

The Parties reported that the 2017 Plan achieved the electric and gas savings targets set forth in the 2015-2017 Energy Efficiency Procurement Plan (Three-Year Plan), which the Commission approved in Docket No. 4443. However, the Parties also acknowledged that the combination of decreased benefits and increased costs resulted in lower benefit-cost ratios for both electric and gas portfolios than those projected in the Three-Year Plan, a decrease of 28% and 20% respectively.<sup>27</sup>

The Company attributed rising efficiency budgets to several factors. First, recent evaluation results for the electric and gas *EnergyWise* Single-Family and Multifamily programs that increased the cost of energy savings. Second, the Infrastructure Bank's \$5 million request was an unanticipated cost and, consequently, not included in the Three-Year Plan. Third, projected negative electric and gas fund balances for program year 2016 required reconciliation in 2017.<sup>28</sup> The Company also noted that lower energy costs reduced savings attributable to energy efficiency.<sup>29</sup> Improved lighting standards<sup>30</sup> and the mainstreaming of energy efficiency lighting also reduced energy efficiency savings.<sup>31</sup> According to the Company, all of these factors lead to increasingly challenging savings targets and greater costs to achieve the additional savings.

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<sup>27</sup> Efficiency Plan at 5-9; *see also* National Grid's Resp. to COMM 1-1.

<sup>28</sup> Efficiency Plan at 5-9. The Company also testified that while the additional \$5 million transfer to the Infrastructure Bank drove up the costs of the 2017 Plan, the anticipated energy efficiency savings were needed to reach the targets established in the Three-Year Plan. In other words, if the Company did not transfer \$5 million to the Infrastructure Bank, it would have needed to spend \$5 million elsewhere to attain the savings targets. Lane Test. at 78-80.

National Grid's Resp. to COMM 1-1; *see also* Efficiency Plan at 6-9.

<sup>29</sup> *See Avoided Energy Supply Costs in New England: 2015 Report* (March 27, 2015, Revised April 3, 2015); [http://www.ripuc.org/eventsactions/docket/4580-NGrid-TRM4-AESC\\_report.pdf](http://www.ripuc.org/eventsactions/docket/4580-NGrid-TRM4-AESC_report.pdf).

<sup>30</sup> National Grid's Resp. to COMM 1-1; Efficiency Plan at 7.

<sup>31</sup> *Id.* According to the Company, the transformation of the residential lighting market has significantly decrease what the Company could incentivize and claim through its efficiency programs.

## D. Funding

The 2017 Energy Efficiency Plan budget of \$94.6 million included funding from several sources. On the electric side, the primary funding source is a proposed Energy Efficiency Program charge of \$0.01124 per kWh, projected to generate revenues totaling about \$83.2 million.<sup>32</sup> The charge appears on customers' electric bills. The bill impact for an average residential customer consuming 500 kWh per month would be an increase of \$0.24.<sup>33</sup> Additional funding includes \$2 million from the Regional Green House Gas Initiative and \$12 million from the Forward Capacity Market.<sup>34</sup> These amounts were slightly offset by a negative carryover fund balance of \$2.7 million from the 2016 program year.<sup>35</sup>

On the gas side, the primary proposed funding source proposed is an energy efficiency program charge of \$0.888 per dekatherm for residential customers (income eligible and non-income eligible) and \$0.726 per dekatherm for non-residential customers. The customer charges are projected to generate combined revenues totaling about \$31 million.<sup>36</sup> This amount was slightly offset by a negative carryover fund balance of \$1.5 million for the 2016 program year, resulting in a net gas budget of \$29.7 million.<sup>37</sup> 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 \$12.20.<sup>38</sup>

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<sup>32</sup> Efficiency Plan at Table E-1. The proposed energy efficiency charge is composed of the existing energy efficiency charge of \$0.01077 per kWh, plus a fully reconciling funding charge of \$0.00047 per kWh, and the System Reliability charge. R.I. Gen. Laws §39-1-27.7(c)(5)

<sup>33</sup> National Grid's Revised Attachment to COMM 1-2; <http://www.ripuc.org/eventsactions/docket/4654-NGrid-DR-PUCRevAttach1-2.pdf>.

<sup>34</sup> Efficiency Plan at Table E-2.

<sup>35</sup> *Id.*

<sup>36</sup> Energy Efficiency Plan at Table G-1. The proposed energy efficiency charge includes fully reconciling mechanisms of \$0.140 per dekatherm for residential customers and \$0.239 per dekatherm for residential customers.

<sup>37</sup> *Id.*

<sup>38</sup> National Grid's Revised Attach. to COMM 1-2;

### III. 2017 System Reliability Procurement Report

The System Reliability Procurement (SRP) process requires the Company to identify infrastructure projects for which non-wires solutions may defer or avoid more costly investments. National Grid's 2017 System Reliability Procurement Report (SRP Report) reviewed the highlights and goals of the sixth and final year of a non-wires alternative pilot (Pilot).<sup>39</sup> The Pilot was selected for the Tiverton/Little Compton area. The Pilot area had experienced a population increase sufficient to require a substation upgrade. It has encouraged combination of targeted energy efficiency and demand response measures to reduce energy consumption involving primarily air conditioning, lighting, and other summer-peaking loads in the area. National Grid's strategy focused on increased marketing and outreach to promote existing incentives offered through the energy efficiency programs, particularly those meant to lower energy use at peak times such as wireless programmable thermostats for air conditioning, heat pump water heaters, and more efficient window air conditioners.<sup>40</sup>

The Company reported that the goal of the Pilot is to achieve enough customer participation to provide one MW of load reduction by the end of 2017.<sup>41</sup> Approximately 330 kilowatts of savings are needed by the end of 2017, which would allow the Company to defer construction of a \$2.93 million substation for four years, from 2014 to 2018.<sup>42</sup> To reach this goal, the Company proposed spending up to \$63,750 to solicit market-based solutions consistent with the Pilot's cost-effective framework.<sup>43</sup> If the Request for Proposal process fails to identify any appropriate

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<sup>39</sup> National Grid's 2017 System Reliability Procurement Report (SRP Report) (Oct. 14, 2016); [http://www.ripuc.org/eventsactions/docket/4581-NGrid-2016-SRP\(10-14-15\).pdf](http://www.ripuc.org/eventsactions/docket/4581-NGrid-2016-SRP(10-14-15).pdf). The Pilot was initially developed in the 2012 System Reliability Procurement Report – Supplement which was approved by the PUC in Order No. 20662 (Feb. 29, 2012), 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).

<sup>40</sup> SRP Report at 2, 9-10, and App. 4 at 8.

<sup>41</sup> SRP Report at 3.

<sup>42</sup> *Id.* at 3.

<sup>43</sup> SRP Report at 11 and App. 2.

solutions, the Company would pursue additional energy efficiency or demand response measures to meet the Pilot's one MW target.<sup>44</sup>

The Company reported that the Pilot remains cost effective over its life, with an overall benefit-cost ratio of 1.32.<sup>45</sup> For the proposed program year (2017), the Company reported a cost-benefit ratio of 1.05.<sup>46</sup> The Company acknowledged that the potential deferral value of the infrastructure upgrade is less than the total cost of the Pilot. However, the Company asserted that continued funding of the Pilot is warranted to determine how much investment in administration, customer outreach, and evaluation is needed to achieve customer participation in load reducing events.<sup>47</sup>

For 2017, the Company proposed a budget \$399,300, the customer-funded portion of which is \$197,600.<sup>48</sup> The additional funding needed from electric customers is \$0.00002 per kWh. As in past years, the Company proposed including the SRP funding in the energy efficiency program charge for a total, combined Energy Efficiency Program charge of \$0.01124 per kWh.<sup>49</sup>

#### **IV. Position of the Parties**

##### **A. EERMC**

R.I. Gen. Laws §39-1-27.7(c)(5) requires the EERMC to review and approve the cost-effectiveness of the Company's three-year procurement plans and related annual plans. On October 31, 2016, the EERMC submitted a report recommending approval of the 2017 Efficiency Plan. The EERMC concluded that, under the Total Resource Cost test, both the individual programs and

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<sup>44</sup> SRP Report at 11.

<sup>45</sup> *Id.* at Table S-2.

<sup>46</sup> *Id.* at Table S-2.

<sup>47</sup> Letter from Raquel Webster, Esq. (Oct. 17, 2016) at 2.

<sup>48</sup> SRP Report at Table S-1. The budget includes a carry-over balance of \$201,700.

<sup>49</sup> *Id.* at App. 3, Table S-1. Includes uncollectible rate of 1.25%.

the portfolio of programs proposed in the 2017 Efficiency Plan are cost-effective, complied with applicable state statutes and regulations and are in the best interest of ratepayers.<sup>50</sup>

## **B. OER & Division**

On December 2, 2016, the Rhode Island Division of Public Utilities and Carriers and the Rhode Island Office of Energy Resources submitted joint comments in support of the 2017 Efficiency Plan and System Reliability Report.<sup>51</sup> Regarding the 2017 Efficiency Plan, the agencies found it to be consistent with least cost procurement mandates, proposed a range of programs that encourage participation across customer classes, and resulted in reasonable bill impacts, with lower bills for the average customer.<sup>52</sup> OER and the Division support the partnership with the Rhode Island Infrastructure Bank that will leverage ratepayer dollars with other sources of capital to generate comprehensive energy savings.<sup>53</sup> The agencies also support the allocation of \$1.8 million of funding and services for delivered fuel customers. Finally, the agencies believe that the 2017 Efficiency Plan supports other important policy goals identified in the Resilient Rhode Island Act, as well as growth of the state's clean energy economy.<sup>54</sup> Regarding the 2017 SRP Report, the agencies look forward to reviewing the evaluation results of the Pilot at the end of this year and innovative changes to SRP planning in connection with upcoming revisions to SRP Standards.<sup>55</sup>

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<sup>50</sup> EERMC's Cost-Effectiveness Report on National Grid's 2017 Energy Efficiency Program Plan and System Reliability Procurement Report at 8-10 (Oct. 31, 2016); [http://www.ripuc.org/eventsactions/docket/4654-EERMC-Cost-effectivenessMemo\\_10-31-16.pdf](http://www.ripuc.org/eventsactions/docket/4654-EERMC-Cost-effectivenessMemo_10-31-16.pdf).

<sup>51</sup> Division and OER Joint Letter (Dec. 5, 2016); [http://www.ripuc.org/eventsactions/docket/4654-4655-DPU-OER-JTComments\(12-5-16\).pdf](http://www.ripuc.org/eventsactions/docket/4654-4655-DPU-OER-JTComments(12-5-16).pdf).

<sup>52</sup> *Id.* at 2-3.

<sup>53</sup> *Id.* at 3-4.

<sup>54</sup> *Id.* at 4,

<sup>55</sup> *Id.* at 6.

## V. Hearing

The PUC held two public hearings on December 8, 2016. The first hearing addressed National Grid's Energy Efficiency Program Plan for 2017. The second hearing addressed National Grid's 2017 System Reliability Procurement Report.

### A. National Grid's 2017 Energy Efficiency Program Plan

Ms. Kat Burnham, People's Power & Light, testified in support for the 2017 Efficiency Plan, highlighting the increased energy savings goals as compared to the 2016 plan.<sup>56</sup> Ms. Burnham applauded the commitment of \$1.3 million for energy efficiency measures for delivered fuel customers. Ms. Burnham stated, however, that the 2017 Efficiency Plan could have provided more robust programs for renters and moderate-income ratepayers.<sup>57</sup>

The Energy Council of Rhode Island (TEC-RI) Executive Director Douglas Gablinske testified in support for the 2017 Efficiency Plan, noting that the increase in the Energy Efficiency Charge is minimal this year.<sup>58</sup> Finally, Rhode Island Representative Robert Lancia expressed concern that the Energy Efficiency Charge added to his constituents' already growing gas and electric bills.<sup>59</sup>

Jeff Diehl, Executive Director of the Rhode Island Infrastructure Bank, focused his comments around implementation of the Efficient Building Fund.<sup>60</sup> Mr. Diehl stated that the Efficient Building Fund was statutorily created in July 2015 as a revolving loan fund to support energy efficiency, renewable energy, and environmental remediation projects.<sup>61</sup> Initial funding included \$3 million from the Regional Greenhouse Gas Initiative and approximately \$1.8 million

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<sup>56</sup> Hr'g Tr. at 10 (Dec. 8, 2016) (Docket No. 4654).

<sup>57</sup> *Id.* at 9-10.

<sup>58</sup> *Id.* at 10-11.

<sup>59</sup> Hr'g Tr. at 14-16.

<sup>60</sup> Hr'g Tr. at 6-8. At the December 8, 2016 hearing, Attorney Christopher Vitale, on behalf of the Infrastructure Bank, made a motion to intervene. There were no objections and the PUC granted the motion.

<sup>61</sup> Hr'g Tr. at 19-22 (4654).

from electric customers to support both energy efficiency and renewable energy projects.<sup>62</sup> According to Mr. Diehl, the Efficient Building Fund leveraged these funds to finance \$17 million in projects in six communities in 2016.<sup>63</sup>

Mr. Diehl testified that the proposed transfer of \$5 million from the 2017 Efficiency Plan would leverage \$20 to \$25 million and would be dedicated to meet anticipated municipal demand for comprehensive energy efficiency projects.<sup>64</sup> Mr. Diehl anticipated that the Infrastructure Bank would request additional ratepayer funding of \$5 million per year over the next three years.<sup>65</sup>

Mr. Diehl next described the roles and responsibilities of the Infrastructure Bank, OER and National Grid in implementing the Efficient Building Fund. Mr. Diehl testified that OER's responsibilities include soliciting applications, developing a project priority list, and overseeing data collection on energy savings for completed projects. In addition, OER is responsible for project reviews, including environmental and programmatic compliance.<sup>66</sup> Mr. Diehl stated that the Infrastructure Bank's primary responsibility is to provide financing for projects listed on OER's project priority list. Funds are disbursed to borrowers in accordance with OER's review and approval.<sup>67</sup> According to Mr. Diehl, the Company prepares energy audits, works with cities and towns to identify energy savings opportunities, and provides technical assistance.<sup>68</sup> Mr. Diehl

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<sup>62</sup> Hr'g Tr. at 27-28 (Docket 4654). In 2015, National Grid was required to remit two percent of its 2014 electric and gas demand-side charge collections, approximately \$1.8 million, to the Infrastructure Bank to capitalize a loan loss reserve fund to support financing of energy efficiency improvements in public buildings. *See*, § 39-2-1.2(l) and (m); R.I. Gen. Laws § 46-12.2-14.1.

<sup>63</sup> Hr'g Tr. at 28 (Docket 4654).

<sup>64</sup> *Id.* at 26.

<sup>65</sup> *Id.* at 40.

<sup>66</sup> *Id.* at 44; see also the Rhode Island Infrastructure Bank's Presentation to the PUC at 12 (Dec. 8, 2016) (Infrastructure Bank's Presentation); [http://www.ripuc.org/eventsactions/docket/4654-RIIB-EBFPresentation\\_12-8-16.pdf](http://www.ripuc.org/eventsactions/docket/4654-RIIB-EBFPresentation_12-8-16.pdf).

<sup>67</sup> *Id.*

<sup>68</sup> *Id.* at 50-51, 64. The Company allocated \$100,000 for technical assistance studies to support the Efficient Building Fund.

also stated that since September 2015, the Infrastructure Bank has received valuable input from the Efficient Building Fund working group which meets weekly to implement the loan program.<sup>69</sup>

The following individuals from the Company's Strategic Business Policy and Evaluation Group provided testimony on behalf of National Grid: Senior Analysts Courtney Lane, Ben Rivers and Mathew Ray; Lead Analyst Angela Li; and Principal Analyst Puja Vohra.

In response to the Commission's inquiry regarding Home Energy Reports program, Ms. Lane acknowledged that this program reported the lowest cost-benefit ratio at 1.02.<sup>70</sup> According to Ms. Lane, the Home Energy Report program has a one-year measure life which results in a low cost-benefit ratio compared to other programs that measure megawatt savings over ten years. When asked if the Company considered allocating funding to another program with a higher cost-benefit ratio, Ms. Lane replied that as long as the program was cost-effective, the Company would consider it an option for its customers for several reasons.<sup>71</sup> Ms. Lane added that the Home Energy Reports program provide customers with an opportunity to save energy and reduce their bills without spending any money. The reports served as a valuable marketing tool that introduced customers to other energy efficiency programs and enhance customer participation in those programs.<sup>72</sup>

Regarding the Company's performance incentive, Ms. Lane testified that, historically, the parties have excluded from the budget spending that does not generate energy savings, such as financing dollars and the annual allocations to OER and EERMC for administrative expenses. However, this year the Company examined how financing opportunities contribute to energy

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<sup>69</sup> *Id.* at 43. The members of the Efficient Building Fund working group include: Rhode Island Office of Energy Resources, Rhode Island Infrastructure Bank, Rhode Island Commerce Corporation, Rhode Island General Treasurer's Office, National Grid, Energy Efficiency Resources Management Council, Acadia Center, Rhode Island Department of Education, University of Rhode Island. *See* Infrastructure Bank's Presentation at 12.

<sup>70</sup> Test. at 149 (Docket 4654). *Id.*

<sup>71</sup> *Id.* The 2017 program budget for electric and gas home energy reports totaled \$2.9 million with \$2.4 million from electric ratepayers and \$.5 million from gas ratepayers. Efficiency Plan at Table E-2 and Table G-2.

<sup>72</sup> Hr'g Tr. at 149-151.

savings goals and concluded that both finance dollars and customer incentives equally influence a customer's decision to participate in efficiency measures. For this reason, the Company felt it was appropriate to include financing dollars in the spending budget.<sup>73</sup>

Regarding higher system benefit charges for the 2017 Efficiency Plan as compared to the Three-Year Plan, Ms. Lane stated that factors beyond the Company's control impacted both benefits and costs of the annual plan which were detailed in its data responses. For example, the Company offered that the primary driver of reduced benefits was the updated avoided cost study which "dramatically" decreased the energy savings the Company could claim over the expected useful life of an efficiency measure.<sup>74</sup>

Ms. Lane acknowledged that stakeholders and, in particular, TEC-RI and the Division, have expressed concern about the growth of the system benefit charge which has more than doubled in the last five years.<sup>75</sup> However, Ms. Lane indicated that the Company and "all stakeholders...feel that there's still more benefits associated than there are costs and that these are reducing bills and are still cheaper than supply."<sup>76</sup> Ms. Lane offered that there has been no discussion identifying a point at which the bill impact of the system benefit charge would be considered unaffordable.<sup>77</sup> Ms. Lane added that "[w]e haven't gotten to a point yet where we think that we are concerned with that."<sup>78</sup> Division consultant Jennifer Kallay, Synapse Energy Economics, testified that defining unaffordability based on bill impacts alone does not consider other important metrics, including cost-effectiveness, participation rates, and the many benefits of

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<sup>73</sup> Hr'g Tr. at 86-87.

<sup>74</sup> Hr'g Tr. at 177, 132-133

<sup>75</sup> Hr'g Tr. at 166-169. On the electric side, the annual system benefit charge increased from \$37 in 2012 to \$70 for 2017. On the gas side, the annual system benefit charge was \$33 in 2012 and increased to \$77 for 2017. Id.

<sup>76</sup> Lane Hr'g Tr. at 168 (Docket 4654).

<sup>77</sup> Id. at 205-206.

<sup>78</sup> Id. at 206.

energy efficiency.<sup>79</sup> EERMC consultant Scudder Parker, Vermont Energy Investment Corporation, added that costs are “absolutely a fundamental concern” which the EERMC addresses by ensuring that energy savings are acquired as efficiently as possible.<sup>80</sup> When asked if bill impacts would at some point be unaffordable, Mr. Parker replied that it is important to communicate the climate economic benefits that energy efficiency provides, as well as contributions to the state’s overall energy strategy.<sup>81</sup>

### **B. National Grid’s 2017 System Reliability Procurement Report**

National Grid presented the testimony of Lindsay Foley, Principal Project Manager, who highlighted the continued enhanced collaboration between system reliability procurement and energy efficiency through marketing of the incentives that have been promoted for the past several years that target air conditioning and water heating customers.<sup>82</sup> When questioned regarding other aspects of the Pilot, the Ms. Foley stated that the Company proposed achieving 250 kilowatts in savings through a public solicitation (RFP) for cost-effective savings opportunities.<sup>83</sup> The Company also clarified that \$63,750 was allocated for the RFP, with an additional \$11,250 in incentives, for a total budget of \$75,000.<sup>84</sup> Ms. Lane stated that to the extent that a cost-effective solution would require a larger scale than outlined in the RFP, the Company may request additional funding from the Commission.<sup>85</sup>

Ms. Foley also testified that no new non-wires alternative projects were proposed in the 2017 SRP Report. After reviewing nineteen distribution projects for non-wires alternatives feasibility, only one was identified for further screening – the Bristol/Warren substation project

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<sup>79</sup> *Id.* at 211.

<sup>80</sup> Hr’g Tr. at 178-179.

<sup>81</sup> *Id.* at 207.

<sup>82</sup> *Id.* at 13-15 (Dec. 8, 2016) (Docket 4655).

<sup>83</sup> *Id.* at 22-23.

<sup>84</sup> Hr’g Tr. at 22.

<sup>85</sup> *Id.* at 22-24.

estimated to cost approximately \$2.0 million. This project required eleven megawatts of load relief by 2022 in an area that served about 18,000 customers. According to Ms. Foley, the Company determined that it could not propose a cost-effective non-wires alternative solution for the substation. The Company also considered internally the use of non-wires alternatives as partial solutions and anticipated incorporating the results of those discussions and analysis into proposed revisions to the System Reliability Procurement Standards.<sup>86</sup>

The EERMC, the Division, and the OER each testified in support of the 2017 System Reliability Procurement Pilot.<sup>87</sup>

## **VI. Commission Findings**

### **A. 2017 Energy Efficiency Program Plan**

On December 20, 2017, the Commission voted unanimously to approve the 2017 Energy Efficiency Program Plan filed as a Stipulation and Settlement. The Commission noted that the 2017 Efficiency Plan was the product of extensive negotiation and compromise among the Company and key stakeholders representing a wide range of environmental, business, and consumer interests. Additionally, the 2017 Efficiency Plan was reviewed and approved by the EERMC.<sup>88</sup>

Rhode Island General Laws § 39-1-27.7(a)(2) defines least-cost procurement as the “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.” After careful review

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<sup>86</sup> *Id.* at 10-12. Triennially, the EERMC, in collaboration with the Company and other stakeholders, files with the PUC proposed modifications to the Least Cost Procurement Standards (Standards) which guide the Company’s planning, cost-effectiveness assessment, program design and implementation strategy for the same three-year period. *See* R.I. Gen. Laws § 39-1-27.7.

<sup>87</sup> Hr’g Tr. at 35-39.

<sup>88</sup> R.I. Gen. Laws § 39-1-27.7(c)(4) provides that the Company, when developing each annual efficiency plan, may seek the advice of the Commissioner or OER and the EERMC.

and consideration, the Commission concluded that the record supports a finding that the 2017 Efficiency Plan is cost-effective.

While Rhode Island law does not specify a test for measuring cost-effectiveness, the 2017 Efficiency Plan continued the use of the Total Resource Cost (TRC) test previously approved by the Commission in Docket No. 4443. Applying the TRC test, the Company calculated the overall electric efficiency cost-benefit ratio at 2.00, and the overall natural gas efficiency cost-benefit ratio at 1.63.<sup>89</sup> By ensuring that the annual plan is cost-effective, the PUC remains consistent with the General Assembly's mandate that the Company prioritize energy efficiency and demand side supply resources to provide customers with the lowest reasonable energy supply costs.

The Commission next addressed the proposal to allow the Company to earn a performance incentive on financing dollars allocated to the Infrastructure Bank and the Company's commercial and industrial revolving loan funds. The Commission found the proposal to be consistent with the Least Cost Procurement Standards for Energy Efficiency which allows performance incentives for programs that increase access to capital.<sup>90</sup> The record reflected the good faith effort of the Company, the OER and the Infrastructure Bank in collaborating to leverage ratepayer funds with private capital to advance energy efficiency in Rhode Island. The Commission noted that financing is a critical part of a more sophisticated suite of tools to support larger, complex efficiency projects that will allow municipalities and businesses to overcome financial barriers and make significant infrastructure investments in Rhode Island. Moreover, the Commission was satisfied from the record that it was appropriate for the Company to earn a performance incentive related to the financing of efficiency projects. The Company's continued collaboration with OER,

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<sup>89</sup> Efficiency Plan at 3.

<sup>90</sup> See Commission Order 21767 at Appendix A, p. 31. (Dec. 31, 2014), Docket No. 4443; [http://www.ripuc.org/eventsactions/docket/4443-EERMC-Ord21767\\_12-31-14.pdf](http://www.ripuc.org/eventsactions/docket/4443-EERMC-Ord21767_12-31-14.pdf).

the Infrastructure Bank and the EERMC is essential to ensure that services to municipal customers and businesses are delivered seamlessly between utility offered efficiency programs and financing available through the Efficient Building Fund.

In the long term, it is hoped that financing energy efficiency projects with more private capital will reduce reliance on ratepayer funds. In the near future, the Commission found that it is essential that ratepayer dollars are tracked and accounted for to ensure that the financing dollars are used as required – to provide energy efficiency measures cost-effectively and ordered the Infrastructure Bank and the Company submit progress reports to the Commission bi-annually.

While the Commission approved the Plan, it expressed concern over several provisions. First, the Commission noted that the gas and electric budgets of the 2017 Efficiency Plan, as well as the associated system benefit charge, have increased over the last several years. Currently, ratepayers are billed \$132.55 per year or \$11.05 per month for electric and gas energy efficiency programs. While this amount may have no impact on the cost-effectiveness of the plan, a reasonable person might question the prudence of placing such a premium on energy efficiency programs when many of the benefits may appear to be non-energy related.

Additionally, the Commission expressed concern with how these programs may be perceived by the average ratepayer struggling to make ends meet. Mindful of its statutory duty to ensure just and reasonable rates,<sup>91</sup> the Commission would be remiss if it failed to consider the financial burden, particularly for those who experience energy insecurity, when evaluating these programs. With these considerations in mind, the PUC cautioned that the escalating budgets and current level of the Energy Efficiency charge may, at some point, conflict with its statutory mandate to ensure just and reasonable rates. Moreover, the Commission was concerned that the

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<sup>91</sup> R.I. Gen. Laws § 39-1-1(b).

Parties consistently testified that none had discussed a point at which bill impacts would be considered unaffordable. The Commission suggested that the Company and the Parties address bill impacts and affordability in the next Three-Year Plan (2018-2020) and subsequent annual plans by demonstrating concrete efforts to mitigate escalating costs of efficiency programs on ratepayers.

Another area of concern involved inconsistencies between the Three-Year Plan and the 2017 Energy Efficiency Plan proposed in this docket. The Commission acknowledged that the Three-Year Plan served as a guidance document, and some variance is not unusual or unexpected. However, the Commission noted that the variances between the budgets and other aspects of the 2017 Efficiency Plan were substantial, exceeding 25% in three categories.<sup>92</sup> The Company pointed to several factors outside of its control that led to changes in funding needs and savings opportunities, such as lower avoided energy costs, the mainstreaming of energy efficiency lighting, and the reconciliation of 2016 negative fund balances. The Commission found that these changes were understandable and acceptable since they were outside the Company's control. Some of the variations between the annual and the Three-Year Plan, however, involved programmatic design which is within the Company's control.<sup>93</sup> The Commission encouraged the Company to generally endeavor to adhere to the spending, costs, and overall characteristics contained in the Three-Year Plan.

The Commission next expressed concern regarding the benefits of the Home Energy Reports program. The evidence submitted in support of the program showed that that it is cost effective, with a benefit-cost ratio of 1.02 and 1.08 for electric and gas, respectively.<sup>94</sup> But the

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<sup>92</sup> National Grid Resp. to COMM 1-1. The Company reported a 38% reduction in the benefit-cost ratio for the 2017 electric plan and a 28% reduction in the benefit-cost ratio for the 2017 gas plan as compared to the Three-Year Plan.

<sup>93</sup> National Grid's Resp. to COMM 1-1.

<sup>94</sup> Efficiency Plan at Table E-5 and G-5.

evidence also showed that the Home Energy Reports generated the lowest benefits per expenditure of the Company's entire portfolio of programs. For example, the benefit-cost ratios for the rest of the energy efficiency programs ranged from 1.09 for the Residential Energy *Wise* program to 4.55 for the Large Commercial New Construction program.<sup>95</sup> Furthermore, the Commission noted that the benefit-cost ratio for Home Energy Reports has declined since 2014 with ratios of 1.87, 1.16 and 1.02 reported in 2014, 2015 and 2016, respectively.<sup>96</sup> While it is not the role of the Commission to substitute our judgement with that of the Company or the Parties, we reiterate the question raised at the hearing – whether ratepayer funds could be spent more effectively by supporting efficiency programs that generate greater benefit-cost ratios.

Finally, the Commission concluded that the Parties have proposed a reasonable plan for the implementation of these energy efficiency programs. The Commission is confident that the Company, the EERMC and key stakeholders will continue to successfully collaborate on the development and implementation of reasonable and prudent energy efficiency investments in Rhode Island that continue to increase resource savings which generate economic and environmental benefits for all Rhode Islanders.

## **B. 2017 System Reliability Procurement Report**

The 2017 Reliability Report is consistent with the themes reported in the Company's Three-Year Plan. The Company explained that it will attempt to enhance participation in the load curtailment Pilot by incorporating the Tiverton - Little Compton area into the Rhode Island Energy Challenge and Home Energy Reports and by leveraging other statewide energy efficiency

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<sup>95</sup> *Id.*

<sup>96</sup> See National Grid's 2014 Energy Efficiency Procurement Plan at Table E-5 (Docket No. 4451); [http://www.ripuc.org/eventsactions/docket/4451-NGrid-EEPP2014\\_11-1-13.pdf](http://www.ripuc.org/eventsactions/docket/4451-NGrid-EEPP2014_11-1-13.pdf) and [TABLE E-5](#); National Grid's 2015 Energy Efficiency Procurement Plan (Docket No. 4527); [http://www.ripuc.org/eventsactions/docket/4527-NGrid-2015-EEPP\(10-31-14\).pdf](http://www.ripuc.org/eventsactions/docket/4527-NGrid-2015-EEPP(10-31-14).pdf); National Grid's 2016 Energy Efficiency Procurement Plan at Table E-5 (Docket No. 4580); [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).

programs.<sup>97</sup> The Commission finds these strategies to be reasonable and consistent with the Three-Year Plan. The Commission also finds the projected 2017 budget of \$399,300 to be reasonable in light of the goals reported in the program. The Reliability Report is supported by the collaborating parties as a cost effective means of complying with the statutorily mandated least cost procurement of system reliability. It has been reviewed and approved by the EERMC in accordance with the Act. The Commission, therefore, finds that the Reliability Report is cost effective and consistent with the Least Cost Procurement Act and approves the Reliability Report as filed.

Accordingly, it is hereby

(23382) ORDERED:

1. The Narragansett Electric Company d/b/a National Grid's 2017 Energy Efficiency Program Plan is approved for effect on January 1, 2017.
2. The Narragansett Electric Company d/b/a National Grid's 2017 System Reliability Procurement Report is approved for effect on January 1, 2017.
3. The Narragansett Electric Company d/b/a National Grid's electric Energy Efficiency Program charge of 1.124¢ per kwh is hereby approved for effect on usage on and after January 1, 2017.
4. The Narragansett Electric Company d/b/a National Grid's residential gas Energy Efficiency Program charge of 88.8¢ per dth is hereby approved for effect on usage on and after January 1, 2017.

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<sup>97</sup> SRP Report at 15-17.

5. The Narragansett Electric Company d/b/a National Grid's Commercial and Industrial gas Energy Efficiency Program charge of 72.6¢ per dth is hereby approved for effect on usage on and after January 1, 2017.
6. The Energy Efficiency Program Plan for 2017 shall comply with the directives contained in Section VII of this Order.
7. The Rhode Island Infrastructure Bank and the Narragansett Electric Company d/b/a National Grid shall file bi-annually with the Commission progress reports that track and account for ratepayer funds allocated to the Efficient Building Fund and to the revolving loan funds as provided for in the 2017 Energy Efficiency Plan.
8. Any and all tariff provisions filed by National Grid pertaining to the Energy Efficiency Program Plan for 2017 and/or the 2017 System Reliability Procurement Report, as well as any and all customer charges relating thereto, shall be in full compliance with the terms and provisions of this Order.
9. 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 1, 2017, PURSUANT TO AN OPEN MEETING DECISION ON DECEMBER 20, 2016. WRITTEN ORDER ISSUED JANUARY 8, 2019.

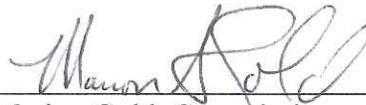
PUBLIC UTILITIES COMMISSION



Margaret E. Curran, Chairperson



\*Herbert F. DeSimone, Commissioner



Marion Gold, Commissioner

\*Commissioner DeSimone concurred with the decision but is unavailable for signature.

**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.