

**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</b>	<b>:</b>	<b>DOCKET NO. 3892</b>
<b>DEMAND-SIDE MANAGEMENT PROGRAMS</b>	<b>:</b>	
<b>FOR 2008</b>	<b>:</b>	

**REPORT AND ORDER**

**I. Introduction**

Since 1989, the Public Utilities Commission ("Commission") has annually reviewed the design and implementation for Narragansett Electric Company, d/b/a National Grid's ("NGrid" or "Company") proposed Demand Side Management ("DSM") programs which are funded through a required assessment of an adjustment factor. Rhode Island General Laws §39-2-1.2(b), authorizes a charge of 2.0 mills per kilowatt-hour for the 2008 programs, unless the Commission approves a higher factor. Although the law provides the funding for the programs and states that the Company shall administer the programs, the Commission continues to have the responsibility for reviewing the design and implementation of Narragansett's DSM programs. R.I.G.L. §39-2-1.2.

**II. Settlement of the Parties**

On November 2, 2007, NGrid filed a Settlement of the Parties ("2008 Settlement")<sup>1</sup>, entered into by the Rhode Island Division of Public Utilities and Carriers ("Division"), The Energy Council of Rhode Island ("TEC-RI"), and the Environmental Northeast ("ENE")(collectively referred to as "the Parties"). While the the Rhode Island Office of Energy Resources ("RIOER") and Energy Consumers Alliance of New England, d/b/a People's Power & Light ("PP&L") participated in negotiations regarding

---

<sup>1</sup> The 2008 Settlement is attached hereto as an Appendix A.

the 2008 programs with the Parties, they are not parties to the Settlement filed with the Commission.<sup>2</sup>

The Settlement set forth the criteria established through prior stipulations and settlements for NGrid's DSM programs, namely, (1) cost-effectiveness, (2) ability to serve a large number and broad mix of Rhode Island customers, (3) maximization of long-term savings, (4) ability to capture potential lost opportunities for efficiency improvement, (5) promotion of market transformation, and (6) support of long-term electricity supply and reliability objectives. The 2008 Settlement noted, as did its 2007 predecessor, that in addition to these six criteria, the Parties had identified a need for and had increased emphasis on services for low and moderate income residential consumers in light of higher energy prices.<sup>3</sup>

NGrid's 2008 DSM programs continue offering energy efficient opportunities to all of its customers with a focus on assisting low to moderate income residential customers reduce their monthly bills through these opportunities. Additionally, NGrid will continue to integrate the delivery of its electric energy efficiency programs with its natural gas efficiency programs. At the time the Settlement Agreement was filed, the Company projected a negative DSM fund balance for 2007 of \$1,288,600 due to lower than expected sales. To satisfy the previous commitments and spending, these expenses will be funded by the 2008 DSM collections.<sup>4</sup> The Company will file its Year-End Report no later than May 1, 2008.<sup>5</sup>

---

<sup>2</sup> Since 1991, a collaborative group has met regularly to evaluate NGrid's DSM programs, NGrid began offering DSM programs in 1997 pursuant to R.I.G.L. §39-2.1-2(b). Although membership has changed over the years, the Parties, PP&L and RIOER presently comprise the Collaborative.

<sup>3</sup> Settlement of Parties, Docket No. 3892, November 2, 2007, pp.1-2.

<sup>4</sup> Settlement of Parties, Docket No. 3892, November 2, 2007, p.2.

<sup>5</sup> *Id.* at 2.

The Parties agreed that the portfolio of programs and services for 2008 have an overall projected budget of \$21,015,200 consisting of \$5,341,900 allocated to Residential programs, \$10,281,200 allocated to Large Commercial and Industrial ("C&I") programs, \$4,344,400 allocated to Small C&I programs, \$647,700 allocated to the Company Incentive, and \$400,000 allocated to program design and evaluation.<sup>6</sup> The parties agreed to monitor the programs in order to assess performance and, in the event necessary, to transfer funds among the programs to insure the most effective use of funds. Prior Commission approval is required to transfer funds if such transfer would result in a greater than 20% reduction in a sector budget. The transfer of funds within a sector from one program to another or the transfer of funds that reduce the approved budget of a sector by 20% or less requires prior Division approval. The Company will not be permitted to adjust its incentive target calculations for any transfers between sector budgets except where such budget levels change as a result of the May 2008 True-up filing.<sup>7</sup>

The Parties agreed to continue the eight 2007 residential programs, namely, the EnergyWise Program, Single Family Low Income Services Program, f/k/a Appliance Management Program, ENERGY STAR Heating Program, ENERGY STAR® Central Air Conditioning Program, ENERGY STAR® Lighting, ENERGY STAR® Appliances Program, ENERGY STAR® Homes, and Energy Efficiency Educational Programs sponsored by RIOER and the Community College of Rhode Island ("CCRI"). The

---

<sup>6</sup> *Id.* at 9-10, Attachment 7 p.2.

<sup>7</sup> *Id.* at 10-11.

Parties agreed to expand the ENERGY STAR® Central Air Conditioning Program and to cease rebates for ENERGY STAR thermostats.<sup>8</sup>

The *EnergyWise* program, which provides financial incentives for single family and multifamily home customers to conduct efficiency improvements is not being modified from last year's program. The Company now provides combined services for gas customers, with gas rebates as provided for in Docket No. 3790.<sup>9</sup>

One modification in the Residential program is to the ENERGY STAR® Appliances program. The Parties agreed to increase the rebate requirement to the 2007 ENERGY STAR® standard for clothes washers from a 1.72 Modified Energy Factor ("MEF") to a 1.8 and to increase the rebate for room air conditioners from \$20 to \$30.<sup>10</sup> The ENERGY STAR® Heating Program is also being modified as explained above to discontinue the rebate for ENERGY STAR programmable thermostats.<sup>11</sup>

The Parties agreed to a number of changes to the ENERGY STAR® Central Air Conditioning Program including increased promotions to customers and contractors. Contractors and consumers will receive incentive rebates for purchase and installation of properly sized equipment. Contractors can also receive incentives where installation meets ENERGY STAR Quality Installation standards and where duct modification beyond duct sealing are made for replacing inefficient operative central air conditioners with updated units. Incentives are also available for equipment distributors who process

---

<sup>8</sup> *Id.* at 3, Attachment 2.

<sup>9</sup> *Id.* at Attachment 1 at 1.

<sup>10</sup> Settlement of Parties, Docket No. 3892, November 2, 2007, Attachment 1, 8-9, Attachment 2.

<sup>11</sup> *Id.* at Attachment 2.

the incentive.<sup>12</sup> In the ENERGY STAR® Lighting Program the torchiere rebate is being decreased from \$20 to \$15 and NGrid will encourage recycling of CFL's by retailers.<sup>13</sup>

The ENERGY STAR Homes criteria continues to be more stringent than in previous years. The Company will continue to provide incentives of up to \$2,000 and "Code Plus" incentives for appliances, thermal measures and HVAC, because it is now more difficult for a builder to meet these standards. The Company will provide assistance to builders to help them meet these standards.<sup>14</sup> Finally, the Company will continue to include customer education as part of its DSM program design by sponsoring educational programs for children, builders, contractors and its customers.<sup>15</sup>

The Small Business Services Programs offered in 2007 will continue in 2008 with continued emphasis on greater comprehensiveness and custom treatment for non-prescriptive lighting measure installations in the program. The Parties agreed to reduce the customer rebate to 70% from 75% of the total installed cost of the non-prescriptive lighting measure to make it possible to serve more customers. The Company is not limiting this program to non-prescriptive lighting measures but will include motor and drive power improvements and other custom energy efficiency opportunities. It is also looking to add new technologies to the measures of what is cost effective and reliable.<sup>16</sup>

Within the Large Business Services Program are "Design 2000*plus*" which provides financial incentives and technical assistance to developers for new construction and remodeling projects and "Energy Initiative" which encourages the replacement of existing equipment and systems with energy efficient alternatives. The Parties agreed to

---

<sup>12</sup> Settlement of Parties, Docket No. 3892, November 2, 2007, Attachment 1 at 13-14, Attachment 2.

<sup>13</sup> *Id.* Attachment 1 at 15-17, Attachment 2.

<sup>14</sup> *Id.* at 18-19.

<sup>15</sup> *Id.* at 19-20.

<sup>16</sup> *Id.* at 4, Attachment 3.

changes to the Large Business Services Programs in the areas of Lighting (under Energy Initiative and Design 2000*plus*), HVAC (under Design 2000*plus*) and Advanced Buildings and Comprehensive Design Approach (“CDA”). Changes made to the Lighting Programs will include increasing incentives for new fluorescent recessed and pendant fixtures typically installed in office and classroom spaces by \$5. The HVAC program in Design 2000*plus* may be modified depending on the success of a pilot program being conducted in Massachusetts which will provide for an early replacement initiative which targets existing unitary and split HVAC units, manufactured before 1992, or units that have a field tested efficiency of an EER7.0 or less. There are no changes proposed for Compressed Air or Custom in either program. A two tiered rebate for new construction projects is being offered in the Design 2000*plus*. It will provide rebates for projects that have the potential to save more energy by encouraging design teams and their clients to use even more comprehensive measures to reduce energy use by using designs that are more efficient than those required by code.<sup>17</sup>

The Parties agreed that if certain goals are met, the Company will be entitled to earn a shareholder incentive, thus enabling it to continue providing an incentive to shareholders for their support of programs designed to reduce the Company’s load. The shareholder incentive mechanism will include two components: (1) five performance-based metrics and (2) kWh savings targets by sector. Each of the five performance-based metrics will provide the Company the opportunity to earn up to \$20,000. There are two metrics in the residential sector, two in the Large Business Services/C&I sector and one in the Small Business Services/C&I sector. The Company has agreed to file with the

---

<sup>17</sup> *Id.* at 4-5, Attachment 4. Attachment 5.

Commission the final goals for each metric by September 30, 2008.<sup>18</sup> The essential objective for each of the five metrics is not changing from 2007.<sup>19</sup>

Residential Metric One relates to ENERGY STAR® Homes. In order to meet this metric, the Company must achieve a 3% increase in the penetration of signed builders agreements in 2008 as compared to penetration achieved in 2007. This program was redesigned in 2006 to increase efficiency requirements. The Parties agreed to increase the threshold for this metric by 1 percentage point greater than 2007 year-end penetration and the target level of performance by 3 percentage points over the penetration achieved in 2007 for this program. Penetration levels for 2006 were 15.8% and are tracking at 20.4% for 2007. The Company can earn the full \$20,000 if it achieves the target of 23.4% penetration or a proportional amount for penetration between the threshold and the target.<sup>20</sup>

Residential Metric Two allows the Company to earn \$20,000 if it achieves the target of MWh savings from programs other than Residential Lighting. This metric encourages the Company to focus its efforts equally on all of its residential programs as opposed to predominantly on the Residential Lighting program. This metric has no threshold, and in order to earn the incentive, the Company must establish an annual MWh savings of 3,935 MWh.<sup>21</sup>

C&I Metric One relates to savings other than prescriptive lighting savings in the Energy Initiative Program. Although the percentage of savings from prescriptive lighting has increased in recent years, and as a result, the Company has achieved savings goals,

---

<sup>18</sup> *Id.* at 13-14.

<sup>19</sup> *Id.* Attachment 9 at 9.

<sup>20</sup> *Id.* Attachment 9 at 3-4.

<sup>21</sup> *Id.* Attachment 9 at 4-5. Unlike Residential Metric One, there is no proportional incentive available based on a partial success.

NGrid recognizes that diversity is necessary and thus proposed this performance metric on other subprogram savings. The target of 3,726 MWh must be achieved to receive the incentive of \$20,000. There is no threshold for this program. The metric relies on a target for savings which will provide a clearer target rather than a percentage of program savings, because the prescriptive lighting savings would affect a program savings measure.<sup>22</sup>

C&I Metric Two relates to High Performance Schools where through Design 2000*plus* NGrid will provide full incremental cost for high performance design and construction practices with a focus on high quality, energy efficient lighting. In order to meet the target and receive the \$20,000 incentive, the Company must contract with two more schools than the number contracted with in 2007 through Design 2000*plus*. The Company can earn 50%, or \$10,000, if it contracts with the same number of schools in 2008 as in 2007, or 75%, or \$15,000, if it contracts with one additional school.<sup>23</sup>

C&I Metric Three is related to Comprehensiveness in Small Business Installations. In order to earn the full incentive, the Company must achieve 6 percentage points greater comprehensiveness in Small Business Services in 2008 than the percentage it achieved in 2007. In order to avoid the inclusion of free riders, the Company will exclude from this metric and assessment of its performance the target customers in the 100 kW to 200 kW range who participate in the State's Office of Energy Resources Small Business program. The Company can earn 50% or \$10,000 of the incentive if the

---

<sup>22</sup> *Id.* Attachment 9 at 5-6.

<sup>23</sup> *Id.* Attachment 9 at 7-8.

comprehensiveness percentage is equal to 2007 performance or a proportional increase for percentages between the threshold and target.<sup>24</sup>

The target incentive rate for the kWh savings goal will continue to be 4.40% of the eligible spending budget. The target incentive amount is \$647,689 in 2008, \$100,000 of which is set aside for the performance based metrics. The Company must attain 60% of the annual savings goal, the threshold performance level for energy savings by sector, in order to earn an incentive related to achieved energy savings in each sector. Once threshold savings are achieved for each sector, the Company will have the ability to earn an incentive for each kWh saved up to 125% of target savings.<sup>25</sup> The total maximum incentive that can be earned for kWh savings is \$684,611. This amount, combined with potential incentives of \$100,000, tied to metrics results in a total possible incentive of \$784,611. The threshold, calculated cap, and incentive for a particular sector would require recalculation under three circumstances: 1) if budgets required adjustment as a result of the May 2008 True-up filing, or 2) if the assumptions used to develop savings goals change as a result of completed evaluation studies, or 3) if the actual spending in each sector is greater than or less than the spending budget by more than five percent. None of these circumstances will result in the target incentive dollars associated with the performance metrics being affected.<sup>26</sup>

The cost-effectiveness of the 2008 programs projected by the Company, using the utility/cost test<sup>27</sup>, is 5.22 to 1.00, meaning that for every dollar spent, benefits valued at \$5.22 are expected to be generated. The Parties agreed to use demand reduction induced

---

<sup>24</sup> *Id.* Attachment 9 at 9-10.

<sup>25</sup> *Id.* at 11-12.

<sup>26</sup> *Id.* at 12-13.

<sup>27</sup> The Utility/Cost Test is the benefit/cost test that was in place during 2007.

price effect (DRIPE) in value and cost effectiveness calculations for energy efficiency programs in 2008 while at the same time recognizing its inapplicability to other potential applications of avoided costs and thus to review its applicability for 2009. With regard to reporting requirements, the Company will file its 2007 Year-End Report no later than May 1, 2008. Evaluation results and impacts of the same along with savings goals and metric targets for 2008 will be filed no later than September 30, 2008. The Company will file 2008 metric results, achieved energy savings in 2008 and earned incentives in its Year-End Report for 2008 no later than May 1, 2009.<sup>28</sup>

### **III. People's Power & Light Position**

On November 15, 2007, People's Power & Light ("PP&L") filed an objection to the planned spending levels and budgets proposed by the Settlement Agreement. PP&L suggested that the Commission either order NGrid to continue the programs at the current rates of investment without the budget cuts or consider raising the System Benefit Charge that currently funds the programs by three to four tenths of a mil per kWh for 2008. Should the Commission approve the proposed funding, PP&L requests that improvement of the audit programs should be the priority.

### **IV. Office of Energy Resources Motion to intervene and Position**

On November 16, 2007, the Rhode Island Office of Energy Resources ("OER") filed a Motion to Intervene and objected to the portion of the Settlement of the Parties which relates to forward capacity payments resulting from DSM projects funded by the monies collected through the DSM charge. Specifically, OER objects to NGrid's proposal that all of the forward capacity revenue generated by the DSM projects be returned to the DSM budget. In support of its objection to this proposal, OER notes that

---

<sup>28</sup> *Id.* at 16.

the projects are typically only partially funded by DSM programs and are owned by third parties. OER asserts that any revenue accrued by these projects should be managed by the owners of the projects unless that project owner authorizes NGrid to manage its revenues. Furthermore, OER expressed concern that NGrid has not sufficiently addressed the amount of risk to which ratepayers are exposed in the FCM itself and in NGrid's proposed recovery of various costs associated with FCM sales.

#### **V. Settling Parties Response**

On November 29, 2007, NGrid filed a Response to the Positions of PP&L and OER. In addressing OER's comments regarding its objection to the proposal in the settlement that FCM revenues received by NGrid from ISO-NE be reinvested back into energy efficiency programs on behalf of all Rhode Island ratepayers, NGrid noted that it is not receiving the FCM revenue on behalf of itself but on behalf of all Rhode Island ratepayers. The Company pointed out that these revenues are not being returned to NGrid for its benefit, but are being deposited into an account that is for the future benefit of Rhode Island ratepayers. NGrid maintained that it is entirely reasonable that the savings derived from participating in a particular program be put back into the DSM program to assist future ratepayers achieve a similar benefit. It is the position of NGrid that all customers should benefit equally from the capacity market revenue irregardless of where the projects that created the demand savings were installed.<sup>29</sup>

The Settling Parties believe that the public interest will be best served by reinvesting the revenues from the forward capacity market back into the DSM programs for a number of reasons. First, NGrid is committed to using the revenue on energy efficiency programs whereas, there is no similar commitment obligation from the

---

<sup>29</sup> NGrid Exhibit 2, Settling Parties Response to Comments at 1-3.

individual customers to do the same. Second, the principles of equity and fairness require reinvestment and customers who received a benefit that has been funded by all ratepayers should recognize that other ratepayers should also have the opportunity to benefit. Third, the proposal is flexible and creates more benefits in that NGrid would have access to additional funds to fund more programs. Fourth, the financial incentives provided by the programs are of an amount sufficient to motivate the desired investments as opposed to OER's proposal which would overpay for the same investments by the amount of the revenue that the participant expected to receive from the ISO-NE. Fifth, the proposal maximizes the amount of demand savings that would be reported into the capacity market, because NGrid is able to aggregate the savings from the DSM program participants to exceed the 100 kW threshold required by ISO-NE. Sixth, NGrid is more capable than individual customers of performing the measurement and verification functions that are required by ISO-NE. Finally, the Settling Parties' proposal will result in benefits that accrue to all Rhode Island consumers and remain within the state.<sup>30</sup>

NGrid also responded to OER's assertion that the revenues should be managed by the owners of the projects unless those owners consent to NGrid managing their projects. The Company notes that these management agreements would result in protracted negotiations of a number of issues between NGrid and its customers. Managing and enforcing these agreements over the lives of the projects would prove challenging.<sup>31</sup>

As to OER's concern that NGrid has not sufficiently addressed the amount of risk to which ratepayers are exposed in the FCM itself and in NGrid's proposed recovery of various costs associated with FCM sales, the Company responded that its Settlement

---

<sup>30</sup> *Id.* at 3-5.

<sup>31</sup> *Id.* at 5.

Agreement clearly explains the position on recovery of costs which does not expose the ratepayers to any risks. NGrid notes that the projected revenue from the capacity market for 2008 is \$917,000, while that entire budget of evaluation of which administration, measurement and verification are included is \$400,000. The Settlement Agreement provides for the recovery of “prudently incurred” FCM expenses in the event that revenues are insufficient. Because NGrid proposed to put money aside to handle future year financial assurance claims, it is highly unlikely that customers would pay more than what is authorized by the DSM charge.<sup>32</sup>

In response to the comments submitted by PP&L and the George Wiley Center regarding increasing funding, the Settling Parties note that its proposal is based on the total funding currently available.<sup>33</sup> Additionally, the value for the DSM charge is reasonable given prevailing circumstances at the current time.<sup>34</sup>

## **VI. Hearing**

A public hearing was held at the Commission’s offices, 89 Jefferson Boulevard, Warwick, Rhode Island, on December 14, 2006. The following appearances were entered:

FOR NATIONAL GRID:	Laura S. Olton, Esq.
FOR DIVISON:	William Lueker, Esq. Special Assistant Attorney General
FOR THE OFFICE OF ENERGY RESOURCES:	John McDermott, Esq.
FOR COMMISSION:	Patricia S. Lucarelli, Esq. Chief Legal Counsel

---

<sup>32</sup> *Id.* at 5-6.

<sup>33</sup> On November 15, 2007, Elizabeth Marsis, Operations Manager of the George Wiley Center filed written comments similar to those filed by PP&L. These comments were taken as public comment.

<sup>34</sup> *Id.* at 6.

A panel of witnesses including Jeremy Newberger of NGrid, Sam Krasnow of Environment Northeast, John Farley of The Energy Council of Rhode Island, Bob Fagan of Synapse Energy Economics, the Division's consultant, David Stearns of the Division, Laura McNaughton of NGrid and Michael McAteer of NGrid was presented on behalf of the Settling Parties. Mr. Newberger explained that NGrid has been administering energy efficiency programs in Rhode Island for more than twenty (20) years and that these programs have saved more than \$536 million in energy costs. He explained the programs offered by NGrid and noted that NGrid expects a spending budget for 2008 of approximately 14.7 million that will result in \$81 million in lifetime benefits for Rhode Island customers. Mr. Newberger noted that the funding available for the 2008 programs is less than what was available in 2007 because of a projected negative fund balance being carried into 2008 and because of lower sales forecast for 2008. Mr. Newberger also explained the Settling Parties' position regarding FCM revenues generated by the projects indicating that those revenues should flow back to the DSM account.<sup>35</sup>

Mr. Fagan testified that he reviewed the cost benefit analysis done by NGrid and found that the ratios for the programs were in line with historical ratios, that the benefits from the programs are clear and that the program measures are a reasonable mix of measures. Mr. Stearns testified that it was the position of the Division that the service benefit charge for 2008 should remain at 2 mils per kilowatt hour because of anticipated new charges that ratepayers currently or will in the near future experience in 2008.<sup>36</sup>

Mr. Newberger explained on cross examination that the forward capacity market is designed to provide reliable capacity to the power grid in New England. He noted that

---

<sup>35</sup> Transcript of December 4, 2007 hearing ("Tr.") at 8-18.

<sup>36</sup> *Id.* at 18-21.

the projected 9,200 kilowatts that NGrid projects as reduced consumer demand will be eligible to participate in the FCM. He further explained that because the first power year does not begin until 2010, nothing has been installed to deliver capacity or put in place to meet ISO New England measurement and verification standards. He noted that NGrid has a large customer base, upon which it can rely on sampling, to help lower evaluation costs on a per site basis, while the individual customer does not have this option. He testified that it is to the advantage of the Rhode Island consumers for FCM revenue to go back to the DSM programs, enabling more money to be spent on energy efficiency and less to be spent on measurement and verification. Mr. Newberger went on to explain in detail ISO New England's requirements regarding financial assurances for capacity.<sup>37</sup>

Mr. Newberger pointed out that if a customer does not participate in NGrid's DSM program by obtaining rebates and incentives offered and chooses to pay for the entire cost of a project, that customer could use the energy efficiency savings from that project and participate in the FCM. If that were to happen, NGrid would not claim those savings for reinvestment into its energy efficiency programs. He noted that projects that accept a rebate would not have been done if no rebates were offered, and the NGrid rebates are designed to incentivize customers to install the energy efficiency measure. Mr. Krasnow also noted that the rebates are designed to overcome a customer's financial barriers to making the decision to install energy efficiency measures. Furthermore, the rebate money taken by the percentage of customers who participate in the programs was generated by all ratepayers and the next set of customers should be served with the benefits that are created in the forward capacity market.<sup>38</sup>

---

<sup>37</sup> *Id.* at 21-36.

<sup>38</sup> *Id.* at 42-50.

Mr. Newberger and Mr. Fagan also pointed out that in addition to the rebates received by the customers who participate in the programs, those customers also receive a number of other benefits, including comfort benefits, productivity benefits and reduced error defects. Mr. Newberger noted that when considering all of the benefits the customers receive from participating in the programs, the forward capacity market payments are only a small part of the total benefits that are generated from the energy efficiency programs. Mr. Krasnow again emphasized that the customer makes the decision to either engage in energy efficiency projects on their own behalf and apply for FCM savings or they can participate in the DSM system-wide program and receive a rebate that is paid for by all ratepayers. In the event that the customer receives the rebate paid by all customers, they commit to having the efficiency savings that can be bid into the FCM market flowed back to all ratepayers. This is what is occurring in other states in New England.<sup>39</sup>

#### **IV. Commission Findings**

The Commission recognizes the Company's continued efforts and diligence in designing and implementing the DSM programs and recognizes its commitment to energy conservation. NGrid's efforts to provide services in an efficient manner are evident by its thorough and complete review of existing programs and its modifications to those programs to reflect customer need. The 2008 filing makes improvements to existing programs, such as expanding on its Central Air Conditioning Program, modifying its Appliances Program, and adjusting incentive amounts to allow for more

---

<sup>39</sup> *Id.* at 53-70.

customers to participate in rebate programs which should continue to spark new and continued ratepayer interest.

Further, the Commission believes that the forward capacity revenues realized from the energy efficiency measures implemented by customers belong to all ratepayers who fund NGrid's DSM programs and that those revenues should be reinvested into the DSM programs. Customers have the choice to either accept the financial incentives funded by all ratepayers or to forego those incentives and implement energy efficiency measures at their own cost. Should these customers choose not to participate in NGrid's DSM program(s) and to forego any rebate or financial incentive offered by NGrid and funded by all ratepayers, those customers are free to apply for the FCM payments. However, if those customers choose to take advantage of the financial incentives offered by NGrid and funded by all ratepayers, it is only fair that all ratepayers who helped fund the energy efficiency measures implemented by those customers receive a benefit from the FCM payments. The Commission accepts the Settling Parties' judgment that the value for the DSM charge is reasonable given prevailing circumstances.

At an Open Meeting held on December 20, 2007, the Commission voted unanimously to approve the Settlement as filed with regard to the 2008 Programs and associated budget, finding them to be in the best interest of the NGrid's ratepayers. The Commission endorsed the 2008 DSM Programs, noting that they were similar to the 2007 DSM Programs.

Accordingly, it is hereby

(19179) ORDERED:

1. The Settlement filed by NGrid on behalf of the Parties to this docket dated November 2, 2007, is hereby approved.
2. A Conservation and Load Management Adjustment and Renewable Factor of \$0.0023 per kilowatt-hour is hereby approved for usage on and after January 1, 2008 through December 31, 2008. NGrid shall apply \$0.0020 per kilowatt-hour to its demand side management programs and shall submit an amount equal to \$0.0003 per kilowatt-hour to the State Office of Energy Resources Renewables Programs.
3. NGrid shall file its proposed 2009 programs and budget no later than October 15, 2008, or the parties shall file a Settlement no later than November 1, 2008 regarding proposed 2009 programs and budget. In the event of a direct non-settled filing by NGrid, responsive pleadings shall be made no later than November 1, 2008.
4. The Parties shall act in accordance with all other findings and instructions contained in this Report and Order.

EFFECTIVE AT WARWICK, RHODE ISLAND, PURSUANT TO OPEN  
MEETING DECISION ON DECEMBER 20, 2007. WRITTEN ORDER ISSUED  
JANUARY 17, 2008.

PUBLIC UTILITIES COMMISSION



*Elia Germani*  
Elia Germani, Chairman

*Robert B. Holbrook*  
Robert B. Holbrook, Commissioner

*Mary E. Bray*  
Mary E. Bray, Commissioner

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
PUBLIC UTILITIES COMMISSION

Docket No. 3892

## SETTLEMENT OF THE PARTIES

## TABLE OF CONTENTS

I. Introduction.....	1
II. 2007 Program Status.....	2
III. 2008 DSM Programs.....	2
A. Residential Programs .....	3
B. Small Business Services Program.....	4
C. Large Business Services Programs .....	4
IV. Budgets and Funding Sources.....	5
A. 2008 DSM Program Funding Sources .....	5
B. Budgets .....	9
C. Transferring of Funds .....	10
V. Continuation of the Collaborative.....	11
VI. Incentive.....	11
VII. Miscellaneous .....	14
A. Cost-Effectiveness .....	14
B. Summary of Reporting Obligations .....	16
C. Other Miscellaneous Provisions .....	17

## **ATTACHMENTS**

1. 2008 Residential Programs
2. Summary of Proposed Changes to Residential Programs for 2008
3. 2008 Small Business Services Program
4. 2008 Large Business Services Programs
5. Summary of Proposed Changes to the Large Business Services and Small Business Services Programs for 2008
6. DSM Funding Sources in 2008 by Sector
7. 2008 Proposed Budget and 2008 Proposed Budget vs. 2007 True-Up Budget
8. Derivation of the 2008 Spending Budget for Shareholder Incentive Calculation and Target 2008 Shareholder Incentive
9. 2008 Performance Metrics
10. Calculation of 2008 Program Year Cost-Effectiveness and Goals
11. Electric and Other Fuel Avoided Costs for Rhode Island

1     **I.       Introduction**

2     This Stipulation and Settlement (“Settlement”) is jointly submitted and entered into by  
3     the Rhode Island Division of Public Utilities and Carriers (“Division”), The Energy  
4     Council of Rhode Island (“TEC-RI”), Environment Northeast (“ENE”), and The  
5     Narragansett Electric Company, d/b/a National Grid (“National Grid” or “Company”)  
6     (together, the “Parties”), and addresses all issues raised by members of the DSM  
7     Collaborative<sup>1</sup> concerning the Company’s electric Demand-Side Management (“DSM”)  
8     Programs for the year 2008.

9

10    A DSM collaborative group has been meeting regularly since 1991 to analyze and inform  
11    the Company’s electric DSM programs. Since 1997, the Company has been offering its  
12    programs pursuant to statute, R.I.G.L. 39-2.1-2(b).

13

14    Prior stipulations and settlements have set forth the criteria for the Company’s electric  
15    DSM programs, including that the DSM programs: (1) be as cost-effective as possible;  
16    (2) serve a large number and broad mix of Rhode Island customers; (3) maximize long-  
17    term savings; (4) capture potential lost opportunities for efficiency improvement; (5)  
18    promote market transformation; and (6) support long-term electricity supply and  
19    reliability objectives. In addition to these goals, the Parties have included an increased  
20    emphasis on services for low and moderate income residential consumers as a means of  
21    helping these consumers deal with high fuel prices.

22

23    Over time, in response to customer feedback obtained through public forums and  
24    elsewhere, the DSM Collaborative has worked to enhance programs for customers by  
25    improving the efficiency and quality of energy-efficient products, expanding services to

---

<sup>1</sup> Members of the Collaborative presently include the Company, the Division, the Rhode Island Office of Energy Resources (OER), TEC-RI, ENE, and Energy Consumers Alliance of New England d/b/a People’s Power and Light (“PP&L”). The constitution of the Collaborative has varied since 1991, as some organizations have withdrawn and others have joined. While the OER and PP&L have participated in the negotiations regarding the 2008 programs, they are not parties to the Settlement.

1 customers, and becoming more involved in statewide and regional initiatives. Demand  
2 for energy efficiency program services continues to be strong across all sectors.

## 4 **II. 2007 Program Status**

5 The Company has been working throughout 2007 to implement approved electric energy  
6 efficiency programs for all customer segments subject to the budget included in the  
7 Settlement filing of November 1, 2006, in Docket No. 3779, which was approved by the  
8 Commission in Order 18858 on February 5, 2007. The Company expects to achieve the  
9 goals outlined in the Settlement filing while not exceeding approved budgets.

10  
11 While spending and commitments approximate budgeted amounts, they are expected to  
12 exceed available funding in the year, due to lower than expected sales in 2007, which will  
13 result in a negative fund balance by year-end 2007<sup>2</sup>. As a result, some of the expenses  
14 and commitments in 2007 are expected to be funded by DSM collections in 2008.

15  
16 The Company will file its Year-End Report regarding the 2007 electric DSM programs  
17 no later than May 1, 2008.

## 18 19 **III. 2008 DSM Programs**

20 The DSM programs for 2008 build on the momentum and success of prior electric DSM  
21 programs and services, offering energy efficiency opportunities to all customer segments,  
22 with a focus on providing needed services to low and moderate income residential  
23 consumers as a means of reducing bills. In addition, the Company will continue to  
24 integrate the delivery of electric energy efficiency programs with its natural gas

---

<sup>2</sup> As shown in Attachment 6, the Company currently projects that the fund balance at year end 2007 will be (\$1,288,600). This negative fund balance indicates that funding sources in 2007 are expected to be somewhat below levels projected when the 2007 Settlement was prepared.

1 efficiency programs where practical. The Parties agree to the Company's 2008 electric  
2 DSM Programs described below<sup>3</sup>:

3  
4 **A. Residential Programs**

5 In 2008, the Parties agree to continue the residential programs offered in 2007.  
6 These programs include the *EnergyWise* Program, the Single Family Low Income  
7 Services Program (formerly known as the Appliance Management Program),  
8 ENERGY STAR Heating Program, ENERGY STAR® Central Air Conditioning  
9 Program, ENERGY STAR® Lighting, ENERGY STAR® Appliances, and  
10 ENERGY STAR® Homes. Descriptions of these programs are provided in  
11 Attachment 1. A summary of the proposed changes from 2007 are provided in  
12 Attachment 2. Highlights of proposed program changes for 2008 include  
13 expansion of the ENERGY STAR® Central Air Conditioning Program and  
14 cessation of rebates for ENERGY STAR® thermostats.

15  
16 In order to ensure that residential customers are aware of the Company's energy  
17 efficiency programs, Company staff will continue to participate in consumer  
18 education seminars sponsored by the Office of Energy Resources and/or the  
19 Community Colleges of Rhode Island (CCRI) as it has done in 2007.

20  
21 The Collaborative wants customers who have difficulty paying their electric bills  
22 to participate in the Company's energy efficiency programs, especially in these  
23 times of escalating energy prices. Several of the Company's proposed programs  
24 provide these customers with services that are designed to help reduce their  
25 electric bills, including the Single Family Low Income Services Program, the  
26 *EnergyWise* Program, and the ENERGY STAR Homes Program. The Single  
27 Family Low Income Services Program provides qualifying low-income customers  
28 in 1-4 unit dwellings with energy efficiency services. Both low-income and non  
29 low-income residential customers receive services through the *EnergyWise*

---

<sup>3</sup> Throughout the program year, the Parties may consider additional enhancements beyond those identified herein as more information becomes available to support an informed review of those potential changes.

1 Program and the ENERGY STAR Homes Program. Additional detail about the  
2 services offered to economically disadvantaged customers is set forth in  
3 Attachment 1.

4  
5 **B. Small Business Services Program**

6 The Parties agree to continue the Small Business Services Program in 2008 with  
7 continued emphasis on increasing the penetration of non-prescriptive lighting  
8 measure installations in the program. A description of the Small Business  
9 Services Program, including expected changes from 2007, is provided in  
10 Attachment 3. For 2008, the Company proposes to reduce the customer rebate  
11 from 75% of the total installed cost of a measure to 70%. The Company  
12 anticipates that this change will not adversely affect the overall subscription of the  
13 program and will make it possible to serve more customers. Also, during 2008,  
14 the Company will continue to integrate the delivery of its gas energy efficiency  
15 programs with Small Business Services

16  
17 **C. Large Business Services Programs**

18 The Parties agree to continue the Energy Initiative and Design 2000*plus* Programs  
19 in 2008. In 2008, the Company intends to build on its experience promoting  
20 better energy performance in commercial facilities through a number of  
21 programmatic changes. The Company will continue to promote best practices in  
22 sustainable building design through our Advanced Buildings program and offers a  
23 great opportunity to seamlessly integrate our gas and electric energy efficiency  
24 offerings in the new construction market. The Company is offering a two tiered  
25 rebate for new construction projects that rewards projects that have the potential  
26 to save more energy. Other initiatives may focus on targeting for replacement  
27 older unitary and split HVAC systems. More details about these changes, as well  
28 as continuing program efforts, are available in Attachment 4. A summary of

proposed changes and process improvements to these programs is provided in Attachment 5.

#### **IV. Budgets and Funding Sources**

##### **A. 2008 DSM Program Funding Sources**

The sources of funding for the 2008 electric DSM Programs are shown in Attachment 6. The Parties agree that the 2008 budget should continue to be funded from the following sources: (1) the statutory-based DSM charge of \$0.002 per kWh; (2) interest expected to be accrued on the fund balance during the year due to timing differences for collections compared to expenditures; (3) funds expected to be received from Small Business Program co-payments<sup>4</sup> and from large Commercial and Industrial technical assistance co-payments<sup>5</sup> in 2008; (4) Large C&I commitments from 2007<sup>6</sup>; (5) carryover of the 2007 fund balance, if any, and (6) revenue generated by programs' demand savings during the transition period leading up to the start of ISO-New England's (ISO-NE) Forward Capacity Market (FCM), as explained below. The projected funding amounts are also shown in Attachment 6.

As shown in Attachment 6, the Company currently projects that the fund balance at year end 2007 will be (\$1,288,600). This negative fund balance indicates that funding sources in 2007 are expected to be below levels projected when the 2007 Settlement filing was prepared.

---

<sup>4</sup> The Company provides Small Business customers with the opportunity to finance their share of project costs. The Small Business co-pays identified on Attachment 6 refer to the projected amount of funds customers are expected to repay to the Company in calendar year 2008.

<sup>5</sup> The Company typically pays the full cost of technical assistance studies for Large Commercial and Industrial program participants and then bills the customer for their share of the technical assistance study cost. The Large Commercial and Industrial co-pays shown on Attachment 6 reflect the projected amount of technical assistance study funds expected to be repaid by customers in 2008.

<sup>6</sup> As directed by the Commission, the Company encumbers current funding to cover the expected cost of projects it has agreed to fund although those projects will be completed after the current program year.

1

2       The projected 2008 budget for DSM programs is dependent on a number of  
3       projections that inform the amount of funding, including projections of kWh sales  
4       of electricity, year-end 2007 large commercial and industrial program  
5       commitments, transition period capacity payments received from ISO-NE, and a  
6       projection of year-end 2007 spending. With a November 2007 filing date for this  
7       Settlement, the Company believes it has a good understanding of expected year-  
8       end spending and commitments as it develops a projection of available funding  
9       for the coming year.

10

11       However, if the actual 2007 year-end fund balance causes available funding to  
12       vary by more than 20% compared to the projected funding included in this  
13       Settlement, the Company will prepare a true up filing by May 31, 2008. This true  
14       up filing, if necessary, would require Commission approval. If the year-end fund  
15       balance does not cause the projection of available funding to vary by more than  
16       20%, no action by the Company will be required and the goals established in this  
17       Settlement filing will be in place for all of 2008. If there is a true up filing, the  
18       Company will be permitted to adjust the projected spending budgets and savings  
19       goals in the shareholder incentive calculation in accordance with the funding  
20       adjustments.

21

#### 22               1. ISO-NE Capacity Market Revenue

23       Effective June 16, 2006, the Federal Energy Regulatory Commission  
24       (FERC) approved a Settlement Agreement that addresses the future  
25       capacity needs of New England. As part of that Settlement, ISO-NE: (1)  
26       developed rules that will govern a new Forward Capacity Market (FCM)  
27       that will begin operation June 1, 2010, and (2) developed rules which will  
28       govern the transition period -- from June 16, 2006, through May 31, 2010  
29       -- leading up to the start of the FCM. Under the terms of these rules,

1 energy efficiency measures installed after June 16, 2006, and which can be  
2 demonstrated to be operational during hours of peak electrical usage, are  
3 eligible to receive capacity payments through May 31, 2010. The FCM  
4 payments for 2008 in Attachment 6 are projected transition period  
5 capacity payments from measures through the Company's programs from  
6 June 16, 2006 through November 30, 2008<sup>7</sup>.

7  
8 The Company and the Parties recommend that kW demand savings  
9 achieved via these energy efficiency programs continue to be reported by  
10 the Company to ISO-NE as Other Demand Resources (ODR) during the  
11 transition period through 2008, as they were in 2007, consistent with the  
12 Settlement Agreement approved by the Commission in Order No. 18858.  
13 All ISO-NE capacity payments received will be used to supplement the  
14 energy efficiency program budgets. This treatment of the demand  
15 resources and the revenues generated recognizes that the savings result  
16 from program efforts that are funded by all customers. The demand  
17 savings being submitted to ISO-NE would not have occurred in the  
18 absence of the Company's energy efficiency programs. Further, by  
19 reinvesting in the programs the capacity payments received from ISO-NE,  
20 these supplemental revenues create a multiplier effect that benefits all of  
21 Rhode Island's consumers. In order for the Company to deliver the  
22 demand savings to ISO-NE's capacity market<sup>8</sup> on behalf of its customers,  
23 individual customers who participate in the energy efficiency programs in  
24 2008 must continue to agree to forego any ISO-NE capacity payments  
25 associated with projects completed with the assistance of energy  
26 efficiency program rebates and allow the Company to report kW savings  
27 and collect the payments for reinvestment. This is fully consistent with

---

<sup>7</sup> According to transition period rules, demand savings for a month is based on the performance of measures installed through the end of the prior month. Therefore, December 2008 savings will be based on measures installed through the end of November.

<sup>8</sup> This applies to both the transition period before the opening of the FCM, and the FCM itself, see footnote 9.

1 the Settlement Agreement approved by the Commission for 2007 DSM  
2 efforts.

3  
4 The transition period continues through May 31, 2010, at which time the  
5 FCM is expected to open. The first Forward Capacity Auction will be in  
6 February 2008. The Company has qualified a resource of 25.8 MW for  
7 this auction, representing the demand reduction from approximately 3  
8 years of energy efficiency programs from May 2007 through May 2010<sup>9</sup>.  
9 The Company has already begun to incur costs to facilitate its  
10 participation in the FCM. These costs include: (1) administrative costs;  
11 and (2) compliance with increased measurement and verification standards  
12 that meet ISO-NE reliability requirements. The Parties fully agree that the  
13 Company should recover all prudently incurred FCM expenses from ISO-  
14 NE capacity payment revenue generated by the demand savings from  
15 efficiency programs represented by the Company. The Company expects  
16 that capacity payments received from the ISO-NE will exceed its  
17 administrative and M&V compliance costs of participation in the FCM  
18 and will result in additional funds being made available to fund efficiency  
19 programs for customers. If these participation costs exceed the capacity  
20 payments, the Parties agree that the Company may recover its prudently  
21 incurred costs from the energy efficiency program fund. (The Parties  
22 reserve the right to examine the actions and expenses of the Company to  
23 ensure that only prudently incurred expenses are deducted from ISO-NE  
24 capacity payments or the energy efficiency program fund.)

25  

---

<sup>9</sup> Even though specific electric energy efficiency programs have not been approved by the Commission beyond December 31, 2007, National Grid submitted its qualification package based on the legislative authority for energy efficiency program funding that continues through 2012 and the knowledge that participation would generate revenue that would benefit all Rhode Island consumers. The demand savings qualified to bid into Forward Capacity Auction 1 assume that the Company will continue to submit all demand savings secured through these programs to ISO-NE. The Company acted in good faith, based on the policy established by the Settlement of the Parties for 2007, which was approved by the Commission.

1 In addition, as part of the FCM, all qualified auction participants are  
2 required to post Financial Assurance to provide security that the promised  
3 resource will deliver the promised MW at the promised time.<sup>10</sup> If, as a  
4 result of circumstances beyond the control of the Company<sup>11</sup>, the  
5 Company is unable to provide all or a portion of the megawatts of capacity  
6 proposed in its qualification packages and capacity auction bids, some or  
7 all of the financial assurance monies would be forfeited. Accordingly, the  
8 Parties agree that the Company should recover all prudently incurred  
9 Financial Assurance expenses from ISO-NE capacity payments generated  
10 by the demand savings represented by the Company or the energy  
11 efficiency program fund<sup>12</sup>, similar to the procedures described above for  
12 administrative and M&V compliance costs.

13  
14 **B. Budgets**

15 The Parties agree that the portfolio of DSM programs and services for 2008 will  
16 have an overall projected budget of approximately \$21 million. The Parties agree  
17 to segment the budget into three sectors: residential, small commercial and  
18 industrial, and large commercial and industrial. Proposed sector and program  
19 budgets are provided in Attachment 7. A comparison of these proposed budgets  
20 to the 2007 budget filed with the Commission on November 1, 2006, in the  
21 Settlement filing is also provided in Attachment 7. Due to lower available  
22 funding relative to 2007, the Company anticipates scaling back the  
23 implementation of some programs in 2008, particularly in the Residential sector,

---

<sup>10</sup> Since the Company was able to qualify its bid as an existing resource rather than a new resource (because of its activity during the transition period), ISO-NE has notified the Company that it will not be required to post security for Forward Capacity Auction 1. However, the Company will be required to post security for all future capacity auctions.

<sup>11</sup> Such circumstances may include legislative action to alter the DSM charge or discontinue the Company's authority to implement the energy efficiency programs underlying the Qualifications Package, or a Commission decision limiting the Company's role in bidding the demand savings acquired through program efforts into the FCM.

<sup>12</sup> Beginning in 2009, the Company plans to propose setting aside a small portion of the program budget as a contingency fund to cover future Financial Assurance claims that result from the Company's inability to meet its obligation to deliver demand savings due to circumstances beyond its control.

1 the sector that had the largest projected negative fund balance. The proposed  
2 distribution reduces the budget for some Residential programs by as much as 35%  
3 relative to 2007.

4

5 The Parties agree that the Company should make every attempt to spend or  
6 commit all the funds available for DSM in the year, including any increases in the  
7 fund balance due to increased sales or other factors. The Parties also agree to  
8 review the status of program budgets regularly to assess whether they are likely to  
9 come to a successful completion. If not, the Parties agree to review the  
10 advisability of transferring funds to other programs where the money could be  
11 more effectively used.

12

13 **C. Transferring of Funds**

14 The Parties will regularly review the amount of funds needed and available for  
15 each program (as well as any changes to the overall fund balance, as discussed in  
16 Section IV.A above) and will transfer monies as needed. The Parties propose to  
17 use the same methodology that has been used since 2001 for the transfer of funds  
18 from one program to another, or from one sector to another. Transfers during the  
19 program year may occur as follows:

- 20 1. Within a sector, the Company can transfer funds from one program to  
21 another with prior approval by the Division.
- 22 2. From one sector to another, the Company can transfer funds so long as  
23 the transfers from a sector reduce the approved budget for that sector  
24 by 20% or less. Division approval is required. Transfers that would  
25 reduce a sector's budget by more than 20% in aggregate (over the  
26 course of the program year) will require Commission approval.

27

28 For transfers requiring Division, but not Commission, approval, the Parties will  
29 inform the Commission about all the transfers, both between sectors and within

1 sectors, in a timely fashion. The Company will not be permitted to adjust its goals  
2 or incentive target calculations for any transfers between sector budgets except as  
3 described in Section IV.A above.

4  
5 **V. Continuation of the Collaborative**

6 The Parties agree that the Collaborative shall meet no less than six times in 2008 to  
7 review the status and performance of the Company's 2008 DSM programs and advise on  
8 potential energy efficiency programs for 2009.<sup>13</sup>

9  
10 **VI. Incentive**

11 The shareholder incentive mechanism applicable to Company DSM efforts in 2008  
12 follows the incentive mechanism applicable to the 2007 program year, which was  
13 approved by the Commission in its Order No. 18858 issued February 5, 2007. The  
14 shareholder incentive mechanism will continue to include two components: (1) kWh  
15 savings targets by sector and (2) performance-based metrics.

16  
17 **A. kWh Savings**

18 The Parties have agreed to retain a target incentive rate of 4.40% in 2008 applied  
19 to the eligible spending budget for 2008. The projected spending budget for 2008  
20 is approximately \$14.7 million (see Attachment 8, page 1 of 2). The total target  
21 incentive for 2008 is 4.40% of the approved spending budget, or approximately  
22 \$648,000 (see Attachment 8, page 2 of 2). Of this total, \$100,000 will be the  
23 target incentive for the performance-based metrics and the remainder will be for  
24 the kWh savings target.

25  

---

<sup>13</sup> In 2006, the Rhode Island General Assembly enacted several initiatives which are likely to change the scope of electric and gas energy efficiency programs in Rhode Island after 2008. The role of the Collaborative beyond 2008 is yet to be determined. The Collaborative will continue to monitor these initiatives and respond accordingly to advance the deployment of energy efficiency in Rhode Island in 2008 and beyond.

1 The threshold performance level for energy savings by sector will remain at 60%  
2 of the annual energy savings goal for the sector. The Company must attain at  
3 least this threshold level of savings in the sector before it can earn an incentive  
4 related to achieved energy savings in the sector. The Company will have the  
5 ability to earn an incentive for each kWh saved, once threshold savings for the  
6 sector are achieved, up to 125% of target savings. The incentive per kWh saved  
7 by sector is provided in Attachment 8 page 2 of 2.

8

9 The incentive cap on energy savings will be equal to 125% of the target incentive  
10 amount for energy savings. If the Company achieves this level of exemplary  
11 performance, Rhode Island consumers will realize additional savings. Given  
12 budget control requirements, this will provide the Company with an incentive to  
13 improve the efficiency of its program implementation efforts while providing  
14 Rhode Island consumers with value in excess of the incremental incentive that  
15 may be earned by the Company.

16

17 Attachment 8, page 1 of 2, provides the derivation of the eligible spending budget  
18 that is used to determine the amount of the incentive that the Company may earn  
19 if it is successful in achieving its goals for both energy savings and performance  
20 metrics. Attachment 8, page 2 of 2, provides a summary of the incentive related  
21 to performance metrics and the incentive related to annual energy savings goals  
22 by sector. Energy savings goals by sector reflect the expected cost of savings in  
23 each sector informed by evaluation studies and have been adjusted to take into  
24 account changing rebate policies and the changing market being served. These  
25 goals have been carefully reviewed by the Collaborative to ensure that they  
26 represent reasonable and challenging goals for the year.

27

28 There are three circumstances that would necessitate the recalculation of the  
29 threshold, calculated cap, and incentive for a particular sector.

- 1           1. If budgets are adjusted as a consequence of a true up filing in May  
2           2008 (only under the condition that the actual 2007 year end fund  
3           balance deviates from projections by more than 20%, as described  
4           above, and only then with Commission approval), the threshold and  
5           incentive for the affected sectors will be adjusted as will each sector's  
6           incentive caps.
- 7           2. If the assumptions used to develop savings goals change as a result of  
8           evaluation studies completed by September 30, 2008, the Company  
9           will recalculate savings goals to account for those evaluation findings  
10          and will report actual savings on the same basis.
- 11          3. If the actual spending in a sector at year end is greater than or less than  
12          the spending budget by more than five percent, the savings goal for  
13          that sector will be adjusted by the ratio of actual spending to the  
14          spending budget.

15  
16          None of these changes will affect the target incentive dollars associated with  
17          performance metrics. The Company will report program results compared to  
18          these revised budgets and goals in its Year-End Report regarding 2008 DSM  
19          Program efforts.

## 20 21          **B.      Performance Metrics**

22          The Parties have agreed to the inclusion of five performance-based metrics for  
23          2008. These metrics include two that relate to the Residential sector, one that  
24          relates to the Small Commercial and Industrial sector, and two that relate to the  
25          Large Commercial and Industrial sector. Each of the proposed performance-  
26          based metrics is provided in Attachment 9. The Parties agree that the Company  
27          will have the ability to earn \$20,000 for each performance metric it successfully  
28          achieves in 2008 with an opportunity to earn a portion of the incentive for

1 partially achieving goals for three of the metrics as shown in Attachment 9. The  
2 total potential incentive for performance metrics is capped at \$100,000.

3  
4 Attachment 9 includes a framework for establishing the goals for the proposed  
5 metrics based on currently available information. As detailed in Appendix 9, the  
6 Company, with agreement of the Parties, will file with the Commission no later  
7 than September 30, 2008, a supplement to this Settlement that provides final goals  
8 for each metric. Finalizing the numeric performance targets at a later date will  
9 have no impact on the shareholder incentives established for these performance-  
10 based metrics. If the Parties are unable to reach agreement about the specific  
11 performance goals, the Company reserves the right to file recommended goals  
12 with the Commission for its approval by September 30, 2008.

## 13 14 **VII. Miscellaneous**

### 15 **A. Cost-Effectiveness**

16 The Company has projected cost-effectiveness for the proposed 2008 programs  
17 using the Utility Cost Test, which is the benefit/cost test that was in place during  
18 2007. It takes into account program costs compared to the value of the electric  
19 savings expected to be created in the programs over the expected life of those  
20 savings.

21  
22 The value of other resource benefits has also been included in the analysis of  
23 expected benefits from program efforts. In this case, the other resource benefits  
24 include expected fuel and water savings that are incremental to the electricity  
25 savings expected through the electric efficiency programs.

26  
27 The Parties agree to review alternatives to the current Utility Cost Test for use in  
28 2009. An alternative to the current benefit/cost test may be appropriate given the

1 introduction of least-cost procurement practices required by the 2006 Act, the  
2 Regional Greenhouse Gas Initiative, and other energy policy objectives in Rhode  
3 Island.

4

5 Attachment 10 provides the calculation of 2007 program year cost-effectiveness  
6 and goals based on the proposed budgets. Attachment 10, page 1 of 3, shows that  
7 the proposed portfolio of programs is expected to have a benefit/cost ratio of 5.22  
8 which means that \$5.22 in benefits are expected to be created for each \$1 invested  
9 in the programs.

10

11 The cost-effectiveness analyses of the proposed programs use updated avoided  
12 energy supply costs. These updated values for electricity and other resources  
13 were developed by Synapse Energy Economics as part of a 2007 study that was  
14 sponsored by all electric DSM program administrators in New England, as well as  
15 some gas program administrators. They reflect current and expected market  
16 conditions and are highly influenced by the increasing cost of fossil fuels and  
17 expectations about ISO-NE's emerging forward capacity market. Company-  
18 specific transmission and distribution capacity values have also been updated to  
19 reflect recent data on costs and peak loads. The new avoided energy supply costs  
20 are shown in Attachment 11. The 2007 avoided cost study is being provided  
21 electronically with this Settlement.

22

23 The avoided costs include the demand reduction induced price effect (DRIPE)  
24 benefits that are projected to result from the installation of energy efficiency  
25 measures in 2008. These benefits occur when the retail price of electricity is  
26 reduced as a result of the reduced long term demand for electricity stemming from  
27 the installation of energy efficiency measures. Some amount of DRIPE benefits  
28 have been counted in Rhode Island since 2006. While some Collaborative  
29 members have expressed concern about whether DRIPE represents a real benefit

1 to Rhode Island consumers, the Parties have agreed to include DRIPE in value  
2 and cost effectiveness calculations for energy efficiency programs in 2008.

3  
4 The Parties further agree that DRIPE is not currently applicable to other potential  
5 applications of avoided costs, such as least cost planning. The Parties agree to  
6 review the applicability of DRIPE for 2009, in light of future developments in the  
7 New England wholesale market after one auction has been held, developments in  
8 the Rhode Island retail market (particularly Least Cost Procurement, and the  
9 extension of Standard Offer), and perhaps other developments as well.

10  
11 **B. Summary of Reporting Obligations**

- 12 1. The Company will provide quarterly reports to the Division and the  
13 Commission on the most currently available program performance.  
14 These reports will include a comparison of budgets and goals by  
15 program to actual expenses and savings on a year-to-date basis, as  
16 well as information about the number of customers who may be  
17 waiting for energy efficiency program services.
- 18 2. The Company will provide to the Parties and file with the  
19 Commission its 2007 Year-End Report no later than May 1, 2008.
- 20 3. The Company will provide to the Parties a summary of evaluation  
21 results together with a memorandum summarizing the impact of  
22 those results on the Company's 2007 programs no later than  
23 September 30, 2008.
- 24 4. The Company will file with the Commission updated savings goals  
25 and metric targets for 2008, reflecting the results of completed  
26 evaluation studies, no later than September 30, 2008.
- 27 5. The Company will report on 2008 metric results, achieved energy  
28 savings in 2008, and earned incentives in its Year-End Report for  
29 2008, to be filed no later than May 1, 2009.

C. **Other Miscellaneous Provisions**

1. Other than as expressly stated herein, this Settlement establishes no principles and shall not be deemed to foreclose any Party from making any contention in future proceeding or investigation.
2. This Settlement is the product of settlement negotiations. The content of those negotiations is privileged and all offers of settlement shall be without prejudice to the position of any Party.
3. Other than as expressly stated herein, the approval of this Settlement by the Commission shall not in any respect constitute a determination as to the merits of any issue in any other proceeding.

The Parties respectfully request the Commission approve this Stipulation and Settlement as a final resolution of all issues in this proceeding.

Respectfully submitted,

THE NARRAGANSETT ELECTRIC COMPANY D/B/A  
NATIONAL GRID



11/1/2007

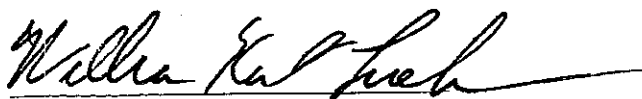
---

Laura S. Olton, Esq.

Date

-18-

1 RHODE ISLAND DIVISION OF PUBLIC UTILITIES AND  
2 CARRIERS  
3

4 

5 By its Attorney  
6 William K. Lueker, Esq.  
7 Special Assistant Attorney General

Date: November 1, 2007

8

-19-

1

2

## THE ENERGY COUNCIL OF RHODE ISLAND

3

4

5

John Farley 11/1/2007

John Farley Date

-24-

1

2

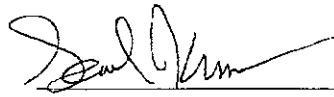
3

4

5

6

ENVIRONMENT NORTHEAST

 10/31/07

Samuel Krasnow

Date



## **2008 RESIDENTIAL PROGRAMS**

The Company proposes a comprehensive set of residential energy efficiency programs for implementation in 2008. Proposed program changes for 2008 are summarized in Attachment 2.

### **Residential Programs**

The Company is proposing to implement a broad range of energy efficiency programs for its residential customers. These programs are designed to provide energy efficiency opportunities to the diverse segments of residential customers in the state, including homeowners and renters, low-income and moderate income consumers, and those constructing new homes. These programs all include a component of consumer education to help the customer to better understand how to control and manage energy costs. The Residential programs planned for implementation in 2008 are described below.

#### **1. *EnergyWise* Program**

##### **Overview**

First offered in 1998, this program provides efficiency improvements in existing multifamily and single-family homes. It offers customers free home energy audits of their homes and information on their actual electric usage. Participants in this program receive financial incentives for cost effective measures to replace inefficient lighting fixtures, appliances, thermostats, and insulation levels with models that are more energy efficient. The program now provides combined services for gas customers, with gas rebates described in Docket 3790.

## **Eligible Population**

All residential customers in 1-4 unit buildings are eligible to participate. Multifamily facilities of five or more units are eligible if they have not previously participated in the program in the past five years. The Company proposes to serve 2,962 customers (dwelling units) through the *EnergyWise* program in 2008.

## **Program Design**

The program is certified by the Environmental Protection Agency as a “Home Performance with ENERGY STAR®” program. This allows the program to use the ENERGY STAR name for marketing purposes, and ensures that the program meets high health and safety standards. The energy audit looks at the house as a system, so that the customer can consider all energy efficiency measures as well as occupant health and safety.

The program is marketed through direct contact with interested customers and owners, property owners’ associations, bill inserts, customer newsletters, the National Grid website, as part of the new Gas Energy Efficiency programs, and other methods. There is often a waiting list for multifamily program services, though the program is usually able to serve customers within the year the participation request is made.

Eligible customers and/or building managers or associations receive a comprehensive energy audit, energy education, and the installation of low cost efficiency measures (e.g. hot water measures, air sealing for electrically heated buildings, compact fluorescent lightbulbs) at no direct cost. The contractor puts major measures out to competitive bid in facilities that have greater than twenty units. Major measures include lighting upgrades, electric heat thermostats, replacement of inefficient refrigerators, heat pump testing and upgrades, duct sealing and insulation for electrically heated buildings. The

1 Company will pay 75% of the cost of any needed insulation in electrically heated homes.

2 The Company will provide incentives of \$200-\$300 to encourage customers to replace  
3 inefficient refrigerators. The Company does not require a co-payment for lighting  
4 installed in the living units of multifamily buildings in order to avoid lost opportunities.

5  
6 The program also offers low interest loans for customers who live in one to two unit  
7 facilities to install additional weatherization, including insulation and air sealing. These  
8 loans are available to customers with homes heated by electricity, oil, propane, and wood,  
9 regardless of their level of electric use.

10  
11 The Company will make an up-front payment to write down the interest on an unsecured  
12 loan. It will plan to provide funds to lower the interest rate to approximately six percent.  
13 The Company may adjust the loan rate during the year to respond to market conditions  
14 and customer demand. The participating bank will determine loan approval.

15  
16 The *EnergyWise* program also services Public Housing Authority properties and other  
17 low income multifamily buildings. Depending on income eligibility of the tenants, co-  
18 payments may be reduced or waived for these larger facilities. If the facility is 50% or  
19 more low income, co-payments are waived on all measures except refrigerators. There is  
20 no copayment required on any measure for Public Housing Authorities or other low  
21 income state and federally funded facilities. Elderly housing projects are eligible to  
22 participate through the *EnergyWise* program and many have participated. Over the last  
23 five years, Narragansett Electric has served over 9,700 low income dwelling units  
24 through the *EnergyWise* program.

25  
26 Low Income customers living in 1-4 unit buildings will be served by the Single Family  
27 Low Income Services Program described below.

## 2. Single Family Low Income Services

### Overview

Electric and heating bills are typically a big burden to low income customers, who often pay a high percentage of their income to cover these bills. Customers who are unable to pay are at great risk for shut-off of services. All customers bear these costs through paying for collection and shut-off visits and the write off of bad debt. Efforts to lower energy bills for low-income customers benefit them directly and all ratepayers indirectly.

### Eligible Population

Customers who are eligible for the Low Income Heating Assistance Program (LIHEAP)<sup>1</sup>, also known as fuel assistance, and live in 1-4 unit buildings, are eligible for this program<sup>2</sup>. There is no co-payment requirement. Over the last five years, Narragansett Electric has served over 4,400 low income dwelling units through single family low income program offerings. The Company proposes to serve 806 customers (dwelling units) in 2008.

The Collaborative and Company want customers who have difficulty paying their electric bills to receive assistance from the energy efficiency programs. While the average savings of \$140 per year through the electric measure component of the program may not be enough to help these customers avoid shut-off, it will certainly provide some assistance and increased control of electric usage. The Collaborative and the Company believe the targeted approach described below is the best way to reach these at risk customers.

---

<sup>1</sup>The federal government has set an income level, tied to the median income of each state, which defines the uppermost income boundary for LIHEAP participation. Individual states have some flexibility in defining income eligibility as long as it is not set above the federally defined maximum. Eligibility in this program will track the eligibility for LIHEAP set by the State of Rhode Island.

1 In 2008, the Company will continue to work with the Office of Energy Resources (OER)  
2 to offer services to low income customer addresses where shut-offs have occurred. In  
3 2005, the Company identified approximately 1,400 addresses where shut-offs have  
4 occurred and electric usage was at least 10 kWh per day in the non-heating months. The  
5 Company provided electronic mailing lists and labels for outreach to these customers and  
6 the local agencies contacted the customers. Depending on the area, about ten to fifteen  
7 percent of customers contacted requested services through the program. For 2008, the  
8 Company will provide an updated list and encourage local agencies to make follow-up  
9 outreach phone calls to targeted customers.

#### 11 **Program Design**

12 The Company contracts with the Rhode Island Office of Energy Resources (OER) and  
13 local weatherization agencies for the delivery of energy efficiency services to eligible  
14 customers. OER will continue to maintain a list of eligible clients who are qualified for  
15 low income services who have requested services and are not yet scheduled to be served.

16  
17 The agencies delivering program services focus on both electric energy efficiency  
18 opportunities and selected non-electric energy efficiency opportunities. Electric measures  
19 are identified through a comprehensive review of the customer's electric bill, existing  
20 appliances, and electric use patterns. The Single Family Low Income Services Program  
21 provides for the installation of ENERGY STAR refrigerators and lighting, and cost-  
22 effective custom measures to replace inefficient equipment and help lower customers'  
23 electric bills. In addition, the Company installs electric water heating energy efficiency  
24 measures at no cost for participating customers.

---

<sup>2</sup> In previous years, this program was known as the Appliance Management Program (AMP).

1 The Company also funds weatherization work for these customers in one to four unit  
2 homes where the primary heating fuel is electricity, oil, propane or wood. This funding  
3 supplements federal dollars received by the Office of Energy Resources (OER) for  
4 weatherization work. In 2005 the Company also began to fund oil heating system  
5 replacements through the OER and plans to continue this in 2008.<sup>3</sup> The new hot water  
6 and air heating systems are required to meet Federal weatherization program guidelines  
7 and have an Annual Fuel Use Efficiency (AFUE) of at least 80%. Installed steam systems  
8 have a minimum efficiency of 82%. The Company proposes to continue to work with  
9 local Community Action Agencies and the OER to provide no-cost services to income  
10 eligible customers in 1-4 unit facilities.

11  
12 The program is marketed through direct contact with eligible customers. One marketing  
13 effort consists of contacting, by mail and/or telephone, customers subscribing to  
14 Narragansett Electric's low income rates who have not previously received program  
15 services. Another important marketing focus is direct marketing by the OER and local  
16 CAP agencies to customers it serves through state, federal, or local low income programs.

### 17 18 **Low Income Services through the EnergyWise Program**

19 As noted above the EnergyWise Program also services Public Housing Authority  
20 properties and other low income multifamily buildings. Depending on income eligibility  
21 of the tenants, co-payments may be reduced or waived for these larger facilities. If the  
22 facility is 50% or more low income, co-payments are waived on all measures except  
23 refrigerators. There is no co-payment required on any measure for Public Housing  
24 Authorities or other low income state and federally funded facilities. Elderly housing  
25 projects are eligible to participate through the EnergyWise Program and many have

---

<sup>3</sup> Natural gas-fired systems are not eligible for replacement under this program. There are other programs, including those sponsored by the Company, that cover gas-fired systems.

participated. Over the last five years, Narragansett Electric has served over 9,700 low income dwelling units through the *EnergyWise* Program.

#### **Low Income participation in the ENERGY STAR Homes Program**

The Company works closely with the Rhode Island Housing and Mortgage Finance Corporation (“Rhode Island Housing”)<sup>4</sup> and developers of affordable housing in Rhode Island to encourage participation in the ENERGY STAR Homes program. Currently Rhode Island Housing encourages developers to build to ENERGY STAR Home standards. About 30% of the homes completed each year through the ENERGY STAR Homes program are for low income families.

The table below summarizes the Company’s history in serving low income customers and proposed low income services for 2008.

#### **Projected Low-Income Participation in 2007 Programs and Participation History**

Program	2008 projected participants	Percentage of Total Participants in 2008	Number of low income participants 2002-2006
Single Family Low Income	806	100%	4,402
EnergyWise	240	8%	9,724
ENERGY STAR Homes	133	40%	679

#### **Projected Low-Income Expenditures in 2008 Programs and Expenditure History**

Program	2008 Proposed Low Income Expenditures	Percentage of Total Budget	Low Income Spending for years 2002-2006
Single Family Low Income	\$1,475,100	100%	\$6,239,746
EnergyWise	\$320,000	18%	\$3,791,340
ENERGY STAR Homes	\$285,000	40%	\$1,314,868

<sup>4</sup> Rhode Island Housing’s mission is “to ensure that every person who lives or works in Rhode Island can afford a safe, healthy home that meets their needs.” ([www.rihousing.com](http://www.rihousing.com)) As such, they have some influence in many of the arenas that are targeted by the Company’s low income services programs.

### 3. ENERGY STAR® Appliances

#### Overview

ENERGY STAR® is the national program sponsored by the United States Department of Energy and the Environmental Protection Agency to promote energy efficient products to help reduce energy use and prevent air pollution. Energy efficient choices can save families about a third on their energy bill with similar savings of greenhouse gas emissions, without sacrificing features, style or comfort.

This program is part of a regional joint effort by utilities and energy efficiency organizations to encourage the purchase of ENERGY STAR rated major appliances. These appliances include clothes washers, dishwashers, refrigerators, dehumidifiers, and room air conditioners (RAC). Manufacturers build their products to meet or exceed energy efficiency performance specifications established by ENERGY STAR. Together with manufacturers, local retailers, the DOE, and EPA, the Company works to help identify and promote the purchase of these high efficiency appliances to its customers.

#### Eligible Population

All residential customers are eligible to participate. The Company proposes to serve about 3,750 customers in 2008.

#### Program design

The program provides retailer support, training, advertising, consumer education, codes and standards review and advocacy, and manufacturer labeling. For 2008 the Company proposes to continue to provide consumer education on these products and continue to offer rebates for ENERGY STAR clothes washers and room air conditioners. The Company proposes to increase the clothes washer rebate of \$50 and increase the

1 efficiency requirement to receive that rebate. To be eligible for the rebate, clothes  
2 washers will need to meet the ENERGY STAR requirements, and also have a modified  
3 energy factor (MEF) of 1.8 or better. MEF is a measurement of how effective the  
4 clothes washer is at removing water from clothing. The higher the MEF, the less time the  
5 dryer has to run in order to dry clothes, which is a large energy saver. The most recent  
6 ENERGY STAR standard, which went into effect on January 1, 2007, requires ENERGY  
7 STAR Clothes Washers to have an MEF of 1.72 or greater. Continuing the rebate will  
8 encourage consumers to choose ENERGY STAR and encourage manufacturers to  
9 provide products that exceed the ENERGY STAR standard.

10  
11 The Company proposes to increase the room air conditioner rebate to \$30, and it may be  
12 paid directly to industry partners rather than to consumers. The Company, and other  
13 sponsors in Vermont and Massachusetts, have issued a request for proposal to work with  
14 manufacturers and retailers directly to encourage increased stocking of ENERGY STAR  
15 room air conditioners on retail shelves. Customer purchase behavior is largely influenced  
16 by what air conditioners are available for purchase at local retailers. It may be that  
17 working directly with industry partners is more effective than direct consumer rebates in  
18 increasing the market share of ENERGY STAR room air conditioners. The rebates may  
19 be adjusted to ensure coordination with regional and national program efforts and to  
20 reflect changing Rhode Island market conditions.

21  
22 An important part of the program is educating customers about ENERGY STAR. The  
23 Company sponsors media advertising that promotes ENERGY STAR and specific  
24 ENERGY STAR promotions. Additionally, the retail stores are an integral channel for  
25 promoting ENERGY STAR. The Company prints and distributes a wide variety of point-  
26 of-purchase materials and signs for display in retail stores. The Company also supports  
27 cooperative advertising with retailers in various print and newspaper channels. The

1 Company also develops media stories and public relations opportunities about ENERGY  
2 STAR.

3  
4 A nationwide study of consumers' awareness of ENERGY STAR labeling is conducted  
5 annually. The most recent study, "National Awareness of ENERGY STAR for 2006 –  
6 Analysis of CEE Household Survey" indicates that the existence of utility sponsored  
7 programs increases the awareness of ENERGY STAR products. National recognition of  
8 the ENERGY STAR label in high-publicity areas (areas with an active local ENERGY  
9 STAR program sponsored by a utility, state agency, or other organization for two or more  
10 continuous years) was 63% compared to 45% in low-publicity areas. When the ENERGY  
11 STAR label is shown, the aided recognition in high-publicity areas rises to 75% and in  
12 low-publicity areas the value increases to 61%. The Company will inform the  
13 Collaborative about future awareness study results.

#### 16 **4. ENERGY STAR® Heating Program**

##### 17 **Overview**

18 A typical residential customer spends approximately 44% of his or her energy budget on  
19 heating and cooling. To address heating costs, the ENERGY STAR Heating Program will  
20 continue to provide ENERGY STAR heating system rebates.

##### 22 **Eligible Population**

23 Residential customers who purchase ENERGY STAR Heating Systems fueled by oil or  
24 high efficiency gas or oil furnaces with high efficiency fans in their existing home are  
25 eligible to participate in this program. The Company proposes to serve about 423  
26 customers in 2008. About 352 of these customers will receive heating system rebates and  
27 about 71 will receive ECM motor rebates.

## **Program Design**

The Company will continue to offer incentives to customers who purchase ENERGY STAR Heating Systems that are fueled by oil. We will market the program through, contact with air conditioning/heating equipment contractors, our website and word of mouth. In order to encourage higher efficiency and positively reinforce market changes, the Company proposes to continue the rebate in 2008 for ENERGY STAR oil heating systems at \$200. The efficiency requirements are an Annual Fuel Use Efficiency Rating (AFUE) of at least 85% for forced hot air systems, at least 85% for forced hot water systems, and at least 82% for steam systems. In 2008, oil-fired forced hot air systems are also required to be equipped with an electronically commutated permanent magnet (ECM) motor.

For 2008 the Company proposes continuing an incentive of \$200 for high efficiency gas furnaces equipped with an advanced ECM motor or equivalent energy saving furnace fan (blower) motor, subject to budget limitations. ECM motors in gas or oil furnaces save about 600 kWh of electricity per year for consumers. New Rhode Island minimum efficiency standards for residential furnaces and boilers may go into effect as early as January 1, 2008. The Collaborative will monitor any developments in this area.

## **5. ENERGY STAR® Central Air Conditioning Program**

### **Overview**

As noted previously, a typical residential customer spends approximately 44% of his or her energy budget on heating and cooling. To address cooling costs, the ENERGY STAR Central Air Conditioning Program provides funding to offer ENERGY STAR central air conditioning system rebates.

1 In 2002, the Company participated in a joint study of HVAC market conditions and  
2 efficiency potential in Rhode Island, Connecticut, and Massachusetts. The study  
3 identified several key target markets including residential customers who are in the  
4 market to purchase central air conditioning (AC) or heat pump systems, residential  
5 customers with existing air conditioning systems, and HVAC technicians responsible for  
6 servicing and installing this equipment. The market research estimates that  
7 approximately 4,200 Rhode Island customers are purchasing replacement or new central  
8 air conditioners each year. Recent customer surveys by the Company indicate that about  
9 23% of Rhode Island residences, or about 95,000 customers, have central air  
10 conditioning.

11  
12 The market research documented that energy savings opportunities exist due to the  
13 improper design and installation practices of residential AC contractors. Inadequacies  
14 documented include over-sizing of systems overall, undersizing of the air distribution  
15 system, failure to obtain proper refrigerant charge, and inadequate duct sealing.  
16 Significant savings are also available from existing air conditioning systems in  
17 customers' homes, where the same conditions of improper refrigerant charge and airflow  
18 are common.

19  
20 **Eligible customers**

21 Any residential customer installing, servicing or replacing a central air conditioning or  
22 heat pump system in an existing home is eligible to participate. Incentives for ENERGY  
23 STAR heating and cooling are included in the ENERGY STAR Homes program for new  
24 construction. The Company plans to continue ENERGY STAR equipment rebates at the  
25 \$300 level and further expand the scope of program measures and proposes to serve 620  
26 customers in 2008.

1 The ENERGY STAR specification and the Federal standard for manufacturing central air  
2 conditioning systems changed to require 13 Seasonal Energy Efficiency Ratio (SEER) as  
3 of January 23, 2006. The previous requirement was 10 SEER.

#### 5 **Program design**

6 The Company began the program in the fall of 2002. The Company has provided  
7 rebates to customers for properly installed ENERGY STAR central air conditioning and  
8 heat pump systems in existing homes in 2003 throughout 2006. In February of 2006 the  
9 program merged with the COOL SMART program in Massachusetts in order to reduce  
10 administrative and marketing costs. This also provides consistency for HVAC contractors  
11 and distributors which operate in both states.

12  
13 In 2008 the Company proposes to continue equipment incentives with an incentive  
14 corresponding to the ENERGY STAR specification level of 14 SEER with 11.5 EER and  
15 8.2 HSPF for heat pumps. The Company plans to offer rebates that are consistent with  
16 those offered throughout the region. The following is a summary of the Company's  
17 proposed tiers and rebate levels for 2008, which are subject to change to be consistent  
18 with the regional program:

- 19
- 20 • \$300 consumer rebate for the purchase and installation of high-efficiency central  
21 air conditioning equipment and air source heat pump condensers that meet or  
22 exceed the ENERGY STAR minimum standard SEER rating of 14, EER of 11.5,  
23 and HSPF of 8.2 (for heat pumps only) OR
  - 24 • \$400 consumer rebate for the purchase and installation of properly sized  
25 equipment of SEER 14, EER of 12 or higher
  - 26 • \$100 incentive to contractors when customers receive a \$400 rebate where the  
27 equipment has been properly sized
  - 28 • \$400 incentive to contractors where installation meets the new ENERGY STAR  
29 Quality Installation standard OR
  - 30 • \$1,100 incentive to contractors where installation meets the new ENERGY STAR  
31 Quality Installation standard and duct modifications beyond duct sealing are made

- 1 • \$500 incentive to contractors for replacing inefficient operating central air
- 2 conditioners which are 10 to 15 years old with ENERGY STAR rated units
- 3 • \$40 incentive for equipment distributors who process the incentive on behalf of
- 4 the customer and contractor
- 5 • Corrective Sizing - \$50 per ½ ton of down sizing to the contractor and \$50 per ½
- 6 ton to the customer for replacement systems. The system must be sized to match
- 7 ASHRAE manual J sizing or the measured system airflow of the existing
- 8 ductwork.
- 9 • Third party verification of optimal refrigerant charge and system air flow can be
- 10 performed for any new equipment installation regardless of SEER. The
- 11 contractor incentive for this “system commissioning” is \$175.
- 12 • Customers receive a \$100 instant credit on their bill from the HVAC contractor
- 13 for the digital check-up when it is part of work done associated with a tune-up or
- 14 repair of an eligible unit from a participating contractor who must be QIV listed.
- 15 • A contractor incentive of up to \$175 will be provided to cover the \$100 customer
- 16 instant credit and \$75 to cover contractor cost associated with the digital check-up
- 17 provided the unit passes or meets exception condition where at least charge with
- 18 respect to airflow is within acceptable parameters.
- 19 • A contractor incentive of \$1 per CFM of duct leakage reduction. Typically this is
- 20 expected to average 100 CFM per home that receives this measure.

21

22 The new incentives have been added to encourage consumers and contractors to

23 implement improvements that create the greatest electricity savings and decrease to the

24 region’s demand peak. Recent program recommendations from the U.S. Environmental

25 Protection Agency (EPA) and the Air Conditioning Contractors of America (ACCA)

26 include ensuring that the air flow across the indoor coil has been measured and set to

27 correct levels, that ducts are sealed and sized directly, and that the refrigerant charge is at

28 correct levels. For homes where the duct system is currently not operating properly,

29 fixing the ductwork provides additional kW savings.

30

31 These measures are proposed to further support market transformation towards the

32 coming ENERGY STAR and recently adopted ACCA Quality Installation standard. The

33 extra incentive for duct modifications is to offset costs involved in a particularly difficult

34 aspect of that standard. It is critical to provide incentives directly to contractors to

1 reimburse them for the additional costs associated with this work, and also to underline  
2 the importance of these advanced installation practices.

3  
4 The Company has focused its efforts on both customer education and outreach via bill  
5 inserts, fact sheets, and targeted mailings to high users in summer months; contractors'  
6 education and outreach via phone calls, mailings, one-on-one meetings, trainings on  
7 technical issues, usage of sizing software, and up-selling to high efficiency equipment;  
8 and working closely with contractors to encourage participation in the program and  
9 installing the air conditioning systems properly.

10  
11 Although new central air conditioning equipment that is properly sized and operating is  
12 critical to the energy efficiency of the equipment, HVAC technicians do not, as a  
13 standard practice, perform all the needed calculations and tests. The Company has  
14 assisted technicians by providing hands-on training and technical support on third party  
15 verification of charge and airflow of systems.

16  
17 In 2008, the Company proposes to continue activities to educate customers and  
18 contractors, to promote installation quality, and to offer the third party verification of the  
19 results for central air conditioning tune-ups, including incentives for customers and  
20 contractors.

## 21 22 **6. ENERGY STAR® Lighting**

### 23 **Overview**

24 This program is designed to support the development, introduction, sales, promotion, and  
25 use of ENERGY STAR residential lighting products. The Company has provided rebates  
26 and actively promoted energy efficient residential lighting since 1991. In 1998,  
27 Narragansett Electric joined with other electric utilities in the region through the

1 Northeast Energy Efficiency Partnerships (NEEP) to offer a common residential lighting  
2 program to its customers.

### 3 4 **Eligible Customers**

5 All residential customers are eligible to participate in this program. The Company  
6 proposes to serve about 51,650 lighting customers. While this program has been  
7 available for a number of years, there are still significant opportunities to encourage  
8 customers to use ENERGY STAR lighting. An evaluation study conducted in  
9 Massachusetts in 2006 found that 11% of all sockets are filled with Compact Fluorescent  
10 Lighting (CFL), indicating that a large market potential for energy efficient lighting still  
11 exists in customer homes. The Company believes the penetration of CFLs in Rhode  
12 Island is similar to the penetration in Massachusetts.

### 13 14 **Program Design**

15 For 2008 the Company proposes to continue offering its residential lighting programs as  
16 part of the regional joint efforts. The program offers customers the opportunity to  
17 purchase compact fluorescent bulbs (CFL) and fixtures at substantial discounts.  
18 Customers have several options for program participation, including redeeming instant  
19 rebate coupons for qualifying products purchased in participating retail stores, purchasing  
20 reduced price products at retailers where the manufacturer has received a rebate from the  
21 Company and passed on the discount directly to retailers and consumers, using the mail  
22 order catalog, and making website purchases.

23  
24 The Company will continue to work with manufacturers and retailers to offer a good mix  
25 of standard, innovative, and specialized CFL product. CFL rebates will be offered in the  
26 \$1 - \$4 range, depending on the style and technology of the bulb (standard, dimmable, 3-  
27 way, etc.).

1 The Company has found that the “Negotiated Cooperative Promotions” (NCPs) through  
2 NEEP are an excellent way to lower rebate costs and encourage retailers and  
3 manufacturers to pay for marketing and promotion through their regular channels. Active  
4 promotions in 2007 have included retailers: Stop and Shop, Rocky’s, Benny’s, BJ’s,  
5 Shaw’s, Whole Foods, and Home Depot. Manufacturers who have participated in  
6 Negotiated Cooperative Promotions include: General Electric, Osram Sylvania, TCP,  
7 Maxlite, Feit, and Globe. In 2008, the Company will also investigate cooperative efforts  
8 to retailer(s) to recycle CFLs.

9  
10 The Company proposes to continue rebates for ENERGY STAR fixtures and torchieres.  
11 Rebates will be \$10 for exterior fixtures and \$15 for interior fixtures, table lamps, and  
12 floor lamps and torchieres. Rebates on fixtures and bulbs may be adjusted to ensure  
13 coordination with regional and national program efforts and to reflect changing Rhode  
14 Island market conditions. The Company will also continue to work directly with lighting  
15 showrooms to encourage the promotion of high efficiency, high fashion residential CFL  
16 fixtures. The Company will continue to support local retailers with promotional  
17 materials (signs, coupons, displays) training, and regular sales visits.

## 18 19 20 **7. ENERGY STAR® Homes**

### 21 **Overview**

22 The ENERGY STAR Homes Program is part of the national energy efficiency campaign  
23 first developed in 1998 by the Environmental Protection Agency (EPA) and United States  
24 Department of Energy (DOE). Rhode Island was one of the first states to adopt this  
25 program. The homes are designed, site inspected, and performance-tested to achieve a  
26 home energy rating which helps consumers differentiate between efficient homes and  
27 standard homes.

1

**2 Eligible Population**

3 Anyone building a home in Rhode Island can participate, regardless of type of heating  
4 fuel. The Company plans to serve 335 customers through this program in 2008 .

5

**6 Program Design**

7

8 For 2008, National Grid will continue to offer three program options that  
9 builders/homeowners can choose. The first option, the "Performance Path", is similar to  
10 the previous program and requires a HERS rating to qualify. Any builder hoping to  
11 access the \$2,000 Federal tax incentive must use this path. The second option is the  
12 "Builder Option Package" (BOPs) that allows a builder to qualify as ENERGY STAR by  
13 agreeing to install specific equipment and meeting certain measured performance  
14 standards. For both these options, incentives of \$250 to \$2,000 will be available to  
15 builders depending on the new house characteristics and the level of efficiency achieved.  
16 The third option is called "Codes Plus". In this option, the builder will receive specific  
17 incentives for energy efficiency improvements above Code requirements.

18

19 The "Codes Plus" option is for builders who are learning how to achieve the new more  
20 rigorous ENERGY STAR standards and may not be able to achieve the ENERGY STAR  
21 standards immediately. The Codes Plus option ensures that homeowners will receive  
22 energy efficiency upgrades above the code during the transition period of the new  
23 program. The incentives will be in two categories: Thermal Measures/Practices and  
24 Heating/Ventilation/Air Conditioning. The incentives are designed to ensure that a  
25 builder would not receive more money through this path than through the other two  
26 paths. Typically, the builder would only be eligible for one of these; otherwise, the house  
27 would meet ENERGY STAR standards. . An incentive of up to \$1,500 will be available  
28 for the Thermal Measures including CFLs, Air Sealing, Insulation, ENERGY STAR

1 windows, and mechanical ventilation. An incentive of up to \$1,500 will be available for  
2 HVAC upgrades including CFLs, Duct Sealing, High Efficiency Heating Systems, ECM  
3 Motors, Indirect Water Heating, High Efficiency Air Conditioning, and Quality  
4 Installation Verification.

5  
6 National Grid will provide training and technical assistance to builders to help them meet  
7 these standards. Additionally, in order to help builders with the program transition, the  
8 Company plans to offer rebates for specific energy measure upgrades including duct  
9 sealing, high efficiency furnaces, blower door verified air tightness and mechanical  
10 ventilation, high efficiency air conditioning, and lighting upgrades.

#### 11 12 **Low Income participation in the ENERGY STAR Homes Program**

13 The Company works closely with Rhode Island Housing and developers of affordable  
14 housing in Rhode Island to encourage participation in the ENERGY STAR Homes  
15 program. Currently Rhode Island Housing encourages developers to receive ENERGY  
16 STAR Home certification. About 30% of the homes completed each year through the  
17 ENERGY STAR Homes program are for low income families. The Company also plans  
18 to continue to work with Rhode Island Housing and the Rhode Island Office of Energy  
19 Resources (OER) to support the energy efficiency of Rhode Island's affordable housing  
20 programs.

### 21 22 **8. Energy Efficiency Educational Programs**

#### 23 **Overview**

24 All the residential energy efficiency programs include customer education as a primary  
25 element of the program design. In addition, the Company also sponsors educational  
26 programs for children and young adults who are among Rhode Island's future ratepayers,  
27 builders, and contractors. The budget for educational programs includes three

components described below, including a new component that provides general education to all customers about low cost energy efficiency actions they can take.

#### **Eligible Population**

The first two energy efficiency educational initiatives are targeted toward students. All residential customers can benefit from the public education initiative.

#### **Program Design**

The three programs are described in detail below.

##### **a) National Energy Education Development (NEED) Project**

The National Energy Education Development (NEED) Project is a nonprofit education association that works with thousands of schools nationwide to promote an energy conscious education. NEED is a strategic partner of Rebuild America and **EnergySmart Schools**, programs of the U.S. Department of Energy. NEED creates networks of students, educators, and business, government and community leaders to design and implement objective energy education programs. The Rhode Island EnergySmart Schools program includes educational materials for kindergarten to twelfth grade that provide comprehensive, objective information about energy production and consumption, the major energy sources, and their impact on the environment, economy, and society. Services offered include kits and curriculum for students from kindergarten through high school, student/teacher training programs, workshops, and conferences, a summer camp program, scholarships to national energy educational conferences, and youth awards.

##### **b) ENERGY STAR Homes Vocational Schools Initiative**

The Company currently works with all nine Rhode Island Career and Technical schools on this initiative: Chariho, Coventry, Cranston, Davies, East Providence, Hanley,

1 Newport, Warwick, and Woonsocket. It provides training to vocational school students  
2 on building ENERGY STAR homes. These homes are then sold as affordable housing.

3  
4 Originally, only Woonsocket and Warwick were participating in the program. In the past  
5 year, the other schools were encouraged to participate in cooperation with the Skill USA  
6 national competition for vocational schools. Working with the Woonsocket Area Career  
7 and Technical Center, the Community College of Rhode Island, and the Rhode Island  
8 Builders Association, the Company sponsored a Rhode Island Energy Efficient Building  
9 Competition to help students improve performance in the national competition. In  
10 preparation, on-site training was provided at all schools on energy efficient building  
11 practices. The Company will continue this outreach effort because it will improve  
12 Rhode Island's energy efficiency for years to come.

13  
14 **c) Public Education Initiative**

15 During 2008, the Collaborative will discuss whether and how to continue the Company's  
16 public education effort to promote energy conservation during times of high energy costs.  
17 This may include an advertising campaign to educate customers about low cost steps they  
18 can take to lower their electric bills and giving customers a contact number and/or  
19 website to get more information about energy efficiency programs and additional low  
20 cost energy saving tips.



## SUMMARY OF PROPOSED CHANGES TO RESIDENTIAL PROGRAMS FOR 2008

Program	Changes
EnergyWise	<ul style="list-style-type: none"> <li>No changes</li> </ul>
Low Income Services	<ul style="list-style-type: none"> <li>No changes</li> </ul>
ENERGY STAR® Appliances	<ul style="list-style-type: none"> <li>Increase the modified energy factor requirement for the clothes washer rebate to 1.8 MEF and increase the rebate to \$50.</li> <li>Increase the room air conditioning rebate to \$30 and implement an upstream incentive program with retailers and manufacturers</li> </ul>
ENERGY STAR Heating	<ul style="list-style-type: none"> <li>Discontinue incentive for ENERGY STAR thermostats.</li> </ul>
COOL SMART  ENERGY STAR Central Air Conditioning and Heat Pumps	<ul style="list-style-type: none"> <li>\$400 consumer rebate for the purchase and installation of properly sized equipment of SEER 14, EER of 12 or higher</li> <li>\$100 incentive to contractors when customers receive a \$400 rebate where the equipment has been properly sized</li> <li>\$400 incentive to contractors where installation meets the new ENERGY STAR Quality Installation standard OR</li> <li>\$1,100 incentive to contractors where installation meets the new ENERGY STAR Quality Installation standard and duct modifications beyond duct sealing are made</li> <li>\$500 incentive to contractors for replacing inefficient operating central air conditioners which are 10 to 15 years old with ENERGY STAR rated units</li> <li>\$40 incentive for equipment distributors who process the incentive on behalf of the customer and contractor</li> </ul>
ENERGY STAR Lighting	<ul style="list-style-type: none"> <li>Decrease torchiere rebate from \$20 to \$15</li> <li>Encourage recycling of CFLs by retailers through cooperative activity</li> </ul>
Energy Efficiency Educational Programs	<ul style="list-style-type: none"> <li>No changes</li> </ul>
ENERGY STAR Homes	<ul style="list-style-type: none"> <li>No changes</li> </ul>



**2008 SMALL BUSINESS SERVICES PROGRAM**

**Overview**

For over ten years, this program has provided direct retrofit installation of energy efficient lighting, refrigeration and other energy efficient measures to small commercial and industrial customers.

**Eligible Population**

Any customer with an average monthly demand of less than 200 kW or annual energy usage of less than 483,600 kWh is eligible for this program.

**Program Design**

The Small Business Services Program offers incentives for the installation of energy efficient fluorescent ballasts, lamps, and fixtures; hard-wired and screw-in compact fluorescent systems; high intensity discharge systems; occupancy sensors; programmable thermostats; hot water pump time clocks; and refrigeration measures such as evaporator fan controls, efficient evaporator fan motors, automatic door closers and door heater control devices for walk-in coolers. The Company arranges the equipment purchase through a material vendor and installation with an administrative contractor. Starting in 2004 the Small Business Program was expanded to create broader program depth and appeal to customers by offering the potential to deliver more comprehensive energy efficiency opportunities. This expansion provided customers the benefit to build on their potential energy savings by examining a broader array of energy efficient opportunities outside the current available measures.

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 3**

**Page 2 of 2**

1 The Company is currently integrating the delivery of this program with its gas energy  
2 efficiency programs. The progress of this integration will be shared with the  
3 Collaborative.

4

5 For 2008, the company proposes to reduce the rebate from 75% to 70%. SBS continues  
6 to be a strong performer and discussions with our vendor suggest that we might be able to  
7 gain more savings with less spending by increasing the co-pay to roughly 5% that would  
8 provide approximately \$200,000 additional funding for more projects in future years.  
9 This would leave us with an incentive structure of 70% incentive and 30% customer co-  
10 pay.

11

12 Most rebates cover 70% of both labor and material costs. Customers may finance the  
13 remainder for up to 24 months interest-free through their electric bill. If customers pay  
14 their portion up front, they receive a 15% discount off the amount due.

15

16 In 2008, the Small Business Services program will continue to offer a broad selection of  
17 comprehensive measures. While potential for significant energy savings in small  
18 business rests on improving lighting energy use, the proposed improvements to the  
19 program support more comprehensiveness in customers' facilities and build on the  
20 experience gained from delivering these services in prior years. These additional energy  
21 efficiency measures will include but not be limited to non-prescriptive lighting measures,  
22 motor and drive power improvements and other custom energy efficiency opportunities.

23

24 Also for 2008, the company is looking at adding an emerging technology piece to SBS to  
25 begin examining other new technologies such as LED's lighting technologies to the mix  
26 of eligible measures once proven to be both cost effective and reliable.



**2008 LARGE BUSINESS SERVICES PROGRAMS**

**1. Design 2000*plus***

**Overview**

Offered to commercial and industrial customers since 1988, Design 2000*plus* encourages energy efficiency in new construction, renovations, remodeling, and replacement of failed equipment through financial incentives and technical assistance to developers, customers and design professionals. Financial incentives reduce the cost barrier to investing in efficiency. Technical assistance reduces barriers to more efficient design by providing education to participants in the use of energy-efficient engineering practices. During 2008, the Company will continue to integrate the delivery of Design 2000*plus* with our gas program offerings. Newly constructed buildings in particular offer the greatest opportunity to integrate all gas and electric energy efficiency offerings.

**Eligible Population**

Design 2000*plus* is available to all non-residential customers, but is generally appropriate for customers with more than 100 kW in demand<sup>1</sup>. It is available for new construction and remodeling projects such as a new building, expansion or renovation of an existing building, change in the use or function of the building space, new equipment for a new process or expanded operation, replacement of failed equipment, or planned replacement of equipment.

---

<sup>1</sup> The increase in the ceiling for Small Business Services program eligibility to 200 kW in 2004 has not impacted the Design2000*plus* program, since this program focuses on lost opportunity measures, rather than retrofit measures.

1    **Program Design**

2    Design 2000*plus* provides technical consulting and incentives for the installation of many  
3    different kinds of energy efficient equipment and systems. Energy efficiency measures  
4    which are eligible for incentives include premium efficiency lighting, motors, variable  
5    speed drives, heating, ventilating and air conditioning systems (HVAC), refrigeration,  
6    industrial process, compressed air, and process cooling.

7

8    There are three specific types of incentives. (1) Prescriptive incentives are fixed and  
9    address a single electric efficiency improvement in operations such as lighting, motors  
10    and HVAC. High efficiency alternative equipment and systems are offered to customers  
11    on a per unit basis. (2) Custom incentives are based on the unique energy savings criteria  
12    of a project. (3) Comprehensive incentives are based upon evaluation of the whole  
13    building and the benefits that come from examining an integrated engineering approach.  
14    In general, incentives are designed either to cover 60 to 75% of the incremental cost  
15    between standard and premium efficiency equipment and systems or to buy down the  
16    cost of equipment to the customer to a one and a half year payback, whichever is less.  
17    For Comprehensive Design Approach and Comprehensive Chiller projects, incentives  
18    cover 80% of the incremental cost or buy the cost of the equipment and systems down to  
19    a one year payback, whichever is less.

20

21    The Company markets Design 2000*plus* through extensive personal communication by  
22    account managers with customers, vendors, contractors, design professionals and,  
23    seminars, training sessions and other direct marketing approaches. For 2008 the  
24    Company proposes to build on this marketing effort by implementing a broader  
25    communications plan to customers to underscore the value of implementing energy  
26    efficiency solutions in their facilities to control their electricity costs and reduce their  
27    building operating costs.

1

2 The proposed changes to the Design 2000*plus* program for 2008 are summarized in  
3 Attachment 5.

4

5 **Tax Title Provisions in the Federal Energy Policy Act of 2005**

6 The Federal Energy Policy Act of 2005 provides some tax incentives to businesses  
7 building new or renovating existing buildings. The law provides a tax deduction of up to  
8 \$1.80 per square foot for buildings where energy use is reduced by 50 percent relative to  
9 the requirements of the 2001 new construction standards developed by the American  
10 Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE 90.1-  
11 2001). The new law also allows building owners of new and existing buildings to earn a  
12 partial deduction of \$0.60 per square foot for each system (envelope, lighting or HVAC)  
13 that is 50 percent more energy efficient relative to ASHRAE 90.1-2001. Implementation  
14 regulations were issued by the U.S. Treasury Department in 2006 with input from the  
15 U.S. Department of Energy.

16

17 The tax title promotes a level of efficiency that is almost twice the minimum efficiency  
18 thresholds for Design 2000*plus*. The combination of Design 2000*plus* incentives and  
19 these tax incentives coupled with the program's technical assistance, should help  
20 customers reach a higher building performance standard.

21

22 A. Services

23 The earlier in the design process the Company becomes involved, the more likely it is  
24 that a comprehensive solution will be possible. For example, if the customer begins  
25 participation in Design 2000*plus* before making final design decisions, there is the  
26 advantage that comes from investigating reduced cooling requirements through improved

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 4**

**Page 4 of 27**

1 lighting systems. Moreover this improvement may lead to selecting smaller HVAC  
2 equipment and contribute to greater efficiency and lower costs of operations in the  
3 building. Once the Company identifies an appropriate Design 2000*plus* project at a  
4 customer site, the Company offers technical assistance services.

5  
6 These technical assistance services include engineering evaluations that support best  
7 practices in building design and consider energy efficient measure identification,  
8 equipment metering or monitoring, improved technical design solutions, customer  
9 presentations, and design and construction assistance. Technical assistance provides  
10 customers with detailed engineering studies that identify alternative energy systems that  
11 support lower operating costs in the buildings and the operational benefits that come  
12 from this selection. The costs of these energy efficiency studies are usually cost shared at  
13 50% with customers.

14  
15 To ensure that energy savings features are installed and operated as designed, the  
16 Company provides a commissioning service. This service is an independent third party  
17 verification that complex building systems, such as HVAC projects involving energy  
18 management systems or other controls, are operating as designed.

19  
20 For customers who wish to use their own design team, Design 2000*plus* offers a  
21 Comprehensive Design Approach. This service provides outside expert technical support  
22 for the customer's own design team or reimburses the customer the incremental cost of  
23 having its design team analyze all cost-effective efficiency options.

24  
25 Financing for the customer portion of the Design 2000*plus* project is available to  
26 customers. Financing is generally arranged with Citicorp Vendor Financing, and

1 includes nominal application and documentation fees, a limited up-front cash requirement  
2 of no more than the first month's lease payment, flexible repayment terms of two to  
3 seven years and a simple application process. The amounts available range from \$5,000  
4 to \$4,000,000. This arrangement benefits not only the specific customer in need of  
5 financing, but also more generally is introducing energy efficiency lending to the  
6 financial community, which considers this type of loan unconventional.

7  
8 Design 2000*plus* provides free ballast recycling to customers installing energy efficient  
9 lighting under Design 2000*plus*. The purpose of this service is to ensure that all ballasts  
10 (some of which contain polychlorinated biphenyls or PCBs) are disposed of in an  
11 environmentally sound manner.

12  
13 The Company offers the Project Expediter service, which uses pre-qualified contractors  
14 to audit customers' facilities and arranges for the purchase and installation of energy  
15 efficient equipment. As with most of the other services listed here, Project Expediter is  
16 available for both Design 2000*plus* and Energy Initiative, described below. Usually,  
17 these installations are retrofits, however, and therefore qualify under Energy Initiative.

18  
19 B. Best Practices Initiatives

20 a. *Advanced Buildings, LEED and Sustainable Design*

21 The Company is supporting Advanced Buildings (AB) developed by the New Buildings  
22 Institute (NBI) in cooperation with US EPA, ASHRAE, the US Green Buildings Council  
23 and the national Building Operators and Managers Association. Advanced Buildings is a  
24 suite of technical resources and design guides that help design professionals create  
25 commercial buildings that are energy efficient and provide a healthy work environment  
26 for occupants. Advanced Buildings complements the Comprehensive Design Approach

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 4**

**Page 6 of 27**

1 with a special emphasis on smaller buildings. AB also serves to promote better  
2 commercial design practices such that advancements in the Rhode Island building code  
3 can be implemented at an accelerated rate. The Company has played a lead role  
4 nationally in the development and refinement of Advance Buildings along with other  
5 stakeholders and utilities. For 2008, the Company will continue to build on the success  
6 of the Advanced Buildings program we have been promoting for two years in Rhode  
7 Island to address the efficiency needs of new construction projects for commercial  
8 buildings less than 75,000 sf. National Grid launched this effort in 2006 with several  
9 training programs on the topic offered in RI. In 2007, the program has blossomed with 3  
10 projects, New England Tech, Child and Family Services and Homeloan Bank, all using  
11 the approach in current designs. Further, at least one Rhode Island based design firm is  
12 using the method to grow their business with out of state clients.

13  
14 The program will be expanded in 2008 to reach more projects and more design firms  
15 through further training and promotional efforts. In 2007 National Grid worked closely  
16 with the New Buildings Institute the national organization that manages and promotes  
17 and maintains Advanced Buildings across the country to add powerful new features to the  
18 program that will increase its appeal and market penetration in 2008.

19  
20 National Grid will support customers with designs that incorporate LEED in their new  
21 construction projects using our on staff LEED Accredited professionals. For many this  
22 will include providing them a basic understanding of LEED requirements and guiding  
23 them through the process of assembling a qualified design team. Beyond this we will  
24 guide customers to the best path for achieving LEED points for Energy and Atmosphere,  
25 by providing technical support along with financial incentives.

26

Advanced Buildings is also supported by the Company's gas programs and is integrated with the delivery of the gas Emerald Network program.

b. Comprehensive Chiller Program

Design 2000*plus* also assists customers in optimizing their building operating systems at the time of their federally mandated replacement or conversion of CFC (R-11, R-12 refrigerant) chillers. Customers may either optimize the performance of their existing older building systems or receive technical guidance and recommendations regarding the proper size and efficiency for a replacement chiller plant. This program component, called the Comprehensive Chiller initiative, also helps to reduce peak summer generation demand.

c. Economic Development

Design 2000*plus* offers a significant opportunity for economic development in Rhode Island by helping businesses save on their electric costs while at the same time supporting them in their investments in new energy efficient equipment and system improvements to their facilities. To this end, for 2008 the Company intends to continue to work closely with various economic development groups in the state, including the Rhode Island Economic Development Corporation (RIEDC), to seek ways the Company may provide focused efficiency services. This effort builds on the relationships established in 2005, and may create a more favorable climate for doing business in Rhode Island. In addition, this effort has afforded the opportunity to coordinate with the gas Economic Development effort.

C. Market Transformation Initiatives

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 4**

**Page 8 of 27**

Design 2000*plus* has a large market transformation component that supports the new construction program toward better performance. By familiarizing the large commercial and industrial segment with higher energy efficiency standards, Design 2000*plus* creates new efficiency standards for construction. The Company actively supports regional and national market transformation programs designed to transform markets for a broad range of energy efficient equipment and services. These activities are discussed below.

a. Regional Energy Efficient Motors and Unitary HVAC initiatives

As a feature of the Design 2000*plus* Program, the Company has supported the MotorUp premium efficiency motor initiative since 1998, a regional market transformation initiative that promotes motor management of high efficiency motors and quality repair of motors to maintain high efficiency. In the past, the MotorUp program was delivered through a joint effort by participating utilities and energy efficiency agencies in New England, New York and New Jersey through the Northeast Energy Efficiency Partnerships. This extended regional group has decided to end the joint delivery of MotorUp. In its place for 2007, a Motors program was developed by a group that encompasses a smaller region consisting of Massachusetts and Rhode Island utilities. The regional program also called MotorUp has continued to offer consistent equipment efficiency requirements for qualifying “NEMA Premium” motors. Uniform rebates and application forms are used throughout the region. For 2008, Massachusetts and Rhode Island utilities will continue to coordinate the use of a contracted circuit rider to provide outreach to motor dealers, trade allies, vendors and distributors. MotorUp also features 1-800 number for technical assistance, and a central clearing house for application processing. Since 2003, the regional initiative has provided instant rebates at motor dealer sites through participation in MotorUp. The Company expects to continue with this approach in 2008. Additionally, the Company is continuing an effort that was initiated in 2006 and expanded in 2007 for smaller businesses, through the vendors that provide Project Expeditor services, to transform their purchasing practices through motor

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 4**

**Page 9 of 27**

1 management best practices, to include larger C&I customers. The Company will work  
2 with the customer to facilitate audits of their motor inventory and to develop a motor  
3 management plan and purchasing policy to optimize energy efficiency by replacing new  
4 or failed motors with a NEMA Premium™ motor.

5  
6 The Company has participated in Cool Choice since 1999, a regional program that  
7 focuses on promoting the installation of energy efficient unitary HVAC equipment  
8 through Design 2000*plus*. In 2007, the Company (as well as other regional sponsors)  
9 decided to withdraw from Cool Choice. Since then, the Company has coordinated with  
10 utilities in Massachusetts in their effort to operate a joint state-wide program, sharing a  
11 rebate worksheet form, a single circuit rider, and a 1-800 information line, similar to  
12 what is described above for motors. The program features consistent efficiency rebates  
13 level revised to follow CEE's new Tier 2 specifications for <5.4 Ton to <20 Ton units.  
14 Incentives are also offered for dual enthalpy economizer controls, demand control  
15 ventilation electronically commutated motors (ECM fan motors) in packaged units. The  
16 rebates are expected to remain unchanged in 2008.

17  
18 For 2008 the Company is considering an early replacement initiative which targets  
19 existing unitary and split HVAC units manufactured before 1992 or units that have a field  
20 tested efficiency of an EER 7.0 or less. The Company will move forward with this  
21 initiative if results from a pilot done in Massachusetts during 2007 are favorable.

22  
23 Similar to the Design 2000*plus* Motors program described above, the Company, along  
24 with utilities in Massachusetts, will continue to retain the services of a circuit rider to  
25 provide outreach in 2008 to HVAC contractors and architectural and engineering firms  
26 located in Rhode Island or that service customers in RI. This circuit rider will also  
27 provide services for application processing and a 1-800 number for technical assistance.

1

2 The budgets for these initiatives are included in the overall Design2000*plus* program  
3 budget.

4

5 b. High Performance Commercial Lighting Design/DesignLights™ Consortium

6 In an attempt to continue to promote high quality, high performance lighting with  
7 commercial and industrial customers the Company will utilize a series of specialized  
8 guidelines, called the *knowhow*™ series, that have been developed by the DesignLights  
9 Consortium to help customers with their lighting design decisions. For 2008 the  
10 Company will continue to provide additional outreach on the benefits of high quality  
11 lighting design to various lighting equipment vendors throughout Rhode Island. The  
12 Company proposes to accomplish this through visits, workshops and breakfast meetings  
13 with these vendors and with lighting specifiers. These meetings will be educational but  
14 also provide an opportunity for these market players to promote high quality, energy  
15 efficient lighting that would be eligible for rebate to their customers.

16

17 In 2008, the Company will continue to seek out and promote emerging technologies for  
18 energy efficient lighting technologies. For example, a custom incentive will be offered  
19 for LED lighting that replaces fluorescent tubes in retail case refrigerators commonly  
20 found in grocery stores.

21

22 The company has been offering a “performance lighting” option which offers an  
23 incentive based on the ability of a project to achieve lighting power densities (watts per  
24 sq foot) more efficient than what’s required by the Rhode Island State Energy Code.  
25 This program targets architect, building design engineers and lighting equipment  
26 suppliers who have to ensure that installed lighting meets the code. Performance lighting

1 achieves two things: 1. makes the practitioner more aware of lighting power density  
2 requirements in the code and 2. Introduces them to technologies and design that will help  
3 their project deliver a lighting power density 25% or more less than code. The Company  
4 will continue to offer a “performance lighting” option in 2008

5  
6 In 2008, the Company also intends to introduce a lighting consultant that will visit with  
7 lighting distributors, specifiers and A&E firms and review their designs as well as  
8 provide technical design assistance (the Company will refer to this consultant as a  
9 “circuit rider”). In addition new tools will be developed to help key account managers  
10 introduce advance lighting practices to their customers and specialized efficient lighting  
11 design training will be conducted.

12  
13 c. Schools Initiative

14 The Company proposes to continue offering a special initiative targeted to public schools  
15 through Design 2000*plus*. While Design 2000*plus* has been effective in reaching public  
16 schools, a majority of schools have not participated due to a broad range of market  
17 barriers including limited funding and competitive bidding requirements. This program's  
18 intent is to help schools minimize the hurdles posed by these market barriers during a  
19 time when Rhode Island is seeing an unprecedented level of investment in new and  
20 renovated schools.

21  
22 The Company proposes to fund the full incremental cost for new construction or  
23 renovation under Design 2000*plus*. All cost-effective electric energy saving measures  
24 would be addressed. It is anticipated that most projects will involve lighting. A key  
25 requirement for this initiative is that lighting must follow the DesignLights™ Consortium  
26 guidelines for schools as outlined in "Classroom Lighting knowhow™" guide published

1 by the DesignLights™ Consortium and that projects follow the Comprehensive Design  
2 Approach (CDA) track which entails an interactive analysis of proposed measures  
3 utilizing whole building simulation tools. As an alternative to CDA, smaller school  
4 projects may follow the New Buildings Institute Advanced Buildings standards described  
5 previously.

6  
7 The Company will also continue to participate in the Rhode Island High Performance  
8 Schools working group. Its mission is to promote “green” schools design elements to  
9 districts considering new schools and to the design community that serves Rhode Island.  
10 A circuit rider, funded through a grant from the Henry P. Kendall Foundation, will work  
11 with prospective districts that are considering a high performance school.

12  
13 Funding for this initiative is included in the overall Design2000*plus* program budget.

14  
15 d. Building Codes and Standards

16 The Parties agree to support work at national and local levels to develop codes and  
17 standards that continue to upgrade building energy efficiency. In cooperation with the  
18 codes community, including the Building Code Commission, the Company will work  
19 with this and other agencies to offer continued improvement on proposed building codes  
20 and standards that lead to the future revisions of the Rhode Island State Building Code.

21  
22 Continually refining these codes and standards, which complement existing programs  
23 such as Design 2000*plus* and Energy Initiative, has a significant impact on  
24 institutionalizing progress made through utility programs. Therefore, this initiative  
25 focuses on (1) working with national code development organizations such as ASHRAE  
26 to upgrade building efficiency codes and (2) working at the local level with Rhode Island

1 and other states in the development of state efficiency codes and standards. The  
2 Company will offer support to this effort which will be coordinated primarily through the  
3 Northeast Energy Efficiency Partnership (NEEP) and the New Buildings Institute (NBI),  
4 organizations with the goal of assisting states and others with the development of codes  
5 and standards that are practical and enforceable. For instance, Rhode Island has recently  
6 upgraded its state energy code to the “2006 International Energy Conservation Code”  
7 (IECC-2006) with amendments drafted by NBI. The Company will continue to pursue  
8 additional upgrades to the present code through NBI. Part of this effort includes  
9 facilitating and supporting the training and education efforts for code enforcers, designers  
10 and builders.

11  
12 e. Federal Standards

13 Ultimately, markets are transformed towards higher efficiency when newer efficient  
14 equipment supplants older inefficient equipment to an extent that the latter is either no  
15 longer produced, becomes unattractive to end users or is excluded from the marketplace  
16 as the result of various standard-setting processes. Some of these standard setting  
17 processes are industry-driven and voluntary; others produce mandatory codes or  
18 standards promulgated by federal or state governments.

19  
20 The Company agrees to actively track and participate in DOE’s standard setting process.  
21 DOE’s standard setting process involves multiple stakeholder workshops and a public  
22 hearing for each standard. These workshops typically seek input on all aspects of the  
23 standard setting process. By participating in these workshops and using our experience  
24 with energy efficient equipment, the Company feels it will be able to most effectively  
25 communicate its support for appropriate standards.

As Federal standards are raised, participation requirements for Design 2000*plus* and Energy Initiative will be elevated accordingly, pulling the market toward successively higher efficiency strata. The Company believes that active participation in the elevation of energy efficiency standards is an integral part of any transition strategy in respect to ratepayer funded market transformation initiatives.

Associated costs for this initiative are included in the Design2000*plus* program budget.

## **2. Energy Initiative**

### **Overview**

Offered since 1988, Energy Initiative encourages the replacement of existing equipment and systems with energy efficient alternatives. Its structure is very similar to Design 2000*plus*, offering financial incentives, technical assistance, and other ancillary services such as commissioning, comprehensive chiller assistance, financing, and ballast disposal.

### **Eligible Population**

Energy Initiative is available to all non-residential customers, although customers with demand below 200 kW are also eligible to participate in the Small Business Services program.

### **Program Design**

Energy Initiative provides incentives for the installation of many different types of energy efficient equipment, including lighting, motors, energy management systems, programmable thermostats, variable speed drives, refrigeration, industrial process, compressed air, and process cooling. The Company's delivery of Energy Initiative is

1 similar to its delivery of Design 2000*plus*. Energy Initiative offers two types of  
2 incentives, prescriptive and custom. Prescriptive incentives are fixed and offered on a  
3 per unit basis. Custom incentives are based on the unique energy savings criteria of  
4 projects. Both are based on average at 40% of the total installed cost (including labor and  
5 equipment) or at a level that buys the equipment down to a two-year payback to the  
6 customer, whichever is less.

7  
8 The Office of Energy Resources (RIOER) is also offering an Energy Services Company  
9 (ESCO) initiative to encourage efficiency improvements in Rhode Island's state and  
10 municipal facilities. The Company will continue to support the delivery of this service by  
11 coordinating its Energy Initiative program services (including incentives) with the  
12 ESCOs as they develop technical assessments for these customers. For 2008, the RIOER  
13 and the Company will explore ways to help municipalities participate in this initiative.

14  
15 The proposed changes to Energy Initiative for 2008 are shown in Attachment 5.

16  
17 A. Best Practices Initiatives

18 Energy Initiative offers a significant opportunity for economic development in Rhode  
19 Island by helping businesses save on their electric costs while at the same time  
20 supporting them in their investments in new energy efficient equipment and system  
21 improvements to their facilities. To this end, for 2008 the Company intends to continue  
22 to work closely with various economic development groups in the state including the  
23 Rhode Island Economic Development Corporation in an attempt to provide focused  
24 efficiency services. This effort may lead to fostering a more favorable business climate  
25 in Rhode Island to retain businesses in the state. This effort is being coordinated closely

1 with the Economic Development initiative offered under the gas energy efficiency  
2 programs.

3  
4 The Company also will continue a public education campaign to promote energy  
5 efficiency, especially during peak periods. The Company expects to develop brochures  
6 and other informational literature and disseminate these to C&I customers through bill  
7 inserts, direct mail, e-mail equipment vendors and account managers. Some of the  
8 literature and information that can be used is already available from E Source and the  
9 American Council for an Energy Efficient Economy, organizations that feature the  
10 benefits to customers available from improving their energy use practices.

11  
12 B. Market Transformation Initiatives

13 Similar to Design 2000*plus*, the Company's retrofit program includes a strong market  
14 transformation component to include the following activities.

15  
16 a. Compressed Air Challenge

17 The Company will continue its active sponsorship of the national Compressed Air  
18 Challenge (CAC). The CAC is a broad based collaborative of government agencies,  
19 compressed air specialists, equipment manufacturers, end-use consumers and utilities  
20 whose objective is to promote the substantial energy savings improvements available by  
21 means of a comprehensive, systems approach to compressed air system design and  
22 operation. The CAC educational and technical materials being disseminated by the  
23 Company are intended to increase customer awareness of, and demand for, products and  
24 services that encompass a comprehensive, "systems optimization" approach. Coupled  
25 with this increased demand for enhanced services from customers, regional compressed

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 4**

**Page 17 of 27**

1 air equipment and service vendors will be exposed in depth to the technical approaches  
2 promoted by the CAC.

3  
4 Over the past few years the Company has been actively coordinating local workshops  
5 that have been developed by the CAC. These workshops reflect consensus approaches to  
6 a variety of technical issues associated with the comprehensive system approach to  
7 compressed air quality, reliability, and efficiency. The first workshop, entitled  
8 “Fundamental of Compressed Air Systems,” has been very well received by industrial  
9 customers and vendors who have attended to date. The second is a more advanced two-  
10 day workshop entitled “Advanced Management of Compressed Air Systems.” This  
11 complementary workshop is primarily targeted at larger, more sophisticated customers as  
12 well as regional vendors and engineering consultants. The Company anticipates that  
13 these workshops will result in an increased number of applications under the Company’s  
14 programs that address more comprehensive solutions to system efficiency. The Company  
15 expects to hold one Level 1 workshop in Rhode Island. We will also target Rhode Island  
16 Customers and compressed air vendors for Level 1 and Level 2 classes that are offered in  
17 Eastern Massachusetts.

18  
19 In addition to promoting the two levels of CAC training currently available, the Company  
20 will also be providing comprehensive compressed air system O&M initiative for large  
21 industrial compressed air users as described below.

22  
23 The budget for this initiative is included in the overall budget for Energy Initiative

24  
25 b. Compressed Air Operations & Maintenance Improvement Program

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 4**

**Page 18 of 27**

1 The Company will continue to offer an O&M program targeted at industrial customers  
2 with compressed air systems with a goal of helping them reduce compressed air costs and  
3 to promote long term reliability and efficiency in the future. One of the key elements of  
4 the O&M program is the repair of widespread compressed air leakage in distribution  
5 systems. Experience indicates that air leakage typically wastes 25% of total compressed  
6 air produced by a system, wasting significant electric energy. Energy cost savings  
7 resulting from the repair of leakage typically produces paybacks as short as 5 months.

8  
9 This program will provide participating customers with financial and technical assistance  
10 in making low cost system improvements and help customers establish a long term leak  
11 management program at their facilities. Participation in the program will include: a  
12 compressed air system survey, identification of leakage and other potentially low cost  
13 O&M improvements, staff training in leak repairs and planning for continuous system  
14 monitoring. Eligible customers must have a minimum of 100 horsepower of compressed  
15 air load in their facility. The customer will sign a memorandum of understanding with  
16 the Company detailing the responsibilities of both parties.

17  
18 The budget for this initiative is included in the overall budget for Energy Initiative.

19  
20 c. Building Operator Training and Certification (BOTC)

21 The Building Operator Training and Certification (BOTC) initiative is a collaborative  
22 effort among gas and electric utilities in the region. Through this effort a training and  
23 certification program is administered and conducted by a third party and offered to  
24 commercial and industrial customers. The Company has offered Level 1 of the BOTC  
25 initiative for the past five years. During 2005, a Level 2 class was offered in RI  
26 consisting of a more comprehensive curriculum that supports advanced practices in

building operations. The Company hosted one class in Massachusetts in 2007 that was open to Rhode Island customers and plans for 2008 to offer at a minimum one BOTC Level 1 in Providence.

The BOTC's objectives include:

- Increasing O&M personnel knowledge and skills in operating and maintaining commercial and industrial buildings for efficiency, comfort, and safety.
- Expanding market awareness of the benefits of improved building performance.
- Building market demand for resource-efficient O&M services.
- Distinguishing resource-efficient practices, service providers, and knowledgeable building operators in the marketplace.
- Establishing a Training and Certification program that will become financially self-sustaining in the future.

In 2007, the Northeast Energy Efficiency Partnerships decided not renew its license for BOC. The company is currently exploring the continuation of a program like BOC along with other energy efficiency program providers in the region and expects to offer a program in 2008.

The budget to subsidize attendance in BOTC courses will be \$10,000.

d. Whole Building Assessment and Retro-Commissioning

In 2008, the Company will continue to benchmark the energy use of large C&I customers through the Whole Building Assessment initiative to assist them in setting priorities and promote the installation of energy efficiency measures in their facilities. Also, the Company will continue offering a retro-commissioning initiative to help customers

1 understand how their equipment is operating and make adjustments to improve  
2 performance and efficiency

3  
4 Whole Building Assessment starts by “benchmarking” the customer’s energy use and  
5 comparing it to their peers’ or their own historic consumption characteristics. By  
6 gathering their current and historical energy use from the Company’s billing data systems  
7 and presenting it in an insightful manner, new energy efficiency strategies may be readily  
8 identified, and an action plan leading to an installation can be developed. This initiative  
9 provides the opportunity to promote this service in Rhode Island, with the focus on the  
10 creation of applications for energy efficiency incentives directly resulting from the  
11 findings of the benchmarking exercise.

12  
13 As companies become more aware of how and when they use energy in their facilities,  
14 they are in a position to assess where the best opportunities lie to develop better operating  
15 and maintenance practices. Through benchmarking, building owners and operators  
16 achieve a better understanding of the energy related cost of their buildings. Moreover it  
17 leads them to reduce operating costs, increase energy efficiency and promote  
18 environmentally-friendly operations.

19  
20 There are two primary tools the Company will use to accomplish the benchmarking  
21 objective. The combination of these approaches and services determined by the  
22 Company’s Account Managers should help to stimulate greater efficiency savings and  
23 reach those customers who may not have taken advantage of the program and services to  
24 date.

25

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 4**

**Page 21 of 27**

- The Company's *Energy Profiler On-Line (EPO)*. This is a tool that is used effectively to identify energy use patterns within large commercial or industrial facilities. It helps to identify energy and demand savings potential by offering detail on current load duration and daily and historical building energy use. EPO can provide an account manager an accurate snapshot of the facility before meeting with the customer. The service can frame discussions to influence better energy use practices and /or further technical assistance to validate the potential of new energy efficient strategies and opportunities.

- *Commercial Benchmarking Services* available through the EPA's Energy Star Portfolio Manager. This is a tool that provides a comparison of the level of annual energy consumption for commercial or institutional customers to that of other facilities with the same function. The buildings are ranked in comparison to the other buildings in a national database, corrected for climate and other key variables. The analysis considers all purchased energy types used in the facility. The customer will be responsible for providing the utility data, and tracking resource consumption and costs. The EPA's ENERGY STAR Benchmarking system utilizing Portfolio Manager is used for this effort. The Company will furnish a written action plan identifying efficiency cost and savings opportunities resulting from the benchmarking. The process recognizes that a customer may be motivated by a comparison to peers more than a comparison to previous period's consumption. The Company will use the services of a Project Expediter to generate opportunity assessment, analysis and follow up services to steer the customer toward an installation of efficiency measures.

The budget for this initiative is included in the overall budget for Energy Initiative.

1 Retro-commissioning, is a process of testing, troubleshooting, and adjusting systems in  
2 an existing building with the expectation to raise existing performance standards. The  
3 retro-commissioning process can significantly reduce energy consumption with little  
4 financial investment. Experience suggests that the cost of retro-commissioning can be  
5 paid back through improved system performance, reduced energy costs, and improved  
6 occupant comfort.

7  
8 The Retro-commissioning Initiative is best suited for the following:

- 9 • Commercial and industrial buildings that have an electric demand greater than 0.5  
10 MW.
- 11 • HVAC and process systems
- 12 • Desire to reduce operating costs
- 13 • Use an energy management system

14 The objective of the Retro-commissioning Initiative is to:

- 15 • Reduce operating costs during peak and off peak periods
- 16 • Develop a comprehensive and acceptable operation and maintenance plan
- 17 • Identify capital projects that can lead to substantial energy savings
- 18 • Educate the building personal how to operate the building efficiently

19  
20 Retro-commissioning will entail an assessment of the major building systems effecting  
21 energy used. Data is collected on how the systems operate presently and how they were  
22 originally designed to operate. Recommendations on where changes should be made to

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 4**

**Page 23 of 27**

1 set points, maintenance practices or new energy efficient equipment are presented in a  
2 report.

3  
4 The Company proposes to perform retro-commissioning services as outlined above with  
5 two to three commercial or industrial customers. Incentives will be paid to encourage  
6 customers to implement the operations and maintenance (O&M) measures that have a  
7 simple payback of less than 2 years. The Company will continue to review the results of  
8 the Retro-commissioning Initiative with the Collaborative.

9  
10 The expected cost of these retro-commissioning projects is \$40,000. These funds will  
11 pay for technical assistance on retrocommissioning studies. Where efficiency  
12 opportunities are identified in the studies, they will be processed through the appropriate  
13 rebate program.

14  
15 Experience gained by the company over the past several years in offering to over 50  
16 customers across New England these expanded services suggest that continuing to  
17 develop and enhance Whole Building Assessment and retro-commissioning services to  
18 customers to help identify more efficiency options in operating their facilities that will  
19 provide additional savings that may be missed without a targeted whole building effort.  
20 Many of the measures identified offer immediate to six months paybacks, are low costs  
21 and generally involve some degree of control strategies for the buildings. To build on  
22 these early results the company plans to continue to offer customers incentives for Whole  
23 Building Assessment and retro-commissioning measures that may have less than a 2 year  
24 simple payback- a threshold that is currently in place to be eligible for incentives. In  
25 addition we believe it makes sense to also include a demand response evaluation to see if  
26 we can bundle both Whole Building Assessment and retro-commissioning services with

1 demand response opportunities in the facility studies. We are also interested in  
2 determining for 2008 the benefits of working with customer's controls company that  
3 would combine a full assessment that includes gas and electrical savings and demand  
4 response. This approach will bundle services under one project working with a controls  
5 vendor.

6  
7 C. Distribution Load Response Audit Services

8 In any local electrical distribution system, the utility equipment has historically been  
9 sized for a few hundred hours of peak loading conditions, and is routinely under-loaded  
10 for the bulk of the year. Peak load reduction is only needed for the few hours per year of  
11 high supply prices, and/or high loading conditions on the local distribution system.  
12 Managing this peak load may result in more stable delivery costs when upgrades to the  
13 distribution system can be deferred. On a regional basis, managing peak loads can help  
14 to moderate supply costs as the need to construct additional capacity to meet higher  
15 demand is dampened. Deferring supply additions should lead to lower generation costs  
16 over time. Furthermore, individual customers can use demand reduction strategies to  
17 reduce their billed peak demands and their own energy costs.

18  
19 The proposal for 2008 is a continuation of the Company's Demand Response audit  
20 services funded in its energy efficiency program since 2006. In addition, the results of  
21 the audits will provide information to customers that will allow them to integrate energy  
22 efficiency measures with demand response capability that may include working more  
23 closely with a controls vendor to provide customers both benefits from reducing energy  
24 and demand in their facility.

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 4**

**Page 25 of 27**

1 The Company will identify areas throughout Rhode Island where past and anticipated  
2 load growth has the potential to outpace infrastructure improvements, resulting in an  
3 accelerated need for infrastructure improvements over original estimates. Active  
4 management of the loads on the system could be a useful tool for future planning. As part  
5 of the Company's Summer Load Relief Program, Docket 3680, demand response audits  
6 that will identify the potential for various demand limiting strategies will be performed  
7 for interested customers in the area outlined in the Summer Load Relief Program.

8  
9 Audit services will be primarily marketed to large customers on these highly loaded  
10 distribution system components. These could be customers with newer buildings (office  
11 buildings, retail establishments, schools, etc.), which currently have building  
12 management systems (BMS) in the facility to monitor life safety conditions (smoke, fire  
13 alarms), security, and HVAC systems. Buildings with building management systems are  
14 typically less than 15 years old. Industrial process customers with potentially  
15 controllable or variable production loads are also potential candidates.

16  
17 In addition, load shed audit services will be available to any Rhode Island customer who  
18 requests them, even those outside a targeted distribution area, to facilitate their  
19 participation in ISO-New England's demand response programs. ISO-New England's  
20 programs require a minimum load reduction commitment 100 kW, so large customers are  
21 the likely population to request audit services.

22  
23 The proposed spending for this effort in 2008 is \$61,000. It is anticipated that the  
24 proposed funding will support 20 to 40 "load shed" technical assistance studies. The  
25 Company's demand response initiative program manager and the Company's account  
26 managers will market this service to customers on a one-to-one basis. Several technical  
27 assistance (TA) contractors will be used to identify demand response options and

1 coordinate their implementation. Economies may be achieved if these focused studies  
2 are performed simultaneously with broader energy efficiency TA studies. The Company  
3 will report to the Collaborative periodically on Demand Response audit service spending.  
4

5 The load shed audits may be conducted as part of energy efficiency surveys or as  
6 independent studies. The findings of the audit will be presented to each customer in a  
7 report that will develop a load profile for the facility, followed by set of site-specific load  
8 reduction measures for each customer, along with steps the customer should take to  
9 develop a load reduction plan to optimize their performance during a demand response  
10 event.  
11

12 Preliminarily, the list of measures to be considered includes:

- 13 • Lighting retrofits, including dimmable electronic ballasts for lighting;  
14 • Cooling system upgrades, including chiller efficiency improvements and CO<sub>2</sub> sensors  
15 to regulate air distribution;  
16 • Building management system control changes, including temperature setbacks for  
17 HVAC systems;  
18 • Scheduling of industrial processes, such as rearranging shift operations;  
19 • Compressed air system modifications.  
20

21 No demand response incentives will be paid through the energy efficiency programs, and  
22 no impacts are projected. Providing customers access to the payment streams from the  
23 ISO-NE demand response programs, and more importantly, the tools to allow  
24 participation, will provide added incentives for customers. The Internet enabled gateway

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 4**

**Page 27 of 27**

1 also has potential to provide real-time demand data allowing customers to experiment  
2 within their facility to modify their load curves and further reduce the overall electric bill.

3

4 Demand-reducing measures associated with equipment installations will be run through  
5 the Custom Measure approach under Energy Initiative and Design 2000*plus* to determine  
6 cost-effectiveness and rebate eligibility under standard energy efficiency protocols.



**SUMMARY OF PROPOSED CHANGES TO THE  
 LARGE BUSINESS SERVICES PROGRAMS  
 FOR 2008**

<b>Category</b>	<b>Energy Initiative</b>	<b>Design 2000<i>plus</i></b>
Lighting	<ul style="list-style-type: none"> <li>• Increase the incentive for new fluorescent recessed and pendant fixtures typically installed in office and classroom spaces by \$5.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase the incentive for new fluorescent recessed and pendant fixtures typically installed in office and classroom spaces by \$5.</li> </ul>
Motors	<ul style="list-style-type: none"> <li>• N/A – prescriptive rebates are not offered under Energy Initiative</li> </ul>	<ul style="list-style-type: none"> <li>• No change</li> </ul>
HVAC	<ul style="list-style-type: none"> <li>• No change</li> </ul>	<ul style="list-style-type: none"> <li>• An early replacement initiative is being considered which targets existing unitary and split HVAC units manufactured before 1992 or units that have a field tested efficiency of a EER 7.0 or less. This offering will depend on the success of a pilot program being conducted in Massachusetts</li> </ul>
Compressed Air	<ul style="list-style-type: none"> <li>• No changes</li> </ul>	<ul style="list-style-type: none"> <li>• No changes</li> </ul>
Custom	<ul style="list-style-type: none"> <li>• No Changes</li> </ul>	<ul style="list-style-type: none"> <li>• No changes</li> </ul>
Advanced Buildings and Comprehensive Design Approach (CDA)	N/A	<p>Two tier incentive levels will be created to promote even more comprehensive efforts by design teams and their clients in new construction.</p> <ul style="list-style-type: none"> <li>• A lower tier will pay an incentive of up to 80% (CDA) of the incremental cost on HVAC measures that are part of comprehensive project that reduce energy use to at least 15% better than a code compliant design. For the higher tier, projects that are designed to be least 20% more efficient than the code compliant design will receive an additional 10% incentive.</li> </ul>

These proposed enhancements continue to reflect the Company's objectives to improve the way buildings are designed, constructed and operated.



**THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID**  
**R.I.P.U.C Docket No.3892**  
**Attachment 6**

**DSM Funding Sources in 2008 by Sector**

	<b>Projection</b>
<b>Projected kWh Sales<sup>1</sup>:</b>	
Residential	3,104,796,233
Small Commercial & Industrial	2,013,363,186
Large Commercial & Industrial	<u>2,795,622,701</u>
Total	7,913,782,120
<b>DSM Revenue per kWh</b>	\$0.002
<b>Projected DSM Revenues (\$000)</b>	
Residential	\$6,209.5
Small Commercial & Industrial	\$4,026.7
Large Commercial & Industrial	<u>\$5,591.2</u>
Total	\$15,827.4
<b>Other Sources of DSM Revenues (\$000):</b>	
Projected DSM Fund Balance Interest in 2008	
Residential	(\$68.4)
Small Commercial & Industrial	\$144.9
Large Commercial & Industrial	<u>\$314.3</u>
Total	\$390.8
Projected Co-Payments by Customers in 2008:	
Residential	\$0.0
Small Commercial & Industrial	\$812.6
Large Commercial & Industrial	<u>\$18.4</u>
Total	\$831.0
Projected DSM Commitments at Year-End 2007:	
Residential	\$0.0
Small Commercial & Industrial	\$0.0
Large Commercial & Industrial	<u>\$4,337.2</u>
Total	\$4,337.2
Projected 2007 Fund Balance:	
Residential	(\$1,622.1)
Small Commercial & Industrial	\$1,183.2
Large Commercial & Industrial	<u>(\$849.7)</u>
Total <sup>2</sup>	(\$1,288.6)
Projected Payments During Transition Period From ISO-NE:	
Residential	\$360.0
Small Commercial & Industrial	\$233.4
Large Commercial & Industrial	<u>\$324.1</u>
Total	\$917.5
Subtotal - Other Sources of DSM Revenues:	
Residential	(\$1,330.5)
Small Commercial & Industrial	\$2,374.1
Large Commercial & Industrial	<u>\$4,144.3</u>
Total	\$5,187.9
<b>Projected Total Funding Available in 2008:</b>	
Residential	\$4,879.0
Small Commercial & Industrial	\$6,400.8
Large Commercial & Industrial	<u>\$9,735.5</u>
Total	\$21,015.3

**Notes:**

<sup>1</sup> Projected streetlighting and sales for resale kWh sales have been allocated to each sector based on the percentage of sales in each sector excluding expected streetlighting sales.

<sup>2</sup> A projected negative fund balance at year end indicates that projected spending and commitments for 2007 are greater than the actual funding available in 2007. The Company expects to either spend or commit its approved DSM budget for 2007 but not to exceed approved budget amounts. The negative fund balance is due primarily to kWh sales in 2007 below forecasted sales for the year and less than anticipated interest accruing on the fund balance during the year. As a result, DSM funding in 2007 is lower than what was expected when budgets were set for the year and the projected year-end fund balance is negative.



**THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID**

**R.I.P.U.C Docket No.3892**

**Attachment 7**

**page 1 of 2**

**National Grid 2008 Electric Energy Efficiency Program Budget (\$000)**

	<b>Program Planning &amp; Administration</b>					
	<b>External</b>	<b>Internal</b>	<b>Marketing</b>	<b>Rebates and Other Customer Incentives</b>	<b>Evaluation &amp; Market Research</b>	<b>Grand Total</b>
<b>RESIDENTIAL PROGRAMS</b>						
ENERGY STAR Homes	\$49.0	\$37.5	\$21.0	\$608.9	\$0.4	\$716.7
ENERGY STAR Air Conditioning	\$11.3	\$16.9	\$15.2	\$254.5	\$13.4	\$311.2
ENERGY STAR Heating	\$0.0	\$6.6	\$1.5	\$91.6	\$0.0	\$99.6
EnergyWise	\$225.0	\$90.2	\$0.0	\$1,347.4	\$1.3	\$1,664.0
ENERGY STAR Lighting	\$75.0	\$40.0	\$51.5	\$459.4	\$33.3	\$659.2
ENERGY STAR Products	\$18.4	\$15.4	\$37.5	\$237.8	\$0.3	\$309.4
Single Family - Low Income Services	\$11.9	\$68.3	\$0.0	\$1,394.9	\$18.2	\$1,493.3
EERMC - Residential	\$124.1	\$0.0	\$0.0	\$0.0	\$0.0	\$124.1
Residential Education Program	\$15.8	\$0.5	\$15.0	\$0.0	\$0.0	\$31.2
Shareholder Incentive	\$0.0	\$236.6	\$0.0	\$0.0	\$0.0	\$236.6
<b>Subtotal - Residential</b>	<b>\$530.4</b>	<b>\$512.0</b>	<b>\$141.7</b>	<b>\$4,394.4</b>	<b>\$66.9</b>	<b>\$5,645.5</b>
<b>SMALL COMMERCIAL &amp; INDUSTRIAL PROGRAMS</b>						
Small Business Services	\$218.6	\$79.5	\$50.0	\$3,915.8	\$28.5	\$4,292.4
EERMC - Small C&I	\$80.5	\$0.0	\$0.0	\$0.0	\$0.0	\$80.5
Shareholder Incentive	\$0.0	\$149.5	\$0.0	\$0.0	\$0.0	\$149.5
<b>Subtotal - Small Commercial &amp; Industrial</b>	<b>\$299.1</b>	<b>\$229.0</b>	<b>\$50.0</b>	<b>\$3,915.8</b>	<b>\$28.5</b>	<b>\$4,522.4</b>
<b>LARGE COMMERCIAL &amp; INDUSTRIAL PROGRAMS</b>						
Design 2000plus1	\$260.9	\$448.5	\$20.1	\$3,099.5	\$173.6	\$4,002.5
Energy Initiative1	\$237.1	\$476.5	\$12.5	\$5,614.4	\$131.0	\$6,471.5
EERMC - Large C&I	\$111.8	\$0.0	\$0.0	\$0.0	\$0.0	\$111.8
Shareholder Incentive	\$0.0	\$261.6	\$0.0	\$0.0	\$0.0	\$261.6
<b>Subtotal - Large Commercial &amp; Industrial</b>	<b>\$609.7</b>	<b>\$1,186.6</b>	<b>\$32.6</b>	<b>\$8,714.0</b>	<b>\$304.6</b>	<b>\$10,847.4</b>
<b>Grand Total</b>	<b>\$1,439.2</b>	<b>\$1,927.6</b>	<b>\$224.3</b>	<b>\$17,024.2</b>	<b>\$400.0</b>	<b>\$21,015.2</b>

**Notes:**

1 Includes commitments for Design 2000plus and for Energy Initiative as shown below:

Design 2000plus Commitments: \$1,500.0

Energy Initiative Commitments: \$3,000.0

These commitments reflect agreements with customers to provide funding for approved energy efficiency projects that will be completed after year-end 2008.

**THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID**

**R.I.P.U.C Docket No.3892**

**Attachment 7**

**page 2 of 2**

**Proposed 2008 Budget Compared to Approved 2007 Budget (\$000)**

	<b>Proposed Budget (2008)</b>	<b>Approved Budget (2007)</b>	<b>Change Compared to 2007</b>
<b>RESIDENTIAL PROGRAMS</b>			
EnergyWise	\$1,662.7	\$2,170.2	(\$507.5)
Single Family - Low Income Services	\$1,475.1	\$1,953.3	(\$478.1)
ENERGY STAR Products	\$309.1	\$332.7	(\$23.6)
ENERGY STAR Heating System	\$99.6	\$130.8	(\$31.2)
ENERGY STAR Air Conditioning	\$297.8	\$145.4	\$152.4
Residential Lighting	\$625.9	\$819.8	(\$193.9)
ENERGY STAR New Construction	\$716.3	\$712.3	\$4.1
Energy Efficiency Educational Programs	\$31.2	\$48.4	(\$17.1)
EERMC - Residential	\$124.1	\$125.5	(\$1.4)
<b>Subtotal Residential</b>	<b>\$5,341.9</b>	<b>\$6,438.3</b>	<b>(\$1,096.3)</b>
<b>LARGE COMMERCIAL AND INDUSTRIAL PROGRAMS</b>			
Design 2000plus	\$3,828.9	\$3,957.1	(\$128.1)
Energy Initiative	\$6,340.5	\$6,603.3	(\$262.8)
EERMC - Large C&I	\$111.8	\$114.3	(\$2.5)
<b>Subtotal Large Commercial &amp; Industrial</b>	<b>\$10,281.2</b>	<b>\$10,674.6</b>	<b>(\$393.4)</b>
<b>SMALL COMMERCIAL &amp; INDUSTRIAL PROGRAMS</b>			
Small C&I	\$4,263.9	\$4,260.0	\$3.9
EERMC - Small C&I	\$80.5	\$82.0	(\$1.5)
<b>Subtotal Small Commercial &amp; Industrial</b>	<b>\$4,344.4</b>	<b>\$4,342.0</b>	<b>\$2.4</b>
<b>OTHER EXPENSE ITEMS</b>			
Company Incentive	\$647.7	\$723.0	(\$75.3)
Program Design, Evaluation and Planning	\$400.0	\$350.0	\$50.0
<b>Subtotal Other Items</b>	<b>\$1,047.7</b>	<b>\$1,073.0</b>	<b>(\$25.3)</b>
<b>TOTAL BUDGET</b>	<b>\$21,015.2</b>	<b>\$22,527.8</b>	<b>(\$1,512.6)</b>



**THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID**

**R.I.P.U.C Docket No.3892**

**Attachment 8**

**page 1 of 2**

**Derivation of the 2008 Spending Budget for Shareholder Incentive Calculation**

	<b>Proposed 2008 Budget (\$000)</b>	<b>Commitments and Copays (\$000)</b>	<b>Other Funding Excluded From the Eligible Spending Budget (\$000)</b>	<b>Eligible Sector Spending Budget (\$000)</b>
<b>RESIDENTIAL PROGRAMS</b>				
ENERGY STAR Homes	\$716.7			
ENERGY STAR Air Conditioning	\$311.2			
ENERGY STAR Heating	\$99.6			
EnergyWise	\$1,664.0			
ENERGY STAR Lighting	\$659.2			
ENERGY STAR Products	\$309.4			
Single Family - Low Income Services	\$1,493.3			
EERMC - Residential	\$124.1		\$124.1	
Residential Education Program	\$31.2			
Shareholder Incentive	\$236.6		\$236.6	
<b>Subtotal - Residential</b>	<b>\$5,645.5</b>	<b>\$0.0</b>	<b>\$360.7</b>	<b>\$5,284.7</b>
<b>SMALL COMMERCIAL &amp; INDUSTRIAL PROGRAMS</b>				
Small Business Services	\$4,292.4			
EERMC - Small C&I	\$80.5		\$80.5	
Shareholder Incentive	\$149.5		\$149.5	
<b>Subtotal - Small Commercial &amp; Industrial</b>	<b>\$4,522.4</b>	<b>\$812.6</b>	<b>\$230.0</b>	<b>\$3,479.8</b>
<b>LARGE COMMERCIAL &amp; INDUSTRIAL PROGRAMS</b>				
Design 2000plus	\$4,002.5			
Energy Initiative	\$6,471.5			
EERMC - Large C&I	\$111.8		\$111.8	
Shareholder Incentive	\$261.6		\$261.6	
<b>Subtotal - Large Commercial &amp; Industrial</b>	<b>\$10,847.4</b>	<b>\$4,518.4</b>	<b>\$373.4</b>	<b>\$5,955.7</b>
<b>Grand Total</b>	<b>\$21,015.2</b>	<b>\$5,331.0</b>	<b>\$964.1</b>	<b>\$14,720.2</b>

**THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID**

**R.I.P.U.C Docket No.3892**

**Attachment 8**

**page 2 of 2**

**Target 2008 Shareholder Incentive**

Incentive Rate: 4.40%

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Sector	Spending Budget	Incentive Rate	Target Incentive	Target Incentive for Performance Metrics	Target Incentive - Annual kWh Savings	Annual kWh Savings Goal	Threshold kWh Savings	Target Incentive Per kWh	Incentive Cap Annual kWh Savings
Residential	\$5,284,732		\$236,627	\$40,000	\$196,627	15,908,740	9,545,244	\$0.012	\$245,784
Small Commercial & Industrial	\$3,479,808		\$149,472	\$20,000	\$129,472	8,698,030	5,218,818	\$0.015	\$161,840
Large Commercial & Industrial	\$5,955,670		\$261,590	\$40,000	\$221,590	30,196,093	18,117,656	\$0.007	\$276,988
Total	\$14,720,210	4.40%	\$647,689	\$100,000	\$547,689	54,802,862	32,881,718		\$684,611

Notes:

- (1) Sector budget net of projected commitments and copays. See Attachment 8, page 1 of 2.
- (2) 4.40% of the sector spending budget.
- (3) Target Incentive Total = Incentive Rate x Spending Budget Total (Column (1)).
- (4) \$20,000 per proposed performance metric.
- (5) Total for Column (3) - Total for Column (4) allocated to sectors based on the relative size of the spending budget in the sector.
- (6) Goal for annual kWh savings by sector. This may be adjusted at year end for evaluation results and actual spending relative to the spending budget.  
If goal is adjusted, values in columns (7), (8), and (9) will be adjusted as well.
- (7) 60% of Column (5). No incentive is earned on annual kWh savings in the sector unless the Company achieves at least this threshold level of
- (8) Column (5)/Column (6). Applicable to all annual kWh savings up to 125% of target savings if at least 60% of target savings have been achieved.
- (9) Column (5) x 1.25.



## **2008 PERFORMANCE METRICS**

### **Introduction**

Since 2004, a portion of the incentive under the shareholder incentive mechanism for the DSM programs has been reserved for incentivized performance metrics. These performance metrics are established for initiatives offered in Rhode Island for market transformation objectives or for significant improvements in program offerings. In all cases, the metrics are designed to be straightforward measures of progress for initiatives believed worthy of a special targeted focus.

For 2008, the Company proposes performance metrics for five initiatives. For the first time, the essential objective for each individual initiative is not changing from 2007. This reflects the Parties agreement that the metrics are still valid as well as the fact that, for many such initiatives, progress is achieved over time and that it is worthwhile to maintain the focus of program implementation on the policy objective defined by the metric over more than one year. .

The Company proposes the performance targets for 2008 described on the following pages. The proposed targets reflect current market conditions and will require significant Company effort to achieve desired results.

### **Final Metric Targets**

Threshold performance for all five metrics will be based on 2007 results. As 2007 results are not yet available, this Attachment provides a process and framework for the calculation of metric targets once results are available. For two metrics (ENERGY STAR® Homes and High Performance Schools), the targets may be set early in 2008. For the other three metrics, preliminary MWh targets are included here consistent with the program savings estimates provided in the Settlement, Attachment 10, page 2 of 3.

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 9**

**Page 2 of 10**

1 However, if the assumptions used to develop metric MWh targets change as the result of  
2 completed evaluation studies, the Parties agree that the performance metric MWh targets  
3 may be adjusted accordingly. The Company will recalculate metric targets to account for  
4 those evaluation findings and provide them to the Collaborative for review. If the  
5 adjusted metric MWh targets vary by more than 5% from the targets included below,  
6 Division review and approval will be required. The incorporation of evaluation study  
7 results is typically not completed until August of the program year, i.e., the results from  
8 evaluation of the 2007 programs will not be incorporated until August 2008. Therefore,  
9 the Company proposes to calculate and file revised metric targets, if any, no later than  
10 September 30, 2008.

11  
12 **Partial Credit**

13  
14 The Parties agree that, for three of the metrics, partial credit will be awarded for  
15 performance that does not meet the specific numeric target, in recognition of the  
16 Company's effort and in recognition that Rhode Island consumers benefit from even  
17 partial progress toward the metric's objective. No extra incentive will be awarded for  
18 exceeding the numeric target.

19  
20 The performance level at which partial achievement will be credited is the "threshold."  
21 For the three metrics structured with partial credit in 2008, the threshold will be greater  
22 than or equal to final 2007 performance after consideration of the unique attributes of the  
23 metric. This provides continuity in the structure of the metric at the same time as  
24 creating a clear standard for the Company from which it must improve in order to receive  
25 an incentive. .

26  
27 The performance level at which the full incentive will be credited is the "target." The  
28 incentive for two metrics will be linearly scaled between the threshold and the target. For

the schools metric that does not allow for this kind of scaling, the incentive will be credited for incremental levels of performance.

**Residential Metric 1: ENERGY STAR® Homes**

Metric: In 2008, the Company will conduct plans analyses and home ratings and sign ENERGY STAR® builders' agreements for new homes being built in Rhode Island. It will increase the penetration of signed builders agreements in 2008 by 3 percentage points compared to the penetration achieved in 2007. Penetration will be calculated as the number of signed agreements divided by the number of permits for new dwelling units issued in 2007.

Objective: The metric supports market transformation in the construction of new homes by giving an incentive for an increase in market penetration. This is a leading indicator of future savings in the program.

Discussion: In 2006 the ENERGY STAR® Homes program was redesigned at the national level to increase efficiency requirements. Signing up builders and home buyers to the more stringent updated ENERGY STAR® Homes program requires builders to agree to a significant change in their building practices, so the trend in penetration can be viewed beginning with that year. Penetration levels for 2006 were 15.8% and penetration in 2007 is tracking at 20.4%. Note that these values include only those who sign ENERGY STAR agreements; participants through the Code Plus feature of the program will not be counted toward the metric.

For 2008, the threshold for this metric is set at 1 percentage point greater than 2007 year-end penetration and the target level of performance is an increase of 3 percentage points over the penetration achieved in 2007. The increase of 3% over year end 2007 penetration is comparable to the penetration increase that was observed in 2001-03, when the previous program design was in its initial years of deployment.

THE NARRAGANSETT ELECTRIC COMPANY

d/b/a National Grid

R.I.P.U.C. Docket No. 3892

Attachment 9

Page 4 of 10

Partial Performance: The following is proposed for partial achievement toward the target of a 3 percentage point increase in penetration. The incentive for performance between the threshold and the target will be scaled proportionately.

ENERGY STAR® HOMES			
	Penetration %	Incentive	% of Incentive
Threshold	XX.X% (2007 penetration + 1%)	\$6,700	33%
Target	XX.X% (2007 penetration +3%)	\$20,000	100%

**Residential Metric #2: Savings from Programs other than Residential Lighting**

Metric: The Company will achieve a target amount of MWh savings from programs other than Residential Lighting in 2008. The target will be calculated as the net annual MWh savings goal for all residential programs excluding the net annual MWh savings from the Residential Lighting program.

Objective: This metric encourages the Company to provide sufficient focus on achieving savings objectives in all of its residential energy efficiency programs.

Discussion: The Company's proposed savings goals for 2008 include objectives that focus on energy efficiency opportunities beyond energy efficient lighting in the Residential Lighting Program. This metric complements and reinforces these other objectives by focusing Company efforts on all residential programs. The metric incentive will be earned only if savings from programs other than Residential Lighting meet or exceed the combined threshold savings goal for those programs.

Annual MWh savings will be counted for all programs, excluding Residential Lighting. The proposed target is set at 100% of the net annual MWh savings goal from programs

THE NARRAGANSETT ELECTRIC COMPANY

d/b/a National Grid

R.I.P.U.C. Docket No. 3892

Attachment 9

Page 5 of 10

other than Residential Lighting. The goal is set as a MWh target for savings from programs other than Residential Lighting, rather than a percentage of sector savings, because of the individual characteristics of the various programs. There is no threshold for this metric. Without a threshold, this becomes an “all-or-nothing” performance metric. The parties propose this treatment because it efficiently complements the MWh savings incentive for this sector. Recognizing the difficulty in predicting customer demand for program services in these residential programs, this will be a challenging goal to achieve.

Metric Performance: The following is for achievement of the target savings from residential programs other than the Residential Lighting Program.

RESIDENTIAL OTHER PROGRAM SAVINGS			
Performance	Annual MWh Savings	Incentive	% of Incentive
Target	3,935 MWh (100% of MWh goal) <sup>1</sup>	\$20,000	100%

There is no threshold for this metric.

**C&I Metric 1: Savings Other Than Prescriptive Lighting Savings in the Energy Initiative Program**

Metric: The Company will achieve a target amount of MWh savings from subprograms other than prescriptive lighting in the Energy Initiative program in 2008. The target will be calculated as the net annual MWh savings from all other subprograms<sup>2</sup> estimated as part of the planned savings for the Energy Initiative program in 2008.

<sup>1</sup> This target is based on program savings estimates contained in Attachment 10, page 2; it may be changed by September 30, 2008, as noted above.

<sup>2</sup> For the 2007 Energy Initiative Program, subprograms include Compressed Air, Custom, HVAC, Lighting, and VSDs.

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 9**

**Page 6 of 10**

Objective: This metric encourages the Company to seek comprehensive retrofit projects in existing Commercial and Industrial customer facilities that go beyond prescriptive lighting.

Discussion: The percentage of savings from prescriptive lighting in the Energy Initiative Program has been increasing over the past few years. This type of measure distribution has helped the Company achieve savings goals but this has perhaps been achieved at the expense of measure diversity. This metric complements and reinforces the overall program savings goals by establishing a performance metric focusing on other subprogram savings. The metric incentive will only be earned only if other subprogram savings meets or exceeds 100% of the kWh savings built into the savings goals.

As mentioned above, the proposed target is 100% of the MWh savings from all Energy Initiative subprograms except prescriptive lighting consistent with the savings goals for 2007. The goal is set as a MWh target for savings, rather than a percentage of program savings, because this provides a clearer target than a percentage, which would be affected by how much prescriptive lighting savings are achieved. There is no threshold for this metric. Without a threshold, this becomes an “all-or-nothing” performance metric. The parties propose this treatment because it efficiently complements the MWh savings incentive for this sector. The Company will share quarterly subprogram MWh savings information with the Collaborative to track metric performance.

Metric Performance: The following is for achievement of the target savings from Energy Initiative other than prescriptive-lighting.

ENERGY INITIATIVE OTHER SUBPROGRAM SAVINGS			
Performance	MWh Savings	Incentive	% of Incentive
Target	3,726 MWh (2008 plan) <sup>3</sup>	\$20,000	100%

<sup>3</sup> This target is based on program savings estimates embedded in Attachment 10, page 2; it may be changed by September 30, 2008, as noted above.

There is no threshold for this metric.

**C&I Metric 2: High Performance Schools**

Metric: The Company will contract with public or private school projects through Design 2000*plus* to provide full incremental cost for high performance design and construction practices for new construction or major renovations with a special focus on high quality energy efficient lighting. It shall contract with 2 schools in 2008 more than were contracted with in 2007.

Objective: This market capitalizes on the window of opportunity available when school facilities are being built or renovated to increase program participation and energy savings. It assists a portion of the municipal sector that faces continuing funding challenges.

Discussion: Schools present unique opportunities to not only adopt energy efficiency but to enhance student learning through better classroom design. This metric provides technical and financial support from the very beginning of school construction projects, emphasizes thermal, acoustic, and visual comfort, especially in lighting design, and helps cities and towns construct new schools that are high quality, environmentally sensitive, and cost less to operate.

According to documents from the Department of Education, on average, funding is approved for approximately 15 public school projects per year. In the period 2001 through 2006, 11 schools, or 12% (of approximately 90 schools), have participated in the Schools Initiative.<sup>4</sup>

---

<sup>4</sup> Some of the approved public school projects may be for projects that may not be suitable for the Schools Initiative, in other words, projects that do not involve new construction or major renovation. These may be for partial facility construction, minor renovations, or equipment replacement at the end of its useful life.

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 9**

**Page 8 of 10**

The Company placed under contract 1 school in each of 2004 and 2005, and zero schools in 2006, and expects two schools to be placed under contract in 2007. This indicates the continuing difficulty in recruiting customers to this initiative considering the small number of new schools built each year, the long project development schedules, and the current economic climate, particularly for municipalities. The parties agree to set the threshold equal to the final number of number of schools placed under contract in 2007 and the target at the 2007 participation level plus two additional schools.

For 2008, the Company will continue to work with the Rhode Island Department of Elementary and Secondary Education to help identify additional participants. The Company has not yet been able to identify a single source of data that tracks funding of private school construction. Nevertheless, the Company will use the same level of effort to offer the program to private schools as to public schools and include contracts with private schools in the performance metric for 2008.

Partial Performance: Based on historic performance, the small size of the eligible market and the uncertainty about the potential in the private school sector, the following is proposed for partial achievement toward the target of three schools.

SCHOOLS INITIATIVE			
Performance	Signed Agreements	Incentive	% of Incentive
Threshold	2007 participation	\$10,000	50%
Intermediate	2007 participation + 1 school	\$15,000	75%
Target	2007 participation + 2 schools	\$20,000	100%

**C&I Metric 3: Comprehensiveness in Small Business Installations**

---

Many of these have received rebates through the Design 2000*plus* program. In fact, over 75% of the funded public school projects received Design2000*plus* rebates in this period.

**THE NARRAGANSETT ELECTRIC COMPANY**  
**d/b/a National Grid**  
**R.I.P.U.C. Docket No. 3892**  
**Attachment 9**  
**Page 9 of 10**

1 Metric: The Company will achieve 6% greater MWh savings from completed measures  
2 other than prescriptive lighting and refrigeration in Small Business Services in 2008 than  
3 it achieved in 2007.

4  
5 Objective: This metric continues to encourage the Company to add other electrical  
6 efficiency opportunities beyond lighting and refrigeration retrofits to the Small Business  
7 Services program. These improvements to program design support more  
8 comprehensiveness in customers' facilities and expand the depth and appeal of the  
9 program.

10  
11 Discussion: In 2004 through 2006, the Parties established and achieved a metric target of  
12 comprehensiveness, determined by the percentage of custom applications. With  
13 increased vendor experience in identifying and delivering non-lighting measures, it is  
14 appropriate to focus the metric on savings.

15  
16 Small Business Services projects are tracked in nine categories. For the purposes of this  
17 metric, "comprehensive" will be defined as only those savings from the Custom,  
18 Thermostats, Hot Water Heater Wrap, Hot Water Heater Pump Controls, and HVAC  
19 Tune-up categories<sup>5</sup>. Lighting Controls and Lighting Systems are the end uses that have  
20 dominated savings. Coolers and Custom Coolers are excluded because they deal with a  
21 very specific end use with finite savings opportunities and are typically installed by a  
22 separate vendor.

23  
24 The Company proposes to set the target in 2008 at a 6% increase in comprehensive end  
25 use MWh compared to 2007. The Company believes that good progress has been made  
26 in small business comprehensive implementation, but that more progress remains to be  
27 made. The 6 percentage point increase will be a challenge because it continues to be a

---

<sup>5</sup> No savings have been recorded in the Hot Water Heater Wrap, Hot Water Heater Pump Controls, HVAC Tune-up categories at least since 2004.

**THE NARRAGANSETT ELECTRIC COMPANY**

**d/b/a National Grid**

**R.I.P.U.C. Docket No. 3892**

**Attachment 9**

**Page 10 of 10**

challenge for the implementation vendor to cost effectively manage the implementation of custom measures while managing the budget and achieving savings targets. The target is not a percentage of total savings in the program because the recent increase in the eligibility ceiling to 200 kW demand has lead to an increase in MWh savings from lighting as well.

As in 2007, the metric specifies completed projects to put the tracking of comprehensiveness on equal footing with other results that are tracked throughout the years, and to eliminate the potential for counting a comprehensive project in two years. Also, as in 2007, the Company will exclude from this metric and assessment of its performance toward the customers who participate in the RIOER's ESCO program.

Partial Performance: Based on historic performance, the following is proposed for partial achievement toward the target.

SBS COMPREHENSIVENESS			
Performance	Comprehensive MWh	Incentive	% of Incentive
Threshold	XXX MWh (equal to 2007) <sup>6</sup>	\$10,000	50%
Target	XXX MWh (6 percent increase in MWh above 2007)	\$20,000	100%

The incentive for performance between the threshold and the target will be scaled proportionately.

---

<sup>6</sup> The target will be initially set at year end 2007 based on results available at that time. This target may be changed by September 30, 2008, as noted above.



**THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID**

**R.I.P.U.C Docket No. 3892**

**Attachment 10**

**Calculation of 2008 Program Year Cost-Effectiveness and Goals**

**Page 1 of 3**

**2008 RHODE ISLAND BENEFIT COST TEST**

Summary of Benefit, Expenses, Evaluation Costs (\$000)

	Rhode Island Benefit/ Cost (2)	Total Benefit	Program Implementation Expenses	Evaluation Cost	Shareholder Incentive (3)
<b>Large Commercial &amp; Industrial</b>					
Design 2000 <i>plus</i>	7.40	\$18,510.1	\$2,328.9	\$173.6	NA
Energy Initiative	8.21	\$28,502.0	\$3,340.5	\$131.0	NA
Energy Efficiency and Resources Management Council - Large C&I	NA	NA	\$111.8	\$0.0	NA
<b>SUBTOTAL</b>	<b>7.41</b>	<b>\$47,012.1</b>	<b>\$5,781.2</b>	<b>\$304.6</b>	<b>\$261.6</b>

**Small Commercial & Industrial**

Small Business (1)	4.54	\$14,905.8	\$3,257.7	\$28.5	NA
Energy Efficiency and Resources Management Council - Small C&I	NA	NA	\$80.5	\$0.0	NA
<b>SUBTOTAL</b>	<b>4.24</b>	<b>\$14,905.8</b>	<b>\$3,338.2</b>	<b>\$28.5</b>	<b>\$149.5</b>

**Residential Programs**

<b>IN-HOME SERVICES</b>	1.69	\$5,324.5	\$3,137.8	\$19.5	NA
EnergyWise Program	1.54	\$2,557.7	\$1,662.7	\$1.3	NA
Low Income Services	1.85	\$2,766.8	\$1,475.1	\$18.2	NA
<b>PRODUCTS &amp; SERVICES</b>	8.33	\$11,489.9	\$1,332.4	\$47.0	NA
Energy Star Appliances	4.83	\$1,495.8	\$309.1	\$0.3	NA
ENERGY STAR Heating System	7.57	\$754.4	\$99.6	\$0.0	NA
ENERGY STAR Air Conditioning	1.86	\$579.8	\$297.8	\$13.4	NA
Residential Lighting	13.14	\$8,659.9	\$625.9	\$33.3	NA
<b>NEW CONSTRUCTION</b>	3.07	\$2,202.2	\$716.3	\$0.4	NA
Energy Efficiency Education Programs	NA	NA	\$31.2	NA	NA
Energy Efficiency and Resources Management Council - Residential	NA	NA	\$124.1	\$0.0	NA
<b>SUBTOTAL</b>	<b>3.37</b>	<b>\$19,016.6</b>	<b>\$5,341.9</b>	<b>\$66.9</b>	<b>\$236.6</b>

<b>TOTAL</b>	<b>5.22</b>	<b>\$80,934.5</b>	<b>\$14,461.4</b>	<b>\$400.0</b>	<b>\$647.7</b>
--------------	-------------	-------------------	-------------------	----------------	----------------

Notes:

- 1) Small Business program expenses are net of the projected customer co-pay for 2008 installations (\$1,006,205).
- 2) RI B/C Test = (Energy + Capacity + Participant Resource Benefits) / (Program Implementation + Evaluation Costs + Shareholder Incentive)
- 3) See Attachment 8.

**THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID**

**R.I.P.U.C Docket No. 3892**

**Attachment 10**

**Calculation of 2008 Program Year Cost-Effectiveness and Goals**

**Page 2 of 3**

**2008 RHODE ISLAND BENEFIT COST TEST**

Summary of Expenses, Benefit, kW, and kWh by Program

Large Commercial & Industrial	Benefits (000's)										Load Reduction in kW			MWh Saved	
	Total	Capacity				Energy				Participant Resource	Summer	Winter	Lifetime	Maximum Annual	Lifetime
		Generation		Trans	MDC	Winter		Summer							
		Summer	Winter			Peak	Off Peak	Peak	Off Peak						
Design 2000plus	\$18,510	3,663	\$0	\$1,100	\$2,205	\$5,018	\$2,534	\$2,770	\$1,220	\$0	2,016	1,154	32,346	9,157	143,895
Energy Initiative	28,502	5,296	0	1,598	3,203	6,122	4,418	5,754	2,111	0	3,592	2,565	44,818	21,039	264,387
SUBTOTAL	\$47,012	\$8,959	\$0	\$2,698	\$5,408	\$11,140	\$6,952	\$8,524	\$3,330	\$0	5,608	3,719	77,165	30,196	408,282
Small Commercial & Industrial															
Small Business	14,906	3,024	0	913	1,830	4,138	1,842	2,279	879	0	2,094	1,067	25,484	8,698	105,864
SUBTOTAL	\$14,906	\$3,024	\$0	\$913	\$1,830	\$4,138	\$1,842	\$2,279	\$879	\$0	2,094	1,067	25,484	8,698	105,864
Residential Programs															
IN-HOME SERVICES	\$5,324	\$357	\$0	\$108	\$315	\$907	\$1,000	\$526	\$470	\$1,641	236	493	3,051	2,820	36,991
EnergyWise Program	2,558	211	0	64	186	626	697	370	325	79	131	292	1,790	1,875	25,910
Low Income Services	2,767	146	0	44	130	281	303	156	145	1,562	105	201	1,261	945	11,082
PRODUCTS & SERVICES	\$11,490	\$1,082	\$0	\$333	\$971	\$2,410	\$2,686	\$1,559	\$1,256	\$1,194	1,132	3,009	8,808	12,555	83,271
Energy Star Products	1,496	232	0	70	204	125	139	114	76	536	153	60	1,937	415	5,724
Energy Star Heating System	754	11	0	3	10	38	12	17	6	657	6	4	100	50	896
Energy Star Air Conditioning	580	209	0	65	190	8	2	84	22	0	192	4	1,804	116	1,216
Residential Lighting	8,660	630	0	194	567	2,239	2,533	1,344	1,153	0	782	2,942	4,967	11,974	75,435
NEW CONSTRUCTION	2,202	333	0	100	291	134	150	80	69	1,046	149	111	3,188	534	5,246
SUBTOTAL	\$19,017	\$1,772	\$0	\$540	\$1,578	\$3,451	\$3,836	\$2,164	\$1,796	\$3,880	1,517	3,613	15,047	15,909	125,508
TOTAL	\$80,935	\$13,755	\$0	\$4,152	\$8,815	\$18,730	\$12,631	\$12,967	\$6,005	\$3,880	9,219	8,399	117,696	54,803	639,655

**THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID**

**R.I.P.U.C Docket No. 3892**

**Attachment 10**

**Calculation of 2008 Program Year Cost-Effectiveness and Goals**

**Page 3 of 3**

	Proposed 2008		2007		Difference	
	Annual Energy Savings (MWh)	Participants	Annual Energy Savings (MWh)	Participants	Annual Energy Savings (MWh)	Participants
<b>Program</b>						
<b>Large Commercial &amp; Industrial</b>						
Design 2000 <i>plus</i>	9,157	159	9,453	182	(296)	(23)
Energy Initiative	21,039	145	21,944	234	(905)	(89)
<b>SUBTOTAL</b>	<b>30,196</b>	<b>304</b>	<b>31,397</b>	<b>416</b>	<b>(1,201)</b>	<b>(112)</b>
<b>Small Commercial &amp; Industrial</b>						
Small Business Services	8,698	542	8,683	508	15	34
<b>SUBTOTAL</b>	<b>8,698</b>	<b>542</b>	<b>8,683</b>	<b>508</b>	<b>15</b>	<b>34</b>
<b>Residential Programs</b>						
<b>IN-HOME SERVICES</b>						
Energy <i>Wise</i>	1,875	2,962	3,241	4,965	(1,367)	(2,003)
Low Income Services	945	806	1,393	1,180	(448)	(374)
<b>PRODUCTS &amp; SERVICES</b>						
ENERGY STAR® Appliances	415	3,750	1,288	5,800	(873)	(2,050)
ENERGY STAR® Heating Program	50	423	70	580	(20)	(157)
ENERGY STAR® Central Air Conditioning Program	116	620	42	268	73	352
ENERGY STAR® Lighting	11,974	51,650	15,966	68,864	(3,991)	(17,214)
<b>NEW CONSTRUCTION</b>	534	335	495	225	39	110
<b>SUBTOTAL</b>	<b>15,909</b>	<b>60,546</b>	<b>22,495</b>	<b>81,882</b>	<b>(6,586)</b>	<b>(21,336)</b>
<b>TOTAL</b>	<b>54,803</b>	<b>61,392</b>	<b>62,575</b>	<b>82,806</b>	<b>(7,772)</b>	<b>(21,414)</b>



**ELECTRIC AND OTHER FUEL AVOIDED COSTS FOR RHODE ISLAND****ELECTRIC AVOIDED COSTS FOR RHODE ISLAND**

WHOLESALE POWER PRICE (Columns 1 through 10) FROM 2007 AVOIDED ENERGY SUPPLY COMPONENT STUDY, IN 2007\$

EXHIBIT E-1 RI-C\$

TRANSMISSION AND DISTRIBUTION CAPACITY VALUES (Columns 11, 12 and 13) FROM COMPANY ANALYSIS, IN 2007\$

	1	2	3	4	5	6	7	8	9	10	11	12	13
	Wholesale Power Price, Constant Dollars										T&D CAPACITY VALUES		
	Rhode Island					DRIPE for Installations in 2008							
	Winter Peak Energy	Winter Off-Peak Energy	Summer Peak Energy	Summer Off-Peak Energy	Annual Market Capacity Value	Winter Peak Energy	Winter Off-Peak Energy	Summer Peak Energy	Summer Off-Peak Energy	Annual Market Capacity Value	Avoided Trans. Capacity Value	Avoided Res. Distr. Capacity Value	Avoided C&I Distr. Capacity Value
	\$/kWh	\$/kWh	\$/kWh	\$/kWh	\$/kW-yr	\$/kWh	\$/kWh	\$/kWh	\$/kWh	\$/kW-yr	\$/kW-yr	\$/kW-yr	\$/kW-yr
Units:													
Period:													
2007	0.092	0.067	0.093	0.070	-						37.4	109.2	74.9
2008	0.105	0.077	0.096	0.072	-	0.015	0.012	0.024	0.010	-	38.8	113.3	77.8
2009	0.096	0.074	0.097	0.067	-	0.043	0.035	0.070	0.031	-	38.8	113.3	77.8
2010	0.096	0.071	0.097	0.065	60.5	0.040	0.033	0.066	0.030	72	38.8	113.3	77.8
2011	0.092	0.067	0.095	0.063	109.1	0.025	0.020	0.040	0.018	140	38.8	113.3	77.8
2012	0.093	0.069	0.095	0.065	122.1					90	38.8	113.3	77.8
2013	0.087	0.064	0.092	0.063	129.6					40	38.8	113.3	77.8
2014	0.090	0.064	0.092	0.063	129.6						38.8	113.3	77.8
2015	0.089	0.064	0.096	0.062	129.6						38.8	113.3	77.8
2016	0.090	0.066	0.098	0.066	129.6						38.8	113.3	77.8
2017	0.093	0.068	0.101	0.066	129.6						38.8	113.3	77.8
2018	0.092	0.067	0.098	0.067	129.6						38.8	113.3	77.8
2019	0.092	0.066	0.101	0.067	129.6						38.8	113.3	77.8
2020	0.092	0.068	0.102	0.068	129.6						38.8	113.3	77.8
2021	0.093	0.069	0.106	0.067	129.6						38.8	113.3	77.8
2022	0.098	0.069	0.108	0.070	129.6						38.8	113.3	77.8
2023	0.099	0.070	0.109	0.071	129.6						38.8	113.3	77.8
2024	0.100	0.071	0.111	0.072	129.6						38.8	113.3	77.8
2025	0.102	0.072	0.113	0.073	129.6						38.8	113.3	77.8
2026	0.103	0.073	0.114	0.074	129.6						38.8	113.3	77.8
2027	0.105	0.074	0.116	0.075	129.6						38.8	113.3	77.8
2028	0.106	0.075	0.118	0.076	129.6						38.8	113.3	77.8
2029	0.108	0.076	0.119	0.077	129.6						38.8	113.3	77.8
2030	0.109	0.077	0.121	0.078	129.6						38.8	113.3	77.8
2031	0.111	0.079	0.123	0.080	129.6						38.8	113.3	77.8
2033	0.114	0.081	0.126	0.082	129.6						38.8	113.3	77.8
2035	0.118	0.083	0.130	0.084	129.6						38.8	113.3	77.8
2037	0.121	0.086	0.134	0.087	129.6						38.8	113.3	77.8
2039	0.125	0.088	0.138	0.089	129.6						38.8	113.3	77.8
2040	0.126	0.089	0.140	0.091	129.6						38.8	113.3	77.8
Levelized (2008-2040)	0.101	0.073	0.109	0.072	114.9	0.005	0.004	0.008	0.004	13.4	38.8	113.3	77.8
5 years (2008-12)	0.096	0.072	0.096	0.067	56.8	0.025	0.020	0.040	0.018	59.0	38.8	113.3	77.8
10 years (2008-17)	0.093	0.068	0.096	0.065	91.2	0.013	0.011	0.021	0.010	35.1	38.8	113.3	77.8
15 years (2008-22)	0.093	0.068	0.098	0.066	102.6	0.009	0.007	0.015	0.007	24.6	38.8	113.3	77.8

## Notes:

- 1) All Avoided Costs are in Year 2007 Dollars; Peak hours are: Monday through Friday 6am - 10pm; Off-Peak Hours are: All other hours
- 2) Summer for energy values includes June through September; Winter is all other months
- 3) Wholesale power prices include Retail Adder of 10%
- 4) Real escalation of 1.9% from 2007 to 2008 used in cost-effectiveness models
- 5) Levelized values calculated using real discount rate of 2.2%
- 6) All Wholesale Power Prices include losses on the ISO-administered Transmission System.  
DSM savings should include distribution and local transmission losses

# ELECTRIC AND OTHER FUEL AVOIDED COSTS FOR RHODE ISLAND

## ELECTRIC AVOIDED COSTS FOR RHODE ISLAND USED IN B/C MODEL FOR 2008 RESIDENTIAL PROGRAMS

From Page 1 of 4, including residential loss factors

2007\$ escalated 1.9% real to 2008\$

Wholesale Power Price, Constant Dollars										T&D CAP. VALUES	
Rhode Island					DRIPE for Installations in 2008					Avoided Trans. Capacity Value	Avoided Res Distr. Capacity Value
Winter Peak Energy	Winter Off-Peak Energy	Summer Peak Energy	Summer Off-Peak Energy	Annual Market Capacity Value	Winter Peak Energy	Winter Off-Peak Energy	Summer Peak Energy	Summer Off-Peak Energy	Annual Market Capacity Value		
\$/kWh	\$/kWh	\$/kWh	\$/kWh	\$/kW-yr	\$/kWh	\$/kWh	\$/kWh	\$/kWh	\$/kW-yr	\$/kW-yr	\$/kW-yr

Units:

Period:

2008	0.115	0.081	0.105	0.076	0.0	0.016	0.013	0.026	0.011	0.0	44.0	128.4
2009	0.105	0.078	0.106	0.071	0.0	0.047	0.037	0.077	0.033	0.0	44.0	128.4
2010	0.105	0.075	0.106	0.069	68.6	0.044	0.035	0.072	0.032	81.6	44.0	128.4
2011	0.100	0.071	0.104	0.066	123.6	0.027	0.021	0.044	0.019	158.6	44.0	128.4
2012	0.101	0.073	0.104	0.069	138.3	0.000	0.000	0.000	0.000	102.0	44.0	128.4
2013	0.095	0.067	0.100	0.067	146.9	0.000	0.000	0.000	0.000	45.3	44.0	128.4
2014	0.099	0.068	0.101	0.067	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2015	0.097	0.068	0.105	0.066	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2016	0.099	0.070	0.107	0.070	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2017	0.102	0.072	0.110	0.070	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2018	0.100	0.071	0.107	0.071	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2019	0.100	0.070	0.110	0.071	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2020	0.100	0.072	0.112	0.072	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2021	0.101	0.073	0.115	0.071	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2022	0.107	0.073	0.118	0.074	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2023	0.108	0.074	0.120	0.075	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2024	0.110	0.075	0.121	0.076	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2025	0.111	0.076	0.123	0.077	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2026	0.113	0.077	0.125	0.078	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2027	0.115	0.079	0.127	0.080	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2028	0.116	0.080	0.128	0.081	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2029	0.118	0.081	0.130	0.082	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2030	0.120	0.082	0.132	0.083	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2031	0.121	0.083	0.134	0.084	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2032	0.123	0.084	0.136	0.086	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2033	0.125	0.086	0.138	0.087	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2034	0.127	0.087	0.140	0.088	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2035	0.129	0.088	0.142	0.089	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2036	0.130	0.089	0.144	0.091	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2037	0.132	0.091	0.146	0.092	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2038	0.134	0.092	0.148	0.093	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2039	0.136	0.093	0.150	0.095	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4
2040	0.138	0.095	0.153	0.096	146.9	0.000	0.000	0.000	0.000	0.0	44.0	128.4

## page 3 of 4

**2007\$ escalated 1.9% real to 2008\$**

Units: Period:	Wholesale Power Price, Constant Dollars										T&D CAP. VALUES	
	Rhode Island					DRIPE for Installations in 2008					Avoided Trans. Capacity Value	Avoided C&I Distr. Capacity Value
	Winter Peak Energy	Winter Off-Peak Energy	Summer Peak Energy	Summer Off-Peak Energy	Annual Market Capacity Value	Winter Peak Energy	Winter Off-Peak Energy	Summer Peak Energy	Summer Off-Peak Energy	Annual Market Capacity Value		
	\$/kWh	\$/kWh	\$/kWh	\$/kWh	\$/kW-yr	\$/kWh	\$/kWh	\$/kWh	\$/kWh	\$/kW-yr		
2008	0.113	0.081	0.104	0.075	0.000	0.016	0.012	0.026	0.011	0.000	43.297	115.491
2009	0.104	0.077	0.105	0.071	0.000	0.046	0.036	0.076	0.033	0.000	43.297	115.491
2010	0.103	0.074	0.105	0.068	67.504	0.043	0.034	0.071	0.031	80.338	43.297	115.491
2011	0.099	0.071	0.103	0.066	121.748	0.026	0.021	0.043	0.019	156.213	43.297	115.491
2012	0.100	0.072	0.103	0.069	136.213	0.000	0.000	0.000	0.000	100.422	43.297	115.491
2013	0.094	0.067	0.099	0.066	144.651	0.000	0.000	0.000	0.000	44.632	43.297	115.491
2014	0.098	0.067	0.100	0.067	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2015	0.096	0.067	0.104	0.065	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2016	0.097	0.069	0.105	0.069	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2017	0.101	0.071	0.109	0.070	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2018	0.099	0.071	0.106	0.071	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2019	0.099	0.070	0.109	0.070	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2020	0.099	0.071	0.110	0.071	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2021	0.100	0.073	0.114	0.071	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2022	0.105	0.072	0.116	0.073	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2023	0.107	0.073	0.118	0.074	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2024	0.108	0.075	0.120	0.075	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2025	0.110	0.076	0.122	0.077	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2026	0.112	0.077	0.123	0.078	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2027	0.113	0.078	0.125	0.079	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2028	0.115	0.079	0.127	0.080	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2029	0.116	0.080	0.129	0.081	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2030	0.118	0.081	0.131	0.082	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2031	0.120	0.082	0.132	0.084	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2032	0.122	0.084	0.134	0.085	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2033	0.123	0.085	0.136	0.086	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2034	0.125	0.086	0.138	0.087	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2035	0.127	0.087	0.140	0.088	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2036	0.129	0.089	0.142	0.090	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2037	0.131	0.090	0.144	0.091	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2038	0.133	0.091	0.147	0.092	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2039	0.134	0.092	0.149	0.094	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491
2040	0.136	0.094	0.151	0.095	144.651	0.000	0.000	0.000	0.000	0.000	43.297	115.491

**ELECTRIC AND OTHER FUEL AVOIDED COSTS FOR RHODE ISLAND**

**Avoided Cost of Fuels Delivered to Retail Customers in Southern New England by End Use in 2008\$**

**USED IN B/C MODEL FOR 2008 RESIDENTIAL PROGRAMS**

**FROM 2007 AVOIDED ENERGY SUPPLY COMPONENT STUDY, EXHIBITS B-5 and F-1 in 2007\$**

**2007\$ escalated 1.9% real to 2008\$**

Year	NATURAL GAS (FROM EXHIBIT B-5)				ALL 5-mon. \$/Dth	OTHER FUELS (FROM EXHIBIT F-1)					
	Existing	New	Hot			No. 2 Distillate	Propane	Kerosene	BioFuel	BioFuel	Wood
	Heating	Heating	Water	All		Retail	Retail	Retail			Retail
	3-mon.	5-mon.	annual	6-mon.		Residential	Residential	Res & Com	B5 Blend	B20 Blend	Residential
	\$/Dth	\$/Dth	\$/Dth	\$/Dth		\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu	\$/MMBtu
2007	13.67	13.44	12.18	10.99	12.27	16.14	27.32	16.79	16.14	16.14	5.78
2008	14.78	14.54	13.21	12.07	13.37	16.74	29.30	17.42	16.74	16.74	6.00
2009	14.20	13.96	12.67	11.50	12.80	16.35	29.52	17.01	16.35	16.35	5.86
2010	13.59	13.36	12.11	10.91	12.19	15.87	29.99	16.51	15.87	15.87	5.68
2011	13.07	12.84	11.62	10.40	11.67	15.39	30.27	16.01	15.39	15.39	5.51
2012	12.67	12.44	11.25	10.01	11.27	14.95	30.65	15.55	14.95	14.95	5.36
2013	11.94	11.72	10.57	9.30	10.55	14.49	30.17	15.07	14.49	14.49	5.19
2014	12.00	11.78	10.64	9.37	10.62	14.30	30.19	14.87	14.30	14.30	5.12
2015	11.95	11.73	10.59	9.32	10.56	14.36	30.11	14.94	14.36	14.36	5.14
2016	12.11	11.89	10.73	9.47	10.72	14.43	30.17	15.01	14.43	14.43	5.17
2017	12.40	12.18	11.00	9.76	11.01	14.56	30.42	15.14	14.56	14.56	5.21
2018	12.31	12.09	10.92	9.67	10.92	14.70	30.33	15.29	14.70	14.70	5.26
2019	12.26	12.04	10.87	9.62	10.87	14.83	30.26	15.42	14.83	14.83	5.31
2020	12.40	12.17	11.00	9.75	11.01	14.96	30.37	15.56	14.96	14.96	5.36
2021	12.52	12.29	11.11	9.87	11.13	15.16	30.24	15.77	15.16	15.16	5.43
2022	12.81	12.58	11.38	10.15	11.42	15.36	30.39	15.98	15.36	15.36	5.50
2023	12.94	12.71	11.50	10.26	11.53	15.56	30.54	16.19	15.56	15.56	5.57
2024	13.07	12.84	11.61	10.36	11.65	15.76	30.58	16.39	15.76	15.76	5.64
2025	13.20	12.96	11.73	10.46	11.76	15.96	30.59	16.60	15.96	15.96	5.72
2026	13.33	13.09	11.85	10.57	11.88	16.09	30.62	16.74	16.09	16.09	5.76
2027	13.47	13.22	11.97	10.67	12.00	16.23	30.73	16.88	16.23	16.23	5.81
2028	13.60	13.36	12.08	10.78	12.12	16.36	30.89	17.01	16.36	16.36	5.86
2029	13.74	13.49	12.21	10.89	12.24	16.49	30.98	17.15	16.49	16.49	5.91
2030	13.87	13.63	12.33	11.00	12.36	16.62	31.02	17.29	16.62	16.62	5.95
2031	14.01	13.76	12.45	11.11	12.49	16.79	31.33	17.46	16.79	16.79	6.01
2032	14.15	13.90	12.58	11.22	12.61	16.96	31.65	17.64	16.96	16.96	6.07
2033	14.29	14.04	12.70	11.33	12.74	17.13	31.96	17.82	17.13	17.13	6.13
2034	14.44	14.18	12.83	11.44	12.87	17.30	32.28	17.99	17.30	17.30	6.20
2035	14.58	14.32	12.96	11.56	12.99	17.47	32.61	18.17	17.47	17.47	6.26
2036	14.73	14.46	13.09	11.67	13.12	17.65	32.93	18.36	17.65	17.65	6.32
2037	14.87	14.61	13.22	11.79	13.26	17.82	33.26	18.54	17.82	17.82	6.38
2038	15.02	14.75	13.35	11.91	13.39	18.00	33.59	18.72	18.00	18.00	6.45
2039	15.17	14.90	13.48	12.03	13.52	18.18	33.93	18.91	18.18	18.18	6.51