\_\_\_\_\_

#### **Division Data Request DIV 7-1**

#### Request:

Re: page 2, lines 5-7 of witness Simpson's direct testimony, please:

- a. Explain why increases in customers charges for all class and increases in C&I demand charges are necessary in the context of the Company's proposed revenue-per customer decoupling mechanism;
- b. Provide the Company's assessment of the extent to which the goals and objectives of increasing fixed charges for firm customers overlap with the goals and objectives of implementing a revenue per customer ("RPC") decoupling mechanism.

#### Response:

a. As explained in the testimony of Company Witness Heintz, the proposed customer charges are closer to, but still much less than the COSS unit customer-related costs. Increases in customer charges for all classes and increases in C&I demand charges are appropriate in the context of sound rate design principles. Rates that reflect the costs of providing service will (i) improve intra-class equity and fairness and (ii) promote efficiency, defined as the economically justified use of the Company's sales and distribution services.

The Company's proposed increases to customer charges for all classes and increases to C&I demand charges are part of an integrated approach, along with the proposed RPC decoupling mechanism, to remove the Company's dependency on gas consumption by its customers to obtain the revenue needed to operate its business. The proposed increases to customer charges and demand charges, together with the proposed RPC decoupling mechanism balance considerations of (i) rate continuity, (ii) rate stability, (iii) intra-class equity and (iv) the need to eliminate the Company's dependency on sales to generate adequate revenues. The proposed increases in customer charges and C&I demand charges and the proposed RPC decoupling mechanism address these four considerations in a manner that cannot be achieved by implementing either approach by itself.

b. As explained in the response to DIV-7-1(a), above, the Company's proposed fixed charges for firm customers result in rates that better reflect the cost of providing distribution service, which satisfies important rate

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008

design-related goals and objectives. Also as discussed above, the decoupling-related goals and objectives of the two approaches do not overlap; rather, they are compatible with and supportive of each other.

#### Division Data Request DIV 7-2

#### Request:

Re: pages 2-3 of witness Simpson's direct testimony. The witness asserts that decoupling would facilitate the expansion of gas efficiency programs. Please provide:

- a. The Company's assessment of the extent to which Rhode Island gas customers are expected to pursue gas energy efficiency and conservation in the absence of utility sponsored programs;
- b. The Company's assessment of the ability of non-regulated businesses to provide energy efficiency equipment and services to Rhode Island gas customers in the absence of utility sponsored gas efficiency programs;
- c. The Company's assessment of the extent to which increases in the cost of gas will provide incentives for Rhode Island gas customers to pursue conservation and/or gas efficiency in the absence of utility sponsored gas energy efficiency programs.

#### Response:

a. The extent to which Rhode Island gas customers would be expected to pursue gas energy efficiency and conservation<sup>1</sup> in the absence of utility sponsored programs is captured in the Company sales forecasts. In general, the Company's gas energy efficiency programs are designed to encourage investments in energy efficiency that go beyond energy efficiency investments that would occur without the programs.

In that regard, the Company is in the process of implementing natural gas energy efficiency programs, which have been reviewed and approved by the Commission. The Settlement Agreement and the Company's Compliance Filing, provided here as Attachments DIV-7-2(a)(1) and DIV-7-2(a)(2), set forth program descriptions, budgets, and savings goals for the approved program efforts. Attachment DIV-7-2(a)(3) is Order No. 19024, which authorized the Company to implement the programs described in Attachments DIV-7-2(a)(1) and DIV-7-2(a)(2). On page 17

Customers will pursue gas energy efficiency and conservation by: (a) actively responding to increases in the price of natural gas by installing gas equipment with improved energy efficiency or installing measures to reduce heat loss in their residences and buildings and (b) passively replacing older, failing gas equipment with equivalent gas equipment that meets current higher energy efficiency standards.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008

of the Order, the Commission notes: "In 2006, the Rhode Island General Assembly mandated the creation of a gas DSM surcharge to fund gas DSM programs to reduce gas consumption" (Order No. 19024, at page 17). The Commission also noted: "...a new gas DSM program should further reduce natural gas consumption beyond the initiatives taken by ratepayers in the absence of specific DSM programs" (Order No. 19024, at page 17).

The Company's energy efficiency programs are designed to overcome barriers to investment in energy efficiency measures and practices that are prevalent in the marketplace including but not limited to cost barriers, perceived technology risk, and absence of knowledge about efficiency opportunities. These barriers have been recognized as factors that limit the adoption of energy efficiency measures and practices.

The Company began implementing the approved natural gas energy efficiency programs in July 2007 and anticipates ramping up program efforts to the maximum level allowed under the law. The current suite of gas energy efficiency programs are funded through an energy efficiency charge of \$0.0107 per therm with expected savings of 198,908 MMBtu in annual gas savings<sup>2</sup>. The Company is currently working with the Collaborative, now a subcommittee to the Rhode Island Energy Efficiency Resource Management Council, to develop 3-year electric and gas energy efficiency plans as part of its least cost procurement obligations. The expectation is that the Company will propose to ramp up to 15 cents per dekatherm beginning in 2009, which represents a 40 percent increase over the current funding level. Although formal goals have not yet been proposed, it is reasonable to expect that the annual savings goals may increase by approximately this amount to around 278,000 MMBtu in annual gas savings. If this level of effort is sustained for five years, then annual savings will equal nearly 1.6 million MMBtu by 2014 (savings of 198,908 MMBtu by year-end 2008 and savings of 278,000 MMBtu by year-end in 2009 - 2013).

b. Non regulated businesses can and do participate in the market to provide these services. However, many of these firms find that they can deliver these services more effectively when they are able to deliver services in concert with a utility-administered program. Although it does not have quantitative evidence, the Company believes that significantly less energy efficiency would occur absent its efforts to deliver energy efficiency program services in Rhode Island.

<sup>&</sup>lt;sup>2</sup> See Attachment DIV-7-2(a)(2).

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008

The Rhode Island General Assembly, in creating the requirement for National Grid to implement natural gas energy efficiency programs (DSM), has recognized the important role the Company can play in achieving the state's energy efficiency policy objectives. Further, the Company's success in implementing electric DSM programs in Rhode Island supports the General Assembly's view that National Grid can and should be responsible for delivering gas energy efficiency services in Rhode Island.

c. As noted in the response to item (a), above, customer response to increased energy prices is generally captured through price elasticity. This dynamic suggests that as prices go up, some customers are likely to conserve on their own. However, as noted in item (a), above, the Company's gas energy efficiency programs are designed to encourage investments in energy efficiency that go beyond energy efficiency investments that would occur without the programs. Descriptions of the gas energy efficiency programs now implemented in Rhode Island are provided in Attachment DIV-7-2(a)(2).

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 1 of 64



Laura S. Olton General Counsel Rhode island

April 2, 2007

#### VIA HAND DELIVERY & ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk Rhode Island Public Utilities Commission 89 Jefferson Boulevard Warwick, RI 02888

> RE: Docket 3790 – National Grid Gas Energy Efficiency Programs Settlement Agreement

Dear Ms. Massaro:

Enclosed on behalf of National Grid<sup>1</sup>, the Rhode Island Division of Public Utilities and Carriers, The Energy Council of Rhode Island, the Rhode Island Office of Energy Resources, Energy Consumers Alliance of New England d/b/a People's Power and Light, and Environment Northeast (together, the "Parties"), are ten (10) copies of a Settlement setting forth the Company's proposed gas energy efficiency programs for the years 2007 and 2008. The Parties respectfully request Commission approval of this Settlement. Additionally, the Parties commit to further address the amount of total dollars and number of projects that address combined heat and power.

Thank you very much for your time and attention to this matter. If you have any questions regarding this Settlement, please feel free to contact me at (401) 784-7667.

Very truly yours,

Laura S. Olton

Laura S. Olton

Enclosures

cc: Docket 3790 Service List RI Collaborative Members

<sup>&</sup>lt;sup>1</sup> The Narragansett Electric Company, d/b/a National Grid (the "Company").

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 2 of 64

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

In Re: National Grid Gas Energy )
Efficiency Programs for 2007 ) Docket No. 3790

### **SETTLEMENT OF THE PARTIES**

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 3 of 64

#### TABLE OF CONTENTS

I.	Introduction	1
II.	2007 and 2008 Gas Energy Efficiency Programs	2
A	A. Residential Programs	3
В	3. Commercial and Industrial Programs	3
III.	Budgets and Funding Sources.	4
A	A. 2007 and 2008 Energy Efficiency Program Funding Sources	4
В	3. Exceptions to the Energy Efficiency Surcharge	5
C	C. Budgets	5
D	D. Transferring of Funds	6
IV.	Incentive	7
V.	Cost-Effectiveness	8
VI.	Reporting Requirements	9
VII.	. Composition and Role of the Rhode Island Collaborative	9
VIII	I. Miscellaneous Provisions	. 11

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 4 of 64

#### **ATTACHMENTS**

- 1. Residential Programs for 2007 and 2008
- 2. Commercial and Industrial Programs for 2007 and 2008
- 3. Bill Impact Analysis
- 4. Funding Sources in 2007 and 2008 by Sector
- Recommendations Guidelines Regarding Self-Directed Gas Demand-Side
   Management Programs for Manufacturing
- 6. Proposed Budgets 2007 and 2008
- 7. Target Shareholder Incentive
- 8. Calculation of Program Cost-Effectiveness and Goals

#### 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"), the Rhode Island Office of Energy Resources
- 5 ("RIOER"), Energy Consumers Alliance of New England d/b/a People's Power and Light
- 6 ("PP&L"), Environment Northeast ("ENE") and The Narragansett Electric Company,
- 7 d/b/a National Grid ("National Grid" or "Company") (together, the "Parties"), and
- 8 addresses all issues raised by the Parties concerning the Company's gas energy efficiency
- 9 ("EE") Programs for the years 2007 and 2008.

10

1

- 11 The Comprehensive Energy Conservation, Efficiency and Affordability Act of 2006
- 12 ("2006 Act") established the following requirement: "each gas distribution company shall
- include, with approval of the Commission, a charge of up to fifteen cents (\$0.15) per
- decatherm delivered to demand side management programs, including, but not limited to,
- 15 programs for cost-effective energy efficiency, energy conservation, combined heat and
- power systems, and weatherization services for low income households." The 2006 Act
- 17 also provides that the Commission may except from this charge: (1) gas used for
- distribution generation; and (2) gas used for manufacturing processes where the customer
- 19 has established a self-directed program to invest in and achieve effective energy
- 20 efficiency. Such programs would need approval from, and periodic reviews by, the
- 21 Commission. Additional provisions require that an amount not to exceed two percent
- 22 (2%) of such funds on an annual basis be allocated to the Energy Efficiency and
- 23 Resources Management Council ("Council") for retention of expert consultants and
- 24 reasonable administrative costs.

<sup>&</sup>lt;sup>1</sup> The 2006 Act specifies the purpose of the Council is to: "(1) Evaluate and make recommendations, including, but not limited to, plans and programs, with regard to the optimization of energy efficiency, energy conservation, energy resource development; and the development of a plan for least-cost procurement for Rhode Island; (2) Provide consistent, comprehensive, informed and publicly accountable stake-holder involvement in energy efficiency, energy conservation, and energy resource management; and (3) Monitor and evaluate the effectiveness of programs to achieve energy efficiency, energy conservation, and diversification of energy resource."

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 6 of 64

-2-

1 This Settlement describes efforts proposed for 2007 and 2008 to comply with the 2 requirements established in the 2006 Act. The Parties acknowledge that the Company's 3 initial filing in this docket proposed gas EE programs for calendar year 2007. With the 4 understanding that the Company will not begin implementation of the programs until 5 mid-2007, the Parties believe that it is more appropriate to establish programs with 6 budgets covering an 18-month period. This will allow the Company to have at least a 7 year's experience delivering these new programs prior to developing plans for future 8 periods while also allowing the Company, in consultation with the other Parties, to 9 develop a more integrated Plan and filing to provide to the Commission beginning in 10 2009. 11 II. 12 2007 and 2008 Gas Energy Efficiency Programs 13 The gas EE programs for 2007 and 2008 offer energy efficiency opportunities to all 14 customer segments. Many of the proposed programs are currently offered by KeySpan Energy Delivery ("KeySpan") and GasNetworks<sup>2</sup>, which will allow the Company to build 15 16 on successful efforts by others. In addition, the Company anticipates contracting for 17 program support services with KeySpan in an effort to expedite the effective roll-out of 18 proposed programs. 19 20 The Parties recognize that joint delivery of gas and electric efficiency programs might 21 reduce marketing and implementation costs for the programs and increase customer 22 savings and satisfaction. Therefore, where feasible, proposed program services will be 23 integrated with the already approved electric energy efficiency programs in Rhode Island.

<sup>&</sup>lt;sup>2</sup> GasNetworks is a regional collaborative of natural gas distribution companies that coordinate natural gas energy efficiency programs throughout Maine, Massachusetts and New Hampshire. The benefit of GasNetworks membership is that it allows each participating company to offer regional programs at a lower overall cost to its customers. The GasNetworks programs are consistent wherever they have been offered. The GasNetworks programs have received several national awards from the American Council for an Energy Efficient Economy as exemplary examples of natural gas energy efficiency programs.

1	The Parties agree to the Company's 2007 and 2008 EE Programs described below <sup>3</sup> :
2	
3	A. Residential Programs
4	The Company will implement several programs for residential customers
5	including the EnergyWise Program, Single Family Low Income Services, the
6	High-Efficiency Heating Program, the High-Efficiency Water Heating Program,
7	the ENERGY STAR® Programmable Thermostat Program, the Energy Analysis:
8	Internet Audit Program, Building Practices and Demonstration Program, and New
9	Construction and ENERGY STAR® Homes. Descriptions of these programs are
10	provided in Attachment 1.
11	
12	B. Commercial and Industrial Programs <sup>4</sup>
13	The Company will implement the following programs designed to provide
14	commercial and industrial customers with gas energy efficiency services:
15	Commercial Energy Efficiency Program, Commercial High Efficiency Heating
16	Program, Economic Redevelopment Program, Trade Ally Training Program,
17	Energy Audit and Engineering Services, Business Energy Analyzer, Building
18	Practices and Demonstration Program, and The Emerald Network. These
19	programs are described in Attachment 2.
20	
21	
22	

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

changes.

<sup>4</sup> The existing gas demand-side management program for commercial and industrial customers (Smart Growth Program) designed to promote the demand for natural gas during non-peak months of the year will continue as it currently exists and is not incorporated into the new gas energy efficiency programs funded by the energy efficiency surcharge. This program will continue to be funded through base rate collections. This is a change from the original filing submitted by the Company.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 8 of 64

-4-

#### **III.** Budgets and Funding Sources

2	A. 2007 and 2008 Energy Efficiency Program Funding Sources
3	With Commission approval, the Company instituted a gas energy efficiency
4	surcharge of \$0.063 per decatherm effective January 1, 2007. The Parties request
5	that the Commission authorize the Company to increase the energy efficiency
6	surcharge to \$0.114 per decatherm effective July 1, 2007. The Parties
7	recommend this increase to ensure that programs can ramp up to meet customer
8	needs. In particular, the proposed budgets include a significant increase in
9	funding for the Single Family Low Income Services Program as requested by
10	OER and inclusion of a commitments budget to support ongoing program
11	marketing efforts with Commercial and Industrial customers. A bill impact
12	analysis reflecting this change is provided in Attachment 3.
13	
14	The Parties agree that the 2007 and 2008 budgets should be funded from the
15	following sources: (1) an energy efficiency surcharge of \$0.063 per decatherm
16	applicable in January through June 2007; (2) an energy efficiency surcharge of
17	\$0.114 per decatherm applicable in July 2007 through December 2008; (3)
18	interest accrued on the fund balance during this period due to timing differences
19	for collections compared to expenditures; and (4) current base rate collections for
20	Low Income Weatherization. <sup>5</sup> The sources of funding for the 2007 and 2008 EE
21	Programs are shown in Attachment 4.
22	
23	The proposed budget for 2007 – 2008 program period is approximately equal to
24	67% of the maximum funding allowed under the 2006 Act. The Parties agree that
25	this amount of funding is appropriate, since program services may not be initiated
26	until mid-year and recognizing that the Company is initiating new programs and
27	services that will require time to ramp up. The Parties support increasing the

<sup>&</sup>lt;sup>5</sup> Funding for Low Income Weatherization is currently built into base rates. See Docket No. 3401 and Commission Order No. 17381.

-5-

energy efficiency surcharge over time commensurate with customer demand for program services up to the maximum amount allowed under the law.

3

4

5

6 7

8

9

1

2

#### B. Exceptions to the Energy Efficiency Surcharge

 The Parties agree that gas used for distributed generation (excluding natural gas used by emergency generators) will not be subject to the energy efficiency surcharge when gas used for that purpose can be clearly identified through uniquely metered use and when so requested in writing by the customer.

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

2. The 2006 Act allows the Commission to exempt gas used for manufacturing processes from the energy efficiency surcharge where the customer has established a self-directed program to invest in and achieve best effective energy efficiency in accordance with a plan approved by the Commission and subject to periodic review and approval by the Commission. The Parties to this Settlement request that the Commission establish an administratively simple procedure for such exemption, whereby a manufacturer who so chooses may submit its self-directed program and the required annual reports for approval. While this process may be addressed in another proceeding, the Parties have developed recommendations about the process in hopes that these recommendations will assist the Commission (see Attachment 5). The Parties recognize that the process that will be established by the Commission for self-directed programs may need to be reviewed and modified after the Commission has accumulated sufficient experience with these programs.

26

27

28

29

#### C. Budgets

The Parties agree that the portfolio of gas EE programs and services for 2007 and 2008 will have an overall projected budget of approximately \$7.5 million. The

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 10 of 64

-6-

Parties agree to segment the budget into two sectors: residential; and commercial and industrial. Proposed sector and program budgets are provided in Attachment 6. The Parties agree that the Company should make every attempt to spend or commit all the funds available for EE in this period, including any increases in the fund balance due to increased sales or other factors. The Parties also agree to review the status of program budgets regularly to assess whether they are likely to come to a successful completion. If not, the Parties agree to review the advisability of transferring funds to other programs where the money could be more effectively used. D. **Transferring of Funds** The Parties will regularly review the amount of funds needed and available for each program and will transfer monies as needed. Transfers during the program year may occur as follows: Within a sector, the Company may independently transfer up to a. 10% of proposed funding for a program to another program to better meet customer demand for program services. Transfers of more than 10% will require prior Division approval. b. From one sector to another, the Company can transfer funds so long as the transfers from a sector reduce the approved budget for that sector by 20% or less. Division approval is required for

such a transfer of funds. Transfers that would reduce a sector's

budget by more than 20% in aggregate (over the course of the

program year) will require Commission approval.

1

2

3

4

5

6

7

8 9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1	For transfers requiring Division, but not Commission, approval, the Parties will
2	inform the Commission about all the transfers, both between sectors and within
3	sectors, in a timely fashion.
4	
5	IV. Incentive
6	The shareholder incentive mechanism applicable to Company EE efforts in 2007 - 2008
7	is modeled after the savings portion of the performance based shareholder incentive
8	mechanism currently in place for electric energy efficiency program efforts in Rhode
9	Island. The proposed target incentive is equal to 4.40% of the eligible budget. The
10	eligible budget includes all program expenses shown in Attachment 6, except for the
11	commitments budget and the amount budgeted for the target shareholder incentive.
12	Therefore, the total target incentive for 2007 - 2008 is 4.40% of approximately \$6.6
13	million, or \$288,734, as shown in Attachment 7.
14	
15	A. Savings
16	The threshold performance level for energy savings by sector will be set at 60%
17	of the annual energy savings goal for the sector. The Company must attain at
18	least this threshold level of savings in the sector before it can earn an incentive
19	related to achieved energy savings in the sector. 6 The Company will have the
20	ability to earn an incentive for each MMBTU saved, once threshold savings for
21	the sector are achieved, up to 100% of the target savings. The incentive per
22	MMBTU saved by sector is provided in Attachment 7.
23	
24	Energy savings goals by sector reflect the expected cost of savings in each sector
25	informed by results achieved by other gas EE providers in other New England

<sup>&</sup>lt;sup>6</sup> In 2009 and later years, once the Company has established some baseline cost and savings goals for each of the proposed programs, the Collaborative will discuss providing the Company with the ability to earn an incentive for each MMBTU saved above 100% of target savings.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 12 of 64

-8-

1 jurisdictions. These goals have been carefully reviewed by the Collaborative to 2 ensure that they represent reasonable goals for the year. 3 4 The threshold, calculated cap, and incentive for a particular sector will be 5 recalculated if the assumptions used to develop savings goals change because of 6 completed evaluation studies. If that occurs, the Company will recalculate 7 savings goals to account for those evaluation findings and will report actual 8 savings on the same basis. The Company will report final program results 9 compared to these revised budgets and goals in its May 31, 2009 Report regarding 10 2007 - 2008 Gas Energy Efficiency Program efforts. 11 12 V. **Cost-Effectiveness** 13 The Company has projected cost-effectiveness for the proposed 2007 through 2008 gas 14 EE programs using a Utility Cost Test to assess expected benefits and costs for its 15 proposed programs. This test is comparable to the test that has been used to assess cost-16 effectiveness for the electric EE programs in Rhode Island. It takes into account program 17 costs compared to the value of the savings expected to be created in the programs over 18 the expected life of those savings. 19 20 Lifetime gas savings have been valued using the avoided gas costs identified in "Avoided 21 Energy Supply Costs in New England," (December 23, 2005) prepared by ICF 22 Consulting for the Avoided-Energy-Supply-Component (AESC) Study Group. This is 23 the same source of the avoided costs that have been used to value electricity savings for 24 the electric EE programs. 25 26 The value of other resource benefits has also been included in the analysis of expected 27 benefits from program efforts, comparable to the inclusion of other resource benefits that 28 are included in the assessment of benefits and costs for the electric efficiency programs. 29 In this case, the other resource benefits include expected electricity savings that are

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 13 of 64

-9-

1 incremental to the electricity savings expected through the electric efficiency programs. 2 The value of these electricity savings has been calculated using the electric avoided costs 3 that were used to assess the cost-effectiveness of electric efficiency programs for 2007. 4 5 Attachment 8 provides the calculation of 2007 through 2008 program period cost-6 effectiveness and goals based on the proposed budgets. Attachment 8 shows that the 7 proposed portfolio of programs is expected to have a benefit/cost ratio of 3.43. In other 8 words, \$3.43 in benefits is expected to be created for each \$1 invested in the programs by 9 the utility. 10 The Parties agree to review alternatives to the current Utility Cost Test for use in 2009. 11 An alternative to the current benefit/cost test may be appropriate given the introduction of 12 least-cost procurement practices required by the 2006 Act, the Regional Greenhouse Gas 13 Initiative, and other energy policy objectives in Rhode Island. 14 15 VI. **Reporting Requirements** 16 The Company will provide quarterly reports to the Parties on the most currently available 17 program performance. These reports will include a comparison of budgets and goals by 18 program to actual expenses and savings on a period-to-date basis. 19 20 The Company will file a report summarizing its 2007 through 2008 gas energy efficiency 21 program efforts with the Commission by May 31, 2009. This report will provide a 22 comparison of budgets and goals to actual expenses and savings by program. The report 23 will also document the Company's performance under the proposed shareholder incentive 24 mechanism. 25 26 VII. Composition and Role of the Rhode Island Collaborative

A DSM Collaborative (the "Collaborative") has been meeting regularly since 1991 to

analyze and inform the Company's electric demand-side management ("DSM") or energy

27

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 14 of 64

-10-

1 efficiency programs. Members of the Collaborative presently include the Company, the 2 Division, the RIOER, TEC-RI, and PP&L. The Parties agree to expand the focus of the 3 Rhode Island Collaborative that has been involved with electric efficiency programs in 4 Rhode Island to include a focus on gas efficiency programs. The refocused Collaborative 5 will include all of the Parties to this Settlement. 6 7 The Parties plan to assess the advantages and disadvantages of filing a coordinated gas 8 and electric energy efficiency program plan with the Commission addressing proposed 9 efforts beginning with its 2009 plans. In addition, the Parties propose to assess the 10 advantages and disadvantages of filing a multi-year program filing addressing gas and 11 electric EE program efforts beginning in 2009. A multi-year program filing covering the 12 period of 2009 through 2013 would provide National Grid's gas and electric customers 13 with certainty about program continuity and would better support customer budgeting 14 and program participation. 15 16 The Parties may recommend a multi-year filing process to the Commission when the 17 Company files program plans for 2009. We expect that the Company, under a multi-year 18 filing, would file annual updates addressing changes to program designs, budgets, savings 19 costs and benefit-cost analyses. The goal would be to create a more streamlined annual 20 filing on these key issues, addressing only changes relative to the multi-year plan. 21 22 The Parties agree that it is desirable to reach an agreement on the Company's 2009 EE 23 program plans, in order to make a timely filing to the Commission by November 1, 2008, 24 for its review and approval. If the Parties are unable to agree on all or part of the 25 Company's future EE programs, the Company will be free to unilaterally file its 2009 EE 26 program proposal for approval by the Commission on or before November 1, 2008. If 27 the Commission does not have an opportunity to review this program filing by December 28 31, 2008, whether a settlement or a unilateral filing, the Company will continue to offer 29 the 2008 programs until Commission review has occurred.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 15 of 64

-11-

1	VIII.	Miscellaneous Provisions			
2	1.	Other than as expressly stated herein, this Settlement establishes no principles a shall not be deemed to foreclose any Party from making any contention in future			
4		proceeding or investigation.			
5	2.	This Settlement is the product of settlement negotiations. The content of those			
6 7		negotiations is privileged and all offers of settlement shall be without prejudice to the position of any Party.			
8	3.	This Settlement is submitted on the condition that it be approved in full by the			
9		Commission, and on further condition that if the Commission does not approve			
10		the Settlement in its entirety, the Settlement shall be deemed withdrawn and shall			
11		not constitute a part of the record in any proceeding or used for any purpose.			
12	4.	Other than as expressly stated herein, the approval of this Settlement by the			
13		Commission shall not in any respect constitute a determination as to the merits of			
14		any issue in any other proceeding.			
15					
16	The P	arties respectfully request the Commission approve this Stipulation and Settlement			
17	as a fi	nal resolution of all issues in this proceeding.			
18					
19		Respectfully submitted,			
20		THE NARRAGANSETT ELECTRIC COMPANY,			
21		D/B/A NATIONAL GRID			
22		Laura S. Olton 4/2/07			
23					
24		Laura S. Olton, Esq. Date			

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 16 of 64

04/02/2007 10:32 NATIONAL GRID > 97844321 03/30/07 FRI 14:54 FAX 401 222 3016 RI ATTY GENERAL CIVIL

NO.588 P002

-12-

	•
1 <b>2</b>	
3	RHODE ISLAND DIVISION OF PUBLIC UTILITIES AND
<b>4</b> 5	CARRIERS
6 .	VWille K. Luh 3/30/2007
7 8	By its Attorney Date William K. Lueker, Special Assistant Attorney General
9	
10	THE ENERGY COUNCIL OF RHODE ISLAND
11,	
12	
13	John Farley Date
14	
15	RHODE ISLAND OFFICE OF ENERGY RESOURCES
16	
17	
18	Andrew Dzykewicz Date
19	
20	ENERGY CONSUMERS ALLIANCE OF NEW ENGLAND D/B/A PEOPLE'S POWER & LIGHT
21 22	D/B/A PEOPLE S POWER & LIGHT
23	
24	B. Karina Lutz Date
25	

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 17 of 64

04/02/2007	10:32 NATIONAL GRID → 97844321
•	NO.589 P004  John Farley Consult 401 621 2260 04/02/07 11:55am P. 002
· ·	577 da. 67 121 33 am 7 1 30 3
	-12
]	
2 3	RHODE ISLAND DIVISION OF PUBLIC UTILITIES AND
4	CARRIERS
5	•
6	
ā	By its Attorney Date
7 8	By its Attorney Date William K. Lucker, Special Assistant Attorney General
9	
10	THE ENERGY COUNCIL OF RHODE ISLAND
11	
1.1	101 1-0 4/2/2007
12	Joh Farly 4/2/2007
13	John Farley Date
13	Joint Auticy Ame
14	
15	RHODE ISLAND OFFICE OF ENERGY RESOURCES
16	
17	
18	Andrew Dzykewicz Date
10	Auditor Day Rowing
19	
20	ENERGY CONSUMERS ALLIANCE OF NEW ENGLAND
21	D/B/A PEOPLE'S POWER & LIGHT
22	
23	
	D. V. C. T. C. Date
24	B. Karina Lutz Date

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 18 of 64

Fax:4012221260

Apr 2 2007 14:37

P.02

-12-

1 2 3 4 5	RHODE ISLAND DIVISION OF PUBLIC UTILITIES AND CARRIERS
7 . 8	By its Attorney Date William K. Lueker, Special Assistant Attorney General
9	
10	THE ENERGY COUNCIL OF RHODE ISLAND
Н	
12	Name and the second of the sec
13	John Farley Date
14	
15	RHODE ISLAND OFFICE OF ENERGY RESOURCES
16	
17	4/2/07
18	Andrew Dzykewicz Date
19	
20 21 22	ENERGY CONSUMERS ALLIANCE OF NEW ENGLAND D/B/A PEOPLE'S POWER & LIGHT
2.3	
24	B. Karina Lutz Date

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 19 of 64

04/02/2007 12:26 NATIONAL GRID → OLTON/SCANLON NO.589 P002 401 861 6115 (401) 861-6115 p. 1 Apr 02 07 12:21p -12-3 RHODE ISLAND DIVISION OF PUBLIC UTILITIES AND CARRIERS 5 6 7 By its Attorney Date 8 William K. Lueker, Special Assistant Attorney General 9 10 THE ENERGY COUNCIL OF RHODE ISLAND 13 12 13 John Farley Date 14 :5 RHODE ISLAND OFFICE OF ENERGY RESOURCES 15 17 18 Andrew Dzykewicz Date 19 20 ENERGY CONSUMERS ALLIANCE OF NEW ENGLAND 21 D/B/A PEOPLE'S POWER & LIGHT 22

Date

B. Karina Lutz

23

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 20 of 64

04/02/2007 Apr 02 07 11:06a	10:32 NATIONAL GRID → 97844321	NO.588 p.1	P003
	-13-		
1			
2	ENVIRONMENT NORTHEAST		
3			
4	Elen Bisland 4/2/07		
5	By its Attorney Date		
6	Dan Sosland		
7	And		
8	$\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$		
9	Ja 4 7 07		
10	Sam Krasnow Date		

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 21 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 Page 1 of 12

#### Residential Programs for 2007 and 2008

#### Introduction

2

1

4 National Grid proposes to offer five new gas energy efficiency programs, some of

- 5 which are sponsored in New England by GasNetworks®<sup>1</sup>, and to combine efforts with
- 6 the Company's existing electric energy efficiency programs in the low income,
- 7 residential retrofit and new construction areas. A brief description of each proposed
- 8 residential program is provided in the following table:

Pr	Proposed Residential Energy Efficiency Programs				
EnergyWise Program	Free in home assessment for both single and multi-family homes providing recommendations and technical assistance for the installation of energy saving measures as well as incentives to encourage implementation of recommendations.				
Energy Analysis: Internet Audit Program	Free online energy analysis service that makes customized energy efficiency recommendations based on a customer's energy consumption profile.				
High-Efficiency Heating Program	\$800 incentive for ENERGY STAR labeled boilers (90% AFUE), \$500 incentive for ENERGY STAR labeled boilers (85% AFUE), \$200 incentive for steam boilers (with electronic ignition, 82% AFUE), \$400 <sup>2</sup> incentive for high efficiency furnaces (92% AFUE) with ECM Motor or equivalent and \$100 incentive on furnaces (90% AFUE).				
High-Efficiency Water Heating Program	\$300 incentive for indirect water heating system connected to an ENERGY STAR rated natural gas forced hot water boiler and \$300 for tankless/on-demand water heaters (EF .82 or greater with electronic ignition).				
ENERGY STAR Programmable Thermostat Program	\$25 incentive each for up to two ENERGY STAR labeled programmable thermostats.				

<sup>&</sup>lt;sup>1</sup> GasNetworks is a regional collaborative of natural gas distribution companies that coordinate natural gas energy efficiency programs throughout Maine, Massachusetts and New Hampshire. The benefit of GasNetworks membership is that it allows each participating company to offer regional programs at a lower overall cost to its customers. The GasNetworks programs are consistent wherever they have been offered. The GasNetworks programs have received several national awards from the American Council for an Energy Efficient Economy as exemplary examples of natural gas energy efficiency programs.

 $<sup>^2</sup>$  \$200 of this incentive will be funded through the electric energy efficiency program approved by the Commission.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 22 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 Page 2 of 12

New Construction and ENERGY STAR Homes Program	Free building plans review and certification for new ENERGY STAR residential construction.
Single Family Low	Free weatherization services provided to income eligible 1-4 unit homes.
Income Services	Operated through the Rhode Island Office of Energy Resources (OER).
Building Practices and	Participate in funding for demonstration projects that apply to new or
Demonstration Program	underutilized technologies.

Additional details about each proposed program are provided below.

#### **ENERGYWISE PROGRAM**

1 2

3

16

17 18

19

20

21

2223

24

4 Gas energy efficiency funding will be used to expand available measures to gas 5 heating customers through National Grid's Energy Wise program. The program provides a free comprehensive assessment of a customer's energy use and recommends various 6 7 ways customers can improve their home's energy efficiency. Customers are given a detailed report containing the recommendations of the audit including information about 8 improving the efficiency of their home which may lead to participation in other energy 9 efficiency or DSM programs. This service is currently funded by the legislatively-10 11 mandated electric DSM charge. During 2007 and 2008, the Company will evaluate the best way to fund the combined program with both electric and gas DSM funding. In 12 2007 and 2008, customers will also receive the free installation of water saving devices 13 14 (low flow showerheads and aerators) for water heated by gas. That measure will be 15 funded by gas energy efficiency funds.

For 2007 and 2008, the Company proposes to implement a new delivery mechanism for 1-4 unit homes heated with gas. Customers in eligible homes who participate in Energy*Wise* will be able to select an approved contractor to complete their air sealing and insulation work.

The program will provide an incentive covering up to 20% of the cost of installing weatherization measures in residential heating customers' homes. The maximum incentive offered through this program is \$750 per gas heating account. Measures eligible for an incentive through the program include: attic insulation, wall insulation, basement/crawl space insulation, rim joist insulation, duct insulation, heating system pipe

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A1, Page 23 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 Page 3 of 12

insulation, attic ventilation (only in conjunction with attic insulation), ductwork leakage testing, ductwork leakage sealing, air infiltration testing and air infiltration sealing. Other measures may be added to the program menu, upon demonstration of cost-effectiveness.

2.1

To be eligible for an incentive, a National Grid pre-qualified contractor must be chosen to install program measures. Contractors wishing to become pre-qualified must provide proof of insurance in amounts and coverage acceptable to National Grid.

National Grid will perform a background check to verify the contractor's good standing,

and to determine if there have been complaints or other issues that would render the contractor ineligible.

Additionally, the contractor must meet other requirements that will be introduced over the course of 2007 and 2008. This will include certification or accreditation by the Building Performance Institute (BPI). BPI credentialed companies are trained to take into account the complex interactions that affect health, safety, comfort, energy performance, and the durability of homes. BPI standards include comprehensive diagnostic testing, measurement and verification that the work is completed properly, and quality assurance. The Company will reach out to the contractor community to provide training and assistance in purchasing diagnostic equipment. Additional quality control will be required as contractors begin working with the program.

It will be the responsibility of the installation contactor to complete and submit all incentive applications with proper supporting documentation. Do-it-yourself work will not be permitted through the program. Work completed through the program must meet all applicable state and local code requirements. It is anticipated that all measures installed will meet ENERGY STAR® guidelines, where applicable.

For multifamily buildings, the comprehensive building analysis will continue to be performed under the existing electric-funded Energy*Wise* program. The gas funds will be used to provide funding for prescriptive gas weatherization measures including insulation, showerheads, aerators, air sealing, duct insulation and duct sealing. The program will provide an incentive covering up to 20% of the cost of installing these

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 24 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 Page 4 of 12

- 1 measures. The program will target both public housing authorities and privately-owned
- 2 properties. Through the program, multifamily properties will receive either a
- 3 prescriptive or custom audit depending on the size of the property or complexity of the
- 4 project. Incentives described in the Residential High-Efficiency Heating and the
- 5 Residential High-Efficiency Water Heating Program descriptions will apply to
- 6 multifamily facilities and condominiums which contain gas heating systems and/or
- 7 domestic hot water systems that serve individual dwelling units. This type of facility
- 8 would also be eligible for the single family type GasNetworks incentive programs.
- 9 Incentive levels for these prescriptive measures may vary for income qualified facilities.

Facilities with central heating plants and domestic hot water systems that are interested in gas savings measures will be served through the Commercial High-

Efficiency Heating and Commercial Energy Efficiency Programs.

The Company plans to promote the Energy *Wise* program through advertising, including bill inserts, direct mail, and the National Grid website. Customers interested in learning more about the program may call a toll-free number where they can also learn about all of the Company's residential energy efficiency programs.

16 17

18 19

20

2.1

22

23

24

25

2627

28

10

11

12

13

14

15

#### **ENERGY ANALYSIS: INTERNET AUDIT PROGRAM**

The Home Energy Analyzer program offers the Company's customers an online option for a home energy assessment. This audit tool provides customers with detailed recommendations for saving energy in their homes, all within the convenience of a web browser they can monitor whenever they choose. The tool can be accessed either through the National Grid website or through a dedicated URL. A Spanish version will also be available and a Portuguese version will be explored. The program also provides marketing and screening support for the other energy efficiency programs, by helping to determine which programs and services would be most valuable to the customer.

The service starts with 12 basic questions about the home and its occupants.

Using this information, the tool provides customers with a report comparing their home

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 25 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 Page 5 of 12

- with similar homes and offering "Top Ways to Save" that are specific to the customer's
- 2 home. Information will be provided about any applicable energy efficiency programs for
- this customer both gas and electric. Users are invited to sign up for the Company's
- 4 seasonal *e-fficiency news* electronic newsletter which includes seasonal tips to save
- 5 energy, information about the Company's other energy efficiency programs including
- 6 how to sign-up for those programs, and a link to continue the analysis of their homes.
- 7 The continued analysis consists of more in-depth questions about the numbers and types
- 8 of appliances, the current state of the home's weatherization and mechanical equipment,
- 9 and provides additional advice on how to improve the energy efficiency and comfort of 10 the home.
  - The Company plans to promote the on-line home analyzer through advertising, bill inserts, email broadcasts, direct mail and the corporate website.

#### RESIDENTIAL HIGH-EFFICIENCY HEATING PROGRAM

11

12

13

14 15

16

17

2.1

- The Company's Residential High-Efficiency Heating program will be jointly operated with GasNetworks and is available to the Company's residential heating customers. Program goals include, but are not limited to:
- Increasing market sector awareness of high-efficiency gas heating equipment
- Increasing market sector awareness of efficiency enhancements and maintenance
   to gas heating equipment
  - Providing product training and program training to trade allies such as plumbing and heating contractors
- Increasing customer knowledge of where to obtain high-efficiency heating products
- Examining new or underutilized energy efficient heating technologies for potential residential program development
- Monitoring customer perception of the performance and reliability of highefficiency gas heating equipment and the savings achieved.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 26 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 Page 6 of 12

1 The program will be promoted through a variety of means including, but not 2 limited to, direct mail campaigns, bill inserts, trade ally events, and contractor job site 3 visits. Program brochures, builder packets and incentive applications will be the primary 4 marketing material utilized. The program will be promoted through the National Grid and 5 GasNetworks websites, where consumers and contractors will have the opportunity to download program incentive applications and learn about program announcements, 6 updates or changes. 7 Overall, a strong emphasis will be placed on working with builders and 8 9 contractors who install gas-heating equipment. Target markets for the program include 10 both new construction and retrofit projects. The retrofit market is seen as the primary 11 driver of high-efficiency forced hot water and steam heating system opportunities, 12 whereas the new construction market is seen as the primary driver for high-efficiency 13 furnaces. 14 The incentive is available to residential heating customers (builders and/or homeowners) worth up to \$800, depending on the type of heating equipment installed. 15 16 This incentive level is in accordance with the GasNetworks incentive levels offered 17 throughout New Hampshire, Maine, and Massachusetts. Subject to cost-effectiveness, other heating related measures will also be incorporated in the incentive portfolio. The 18 19 incentive encourages customers to choose a high-efficiency model by influencing a 20 consumer in two ways: bringing attention and perceived value to the high-efficiency equipment as an option as well as offsetting a portion of the higher initial purchase cost 2.1 of a high-efficiency model compared to a standard-efficiency model. On September 1st 22 23 of each year, GasNetworks typically makes changes to the incentive levels of the High-24 Efficiency Heating Program in conjunction with the members of the GasNetworks 25 collaborative. National Grid proposes to adopt this practice. Factors taken into account 26 include market penetration information, changes in incremental costs of high-efficiency 27 equipment, and current program year participation and budget levels. See Table 1 for a 28 listing of eligible equipment under the program and the current incentive level.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 27 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 Page 7 of 12

_	

Table 1 Residential High-Efficiency Heating Program: Incentive Table		
Furnaces (forced hot air)	AFUE* 90% or greater	\$100 Incentive
Furnaces (forced hot air with ECM or equivalent)	AFUE* 92% or greater	\$400 <sup>3</sup> Incentive
Boilers (forced hot water)	AFUE* 85% or greater	\$500 Incentive
Boilers (forced hot water)	AFUE* 90% or greater	\$800 Incentive
Boilers (steam with electronic ignition)	AFUE* 82% or greater	\$200 Incentive

<sup>\*</sup> AFUE = Annual Fuel Utilization Efficiency

# 234

5

6

7

8

10

11

12

13

14

15

16

#### RESIDENTIAL HIGH-EFFICIENCY WATER HEATING PROGRAM

The Company's Residential High-Efficiency Water Heating program will be jointly operated with GasNetworks and will be available to the Company's residential water heating customers. Similar to the Company's Residential High-Efficiency Heating program, program goals include, but are not limited to:

- Increasing the demand for residential high-efficiency natural gas water heaters.
- Increasing customer and trade ally awareness of the benefits of high-efficiency natural gas water heaters.
- Providing training on products and programs to trade allies such as plumbing and heating contractors.
- Increasing customer knowledge of where to obtain high-efficiency water heating products.
- Monitoring customer perception of the performance and reliability of highefficiency gas water heating equipment and the savings achieved.

 $<sup>^3</sup>$  \$200 of this incentive will be funded through the electric energy efficiency program approved by the Commission.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A1, Page 28 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 Page 8 of 12

Program marketing will consist of direct mail campaigns and outreach to contractors, builders, affordable housing developers, community development corporations, and public housing authorities, bill inserts to residential customers, attendance at trade ally training events, radio, and promotion via National Grid's and GasNetwork's websites. While direct customer marketing will generate a portion of the leads for this program, a significant emphasis will be placed on meeting with heating and plumbing contractors at trade shows, training sessions and job sites to encourage contractors to influence consumer purchasing behavior toward this type of product.

The program incentive will be \$300 to residential water heating customers who install an indirect water heater to an ENERGY STAR® rated natural gas forced hot water boiler.

The Company will provide incentives for on-demand tankless water heaters as an energy saving alternative to the stand alone water heaters. The Company will provide a \$300 incentive for on-demand, tankless water heaters that have a 0.82 Energy Factor with an electronic ignition. The Company proposes to promote both types of technology and will work with the contractor community to assist it on how to identify the most appropriate application to reap the most energy savings.

The Company also plans to participate in a developing water heater initiative sponsored by the California Energy Commission. This developing initiative, The Super Efficient Gas Water Heating Appliance Initiative (SEGWHAI), is intended to speed the introduction of tank-type water heaters that are 15-30% more efficient than standard models. Water heating represents approximately 16% of a household's natural gas usage. Tank-type water heaters represent over 80% of water heater stock in the northeast. Currently, an efficient water heater of this nature does not exist. Introduction of such models as a result of the SEGWHAI project would enable to Company to develop an incentive program in the future to promote that technology in customer's homes.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 29 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 Page 9 of 12

#### ENERGY STAR® PROGRAMMABLE THERMOSTAT PROGRAM

1 The ENERGY STAR Programmable Thermostat program provides a GasNetworks 2 incentive for the purchase and installation of up to two ENERGY STAR labeled 3 4 programmable thermostats per household. According to ENERGY STAR, programmable 5 thermostats are more accurate than manual models, contain no mercury, save energy, and are, therefore, better for the environment. Over 250 different thermostat models currently 6 meet ENERGY STAR guidelines - up from only 60 five years ago. Each ENERGY STAR 7 qualified model thermostat includes four default program periods per day, as well as a 8 9 two-degree accuracy to keep home temperatures more even. 10 The ENERGY STAR Programmable Thermostat program will provide home 11 heating customers with an incentive for the purchase and installation of ENERGY STAR 12

labeled programmable thermostats. Through this program, customers will be eligible for a \$25 mail-in incentive for the installation of up to two ENERGY STAR qualified programmable thermostats. When applying for a thermostat incentive, residential customers will be required to submit proof-of-purchase for the unit. The ENERGY STAR website lists and updates all eligible thermostat models. Eligible thermostats may be installed by homeowners, heating contractors or energy auditors. In addition to mail-in incentives, instant incentives, in the form of point-of-sale discounts, will be available through heating contractors and energy auditors.

Earning the ENERGY STAR means products meet strict energy efficiency guidelines set by the US Environmental Protection Agency (EPA) and the Department of Energy (DOE). To be ENERGY STAR labeled, programmable thermostats must be equipped with the following features:

- Stores four or more temperature settings a day
- 25 Adjusts heating or air conditioning turn-on times as the outside temperature changes 26
- 27 Saves and repeats multiple daily settings

13 14

15 16

17

18

19 20

2.1 22

23

24

28

A "hold" feature that temporarily overrides programmed settings

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 30 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 Page 10 of 12

The Company will promote this program via its website, both its thermostat and heating incentive forms, direct mail, bill inserts, the online Home Energy Analyzer, *e-fficiency news* electronic newsletters and through Energy *Wise* program auditors. The Company will do outreach to stores such as The Home Depot<sup>®</sup>, Lowe's<sup>®</sup>, and regional hardware stores. The retailer outreach effort will provide training of these retailers' sales personnel regarding the incentive program and coordinate the ongoing distribution of program incentive forms at these stores. The retailer outreach will be coordinated with that of the ENERGY STAR Lighting and Appliance Programs.

#### **NEW CONSTRUCTION AND ENERGY STAR® HOMES PROGRAM**

The ENERGY STAR Homes program is part of a national energy efficiency campaign first developed in 1998 by the EPA and DOE. Rhode Island was one of the first states to adopt this program, funded by electric energy efficiency funds. The homes are designed, site inspected, and performance-tested to achieve a home energy rating which helps consumers differentiate between efficient homes and standard homes.

The current program offered by National Grid and funded through the electric DSM charge provides services to all residential new construction, regardless of fuel type. National Grid will continue the existing program and examine opportunities to realign the funding mechanisms for 2008 now that gas funding is available. For 2007 and 2008, the Company proposes to include a small budget funded by gas funds to support contractor training and education.

#### SINGLE FAMILY LOW INCOME SERVICES

The Residential Low Income Program offers weatherization services to income qualified customers eligible for fuel assistance benefits, who live in 1-4 unit buildings. As had previously been the case with New England Gas in Rhode Island, the Company will contract with the Rhode Island Office of Energy Resources (OER) and local weatherization agencies for the delivery of energy efficiency services to eligible

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 31 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 Page 11 of 12

customers. This is the same program model of serving low income customers currently employed by National Grid for its electric efficiency programs.

Eligible measures provided through the program will include an energy audit, attic insulation, wall insulation, air sealing, heating system replacement (on a qualifying basis) safety inspections, low-flow showerheads and aerators, and funding the installation of CO detectors when DOE funds are not available.

The Company will market the program via Company brochures, bill inserts, and the National Grid website. The program may also be marketed through direct contact with eligible customers by OER and local CAP agencies to customers it serves through state, federal, or local low income programs.

11 12

13

14

15

16 17

18 19

20

2122

23

2425

26

27

3 4

5

6 7

8

9 10

#### BUILDING PRACTICES AND DEMONSTRATION PROGRAM

The Company plans to launch its Building Practices and Demonstration Program for residential markets during Program Year One. The purpose of the Building Practices and Demonstration Program will be to explore and demonstrate new and/or underutilized energy efficient procedures and equipment, including renewable energy system processes. In its first year, the Building Practices and Demonstration Program will work to identify which technologies or home building techniques would be well suited for use and installation.

Input for this new program will be drawn from the expertise gathered by the Company's Commercial & Industrial Building Practices & Demonstration Program, as well as input from other utilities, program vendors, energy groups and interested business partners.

Eligible participants in this program will include homeowners, landlords, as well as home builders. Each participant may be asked to allow monitoring of the installation and/or results, provide historical data, provide tours of the installation by potential users or other interested stakeholders, and share the results in case study format.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 32 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 Page 12 of 12

Examples of potential projects include new insulation and weatherization 1 products, advanced heating and water heating products, solar thermal installations, new 2 construction techniques, green homes or very low energy use homes. Specific projects 3 will depend on interest and participation by customers, builders, vendors and 4 manufacturers. 5 Marketing of the program will rely on working with industry vendors developing 6 and/or offering new or underutilized natural gas energy efficiency technologies, as well 7 as other interested organizations. 8

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 33 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 Page 1 of 11

## Commercial and Industrial Programs for 2007 and 2008

- 2 A brief description of each proposed program for commercial and
- 3 industrial customers is provided in the following table:

Proposed Co	ommercial and Industrial Energy Efficiency Programs
Business Energy Analyzer	Free online energy analysis service that makes customized energy efficiency recommendations based on a commercial customer's energy consumption profile.
Energy Audit and Engineering Services	No- cost company-provided energy auditing service to help customers evaluate energy efficiency improvements in their facilities or 50% matching funds up to \$10,000 for outside studies that evaluate more complex technologies under consideration for implementation in customer facilities.
Commercial Energy Efficiency Program	Co-funding for Energy Auditing or Engineering Services; Prescriptive and custom incentives for more sophisticated systems and controls up to \$100,000, up to \$150,000 for eligible CHP projects.
Commercial High Efficiency Heating Program	Incentives up to \$6,000 for high-efficiency furnaces (90% AFUE), high efficiency furnaces (92% AFUE with ECM or equivalent), boilers (85% thermal efficiency) or steam boilers (82% thermal efficiency). Incentives up to \$300 for qualified efficient water heating measures.
Economic Redevelopment Program	Matching grants up to \$100,000 for energy saving measures in commercial properties in designated Economic Redevelopment areas.
The Emerald Network	Incentives and services to customers focused on developing new green buildings (new construction) or increasing green aspects of existing buildings.
Building Practices & Demonstration Program	Participate in funding for demonstration projects that apply to new or underutilized technologies.
Trade Ally Training Program	Energy management training sessions targeted to individuals responsible for the maintenance and operation of equipment and systems in commercial buildings, industrial plants, and public facilities. Provide information and training on energy efficiency issues to plumbing & heating contractors, builders, architects, engineers, realtors, appraisers and others.

1

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 34 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 Page 2 of 11

#### **Business Energy Analyzer**

The Business Energy Analyzer is an on-line self-managed audit tool that provides customers with customized and practical recommendations for saving energy all from the convenience of their computer. It is a user-friendly tool developed by Nexus Energy Software that provides business customers: (1) an opportunity to learn about energy savings as it relates both to their facility and their industry; (2) the flexibility of addressing energy concerns at their leisure; and (3) the ability to return to the site and review the recommendations. The tool also provides customers a vehicle to identify which energy saving incentives they may be eligible for from National Grid.

Customers complete a Level I profile that includes their location, business type, size of facility and hours of operation. Based on this information the system generates energy saving recommendations or "Ways to Save". At this point, the customer can opt to move on to Level II and enter more specific information about their facility. This information includes actual energy use from utility bills, or they can choose to have the system estimate usage. Based on the additional information, the system generates an analysis of the business's energy usage that provides more accurate energy saving suggestions and targeted "Ways to Save". The customer can view these tips either by showing those with the greatest savings or the shortest payback. The recommended measures have been customized to reflect information on incentives from National Grid. Customers can also create a plan for energy efficiency from these measures that can be retrieved any time they log on. Additionally, the tool offers the customer the ability to compare their energy usage to similar businesses and view industry specific case studies.

The Company will market the tool through direct mail campaigns and promotions designed to increase awareness and usage of the tool. Additionally, the tool will be marketed through the Company's sales force and energy efficiency staff members that have contact with customers, through partnerships with trade organizations and at trade shows.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 35 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 Page 3 of 11

#### **Energy Audit and Engineering Services**

1

10

11

12

13 14

15

16 17

18

19

2021

22

2324

25

26

Energy Auditing services are for customers intending to proceed with energy 2 3 efficiency improvements but who require assistance estimating savings and incentive levels. Most participants in this category will be small to medium customers with energy 4 efficiency applications, or large customers with relatively simple energy efficiency 5 projects. It is not required for customers to obtain an energy audit before proceeding with 6 7 prescriptive energy efficiency measures, nor does the Company intend to provide Energy 8 Auditing services for such projects. This service is provided with no direct cost to the 9 customer.

Engineering services will be used to evaluate more complex projects that involve technologies associated with mechanical equipment, process equipment, and/or underutilized or emerging green technologies. These types of technologies may include boiler or chiller plant redesigns, heat recovery systems, digital energy management systems, process efficiency improvement projects, and associated green building technologies. Services provided under the program will include technical analysis and engineering support for medium to large customers who need assistance evaluating and/or designing complex projects. The Company will cost share these services with the customer up to 50% of the reasonable fees related to the efficiency project, not to exceed \$10,000. An administrative vendor will be capable of providing Engineering services to the customer under contract with the Company at negotiated rates to be established via a competitive bid process. In order to maintain a high level of quality and cost-effectiveness throughout the program, the following criteria will be required:

- The study must be conducted by a Professional Engineer (PE) and/or a Certified Energy Manager (CEM);
- The study scope and depth must extend beyond what is offered within the Energy Auditing program;

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 36 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 Page 4 of 11

 The customer will be required to pursue a green building/facility certification or to seek assistance with a specific energy efficient technology.

## **Commercial Energy Efficiency Program**

1

2

4

5

6

7

8

10

11

12

13

14 15

16 17

18

19

20

21

22

23

24

25

2627

28

The Commercial Energy Efficiency Program is designed to provide support services and financial incentives that encourage the Company's commercial and industrial customers to install energy efficient natural gas equipment. Virtually any energy efficient technology or system design that exceeds the minimum requirements of the local energy code, and which is not covered by another Company program offering, may be eligible for a incentive under this program. The program will be open to all gas sales customers on a commercial tariff, including multifamily facilities. Incentives provided through the program must be pre-approved by the Company and/or the administrative vendor prior to delivery or installation of product(s) or service(s).

Customers may apply for program services or incentives via a variety of channels including Company representatives, plumbing and heating contractors, engineering firms, energy service companies or equipment vendors. After reviewing the customer's energy efficiency needs, the customer will be offered the appropriate program services. The following describes the three categories of services a customer may be eligible for.

#### **Prescriptive Incentives**

Prescriptive incentives will be available for common energy efficiency measures including programmable thermostats, boiler reset controls, steam trap replacements, pipe and/or duct insulation, building shell (walls, roof, floor, crawlspace) insulation, and high efficiency windows. Prescriptive incentives will be targeted toward all commercial and industrial customers. The Company will rely primarily upon contractors and trade allies to locate candidate facilities and to install the eligible prescriptive measures. This effort will be supported by an extensive outreach and education effort to these trade allies, as well as promotions directed to the customers themselves. Energy audits will not be required for participation. However, pre-approval of the contractor's proposals and the

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 37 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 Page 5 of 11

- available prescriptive incentive will be required. Customers will receive incentives for
- 2 installed measures as indicated in Table 1.

Table 1 Eligible Prescriptive Measures							
Measure	Proposed Incentive						
Programmable thermostats	\$25 each						
Digital boiler reset control	\$150 single stage; \$250 multi-stage						
Steam trap replacements	\$25 / replaced trap						
Pipe or duct insulation; duct sealing	Up to 20% of project cost						
Building shell insulation (roof, walls, floor)	Up to 20% of project cost						
Premium efficiency windows	\$1 / sq.ft. of window rough opening area						
Gas Fired High Efficiency Fryers	\$300 / \$500 incentives						

# 5 Custom Incentives

3

4

6 7

8

10

11

12

13

14

15 16

17

18 19

20

Custom Incentives will be available for projects that demonstrate the use of natural gas more efficiently than typical industry practices, or more efficiently than the minimum building code requirements. Incentives will be limited to no more than 50% of the eligible installed project costs, and the Company's contribution will be capped at \$100,000 per site and/or project, and up to \$150,000 per eligible CHP project.

Custom Incentives will be classified as either Level One or Level Two. Level One projects will involve less complex technologies and/or highly cost effective technologies and will receive incentives based upon \$0.75 per first year of estimated therm savings. Examples of Level One projects are redesigns of HVAC systems, energy recovery ventilation, most heat recovery applications, building automation/energy management systems, and advanced technology burners and/or burner controls.

Level Two projects are more complex and/or represent underutilized technologies and will receive incentives based upon \$1.50 per first year of estimated therm savings. Few applications are expected to reach this threshold. In Program Year 1 the Company will build upon its experiences in other jurisdictions and offer customers the opportunity

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 38 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 Page 6 of 11

- to incorporate solar thermal technologies such as solar DHW heating, solar pool heating,
- and solar space heating into the program. Incentives may not be applied toward normal
- 3 maintenance costs, or for equipment disabling or abandonment without an energy
- 4 efficient replacement.
- 5 The Company recognizes the need to promote cost effective gas fired co-
- 6 generation systems, also called combined heat and power (CHP) where the heat by-
- 7 product of a gas reciprocating engine or gas turbine can be used to supplement a process
- 8 heat load in an industrial or institutional facility and also provides electric energy.
- 9 The Company will offer a modified custom incentive for eligible CHP
- installations. Under this application, CHP systems will receive incentives based upon
- \$0.75 per first year of estimated therm savings with a project cap of \$100,000. Higher
- 12 efficiency CHP systems, will receive an incentive of \$1.50 per first year of estimated
- therm savings with a project cap of \$150,000. The Parties will determine eligibility
- criteria for CHP projects. The intent is to offer higher incentives for more efficient
- 15 systems.

16

## **Commercial High-Efficiency Heating Program**

- The Commercial High-Efficiency Heating program will provide incentives to
- 18 commercial, industrial, governmental, institutional, non-profit and multifamily facilities
- 19 that install high-efficiency heating equipment. The incentives will be provided to reduce
- 20 the incremental cost between standard and high-efficiency equipment.
- The Commercial High-Efficiency Heating program will be promoted primarily to
- 22 architects, engineers, equipment vendors, contractors and other trade allies. Since many
- of the trade allies overlap in the residential and smaller multifamily and commercial
- 24 markets, the program will often be promoted together with the Residential High-
- 25 Efficiency Heating program. Trade ally awareness will be increased through direct mail,
- trade publications, newspapers, trade shows/seminars, and site visits.
- 27 The program's incentive schedule will apply to a variety of product types and a
- broad range of equipment sizes that are appropriate for the commercial market segments.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 39 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 Page 7 of 11

- This range provides an opportunity to participate regardless of customer size. There will
- 2 also be incentives for natural gas fired, low intensity infrared heaters, high efficiency
- 3 condensing unit heaters and direct fired make-up air systems that are appropriate for the
- 4 larger commercial and industrial segments. Boiler incentives will be available in a two-
- 5 tiered matrix: Tier One for high-efficiency non-condensing boilers and Tier Two for
- 6 high-efficiency fully condensing boilers.
- 7 The Commercial High-Efficiency Heating Incentive Program efficiency ratings
- 8 for smaller heating equipment (up to 300,000 Btuh input) are measured using AFUE
- 9 ratings. Efficiency ratings for larger heating equipment, which exceeds the size ranges
- for AFUE, are measured using a thermal efficiency or steady state rating.

Table 2. below depicts the Commercial High-Efficiency Heating program incentive qualifications.

Table 2. Commercial High-Efficiency Heating Pro	Table 2. Commercial High-Efficiency Heating Program Incentive Qualification							
Product	Rating	Incentive						
Furnaces (up to 150 MBtuh)	> 90% AFUE	\$150						
Furnaces	>92% AFUE with ECM or equivalent	\$400 <sup>1</sup>						
Rooftop Furnaces with Modulating Burners added	Not Applicable	Custom						
Condensing unit heaters (151 to 400 MBtuh)	> 90% Thermal Efficiency	\$500						
Direct fired heaters / direct fired makeup air (up to 1500 MBtuh)		\$1,000						
Direct fired heaters / direct fired makeup air (1501 to 3000 MBtuh)	)	\$1,500						
Direct fired heaters / direct fired makeup air (over 3000 MBtuh)		\$2,000						
Infrared heaters (all sizes)	low intensity	\$500						
Steam Boilers (up to 300 MBtuh)	> 82% AFUE	\$200						
Steam Boilers (over 300 MBtuh) with Modulating Burners added	Not Applicable	Custom						
Hydronic Boilers (under 175 MBtuh)	> 85% AFUE	\$500						
Hydronic Boilers (176 to 300 MBtuh)	> 85% AFUE	\$700						
Hydronic Boilers (301 to 499 MBtuh)	> 85% Thermal Efficiency	\$1,000						
Hydronic Boilers (500 to 999 MBtuh)	> 85% Thermal Efficiency	\$2,000						
Hydronic Boilers (1000 to 1700 MBtuh)	> 85% Thermal Efficiency	\$3,000						
Hydronic Boilers (1701 MBtuh and larger)	> 85% Thermal Efficiency	\$4,000						
Condensing Boilers (under 175 MBtuh)	> 88% AFUE	\$600						
Condensing Boilers (176 to 300 MBtuh)	> 88% AFUE	\$1,000						
Condensing Boilers (301 to 499 MBtuh)	> 90% Thermal Efficiency	\$1,500						
Condensing Boilers (500 to 999 MBtuh)	> 90% Thermal Efficiency	\$3,000						
Condensing Boilers (1000 to 1700 MBtuh)	> 90% Thermal Efficiency	\$4,500						

<sup>&</sup>lt;sup>1</sup> \$150 of this incentive will be funded through the electric energy efficiency program approved by the Commission.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 40 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 Page 8 of 11

Condensing Boilers (1701 MBtuh and larger)>	90% Thermal Efficiency	\$6,000
Instantaneous Tankless Water Heater	>0.82 EF & Electronic	\$300
	Ignition	
Indirect fired water heaters (up to 50 gallon storage)		\$100
Indirect fired water heaters (over 50 gallon storage)		\$250

#### **Economic Redevelopment Program**

1

2

4 5

6

7 8

9

10

11

12 13

14

15

16

17

18

19

20

21

22

2324

25

The Economic Redevelopment Program is designed to improve energy efficiency and reduce energy costs while also helping to foster the rehabilitation of buildings, storefronts and neighborhoods in areas that are in need. Additionally, the program can provide financial incentives and resources to help community based organizations and non-profits increase the energy efficiency of their facilities and reduce their operating costs. Through the program, the Company will work with Chambers of Commerce, economic redevelopment organizations, non-profit organizations, as well as private development corporations and businesses to facilitate the installation of eligible building shell and other measures that increase the energy efficiency of business districts, K-12 public school systems, and public and private subsidized housing. One of the program's objectives is to leverage energy efficiency funds with other investments that are being made for community development purposes.

Funding through the Economic Redevelopment Program will focus on projects that demonstrate a strong community impact. A project has a strong community impact when it provides for site rehabilitation, creates jobs, provides housing solutions or is integral in providing community based programs.

The program will be open to all Company multifamily, commercial and industrial customers that meet the program's intent. Maximum funding per project will be \$100,000, with a minimum of 50% matching funds requirement by customer. Applications for funding must include a description of the redevelopment project, information on the sponsoring organization, identification of additional funding sources, types of energy conserving measures to be installed, estimated energy savings and project

schedule. Each application for funding will be evaluated and an analysis will be

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 41 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 Page 9 of 11

- performed to identify cost-effective opportunities for reducing a customer's energy
- 2 usage. The analysis performed will lead to a report summary of recommendations and a
- detailed description of the alternatives evaluated, including: total installation costs,
- 4 annual energy costs, annual savings and simple payback periods.

5

6

#### The Emerald Network

7 The Emerald Network will offer incentives and services to customers focused on developing new green buildings or increasing green aspects of their existing buildings. 8 9 The program will provide both technical and financial resources to assist customers 10 seeking Leadership Energy and Environmental Design (LEED®) Certification through 11 the US Green Building Council's LEED rating system. These services will aid customers and their design teams in designing and constructing better buildings through high 12 13 performance heating and building envelope systems. In addition to looking at traditional 14 opportunities for energy efficiency, this track will also promote the use of advanced 15 technologies, such as combined heating or cooling and power and double-effect absorption cooling, by connecting customers with resources from National Grid and 16 17 industry partners. The Company will assist design teams through technical assessments 18 and integrated engineering and architectural practices during the design development to 19 define best practices toward high performance green standards. This effort will engage 20 architects, engineers and other building and construction industry participants not 21 traditionally reached through other energy efficiency programs, to move toward high 22 performance, green practices. In addition, these services will include design features 23 such as water resource management and advanced lighting systems. To fully support this 24 program and ensure that green buildings are performing as designed, the Company will 25 also provide training for operators of green buildings and increasing their awareness of 26 green applications.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 42 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 Page 10 of 11

#### **Building Practices and Demonstration Program**

1

10

11 12

13

14

15

16

17

18

19

2 The purpose of the Building Practices and Demonstration Program is to establish successful applications of new or underutilized energy efficient procedures, processes, or 3 technologies. Interested parties may file applications for financial and technical 4 assistance directly with the Company. Applications must include a description of the 5 6 scope of work and an estimate of the savings and benefits to be realized. Participants are 7 required to allow monitoring of the installation and/or results, tours of the installation by potential users or other interested stakeholders, and publication of the results in case 8 study format. 9

To market the program, the Company will rely on industry vendors developing and/or offering new or underutilized natural gas energy efficiency technologies as well as the efforts of Company employees.

The focus will be technologies that have low customer awareness or market penetration, and the end uses may include cooling, refrigeration, process heat, cooking, thermal measures, cogeneration, load control, or heat recovery. The program may also look at exemplary energy efficient designs or practices as demonstrations.

During the first year, the Company will be working to identify new energy efficient kitchen technologies. Some of these technologies include:

- Commercial Steam Cookers
- 20 Infrared Pizza Ovens
- 21 S Internet Protocol Based Remote Energy Management Systems
- 22 **Solution Dishwashers**

The Company will develop relationships with key partners and organizations like the Consortium for Energy Efficiency (CEE) Commercial Kitchens Group and the Energy Solutions Center (ESC), to increase its access to new technology information.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 43 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 Page 11 of 11

### **Trade Ally Training Program**

1

2

4

5

6 7

8

10

11 12

13

14

15

16

17

18

19

20

Energy efficiency awareness by the Company's trade allies is crucial to reducing barriers to energy efficiency and increasing acceptance of new technologies. Education activities to this segment will be a critical piece of the Company's promotion efforts.

The Company will support and undertake a wide range of training events in collaboration with GasNetworks<sup>2</sup>, the ENERGY STAR® Homes Joint Management Committee, Northeast Energy Efficiency Partnerships (NEEP), manufacturing training representatives and other trade allies. Outreach will extend to contractors, engineers, builders, landlords, realtors, facility managers and housing authorities. In addition, the Company will also support NEEP's Building Operator Certification Initiative. The objective of all training activities will be to increase trade ally awareness of the benefits of energy efficiency and provide them with the technical tools to properly select, size, install and maintain energy efficient products.

Training activities will be promoted via Company newsletters and direct mail campaigns to contractors, in addition to meeting with trade allies at public events. The GasNetworks website (<a href="www.gasnetworks.com">www.gasnetworks.com</a>) will also be used as a vehicle for promotion, offering trade allies a central source of information on special event training efforts, in addition to joint energy efficiency programs.

The budget for the Trade Ally Training Program will be included within each program's budget.

<sup>&</sup>lt;sup>2</sup> GasNetworks is a regional collaborative of natural gas distribution companies that coordinate natural gas energy efficiency programs throughout Maine, Massachusetts and New Hampshire. The benefit of GasNetworks membership is that it allows each participating company to offer regional programs at a lower overall cost to its customers. The GasNetworks programs are consistent wherever they have been offered. The GasNetworks programs have received several national awards from the American Council for an Energy Efficient Economy as exemplary examples of natural gas energy efficiency programs.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 44 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 3 Page 1 of 4

## **Bill Impact Analysis with Various Levels of Consumption:**

Current Distribution, GCR, DAC and Energy Efficiency Rates vs. Current Rates and Proposed Energy Efficiency Surcharge (\$0.0114 per Therm)

Residential Heating:

							Difference du	ue to:	
Consumnti	Jul - Jun on (Therms)	Proposed July-07	Current Rates	Difference	% Chg	Base Rates	GCR	DAC	 DSI
Consumpti	on (mems)				70 Ong				
	518	\$872	\$869	\$3	0.3%	\$0	\$0	\$0	\$
	621	\$1,024	\$1,021	\$3	0.3%	\$0	\$0	\$0	\$
	725	\$1,176	\$1,173	\$4	0.3%	\$0	\$0	\$0	\$-
	828	\$1,326	\$1,322	\$4	0.3%	\$0	\$0	\$0	\$
	932	\$1,474	\$1,469	\$5	0.3%	\$0	\$0	\$0	\$
Typical	1,035	\$1,621	\$1,615	\$5	0.3%	\$0	\$0	\$0	\$
	1,139	\$1,768	\$1,762	\$6	0.3%	\$0	\$0	\$0	\$6
	1,242	\$1,913	\$1,907	\$6	0.3%	\$0	\$0	\$0	\$6
	1,346	\$2,058	\$2,052	\$7	0.3%	\$0	\$0	\$0	\$7
	1,449	\$2,203	\$2,196	\$7	0.3%	\$0	\$0	\$0	\$7
	1,553	\$2,349	\$2,341	\$8	0.3%	\$0	\$0	\$0	\$8
identiai NC	on-Heating:						Difference du	ie to:	
identiai NC	Jul - Jun	Proposed	Current				Difference du	ue to:	
		Proposed July-07	Current Rates	Difference	% Chg	Base Rates	Difference du GCR	ue to: DAC	 DSN
	Jul - Jun			Difference  \$0	% Chg  0.2%	Base Rates			
	Jul - Jun on (Therms)	July-07	Rates				GCR	DAC	\$(
	Jul - Jun on (Therms) 77	July-07  \$208	Rates  \$207	\$0	0.2%	<b>\$</b> 0	GCR \$0	DAC \$0	\$0 \$0 \$1
	Jul - Jun on (Therms) 77 92	July-07  \$208 \$231	Rates  \$207 \$231	\$0 \$1	0.2% 0.2%	\$0 \$0	GCR  \$0 \$0	DAC \$0 \$0	\$( \$) \$: \$:
	Jul - Jun on (Therms) 77 92 107	July-07  \$208 \$231 \$255	Rates  \$207 \$231 \$254	\$0 \$1 \$1	0.2% 0.2% 0.2%	\$0 \$0 \$0 \$0	GCR  \$0 \$0 \$0	DAC  \$0 \$0 \$0	\$( \$( \$) \$( \$)
	Jul - Jun on (Therms) 77 92 107 122	July-07  \$208 \$231 \$255 \$278	Rates \$207 \$231 \$254 \$278	\$0 \$1 \$1 \$1	0.2% 0.2% 0.2% 0.2%	\$0 \$0 \$0 \$0	GCR \$0 \$0 \$0 \$0 \$0	DAC \$0 \$0 \$0 \$0 \$0	\$( \$( \$) \$( \$)
Consumpti	Jul - Jun on (Therms) 77 92 107 122 138	July-07  \$208 \$231 \$255 \$278 \$302	Rates \$207 \$231 \$254 \$278 \$301	\$0 \$1 \$1 \$1 \$1 \$1	0.2% 0.2% 0.2% 0.2% 0.2%	\$0 \$0 \$0 \$0 \$0 \$0 <b>\$0</b>	GCR	DAC	\$( \$ \$ \$ \$ \$ \$ \$
Consumpti	Jul - Jun on (Therms) 77 92 107 122 138 153	July-07  \$208 \$231 \$255 \$278 \$302 <b>\$325</b>	Rates \$207 \$231 \$254 \$278 \$301 <b>\$325</b>	\$0 \$1 \$1 \$1 \$1 \$1 <b>\$1</b>	0.2% 0.2% 0.2% 0.2% 0.2% 0.2%	\$0 \$0 \$0 \$0 \$0 \$0 <b>\$0</b>	GCR	DAC	\$( \$ \$ \$ \$ \$ \$ \$
Consumpti	Jul - Jun on (Therms) 77 92 107 122 138 <b>153</b> 168	July-07	Rates \$207 \$231 \$254 \$278 \$301 <b>\$325</b> \$348	\$0 \$1 \$1 \$1 \$1 \$1 <b>\$1</b> \$1	0.2% 0.2% 0.2% 0.2% 0.2% 0.2% 0.2%	\$0 \$0 \$0 \$0 \$0 \$0 <b>\$0</b>	GCR	DAC	\$( \$; \$; \$; \$; \$; \$;
Consumpti	Jul - Jun on (Therms) 77 92 107 122 138 <b>153</b> 168 184	July-07	\$207 \$231 \$254 \$278 \$301 <b>\$325</b> \$348 \$372	\$0 \$1 \$1 \$1 \$1 \$1 <b>\$1</b> \$1 \$1	0.2% 0.2% 0.2% 0.2% 0.2% 0.2% 0.2%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR	DAC	DSN

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 45 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 3 Page 2 of 4

# Bill Impact Analysis with Various Levels of Consumption:

C & I Small:

Current Distribution, GCR, DAC and Energy Efficiency Rates vs. Current Rates and Proposed Energy Efficiency Surcharge (\$0.0114 per Therm)

							Difference du	le to:	
Consumpti	Jul - Jun ion (Therms)	Proposed July-07	Current Rates	Difference	% Chg	Base Rates	GCR	DAC	DSN
	621	\$1,090	\$1,087	\$3	0.3%	\$0	\$0	\$0	\$
	745	\$1,271	\$1,267	\$4	0.3%	\$0	\$0	\$0	\$4
	869	\$1,450	\$1,446	\$4	0.3%	\$0	\$0	\$0	\$-
	994	\$1,626	\$1,621	\$5	0.3%	\$0	\$0	\$0	\$
	1,118	\$1,801	\$1,795	\$6	0.3%	\$0	\$0	\$0	\$
Typical	1,242	\$1,974	\$1,968	\$6	0.3%	\$0	\$0	\$0	\$
	1,366	\$2,147	\$2,140	\$7	0.3%	\$0	\$0	\$0	\$
	1,490	\$2,318	\$2,311	\$8	0.3%	\$0	\$0	\$0	\$8
	1,615	\$2,490	\$2,482	\$8	0.3%	\$0	\$0	\$0	\$8
	1,739	\$2,662	\$2,653	\$9	0.3%	\$0	\$0	\$0	\$9
	1,863	\$2,834	\$2,824	\$10	0.3%	\$0	\$0	\$0	\$1
l Medium:	:						Difference du	ue to:	
I Medium:	Jul - Jun	Proposed	Current				Difference du	ue to:	
		Proposed July-07	Current Rates	Difference	% Chg	Base Rates	Difference du	ue to: DAC	 DSN
	Jul - Jun ion (Therms) 5,174	July-07  \$7,485	Rates  \$7,458	\$26	0.4%	<b>\$</b> 0	GCR \$0		\$2
	Jul - Jun ion (Therms) 5,174 6,209	July-07  \$7,485 \$8,873	Rates  \$7,458 \$8,842	\$26 \$32	0.4% 0.4%	\$0 \$0	GCR \$0 \$0	DAC \$0 \$0	\$2 \$3
	Jul - Jun ion (Therms) 5,174 6,209 7,244	July-07  \$7,485	Rates  \$7,458 \$8,842 \$10,225	\$26 \$32 \$37	0.4% 0.4% 0.4%	\$0 \$0 \$0	GCR  \$0 \$0 \$0	DAC  \$0 \$0 \$0	\$2 \$3 \$3
	Jul - Jun ion (Therms) 5,174 6,209 7,244 8,278	\$7,485 \$8,873 \$10,262 \$11,651	Rates  \$7,458 \$8,842 \$10,225 \$11,609	\$26 \$32 \$37 \$42	0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0	GCR \$0 \$0 \$0 \$0	DAC \$0 \$0 \$0 \$0 \$0	\$2 \$3 \$3 \$4
Consumpti	Jul - Jun ion (Therms) 5,174 6,209 7,244 8,278 9,313	July-07  \$7,485 \$8,873 \$10,262 \$11,651 \$13,040	Rates  \$7,458 \$8,842 \$10,225 \$11,609 \$12,993	\$26 \$32 \$37 \$42 \$47	0.4% 0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0	\$2 \$3 \$3 \$4 \$4
	Jul - Jun ion (Therms) 5,174 6,209 7,244 8,278 9,313 <b>10,348</b>	July-07 	Rates \$7,458 \$8,842 \$10,225 \$11,609 \$12,993 \$14,376	\$26 \$32 \$37 \$42 \$47 <b>\$53</b>	0.4% 0.4% 0.4% 0.4% 0.4% <b>0.4%</b>	\$0 \$0 \$0 \$0 \$0 \$0 <b>\$0</b>	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$2 \$3 \$3 \$4 \$4 <b>\$5</b>
Consumpti	Jul - Jun ion (Therms) 5,174 6,209 7,244 8,278 9,313 <b>10,348</b> 11,383	July-07  \$7,485 \$8,873 \$10,262 \$11,651 \$13,040 <b>\$14,429</b> \$15,818	Rates \$7,458 \$8,842 \$10,225 \$11,609 \$12,993 <b>\$14,376</b> \$15,760	\$26 \$32 \$37 \$42 \$47 <b>\$53</b> \$58	0.4% 0.4% 0.4% 0.4% 0.4% <b>0.4%</b>	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR  \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$2 \$3 \$3 \$4 \$4 <b>\$5</b>
Consumpti	Jul - Jun ion (Therms) 5,174 6,209 7,244 8,278 9,313 <b>10,348</b> 11,383 12,418	July-07 \$7,485 \$8,873 \$10,262 \$11,651 \$13,040 <b>\$14,429</b> \$15,818 \$17,207	Rates \$7,458 \$8,842 \$10,225 \$11,609 \$12,993 <b>\$14,376</b> \$15,760 \$17,143	\$26 \$32 \$37 \$42 \$47 <b>\$53</b> \$58 \$63	0.4% 0.4% 0.4% 0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR  \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	DAC \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$2 \$3 \$3 \$4 \$4 <b>\$5</b> \$5
Consumpti	Jul - Jun ion (Therms) 5,174 6,209 7,244 8,278 9,313 <b>10,348</b> 11,383	\$7,485 \$8,873 \$10,262 \$11,651 \$13,040 <b>\$14,429</b> \$15,818 \$17,207 \$18,596	Rates  \$7,458 \$8,842 \$10,225 \$11,609 \$12,993 <b>\$14,376</b> \$15,760 \$17,143 \$18,527	\$26 \$32 \$37 \$42 \$47 <b>\$53</b> \$58 \$63 \$69	0.4% 0.4% 0.4% 0.4% 0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR  \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	DAC	\$2 \$3 \$3 \$4 \$4 <b>\$5</b> \$5 \$6
Consumpti	Jul - Jun ion (Therms) 5,174 6,209 7,244 8,278 9,313 <b>10,348</b> 11,383 12,418	July-07 \$7,485 \$8,873 \$10,262 \$11,651 \$13,040 <b>\$14,429</b> \$15,818 \$17,207	Rates \$7,458 \$8,842 \$10,225 \$11,609 \$12,993 <b>\$14,376</b> \$15,760 \$17,143	\$26 \$32 \$37 \$42 \$47 <b>\$53</b> \$58 \$63	0.4% 0.4% 0.4% 0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR  \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	DAC \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	 DSM  \$2( \$3; \$3; \$4; \$4; \$5; \$6; \$6; \$6; \$7;

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 46 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 3 Page 3 of 4

## Bill Impact Analysis with Various Levels of Consumption:

Current Distribution, GCR, DAC and Energy Efficiency Rates vs. Current Rates and Proposed Energy Efficiency Surcharge (\$0.0114 per Therm)

I LLF Larg		Duanasad	0				Difference du	ie to:	
Consumpti	Jul - Jun ion (Therms)	Proposed July-07	Current Rates	Difference	% Chg	Base Rates	GCR	DAC	DSM
	33,637	\$46,700	\$46,528	\$172	0.4%	\$0	\$0	\$0	\$172
	40,364	\$55,824	\$55,618	\$206	0.4%	\$0	\$0	\$0	\$206
	47,092	\$64,948	\$64,708	\$240	0.4%	\$0	\$0	\$0	\$240
	53,819	\$74,072	\$73,797	\$274	0.4%	\$0	\$0	\$0	\$274
	60,547	\$83,196	\$82,887	\$309	0.4%	\$0	\$0	\$0	\$309
Typical	67,274	\$92,320	\$91,977	\$343	0.4%	\$0	\$0	\$0	\$343
.,	74,001	\$101,444	\$101,066	\$377	0.4%	\$0	\$0	\$0	\$377
	80,729	\$110,568	\$110,156	\$412	0.4%	\$0	\$0	\$0	\$412
	87,456	\$119,692	\$119,246	\$446	0.4%	\$0	\$0	\$0	\$446
	94,184	\$128,816	\$128,335	\$480	0.4%	\$0	\$0	\$0	\$480
	100,911	\$137,939	\$137,425	\$515	0.4%	\$0	\$0	\$0	\$515
I HLF Larg		, ,,,,,,,,	, ,	***					
I HLF Larg	ge:	. ,	Current	***		· 	Difference du	ue to:	
		Proposed July-07	Current Rates	Difference	% Chg	Base Rates	Difference du	ie to: DAC	 DSM
	ge: Jul - Jun	Proposed		·		Base Rates			
	ge: Jul - Jun ion (Therms)	Proposed July-07	Rates	Difference	% Chg		GCR	DAC	\$172
	Jul - Jun ion (Therms) 33,638	Proposed July-07  \$42,594	Rates  \$42,423	Difference  \$172	% Chg  0.4%	<b>\$</b> 0	GCR 	DAC \$0	\$172 \$206
	Jul - Jun ion (Therms) 33,638 40,365	Proposed July-07  \$42,594 \$50,897	Rates  \$42,423 \$50,691	Difference  \$172 \$206	% Chg  0.4% 0.4%	\$0 \$0	GCR \$0 \$0	DAC \$0 \$0	\$172 \$206 \$240
	Jul - Jun ion (Therms) 33,638 40,365 47,093	Proposed July-07  \$42,594 \$50,897 \$59,200	Rates  \$42,423 \$50,691 \$58,960	Difference  \$172 \$206 \$240	% Chg  0.4% 0.4% 0.4%	\$0 \$0 \$0	GCR  \$0 \$0 \$0	DAC  \$0 \$0 \$0	\$172 \$206 \$240 \$274
	Jul - Jun ion (Therms) 33,638 40,365 47,093 53,820	Proposed July-07 	Rates  \$42,423 \$50,691 \$58,960 \$67,228	Difference 	% Chg  0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0	GCR \$0 \$0 \$0 \$0 \$0	DAC \$0 \$0 \$0 \$0 \$0	\$172 \$206 \$240 \$274 \$309
Consumpti	Jul - Jun ion (Therms) 33,638 40,365 47,093 53,820 60,548	Proposed July-07 	Rates  \$42,423 \$50,691 \$58,960 \$67,228 \$75,497	Difference 	% Chg  0.4% 0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0 \$0	GCR \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0	\$172 \$206 \$240 \$274 \$309 <b>\$343</b>
Consumpti	Jul - Jun ion (Therms) 33,638 40,365 47,093 53,820 60,548 67,275	Proposed July-07	Rates \$42,423 \$50,691 \$58,960 \$67,228 \$75,497 \$83,765	Difference 	% Chg  0.4% 0.4% 0.4% 0.4% 0.4% <b>0.4%</b>	\$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$172 \$206 \$240 \$274 \$309 <b>\$343</b> \$377
Consumpti	Jul - Jun ion (Therms) 33,638 40,365 47,093 53,820 60,548 <b>67,275</b> 74,003	Proposed July-07	Rates \$42,423 \$50,691 \$58,960 \$67,228 \$75,497 \$83,765 \$92,034	Difference 	% Chg 0.4% 0.4% 0.4% 0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	DAC \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$172 \$206 \$240 \$274 \$309 <b>\$343</b> \$377 \$412
Consumpti	Jul - Jun ion (Therms) 33,638 40,365 47,093 53,820 60,548 67,275 74,003 80,730	Proposed July-07	Rates \$42,423 \$50,691 \$58,960 \$67,228 \$75,497 <b>\$83,765</b> \$92,034 \$100,303	Difference \$172 \$206 \$240 \$274 \$309 <b>\$343</b> \$377 \$412	% Chg 0.4% 0.4% 0.4% 0.4% 0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR	DAC	DSM \$172 \$206 \$240 \$274 \$309 \$343 \$377 \$412 \$446 \$480

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 47 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 3 Page 4 of 4

## Bill Impact Analysis with Various Levels of Consumption:

Current Distribution, GCR, DAC and Energy Efficiency Rates vs. Current Rates and Proposed Energy Efficiency Surcharge (\$0.0114 per Therm)

	مسيا ابيا	Duamanad	C				Difference du	ie io.	
Consumpt	Jul - Jun ion (Therms)	Proposed July-07	Current Rates	Difference	% Chg	Base Rates	GCR	DAC	DSI
	142,312	\$176,057	\$175,331	\$726	0.4%	\$0	\$0	\$0	\$72
	170,774	\$210,548	\$209,677	\$871	0.4%	\$0	\$0	\$0	\$87
	199,237	\$245,040	\$244,024	\$1,016	0.4%	\$0	\$0	\$0	\$1,01
	227,699	\$279,531	\$278,370	\$1,161	0.4%	\$0	\$0	\$0	\$1,16
	256,162	\$314,023	\$312,716	\$1,306	0.4%	\$0	\$0	\$0	\$1,30
Typical	284,624	\$348,514	\$347,062	\$1,452	0.4%	\$0	\$0	\$0	\$1,45
	313,086	\$383,005	\$381,409	\$1,597	0.4%	\$0	\$0	\$0	\$1,59
	341,549	\$417,497	\$415,755	\$1,742	0.4%	\$0	\$0	\$0	\$1,74
	370,011	\$451,988	\$450,101	\$1,887	0.4%	\$0	\$0	\$0	\$1,88
	398,474	\$486,480	\$484,447	\$2,032	0.4%	\$0	\$0	\$0	\$2,03
	426,936	\$520,971	\$518,794	\$2,177	0.4%	\$0	\$0	\$0	\$2,17
I HLF Extr	ra-Large:						Difference de		
I HLF Extr		Dropood	Current				Difference du	ue to:	
	ra-Large:  Jul - Jun ion (Therms)	Proposed July-07	Current Rates	Difference	% Chg	Base Rates	Difference du	ue to: DAC	 DS
	Jul - Jun	July-07		Difference  \$700	% Chg  0.4%	Base Rates \$0			
	Jul - Jun ion (Therms)	July-07	Rates				GCR	DAC	\$70
	Jul - Jun ion (Therms) 137,313	July-07  \$161,353	Rates  \$160,653	\$700	0.4%	<b>\$</b> 0	GCR \$0	DAC \$0	\$70 \$84
	Jul - Jun ion (Therms) 137,313 164,775	July-07  \$161,353 \$192,904	Rates  \$160,653 \$192,063	\$700 \$840	0.4% 0.4%	\$0 \$0	GCR \$0 \$0	DAC  \$0 \$0	\$70 \$84 \$98
	Jul - Jun ion (Therms) 137,313 164,775 192,238	July-07  \$161,353 \$192,904 \$224,454	Rates  \$160,653 \$192,063 \$223,474	\$700 \$840 \$980	0.4% 0.4% 0.4%	\$0 \$0 \$0	GCR  \$0 \$0 \$0	DAC  \$0 \$0 \$0	\$70 \$84 \$98 \$1,12
	Jul - Jun ion (Therms) 137,313 164,775 192,238 219,700	July-07  \$161,353 \$192,904 \$224,454 \$256,005	Rates  \$160,653 \$192,063 \$223,474 \$254,884	\$700 \$840 \$980 \$1,120	0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0	GCR \$0 \$0 \$0 \$0 \$0	DAC  \$0 \$0 \$0 \$0	\$70 \$84 \$98 \$1,12 \$1,26
Consumpt	Jul - Jun ion (Therms) 137,313 164,775 192,238 219,700 247,163	July-07 	Rates  \$160,653 \$192,063 \$223,474 \$254,884 \$286,295	\$700 \$840 \$980 \$1,120 \$1,261	0.4% 0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0 \$0	GCR 	DAC	\$70 \$84 \$98 \$1,12 \$1,26 <b>\$1,40</b>
Consumpt	Jul - Jun ion (Therms) 137,313 164,775 192,238 219,700 247,163 274,625	July-07 	Rates \$160,653 \$192,063 \$223,474 \$254,884 \$286,295 \$317,705	\$700 \$840 \$980 \$1,120 \$1,261 <b>\$1,401</b>	0.4% 0.4% 0.4% 0.4% 0.4% <b>0.4</b> %	\$0 \$0 \$0 \$0 \$0 \$0 <b>\$0</b>	GCR  \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	DAC	\$70 \$84 \$98 \$1,12 \$1,26 <b>\$1,40</b> \$1,54
Consumpt	Jul - Jun ion (Therms) 137,313 164,775 192,238 219,700 247,163 274,625 302,088	July-07 	Rates \$160,653 \$192,063 \$223,474 \$254,884 \$286,295 \$317,705 \$349,116	\$700 \$840 \$980 \$1,120 \$1,261 <b>\$1,401</b> \$1,541	0.4% 0.4% 0.4% 0.4% 0.4% <b>0.4%</b> 0.4%	\$0 \$0 \$0 \$0 \$0 \$0 <b>\$0</b> <b>\$0</b>	GCR  \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	DAC	\$70 \$84 \$98 \$1,12 \$1,26 <b>\$1,40</b> \$1,54
Consumpt	Jul - Jun ion (Therms) 137,313 164,775 192,238 219,700 247,163 274,625 302,088 329,550	July-07 	Rates \$160,653 \$192,063 \$223,474 \$254,884 \$286,295 \$317,705 \$349,116 \$380,526	\$700 \$840 \$980 \$1,120 \$1,261 <b>\$1,401</b> \$1,541 \$1,681	0.4% 0.4% 0.4% 0.4% 0.4% <b>0.4%</b> 0.4%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR  \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	DAC	DS \$70 \$84 \$98 \$1,12 \$1,26 \$1,40 \$1,54 \$1,68 \$1,82 \$1,96

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 48 of 64

> National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 4

# Funding Sources by Sector 2007 and 2008

	Jan. 1, 2007 -	July 1, 2007 -			Total
	June 30, 2007	Dec. 31, 2007	Total 2007	2008	2007 - 2008
Gas Energy Efficiency Surcharge per Dth	\$0.063	\$0.111		\$0.111	
Uncollectible Percentage (Docket 3401)		2.1%		2.1%	
Adjusted Factor		\$0.114		\$0.114	
·					
Forecasted Use (Dth):					
Total Firm THROUGHPUT					
Residential Non-Heating	358,597	258,997	617,594	600,953	1,218,547
Residential Heating	12,900,898	5,243,533	18,144,431	18,322,127	36,466,558
Residential Subtotal	13,259,494	5,502,530	18,762,025	18,923,080	37,685,105
Small C&I	1,694,207	621,705	2,315,913	2,371,676	4,687,589
Medium C&I	3,469,096	1,801,356	5,270,452	5,150,039	10,420,491
Large LLF	1,833,909	825,164	2,659,072	2,767,560	5,426,633
Large HLF	506,517	395,170	901,687	959,805	1,861,491
Extra Large LLF	513,565	314,459	828,024	828,024	1,656,048
Extra Large HLF	2,050,464	1,835,570	3,886,035	3,886,035	7,772,069
C&I Subtotal	10,067,758	5,793,424	15,861,182	15,963,139	31,824,321
Total Firm Throughput	23,327,252	11,295,955	34,623,207	34,886,219	69,509,426
Non-Firm	1,375,000	1,125,000	2,500,000	2,500,000	5,000,000
TOTAL THROUGHPUT	24,702,252	12,420,955	37,123,207	37,386,219	74,509,426
Collections by Sector:					
Residential EE Surcharge Collections	\$835,348	\$612,552	\$1,447,900	\$2,106,554	\$3,554,454
Low Income Weatherization in Base Rates	\$141,344	\$58,656	\$200,000	\$200,000	\$400,000
Total Collections - Residential	\$976,692	\$671,208	\$1,647,900	\$2,306,554	\$3,954,454
Commercial and Industrial EE Surcharge Collections	\$720,893	\$770,172	\$1,491,065	\$2,055,352	\$3,546,417
Total Collections - Commercial and Industrial	\$720,893	\$770,172	\$1,491,065	\$2,055,352	\$3,546,417
	. ,	. ,	. , , .	. , , .	. / /
<b>Total Projected Collections</b>	\$1,697,585	\$1,441,380	\$3,138,965	\$4,361,906	\$7,500,871

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 49 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 50 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 Page 1 of 7

#### Section:

- 1.0: Purpose of Guidelines
- 2.0: Definitions
- 3.0: Eligibility
- 4.0: Cost Effectiveness Standard
- 5.0: Required Plan Elements
- 6.0: Measurement & Verification
- 7.0: Procedures for Initial Plan Approval and Annual Reporting
- 8.0: Coordination with Utility Program

## 1.0: Purpose of Guidelines

The purpose of this document is to establish the guidelines which will be followed in order to facilitate the filing, review and approval of self-directed gas demand side management programs by manufacturing customers of gas distribution companies in Rhode Island, as provided for in R.I.G.L. 39-2-1.2(f). Such programs will provide incentives to customers for installing DSM measures that they would not have otherwise installed.

## 2.0: Definitions

- 2.1 <u>Commission</u>: means the Rhode Island Public Utilities Commission.
- 2.2 <u>Demand Side Management ("DSM")</u>: means one or a package of measures consisting of gas energy efficiency, gas conservation, and/or combined heat and power systems.
- 2.3 <u>End –use Customer</u>: means a person or entity in Rhode Island that purchases and uses natural gas.
- 2.4 <u>Manufacturing</u>: means and includes manufacturing, compounding, processing, assembling, preparing or producing. Manufacturers which are considered to be engaged in manufacturing for purposes of R.I.G.L. 44-18-30 and R.I.G.L. 44-13-35 shall be considered to be engaged in manufacturing for the purposes of the guidelines herein.
- 2.5 <u>Measurement & Verification ("M&V")</u>: means measurements and calculations used to determine the level of energy and other resource savings attributable to a particular DSM measure or program.
- 2.6 Other Customer Funds: means the portion of funds that the customer contributes to the Self-Directed Program budget over and above that portion which represents the Self-Directed Funds in a given year.
- 2.7 <u>Self-Directed Funds</u>: means the amount of funds which the customer would have paid to the utility under the gas energy efficiency surcharge in the absence of the Self-Directed Program, but instead is allocated to the Self-Directed Program budget.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 51 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 Page 2 of 7

- 2.8 <u>Self-Directed DSM Program (or "Self-Directed Program")</u>: means the set of activities undertaken by a Manufacturing End-use Customer to identify, implement, and verify the savings associated with a set of DSM measures using funds that the customer would otherwise have paid the Utility under the gas energy efficiency surcharge.
- 2.9 <u>Utility</u>: means the regulated natural gas distribution utility which serves the End-use Customer that is submitting the Self-Directed Program for certification, unless specifically noted otherwise.

## 3.0: Eligibility

- 3.1 Natural gas used for Manufacturing processes (as defined in Section 2 of these guidelines) is eligible to be exempted from the demand-side management charge from the gas distribution utility according to the provisions of these guidelines, subject to the Commission's approval of a Self-Directed DSM Program.
- 3.2 Natural gas consumption is billed according to usage measured by meters. In the event that a meter has mixed usage whereby some natural gas usage recorded by that meter is used for manufacturing processes, and other gas is not, these guidelines adopt the practice of the Division of Taxation whereby it generally deems 95% of the manufacturer's volumes to be for "manufacturing use". If consumption is separately metered for manufacturing use only, the entire amount will be included as natural gas used for manufacturing.
- 3.3 Eligible measures for the purposes of Commission approval of a Self-Directed DSM Program shall include cost-effective energy efficiency, conservation, and combined heat & power systems, consistent with the provisions of R.I.G.L. 39-2-1.2 concerning the utility DSM program. Cost-effectiveness standards are provided in Section 4 of these guidelines.
- 3.4 The Self-Directed DSM Program must be in effect for a minimum of two years.
- 3.5 The Self-Directed DSM Program budget shall be funded to at least the same level (within 2%) as the equivalent payments the customer would have made if the manufacturing natural gas usage for that customer had not been exempted from the utility gas energy efficiency surcharge. The default procedure for determining this funding level shall be to use the previous 12 months gas decatherm consumption applied to the current energy efficiency charge (cents per decatherm). These funds are referred to as Self-Directed Funds. The customer may provide additional funds to the Self-Directed Program budget in any given year, and these additional funds are referred to as Other Customer Funds.

## 4.0: <u>Cost-Effectiveness Standard</u>

4.1 This section describes the cost-effectiveness standard that is to be applied to Self-Directed DSM Programs by Manufacturing End-use Customers, and no precedent is

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A1, Page 52 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 Page 3 of 7

implied or granted to use this standard for any other utility DSM programs. Since by its nature self direct programs do not involve utility rebates or administrative expenses, the current<sup>1</sup> cost-effectiveness test used in Rhode Island for utility programs is not applicable for self-directed programs.

- 4.2 The cost-effectiveness of Self-Directed DSM Programs will be determined using the Total Resource Cost ("TRC") test. The TRC test assesses whether or not the demand-side management program or measure improves economic efficiency in the broad sense of the term<sup>2</sup>. The test is applicable to conservation, load management, and fuel substitution programs. The TRC test represents the combination of the effects of a program on both the customers participating and those not participating in a program. The TRC test is the primary test used to screen most gas DSM programs in the United States<sup>3</sup>.
- 4.3 Incremental costs refer to the additional cost of the energy efficient measure compared to standard practice. Incremental savings is the difference between the energy use of the recommended measure compared to standard practice.
- 4.4 The benefits calculated in the TRC test value the expected incremental savings using the avoided supply costs the reduction in delivery, capacity, and commodity costs valued at marginal cost for the periods where there is a load reduction. For fuel substitution programs, benefits include the avoided device costs and avoided supply costs for the energy-using equipment not chosen by the program participant.
- 4.5 The costs in the TRC test are the incremental program costs paid by both the utility and the participants, plus the increase in supply costs for the periods in which load is increased. Therefore, all incremental equipment, installation, operation and maintenance costs, cost of removal (less salvage value), and administration costs, no matter who pays for them, are included in this test. For fuel substitution programs, the costs also include the increase in supply costs for the utility providing the fuel that is chosen as a result of the program. The TRC test excludes any transfer payments between parties. Thus incentive payments by the utility to encourage participation are excluded from the calculation.
- 4.6 Measures shall be considered cost-effective if they achieve a benefit-cost ratio above one (1.0). The benefit-cost ratio is the ratio of the discounted total benefits of the program or measure to the discounted total costs over some specified time period (by convention the lifetime of the impacts produced by the measure). A benefit-cost ratio above one indicates that the program or measure is beneficial to the utility and its ratepayers on a total resource cost basis.

-

<sup>&</sup>lt;sup>1</sup> Calendar year 2007.

<sup>&</sup>lt;sup>2</sup> The Total Resource Cost (TRC) test is formally defined in Chapter 4 of the California Standard Practice Manual, Economic Analysis of Demand Side Programs and Projects (October 2001).

<sup>&</sup>lt;sup>3</sup> See, for example, the report entitled "DSM in North American Gas Utilities", prepared for Enbridge Gas Distribution by IndEco Strategic Consulting Inc. and Navigant Consulting Ltd., April 2004.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 53 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 Page 4 of 7

- 4.7 Avoided costs used for the cost-effectiveness calculations shall be those provided by the gas utility and/or electric utility (as the case may merit, for example, with combined heat and power systems) in that utility's most recent DSM filing with the Commission.
- 4.8 For purposes of cost-effectiveness, pre-installation measure savings estimates shall be those reported to the Commission by the Professional Engineer ("PE") conducting a technical assessment that identifies and specifies the DSM measures. These savings estimates shall be calculated in a manner consistent with generally accepted engineering practices comparable to the practices employed by the gas distribution utility administering energy efficiency programs in the state.
- 4.9 The Self-Directed DSM Program shall only include measures which meet the definition of demand side management (DSM), namely those which fall under the categories of energy efficiency, conservation, and/or combined heat and power systems, have a reasonable payback period, and are cost-effective according to the TRC test. The purpose of the reasonable payback period is to ensure that the program encourages measures that would not have been implemented otherwise.

## **5.0:** Required Plan Elements

- 5.1 In making application for certification of a self directed program, the applicant shall provide the Commission a **Manufacturing Self-Directed DSM Program Eligibility Application**, which shall contain the following information:
  - (i) Name, contact information, and gas utility account numbers addressed by the program.
  - (ii) Period for which the proposed program will be in force (must be at least 24 months).
  - (iii) Proof that the accounts meet eligibility requirements.
  - (iv) Description of DSM measures to be included in the plan, and expected savings of natural gas and other resources (as applicable).
  - (v) Funding levels by year, for both Self-Directed Funds and Other Customer Funds.
  - (vi) Annual program budget by category:
    - a. Administrative
    - b. Audit and Technical Assessment
    - c. Measure costs (professional services, labor, equipment & materials)
    - d. Measurement & Verification costs
  - (vii) Measurement & Verification ("M&V") plan for program.
  - (viii) .Cost effectiveness estimate for measures to be installed.

#### **6.0:** Measurement & Verification

- 6.1 Program shall include pre-inspection by a PE and post-inspection by an independent third party not associated with either the customer or the firm installing the measures.
- 6.2 Energy savings are calculated according to industry standard methods by the independent third party per 6.1. See Section 4.0.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 54 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 Page 5 of 7

- 6.3 Program shall assign appropriate M&V methods to specific measures.
- 6.4 Acceptable M&V methods are those which are described in the most recent version of the International Performance Measurement & Verification Protocol.
- 6.5 The Commission shall ensure that parties performing M&V work are appropriately qualified and meet qualifications comparable to those individuals performing M&V for the gas distribution utility.

## 7.0: Procedures for Program Approval and Annual Reporting

## 7.1 Program approval by the Commission

The Commission will approve and certify, or deny, Self-Directed DSM Programs by issuing statements of qualification within ninety (90) days of application. The following procedure will be followed to complete the review and certification:

- (i) Applicants for certification of Self-Directed DSM Programs must submit an application to the Commission which conforms to the requirements of Section 5.1 above
- (ii) The Commission Clerk will keep a list of interested parties who wish to be notified when an application for certification is filed. Such list will include the Division of Public Utilities and Carriers. In addition to filing with the Commission, applicants are required to send, either electronically or in paper copy, a copy of the completed application, including any attachments, to the interested parties. The Commission Clerk will post all completed Manufacturing Self-Directed DSM Program Eligibility applications, including all attachments, on the Commission website.
- (iii) The Commission may request additional information or clarification regarding the application.
- (iv) Any party in interest may comment on such filings to the Commission in writing within 30 days from the date of filing. Following the 30-day comment period, the Commission will consider an application for certification in an open meeting. The Commission may approve the application or request at that time, or it may set the matter down for hearing following not less than 10-day notice to the interested parties.
- (v) The Commission will establish a unique certification number for each Self-Directed DSM Program.

# 7.2 The Commission will verify the on-going eligibility of Self-Directed DSM Programs, as follows:

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 55 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 Page 6 of 7

- (i) Customers with Self-Directed DSM Programs shall file annual reports by May 1 of the year following the program year. Such reports shall contain the following items:
  - a. Description of measures installed in the program during that calendar year;
  - b. Estimate of gas savings, and other resource savings (where applicable), produced by the measures installed, based on the post-installation inspection conducted by an independent third party. (See 6.1.)
  - c. Expenditures during the calendar year, with true-up to projected budget.
  - d. Benefit-cost ratio showing cost-effectiveness of measures installed
  - e. Summary findings from any M&V work completed during the calendar year.
  - f. Plans for the ensuing year, if applicable, including:
    - (i) Budget
    - (ii) Targeted Measures
    - (iii) Cost-effectiveness
    - (iv) M&V Plan
- (ii) The Commission may request other information as desired in its certification order.
- (iii) The Commission or persons acting at its behest may conduct audits or site visits to assist in verification at any time at the Commission's discretion.
- 7.3 End-use Customers, once their program is certified, shall notify the Commission in the event of a change in eligibility status. When and if, in the Commission's opinion, after due consideration, there is a material change in the characteristics of the program or facility that could alter its eligibility, such Self-Directed DSM Program must be recertified. Recertification of a Self-Directed DSM Program will be conducted in the same manner as the certification process outlined above.
- 7.4 Suspension or Revocation: The Commission may suspend or revoke the certification of a Self-Directed DSM Program, certified in accordance with Section 7.1, that is found, after notice and an opportunity for hearing, to provide false information, or that fails to notify the Commission in the event of a change in eligibility status or otherwise comply with law or these guidelines.
- 7.5 Advisory Committee: The Commission may, at its discretion, create an advisory committee to assist it in its administration of the program.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 56 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 Page 7 of 7

## 8.0: Coordination with Utility DSM Program

- 8.1 Within thirty days of Commission receipt of an application for certification of a Self-Directed DSM Program, the utility shall conduct a true-up analysis which compares customer incentives provided by the utility under its DSM program for the previous 24 months to customer and DSM charge payments made during that same 24 month period. In the event that rebates or other incentives exceed customer payments, customer shall have the option of either (a) delaying implementation of the Self-Directed DSM Program until such time as payments equalize rebates or other incentives, or (b) repaying the utility for the portion by which rebates or other incentives exceeded payments.
- 8.2 Customer facilities which participate in the Self-Directed DSM Program are ineligible to receive services under the utility DSM program during the period for which the Self-Directed DSM Program is in effect.
- 8.3 Within 30 days of Commission certification of the Self-Directed DSM Program, the utility shall stop applying the DSM charge to the bills of accounts which are included in that Self-Directed DSM Program.
- 8.4 If actual expenditures are less than the approved Self-Directed Funds budget for a calendar year, the customer must either carry the funds over and spend them in the next calendar year, or contribute such funds to the utility DSM program. In no event can a customer carry over funds in two successive calendar years.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 57 of 64

> National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 6 Page 1 of 2

#### National Grid Gas Energy Efficiency Program Budget (\$000) 2007 - 2008

	Program Planning &	& Administration				
Program	External(1)	Internal	Marketing	Rebates and Other Customer Incentives	Evaluation & Market Research	Grand Total
RESIDENTIAL:	External(1)	Thice hai	Mai Keting	Incentives	Research	Grand Total
ENERGY STAR Homes	\$100.0	\$2.7	\$37.5	\$71.9	\$4.1	\$216.2
Building Practices and Demonstration Program	\$4.0	\$0.5	\$25.0	\$24.0	\$1.3	\$54.8
Energy Analysis: Internet Audit Program	\$0.2	\$0.0	\$1.1	\$2.5	\$0.0	\$3.9
Total Building Practices and Demonstration Program	\$4.2	\$0.5	\$26.1	\$26.5	\$1.3	\$58.7
ENERGY STAR Heating System	\$41.0	\$8.0	\$37.5	\$482.3	\$13.3	\$582.0
GasNetworks	\$0.0	\$0.0	\$45.6	\$0.0	\$0.0	\$45.6
Energy Analysis: Internet Audit Program	\$2.6	\$0.4	\$11.6	\$28.0	\$0.0	\$42.5
Total ENERGY STAR Heating System	\$43.6	\$8.4	\$94.6	\$510.3	\$13.3	\$670.1
High-Efficiency Water Heating Program	\$17.6	\$2.2	\$37.5	\$118.9	\$4.2	\$180.3
GasNetworks	\$0.0	\$0.0	\$13.9	\$0.0	\$0.0	\$13.9
Energy Analysis: Internet Audit Program	\$0.8	\$0.1	\$3.6	\$8.6	\$0.0	\$13.1
Total High-Efficiency Water Heating Program	\$18.4	\$2.3	\$55.0	\$127.5	\$4.2	\$207.4
ENERGY STAR Programmable Thermostat Program	\$11.0	\$1.0	\$37.5	\$42.8	\$2.2	\$94.5
GasNetworks	\$0.0	\$0.0	\$7.6	\$0.0	\$0.0	\$7.6
Energy Analysis: Internet Audit Program	\$0.4	\$0.1	\$1.9	\$4.6	\$0.0	\$6.9
Total ENERGY STAR Programmable Thermostat Program	\$11.4	\$1.0	\$46.9	\$47.4	\$2.2	\$109.0
EnergyWise	\$0.0	\$41.9	\$75.0	\$830.3	\$22.9	\$970.2
Energy Analysis: Internet Audit Program	\$4.2	\$0.7	\$19.4	\$46.3	\$0.0	\$70.5
Business Energy Analyzer	\$5.6	\$0.8	\$19.9	\$57.9	\$0.0	\$84.2
Total EnergyWise	\$9.8	\$43.4	\$114.2	\$934.5	\$22.9	\$1,124.9
Single Family Low Income Services	\$0.0	\$33.7	\$12.5	\$1,353.4	\$36.4	\$1,436.0
EERMC - Residential	\$82.6	\$0.0	\$0.0	\$0.0	\$0.0	\$82.6
Shareholder Incentive	\$0.0	\$171.8	\$0.0	\$0.0	\$0.0	\$171.8
Subtotal - Residential	\$270.0	\$263.9	\$386.9	\$3,071.5	\$84.5	\$4,076.7

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 58 of 64

> National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 6 Page 2 of 2

#### National Grid Gas Energy Efficiency Program Budget (\$000) 2007 - 2008

Γ	Program Planning &	Administration				
Program	External(1)	Internal	Marketing	Rebates and Other Customer Incentives	Evaluation & Market Research	Grand Total
COMMERCIAL AND INDUSTRIAL:						
Commercial High Efficiency Heating Program	\$20.0	\$5.8	\$37.5	\$325.2	\$9.7	\$398.2
GasNetworks	\$0.0	\$0.0	\$13.2	\$0.0	\$0.0	\$13.2
Total Commercial High Efficiency Heating Program	\$20.0	\$5.8	\$50.7	\$325.2	\$9.7	\$411.5
Economic Redevelopment Program	\$20.0	\$5.2	\$37.5	\$284.2	\$8.7	\$355.6
Building Practices & Demonstration Program	\$15.0	\$4.4	\$37.5	\$244.6	\$7.4	\$308.8
The Emerald Network	\$10.0	\$2.3	\$37.5	\$126.8	\$4.2	\$180.8
Commercial Energy Efficiency Program	\$50.0	\$13.4	\$37.5	\$740.2	\$22.4	\$863.6
Energy Audit and Engineering Services	\$7.5	\$3.7	\$37.5	\$212.1	\$6.3	\$267.1
GasNetworks	\$0.0	\$0.0	\$15.6	\$0.0	\$0.0	\$15.6
Business Energy Analyzer	\$5.0	\$0.8	\$17.6	\$51.6	\$0.0	\$74.9
Total Commercial Energy Efficiency Program	\$62.5	\$17.9	\$108.2	\$1,003.9	\$28.7	\$1,221.2
Trade Ally Training Program	\$6.0	\$1.0	\$37.5	\$67.3	\$0.0	\$111.7
EERMC - C&I	\$67.6	\$0.0	\$0.0	\$0.0	\$0.0	\$67.6
Commitments	\$0.0	\$0.0	\$0.0	\$650.0	\$0.0	\$650.0
Shareholder Incentive	\$0.0	\$116.9	\$0.0	\$0.0	\$0.0	\$116.9
Subtotal - Commerical & Industrial	\$201.0	\$153.5	\$309.0	\$2,701.9	\$58.7	\$3,424.2
Grand Total	\$471.0	\$417.4	\$695.9	\$5,773.4	\$143.2	\$7,500.9

Note: (1) A portion of the External Program Planning and Administration budget includes funds that National Grid anticipates paying to Keyspan for their help in admininistering these programs. If and when the merger with Keyspan is complete, these costs will become Internal Program Planning and Administration expenses.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 59 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 7

## Target 2007 - 2008 Shareholder Incentive

Incentive Rate: 4.40%

	(1)	(2)	(3)	(4)	(5)
			Annual		Target
			Savings	Threshold	Incentive
		Target	Goal	Savings	Per
Sector	Budget	Incentive	(MMBTU)	(MMBTU)	MMBTU
Residential	\$3,904,882	\$171,815	90,525	54,315	\$1.898
Commercial & Industrial	\$2,657,257	\$116,919	108,383	65,030	\$1.079
Total	\$6,562,139	\$288,734	198,908	119,345	

## **Notes:**

- (1) Sector budget. See Attachment 6.
- (2) Equal to the incentive rate (4.40%) x Column (1).
- (3) See Attachment 8, Page 3 of 3.
- (4) 60% of Column (3). No incentive is earned on annual MMBTU savings in the sector unless the Company achieves at least this threshold level of performance.
- (5) Column (2)/Column (3)

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 60 of 64

> National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 8 Page 1 of 3

### 2007 and 2008 RHODE ISLAND BENEFIT COST ANALYSIS

Summary of Expected Benefit and Expenses (\$000)

•					
	Rhode Island Benefit/ Cost(1)	Total Benefit	Program Implementation	Evaluation	Shareholder
Commercial & Industrial	Cost(1)	Benefit	Expenses(2)	Expenses(2)	Incentive(3)
Commercial Energy Efficiency Program	5.94	\$7,050.3	\$1.158.7	\$28.0	NA
Commercial High Efficiency Heating Program	2.78	\$1,111.9	\$390.4	\$9.4	NA NA
Economic Redevelopment Program	1.08	\$372.7	\$337.0	\$8.5	NA NA
1 0	NA	\$372.7 NA	\$108.4	\$0.0	NA NA
Trade Ally Training Program EERMC - C&I	NA NA	NA NA	\$65.4	\$0.0	NA NA
	3.68	\$1,103.3	\$03.4 \$292.8	\$0.0 \$7.2	NA NA
Building Practices and Demonstrations Program The Emerald Network	1.60	\$1,103.3	\$292.8 \$171.5	\$4.1	NA NA
			·		
SUBTOTAL	3.68	\$9,918.5	\$2,524.2	\$57.2	\$113.6
Residential Programs IN-HOME SERVICES	3.43	\$8,497.6	\$2,419.9	\$57.3	NA
EnergyWise Program	5.95	\$6,496.3	\$1,070.3	\$22.3	NA
Single Family Low Income	1.45	\$2,001.3	\$1,349.6	\$35.0	NA
PRODUCTS & SERVICES	4.45	\$4,276.3	\$940.8	\$19.2	NA
High Efficiency Heating Program	5.10	\$3,326.4	\$639.2	\$12.9	NA
High Efficiency Water Heating Program	2.16	\$434.6	\$197.6	\$4.1	NA
ENERGY STAR® Thermostat Program	4.85	\$515.2	\$104.0	\$2.2	NA
EERMC - Residential	NA	NA	\$80.0	\$0.0	NA
Building Practices and Demonstrations Program	1.27	72.19	\$55.4	\$1.3	NA
ENERGY STAR® Homes	NA	NA	\$206.5	\$4.0	NA
SUBTOTAL	3.25	\$12,846.0	\$3,702.5	\$81.8	\$166.5

#### Notes:

- 1) The Rhode Island Benefit/Cost Test is equal to the expected dollar value of lifetime resource benefits divided by the sum of Implementation Expenses, Evaluation Expenses, and the target shareholder incentive.
- Equal to the Net Present Value of the budget amounts provided in Attachment 6.
   Subtotal and Total rows include expenses for all line items whether or not benefits have been quantified.
- 3) See Attachment 7.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 61 of 64

> National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 8 Page 2 of 3

# **2007 and 2008 RHODE ISLAND BENEFIT COST ANALYSIS** Summary of Benefits

_					
_	Benefits (\$000)		MMBTU Gas Saved		
Commercial & Industrial	Total(4)	Natural Gas(5)	Participant Resource(6)	Annual(7)	Lifetime(8)
Commercial Energy Efficiency Program	\$7,050	\$7,050	\$0	82,122	1,010,096
Commercial High Efficiency Heating Program	\$1,112	\$1,095	\$17	8,500	166,676
Economic Redevelopment Program	\$373	\$373	\$0	4,341	53,394
Trade Ally Training Program	NA	\$0	\$0	0	0
EERMC - C&I	NA	\$0	\$0	0	0
Building Practices and Demonstrations Program	\$1,103	\$1,103	\$0	10,154	138,093
The Emerald Network	\$280	\$280	\$0	3,266	40,174
SUBTOTAL	\$9,919	\$9,902	\$17	108,383	1,408,433
Residential Programs IN-HOME SERVICES					
EnergyWise Program	\$6,496	\$6,496	\$0	42,631	852,622
Single Family Low Income	\$2,001	\$2,001	\$0	14,465	260,366
PRODUCTS & SERVICES	Ψ2,001	Ψ2,001	ΨΟ	14,403	200,300
High Efficiency Heating Program	\$3,326	\$3,326	\$0	24,042	432,765
High Efficiency Water Heating Program	\$435	\$435	\$0	2,869	57,375
ENERGY STAR® Thermostat Program	\$515	\$515	\$0	6,160	61,600
EERMC - Residential	NA	\$0	\$0	0	0
Building Practices and Demonstrations Program	\$72	\$42	\$30	358	5,370
ENERGY STAR® Homes	NA	\$0	\$0	0	0
SUBTOTAL	\$12,846	\$12,816	\$30	90,525	1,670,098
TOTAL	\$22,765	\$22,718	\$47	198,908	3,078,531

#### Notes:

- 4) Equal to the sum of Natural Gas benefits and Participant Resource benefits.
- 5) The value of lifetime natural gas savings valued using the avoided gas costs quantified in "Avoided Energy Supply Costs in New England," December 23, 2005 prepared by ICF Consulting for the Avoided-Energy-Supply-Component Study Group. This is also the source of the electric avoided costs that have been used to assess electric energy efficiency program cost-effectiveness.
- 6) Participant Resource Benefits are equal to the dollar value of expected electricity savings that have not been included in National Grid's electric energy efficiency plans for 2007.
- 7) The projection of annual savings reflects results attained for similar programs in other jurisdictions.
- 8) Lifetime savings are equal to annual savings multiplied by the expected life of measures expected to be installed in each program.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 62 of 64

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 8 Page 3 of 3

### SAVINGS AND PARTICIPATION GOALS BY PROGRAM

	Annual Energy Savings	
	(MMBTU Natural Gas)(1)	Participants
Program		
Commercial & Industrial		
Commercial Energy Efficiency Program	82,122	176
Commercial High Efficiency Heating Program	8,500	225
Economic Redevelopment Program	4,341	10
Trade Ally Training Program	NA	500
EERMC - C&I	NA	NA
Building Practices and Demonstrations Program	10,154	4
The Emerald Network	3,266	7
SUBTOTAL	108,383	922
IN-HOME SERVICES		
Residential Programs		
EnergyWise Program	42,631	1,888
Single Family Low Income	14,465	336
PRODUCTS & SERVICES	- 1,100	
High Efficiency Heating Program	24,042	1,475
High Efficiency Water Heating Program	2,869	375
ENERGY STAR® Thermostat Program	6,160	1,400
EERMC - Residential	NA	NA
Building Practices and Demonstrations Program	358	5
ENERGY STAR® Homes	NA	NA
SUBTOTAL	90,525	5,479
TOTAL	198,908	6,401

## Note:

1) See Attachment 8, Page 2 of 3.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 63 of 64

## **Certificate of Service**

I hereby certify that a copy of the cover letter and / or any materials accompanying this certificate has been mailed or hand-delivered to the individuals listed below.

Joanne M. Scanlon

April 2, 2007 Date

## Docket 3790 – National Grid – Gas Energy Efficiency Programs Service List as of 2/28/07

Name/	E-Mail Distribution	Telephone/
Address		Facsimile
Laura Olton, Esq.	Laura.olton@us.ngrid.com	401-784-7667
National Grid		401-784-4321
280 Melrose St.	Joanne.scanlon@us.ngrid.com	
Providence, RI 02907		
Peter Czekanski, Director of Pricing	Peter.Czekanski@us.ngrid.com	401-272-5040
National Grid		401-751-0698
100 Weybosset St.	djohnson@keyspanenergy.com	
Providence, RI 02903		
Andrew C. Dzykewicz	adzykewicz@gov.state.ri.us	401-222-7524
RI Office of Energy Resources		401-222-1260
One Capitol Hill		
Providence RI 02908-5850		
John R. McDermott, Esq.	JRMcDermott.law@gmail.com	401-269-1198
The Carriage House		401-294-4483
90 Willett Rd.		
Saunderstown, RI 02874		
Michael McElroy, Esq.	McElroyMik@aol.com	401-351-4100
Schacht & McElroy		401-421-5696
PO Box 6721		
Providence RI 02940-6721		
John Farley, Executive Director	jfarley316@hotmail.com	401-621-2240
The Energy Council of RI		401-621-2260
One Richmond Square Suite 340D		
Providence RI 02906	1 6	
Samuel P. Krasnow	skrasnow@env-ne.org	_
203 South Main St.	dmurrow@env-ne.org	
Providence, RI 02903		

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A1, Page 64 of 64

Roger E. Koontz, Esq.	rkoontz@env-ne.org	860-526-4852
15 High Street		
Chester, CT 06412		
Karina Lutz, Dir. Dev. & Advocacy	karina@ripower.org	401-861-6111
People's Power & Light		ext. 151
17 Gordon Avenue		401-861-6115
Providence, RI 02906		
Tim Woolf, Vice President	twoolf@synapse-energy.com	617-661-3248
Synapse Energy Economics		617-661-0599
22 Pearl Street		
Cambridge, MA 02139		
William Lueker, Esq.	Wlueker@riag.ri.gov	401-222-2424
Dept. of Attorney General	Sscialabba@ripuc.state.ri.us	401-222-3016
150 South Main Street	Dstearns@ripuc.state.ri.us	
Providence, RI 02903		
	RDiMeglio@riag.ri.gov	
Original & 9 copies with:	lmassaro@puc.state.ri.us	401-941-4500
Luly Massaro, Commission Clerk		401-941-1691
RI Public Utilities Commission	sfrias@puc.state.ri.us	
89 Jefferson Boulevard		
Warwick, RI 02888	tmassaro@puc.state.ri.us	

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 1 of 44



Laura S. Olton General Counsel Rhode Island

May 31, 2007

#### VIA HAND DELIVERY & ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk Rhode Island Public Utilities Commission 89 Jefferson Boulevard Warwick, RI 02888

**RE:** Docket 3790 – National Grid Gas Energy Efficiency Programs

**Compliance Filing** 

Dear Ms. Massaro:

Attached please find ten (10) copies of the Compliance Filing containing National Grid's amended Gas Energy Efficiency Programs for the years 2007 and 2008 to conform with the Commission's order at the May 23, 2007 Open Meeting. This Compliance Filing is being submitted on behalf of the Rhode Island Energy Efficiency Collaborative ("Collaborative"), which includes the Company, Division of Public Utilities and Carriers, The Energy Council of Rhode Island, the Office of Energy Resources, People's Power & Light, and Environment Northeast.

At the Open Meeting on May 23, 2007, the Commission approved the Stipulation and Settlement ("Settlement") jointly filed by the Collaborative on April 2, 2007, with two adjustments. The Commission's first adjustment was to reduce the total budget by removing the proposed internet-related programs, Energy Analysis: Internet Audit Program, and Business Energy Analyzer. The Commission's second adjustment was to exclude the funding provided to the Energy Efficiency and Resources Management Council (EERMC) in calculating the target shareholder incentive. These changes have been made and are reflected in the Compliance Filing. In addition, the Company has also reduced the expected cost of joining GasNetworks. The updated cost is slightly lower than what was included in the Settlement since the initiation fee is based on the Company's first year program budget.

As a result of these changes, the Company's proposed energy efficiency surcharge effective July 1, 2007, is reduced from \$0.0114 per therm to \$0.0107 per therm. The Collaborative respectfully requests approval of this rate to become effective July 1, 2007.

Thank you for your attention to this filing. If you have any questions, please feel free to contact me at (401) 784-7667.

Very truly yours,

Laura S. Olton

Laura S. Olton

Enclosures

cc: Docket 3790 Service List

<sup>&</sup>lt;sup>1</sup> The Narragansett Electric Company, d/b/a National Grid (""National Grid" or "Company").

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 2 of 44

# **National Grid**

Gas Energy Efficiency Programs Compliance Filing On behalf of the Settling Parties

May 31, 2007

Submitted to: Rhode Island Public Utilities Commission R.I.P.U.C. Docket No. 3790

Submitted by: national grid

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 3 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 (Compliance Filing) Page 1 of 11

### Residential Programs for 2007 and 2008

#### Introduction

1 2

- National Grid proposes to offer four new gas energy efficiency programs, some of
- which are sponsored in New England by GasNetworks®<sup>1</sup>, and to combine efforts with
- 5 the Company's existing electric energy efficiency programs in the low income,
- 6 residential retrofit and new construction areas. A brief description of each proposed
- 7 residential program is provided in the following table:

Proposed Residential Energy Efficiency Programs		
EnergyWise Program	Free in home assessment for both single and multi-family homes providing recommendations and technical assistance for the installation of energy saving measures as well as incentives to encourage implementation of recommendations.	
High-Efficiency Heating Program	\$800 incentive for ENERGY STAR labeled boilers (90% AFUE), \$500 incentive for ENERGY STAR labeled boilers (85% AFUE), \$200 incentive for steam boilers (with electronic ignition, 82% AFUE), \$400 <sup>2</sup> incentive for high efficiency furnaces (92% AFUE) with ECM Motor or equivalent and \$100 incentive on furnaces (90% AFUE).	
High-Efficiency Water Heating Program	\$300 incentive for indirect water heating system connected to an ENERGY STAR rated natural gas forced hot water boiler and \$300 for tankless/on-demand water heaters (EF .82 or greater with electronic ignition).	
ENERGY STAR Programmable Thermostat Program	\$25 incentive each for up to two ENERGY STAR labeled programmable thermostats.	
New Construction and ENERGY STAR Homes Program	Free building plans review and certification for new ENERGY STAR residential construction.	
Single Family Low Income Services	Free weatherization services provided to income eligible 1-4 unit homes. Operated through the Rhode Island Office of Energy Resources (OER).	
Building Practices and Demonstration Program	Participate in funding for demonstration projects that apply to new or underutilized technologies.	

Additional details about each proposed program are provided below.

8

<sup>&</sup>lt;sup>1</sup> GasNetworks is a regional collaborative of natural gas distribution companies that coordinate natural gas energy efficiency programs throughout Maine, Massachusetts and New Hampshire. The benefit of GasNetworks membership is that it allows each participating company to offer regional programs at a lower overall cost to its customers. The GasNetworks programs are consistent wherever they have been offered. The GasNetworks programs have received several national awards from the American Council for an Energy Efficient Economy as exemplary examples of natural gas energy efficiency programs.

 $<sup>^2</sup>$  \$200 of this incentive will be funded through the electric energy efficiency program approved by the Commission.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 4 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 (Compliance Filing) Page 2 of 11

### ENERGYWISE PROGRAM

15

16

17

18

19

20

2122

23

24

25

2627

28

Gas energy efficiency funding will be used to expand available measures to gas 2 heating customers through National Grid's EnergyWise program. The program provides 3 a free comprehensive assessment of a customer's energy use and recommends various 4 ways customers can improve their home's energy efficiency. Customers are given a 5 detailed report containing the recommendations of the audit including information about 6 improving the efficiency of their home which may lead to participation in other energy 7 8 efficiency or DSM programs. This service is currently funded by the legislatively-9 mandated electric DSM charge. During 2007 and 2008, the Company will evaluate the best way to fund the combined program with both electric and gas DSM funding. In 10 2007 and 2008, customers will also receive the free installation of water saving devices 11 12 (low flow showerheads and aerators) for water heated by gas. That measure will be funded by gas energy efficiency funds. 13 14

For 2007 and 2008, the Company proposes to implement a new delivery mechanism for 1-4 unit homes heated with gas. Customers in eligible homes who participate in Energy*Wise* will be able to select an approved contractor to complete their air sealing and insulation work.

The program will provide an incentive covering up to 20% of the cost of installing weatherization measures in residential heating customers' homes. The maximum incentive offered through this program is \$750 per gas heating account. Measures eligible for an incentive through the program include: attic insulation, wall insulation, basement/crawl space insulation, rim joist insulation, duct insulation, heating system pipe insulation, attic ventilation (only in conjunction with attic insulation), ductwork leakage testing, ductwork leakage sealing, air infiltration testing and air infiltration sealing. Other measures may be added to the program menu, upon demonstration of cost-effectiveness.

To be eligible for an incentive, a National Grid pre-qualified contractor must be chosen to install program measures. Contractors wishing to become pre-qualified must provide proof of insurance in amounts and coverage acceptable to National Grid.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 5 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 (Compliance Filing) Page 3 of 11

National Grid will perform a background check to verify the contractor's good standing,

2 and to determine if there have been complaints or other issues that would render the

contractor ineligible.

3

4

5

6

7

13 14

15

16 17

18

19

20

2122

23

24

25

26

27

28

Additionally, the contractor must meet other requirements that will be introduced over the course of 2007 and 2008. This will include certification or accreditation by the Building Performance Institute (BPI). BPI credentialed companies are trained to take into account the complex interactions that affect health, safety, comfort, energy

8 performance, and the durability of homes. BPI standards include comprehensive

diagnostic testing, measurement and verification that the work is completed properly, and quality assurance. The Company will reach out to the contractor community to provide training and assistance in purchasing diagnostic equipment. Additional quality control will be required as contractors begin working with the program.

It will be the responsibility of the installation contactor to complete and submit all incentive applications with proper supporting documentation. Do-it-yourself work will not be permitted through the program. Work completed through the program must meet all applicable state and local code requirements. It is anticipated that all measures installed will meet ENERGY STAR® guidelines, where applicable.

For multifamily buildings, the comprehensive building analysis will continue to be performed under the existing electric-funded Energy *Wise* program. The gas funds will be used to provide funding for prescriptive gas weatherization measures including insulation, showerheads, aerators, air sealing, duct insulation and duct sealing. The program will provide an incentive covering up to 20% of the cost of installing these measures. The program will target both public housing authorities and privately-owned properties. Through the program, multifamily properties will receive either a prescriptive or custom audit depending on the size of the property or complexity of the project. Incentives described in the Residential High-Efficiency Heating and the Residential High-Efficiency Water Heating Program descriptions will apply to

multifamily facilities and condominiums which contain gas heating systems and/or

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 6 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 (Compliance Filing) Page 4 of 11

- domestic hot water systems that serve individual dwelling units. This type of facility
- would also be eligible for the single family type GasNetworks incentive programs.
- 3 Incentive levels for these prescriptive measures may vary for income qualified facilities.
- 4 Facilities with central heating plants and domestic hot water systems that are
- 5 interested in gas savings measures will be served through the Commercial High-
- 6 Efficiency Heating and Commercial Energy Efficiency Programs.
- 7 The Company plans to promote the Energy *Wise* program through advertising,
- 8 including bill inserts, direct mail, and the National Grid website. Customers interested in
- 9 learning more about the program may call a toll-free number where they can also learn
- about all of the Company's residential energy efficiency programs.

### RESIDENTIAL HIGH-EFFICIENCY HEATING PROGRAM

- The Company's Residential High-Efficiency Heating program will be jointly operated with GasNetworks and is available to the Company's residential heating customers. Program goals include, but are not limited to:
- Increasing market sector awareness of high-efficiency gas heating equipment
- Increasing market sector awareness of efficiency enhancements and maintenance to gas heating equipment
- Providing product training and program training to trade allies such as plumbing
   and heating contractors
- Increasing customer knowledge of where to obtain high-efficiency heating products
- Examining new or underutilized energy efficient heating technologies for potential residential program development
- Monitoring customer perception of the performance and reliability of highefficiency gas heating equipment and the savings achieved

11

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 7 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 (Compliance Filing) Page 5 of 11

limited to, direct mail campaigns, bill inserts, trade ally events, and contractor job site 2 3 visits. Program brochures, builder packets and incentive applications will be the primary marketing material utilized. The program will be promoted through the National Grid and 4 GasNetworks websites, where consumers and contractors will have the opportunity to 5 download program incentive applications and learn about program announcements, 6 updates or changes. 7 8 Overall, a strong emphasis will be placed on working with builders and 9 contractors who install gas-heating equipment. Target markets for the program include both new construction and retrofit projects. The retrofit market is seen as the primary 10 driver of high-efficiency forced hot water and steam heating system opportunities, 11 12 whereas the new construction market is seen as the primary driver for high-efficiency furnaces. 13 14 The incentive is available to residential heating customers (builders and/or homeowners) worth up to \$800, depending on the type of heating equipment installed. 15 This incentive level is in accordance with the GasNetworks incentive levels offered 16 17 throughout New Hampshire, Maine, and Massachusetts. Subject to cost-effectiveness, 18 other heating related measures will also be incorporated in the incentive portfolio. The 19 incentive encourages customers to choose a high-efficiency model by influencing a consumer in two ways: bringing attention and perceived value to the high-efficiency 20 equipment as an option as well as offsetting a portion of the higher initial purchase cost 21 of a high-efficiency model compared to a standard-efficiency model. On September 1<sup>st</sup> 22 of each year, GasNetworks typically makes changes to the incentive levels of the High-23 Efficiency Heating Program in conjunction with the members of the GasNetworks 24 25 collaborative. National Grid proposes to adopt this practice. Factors taken into account include market penetration information, changes in incremental costs of high-efficiency 26 equipment, and current program year participation and budget levels. See Table 1 for a 27 listing of eligible equipment under the program and the current incentive level. 28

The program will be promoted through a variety of means including, but not

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 8 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 (Compliance Filing) Page 6 of 11

Table 1 Residential High-Efficiency Heating Program: Incentive Table								
Furnaces (forced hot air)	AFUE* 90% or greater	\$100						
,		Incentive						
Furnaces (forced hot air with	AFUE* 92% or greater	$$400^{3}$						
ECM or equivalent)	Al OE 92% of greater	Incentive						
Poilars (forgad hot water)	AFUE* 85% or greater	\$500						
Boilers (forced hot water)	AFUE: 85% of greater	Incentive						
Boilers (forced hot water)	AFUE* 90% or greater	\$800						
Bollers (forced flot water)	AFUE: 90% of greater	Incentive						
Boilers (steam with electronic	AEUE* 920/ on greater	\$200						
ignition)	AFUE* 82% or greater	Incentive						

\* AFUE = Annual Fuel Utilization Efficiency

# 234

5

6

7

8

10 11

12

13

14

15

16

### RESIDENTIAL HIGH-EFFICIENCY WATER HEATING PROGRAM

- The Company's Residential High-Efficiency Water Heating program will be jointly operated with GasNetworks and will be available to the Company's residential water heating customers. Similar to the Company's Residential High-Efficiency Heating program, program goals include, but are not limited to:
  - Increasing the demand for residential high-efficiency natural gas water heaters.
  - Increasing customer and trade ally awareness of the benefits of high-efficiency natural gas water heaters.
    - Providing training on products and programs to trade allies such as plumbing and heating contractors.
    - Increasing customer knowledge of where to obtain high-efficiency water heating products.
- Monitoring customer perception of the performance and reliability of highefficiency gas water heating equipment and the savings achieved.

<sup>&</sup>lt;sup>3</sup> \$200 of this incentive will be funded through the electric energy efficiency program approved by the Commission.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 9 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 (Compliance Filing) Page 7 of 11

Program marketing will consist of direct mail campaigns and outreach to 1 2 contractors, builders, affordable housing developers, community development corporations, and public housing authorities, bill inserts to residential customers, 3 attendance at trade ally training events, radio, and promotion via National Grid's and 4 5 GasNetwork's websites. While direct customer marketing will generate a portion of the leads for this program, a significant emphasis will be placed on meeting with heating and 6 plumbing contractors at trade shows, training sessions and job sites to encourage contractors to influence consumer purchasing behavior toward this type of product. 8 The program incentive will be \$300 to residential water heating customers who 9 10 install an indirect water heater to an ENERGY STAR® rated natural gas forced hot water 11 boiler. The Company will provide incentives for on-demand tankless water heaters as 12 13 an energy saving alternative to the stand alone water heaters. The Company will provide a \$300 incentive for on-demand, tankless water heaters that have a 0.82 Energy Factor 14 15 with an electronic ignition. The Company proposes to promote both types of technology and will work with the contractor community to assist it on how to identify the most 16 17 appropriate application to reap the most energy savings. The Company also plans to participate in a developing water heater initiative 18 19 sponsored by the California Energy Commission. This developing initiative, The Super Efficient Gas Water Heating Appliance Initiative (SEGWHAI), is intended to speed the 20 21 introduction of tank-type water heaters that are 15-30% more efficient than standard 22. models. Water heating represents approximately 16% of a household's natural gas usage. Tank-type water heaters represent over 80% of water heater stock in the northeast. 23 24 Currently, an efficient water heater of this nature does not exist. Introduction of such models as a result of the SEGWHAI project would enable to Company to develop an 25

incentive program in the future to promote that technology in customer's homes.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 10 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 (Compliance Filing) Page 8 of 11

### ENERGY STAR® PROGRAMMABLE THERMOSTAT PROGRAM

The ENERGY STAR Programmable Thermostat program provides a GasNetworks 2 incentive for the purchase and installation of up to two ENERGY STAR labeled 3 programmable thermostats per household. According to ENERGY STAR, programmable 4 thermostats are more accurate than manual models, contain no mercury, save energy, and 5 are, therefore, better for the environment. Over 250 different thermostat models currently 6 meet ENERGY STAR guidelines - up from only 60 five years ago. Each ENERGY STAR 7 8 qualified model thermostat includes four default program periods per day, as well as a two-degree accuracy to keep home temperatures more even. 9

The ENERGY STAR Programmable Thermostat program will provide home heating customers with an incentive for the purchase and installation of ENERGY STAR labeled programmable thermostats. Through this program, customers will be eligible for a \$25 mail-in incentive for the installation of up to two ENERGY STAR qualified programmable thermostats. When applying for a thermostat incentive, residential customers will be required to submit proof-of-purchase for the unit. The ENERGY STAR website lists and updates all eligible thermostat models. Eligible thermostats may be installed by homeowners, heating contractors or energy auditors. In addition to mail-in incentives, instant incentives, in the form of point-of-sale discounts, will be available through heating contractors and energy auditors.

Earning the ENERGY STAR means products meet strict energy efficiency guidelines set by the US Environmental Protection Agency (EPA) and the Department of Energy (DOE). To be ENERGY STAR labeled, programmable thermostats must be equipped with the following features:

- Stores four or more temperature settings a day
- Adjusts heating or air conditioning turn-on times as the outside temperature changes
- Saves and repeats multiple daily settings

10

11 12

13 14

15

16

17 18

19

20

2122

23

24

• A "hold" feature that temporarily overrides programmed settings

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 11 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 (Compliance Filing) Page 9 of 11

The Company will promote this program via its website, both its thermostat and heating incentive forms, direct mail, bill inserts, and through Energy *Wise* program auditors. The Company will do outreach to stores such as The Home Depot<sup>®</sup>, Lowe's<sup>®</sup>, and regional hardware stores. The retailer outreach effort will provide training of these retailers' sales personnel regarding the incentive program and coordinate the ongoing distribution of program incentive forms at these stores. The retailer outreach will be coordinated with that of the ENERGY STAR Lighting and Appliance Programs.

### NEW CONSTRUCTION AND ENERGY STAR® HOMES PROGRAM

The ENERGY STAR Homes program is part of a national energy efficiency campaign first developed in 1998 by the EPA and DOE. Rhode Island was one of the first states to adopt this program, funded by electric energy efficiency funds. The homes are designed, site inspected, and performance-tested to achieve a home energy rating which helps consumers differentiate between efficient homes and standard homes.

The current program offered by National Grid and funded through the electric DSM charge provides services to all residential new construction, regardless of fuel type. National Grid will continue the existing program and examine opportunities to realign the funding mechanisms for 2008 now that gas funding is available. For 2007 and 2008, the Company proposes to include a small budget funded by gas funds to support contractor training and education.

#### SINGLE FAMILY LOW INCOME SERVICES

The Residential Low Income Program offers weatherization services to income qualified customers eligible for fuel assistance benefits, who live in 1-4 unit buildings. As had previously been the case with New England Gas in Rhode Island, the Company will contract with the Rhode Island Office of Energy Resources (OER) and local weatherization agencies for the delivery of energy efficiency services to eligible

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 12 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 (Compliance Filing) Page 10 of 11

customers. This is the same program model of serving low income customers currently employed by National Grid for its electric efficiency programs.

Eligible measures provided through the program will include an energy audit, attic insulation, wall insulation, air sealing, heating system replacement (on a qualifying basis) safety inspections, low-flow showerheads and aerators, and funding the installation of CO detectors when DOE funds are not available.

The Company will market the program via Company brochures, bill inserts, and the National Grid website. The program may also be marketed through direct contact with eligible customers by OER and local CAP agencies to customers it serves through state, federal, or local low income programs.

### BUILDING PRACTICES AND DEMONSTRATION PROGRAM

The Company plans to launch its Building Practices and Demonstration Program for residential markets during Program Year One. The purpose of the Building Practices and Demonstration Program will be to explore and demonstrate new and/or underutilized energy efficient procedures and equipment, including renewable energy system processes. In its first year, the Building Practices and Demonstration Program will work to identify which technologies or home building techniques would be well suited for use and installation.

Input for this new program will be drawn from the expertise gathered by the Company's Commercial & Industrial Building Practices & Demonstration Program, as well as input from other utilities, program vendors, energy groups and interested business partners.

Eligible participants in this program will include homeowners, landlords, as well as home builders. Each participant may be asked to allow monitoring of the installation and/or results, provide historical data, provide tours of the installation by potential users or other interested stakeholders, and share the results in case study format.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 13 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 1 (Compliance Filing) Page 11 of 11

Examples of potential projects include new insulation and weatherization 1 products, advanced heating and water heating products, solar thermal installations, new 2 construction techniques, green homes or very low energy use homes. Specific projects 3 will depend on interest and participation by customers, builders, vendors and 4 manufacturers. 5 Marketing of the program will rely on working with industry vendors developing 6 and/or offering new or underutilized natural gas energy efficiency technologies, as well 7 as other interested organizations. 8

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 14 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 (Compliance Filing) Page 1 of 10

### Commercial and Industrial Programs for 2007 and 2008

- 2 A brief description of each proposed program for commercial and
- 3 industrial customers is provided in the following table:

1

4 5

6

7 8

Proposed Co	ommercial and Industrial Energy Efficiency Programs
Energy Audit and Engineering Services	No- cost company-provided energy auditing service to help customers evaluate energy efficiency improvements in their facilities or 50% matching funds up to \$10,000 for outside studies that evaluate more complex technologies under consideration for implementation in customer facilities.
Commercial Energy Efficiency Program	Co-funding for Energy Auditing or Engineering Services; Prescriptive and custom incentives for more sophisticated systems and controls up to \$100,000, up to \$150,000 for eligible CHP projects.
Commercial High Efficiency Heating Program	Incentives up to \$6,000 for high-efficiency furnaces (90% AFUE), high efficiency furnaces (92% AFUE with ECM or equivalent), boilers (85% thermal efficiency) or steam boilers (82% thermal efficiency). Incentives up to \$300 for qualified efficient water heating measures.
Economic Redevelopment Program	Matching grants up to \$100,000 for energy saving measures in commercial properties in designated Economic Redevelopment areas.
The Emerald Network	Incentives and services to customers focused on developing new green buildings (new construction) or increasing green aspects of existing buildings.
Building Practices & Demonstration Program	Participate in funding for demonstration projects that apply to new or underutilized technologies.
Trade Ally Training Program	Energy management training sessions targeted to individuals responsible for the maintenance and operation of equipment and systems in commercial buildings, industrial plants, and public facilities. Provide information and training on energy efficiency issues to plumbing & heating contractors, builders, architects, engineers, realtors, appraisers and others.

Additional details about each proposed program are provided below.

### **Energy Audit and Engineering Services**

Energy Auditing services are for customers intending to proceed with energy efficiency improvements but who require assistance estimating savings and incentive

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 15 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 (Compliance Filing) Page 2 of 10

- 1 levels. Most participants in this category will be small to medium customers with energy
- 2 efficiency applications, or large customers with relatively simple energy efficiency
- 3 projects. It is not required for customers to obtain an energy audit before proceeding with
- 4 prescriptive energy efficiency measures, nor does the Company intend to provide Energy
- 5 Auditing services for such projects. This service is provided with no direct cost to the
- 6 customer.

10

20

21

22

- 7 Engineering services will be used to evaluate more complex projects that involve
- 8 technologies associated with mechanical equipment, process equipment, and/or
- 9 underutilized or emerging green technologies. These types of technologies may include
  - boiler or chiller plant redesigns, heat recovery systems, digital energy management
- systems, process efficiency improvement projects, and associated green building
- 12 technologies. Services provided under the program will include technical analysis and
- engineering support for medium to large customers who need assistance evaluating
- 14 and/or designing complex projects. The Company will cost share these services with the
- 15 customer up to 50% of the reasonable fees related to the efficiency project, not to exceed
- 16 \$10,000. An administrative vendor will be capable of providing Engineering services to
- the customer under contract with the Company at negotiated rates to be established via a
- 18 competitive bid process. In order to maintain a high level of quality and cost-
- 19 effectiveness throughout the program, the following criteria will be required:
  - The study must be conducted by a Professional Engineer (PE) and/or a Certified Energy Manager (CEM);
  - The study scope and depth must extend beyond what is offered within the Energy Auditing program;
- The customer will be required to pursue a green building/facility
  certification or to seek assistance with a specific energy efficient
  technology

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 16 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 (Compliance Filing) Page 3 of 10

### Commercial Energy Efficiency Program

1

11

12

13

14 15

16

17

18

19 20

21

2223

24

2526

2 The Commercial Energy Efficiency Program is designed to provide support 3 services and financial incentives that encourage the Company's commercial and 4 industrial customers to install energy efficient natural gas equipment. Virtually any energy efficient technology or system design that exceeds the minimum requirements of 5 the local energy code, and which is not covered by another Company program offering, 6 may be eligible for a incentive under this program. The program will be open to all gas 7 sales customers on a commercial tariff, including multifamily facilities. Incentives 8 provided through the program must be pre-approved by the Company and/or the 9 10 administrative vendor prior to delivery or installation of product(s) or service(s).

Customers may apply for program services or incentives via a variety of channels including Company representatives, plumbing and heating contractors, engineering firms, energy service companies or equipment vendors. After reviewing the customer's energy efficiency needs, the customer will be offered the appropriate program services. The following describes the three categories of services a customer may be eligible for.

### Prescriptive Incentives

Prescriptive incentives will be available for common energy efficiency measures including programmable thermostats, boiler reset controls, steam trap replacements, pipe and/or duct insulation, building shell (walls, roof, floor, crawlspace) insulation, and high efficiency windows. Prescriptive incentives will be targeted toward all commercial and industrial customers. The Company will rely primarily upon contractors and trade allies to locate candidate facilities and to install the eligible prescriptive measures. This effort will be supported by an extensive outreach and education effort to these trade allies, as well as promotions directed to the customers themselves. Energy audits will not be required for participation. However, pre-approval of the contractor's proposals and the available prescriptive incentive will be required. Customers will receive incentives for installed measures as indicated in Table 1.

2.7

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 17 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 (Compliance Filing) Page 4 of 10

Table 1. Eligible Prescriptive Measures						
Measure	Proposed Incentive					
Programmable thermostats	\$25 each					
Digital boiler reset control	\$150 single stage; \$250 multi-stage					
Steam trap replacements	\$25 / replaced trap					
Pipe or duct insulation; duct sealing	Up to 20% of project cost					
Building shell insulation (roof, walls,	Up to 20% of project cost					
floor)	Op to 20% of project cost					
Premium efficiency windows	\$1 / sq.ft. of window rough opening area					
Gas Fired High Efficiency Fryers	\$300 / \$500 incentives					

### Custom Incentives

Custom Incentives will be available for projects that demonstrate the use of natural gas more efficiently than typical industry practices, or more efficiently than the minimum building code requirements. Incentives will be limited to no more than 50% of the eligible installed project costs, and the Company's contribution will be capped at \$100,000 per site and/or project, and up to \$150,000 per eligible CHP project.

Custom Incentives will be classified as either Level One or Level Two. Level One projects will involve less complex technologies and/or highly cost effective technologies and will receive incentives based upon \$0.75 per first year of estimated therm savings. Examples of Level One projects are redesigns of HVAC systems, energy recovery ventilation, most heat recovery applications, building automation/energy management systems, and advanced technology burners and/or burner controls.

Level Two projects are more complex and/or represent underutilized technologies and will receive incentives based upon \$1.50 per first year of estimated therm savings. Few applications are expected to reach this threshold. In Program Year 1 the Company will build upon its experiences in other jurisdictions and offer customers the opportunity to incorporate solar thermal technologies such as solar DHW heating, solar pool heating, and solar space heating into the program. Incentives may not be applied toward normal maintenance costs, or for equipment disabling or abandonment without an energy efficient replacement.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 18 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 (Compliance Filing) Page 5 of 10

The Company recognizes the need to promote cost effective gas fired cogeneration systems, also called combined heat and power (CHP) where the heat byproduct of a gas reciprocating engine or gas turbine can be used to supplement a process heat load in an industrial or institutional facility and also provides electric energy.

The Company will offer a modified custom incentive for eligible CHP installations. Under this application, CHP systems will receive incentives based upon \$0.75 per first year of estimated therm savings with a project cap of \$100,000. Higher efficiency CHP systems, will receive an incentive of \$1.50 per first year of estimated therm savings with a project cap of \$150,000. The Parties will determine eligibility criteria for CHP projects. The intent is to offer higher incentives for more efficient systems.

### **Commercial High-Efficiency Heating Program**

The Commercial High-Efficiency Heating program will provide incentives to commercial, industrial, governmental, institutional, non-profit and multifamily facilities that install high-efficiency heating equipment. The incentives will be provided to reduce the incremental cost between standard and high-efficiency equipment.

The Commercial High-Efficiency Heating program will be promoted primarily to architects, engineers, equipment vendors, contractors and other trade allies. Since many of the trade allies overlap in the residential and smaller multifamily and commercial markets, the program will often be promoted together with the Residential High-Efficiency Heating program. Trade ally awareness will be increased through direct mail, trade publications, newspapers, trade shows/seminars, and site visits.

The program's incentive schedule will apply to a variety of product types and a broad range of equipment sizes that are appropriate for the commercial market segments. This range provides an opportunity to participate regardless of customer size. There will also be incentives for natural gas fired, low intensity infrared heaters, high efficiency condensing unit heaters and direct fired make-up air systems that are appropriate for the larger commercial and industrial segments. Boiler incentives will be available in a two-

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 19 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 (Compliance Filing) Page 6 of 10

- tiered matrix: Tier One for high-efficiency non-condensing boilers and Tier Two for
- 2 high-efficiency fully condensing boilers.
- 3 The Commercial High-Efficiency Heating Incentive Program efficiency ratings
- 4 for smaller heating equipment (up to 300,000 Btuh input) are measured using AFUE
- 5 ratings. Efficiency ratings for larger heating equipment, which exceeds the size ranges
- 6 for AFUE, are measured using a thermal efficiency or steady state rating.
- 7 Table 2 below depicts the Commercial High-Efficiency Heating program
- 8 incentive qualifications.

Table 2. Commercial High-Efficiency Heating Program Incentive Qualification						
Product	Rating	Incentive				
Furnaces (up to 150 MBtuh)	> 90% AFUE	\$150				
Furnaces	>92% AFUE with ECM or equivalent	\$400 <sup>1</sup>				
Rooftop Furnaces with Modulating Burners added	Not Applicable	Custom				
Condensing unit heaters (151 to 400 MBtuh)	> 90% Thermal Efficiency	\$500				
Direct fired heaters / direct fired makeup air (up to 1500 MBtuh)		\$1,000				
Direct fired heaters / direct fired makeup air (1501 to 3000 MBtuh)	)	\$1,500				
Direct fired heaters / direct fired makeup air (over 3000 MBtuh)		\$2,000				
Infrared heaters (all sizes)	low intensity	\$500				
Steam Boilers (up to 300 MBtuh)	> 82% AFUE	\$200				
Steam Boilers (over 300 MBtuh) with Modulating Burners added	Not Applicable	Custom				
Hydronic Boilers (under 175 MBtuh)	> 85% AFUE	\$500				
Hydronic Boilers (176 to 300 MBtuh)	> 85% AFUE	\$700				
Hydronic Boilers (301 to 499 MBtuh)	> 85% Thermal Efficiency	\$1,000				
Hydronic Boilers (500 to 999 MBtuh)	> 85% Thermal Efficiency	\$2,000				
Hydronic Boilers (1000 to 1700 MBtuh)	> 85% Thermal Efficiency	\$3,000				
Hydronic Boilers (1701 MBtuh and larger)	> 85% Thermal Efficiency	\$4,000				
Condensing Boilers (under 175 MBtuh)	> 88% AFUE	\$600				
Condensing Boilers (176 to 300 MBtuh)	> 88% AFUE	\$1,000				
Condensing Boilers (301 to 499 MBtuh)	> 90% Thermal Efficiency	\$1,500				
Condensing Boilers (500 to 999 MBtuh)	> 90% Thermal Efficiency	\$3,000				
Condensing Boilers (1000 to 1700 MBtuh)	> 90% Thermal Efficiency	\$4,500				
Condensing Boilers (1701 MBtuh and larger)>	90% Thermal Efficiency	\$6,000				
Instantaneous Tankless Water Heater	>0.82 EF & Electronic Ignition	\$300				
Indirect fired water heaters (up to 50 gallon storage)	1 -0	\$100				
Indirect fired water heaters (over 50 gallon storage)		\$250				

<sup>9</sup> 

<sup>&</sup>lt;sup>1</sup> \$150 of this incentive will be funded through the electric energy efficiency program approved by the Commission.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 20 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 (Compliance Filing) Page 7 of 10

### **Economic Redevelopment Program**

1

14

15

16

17

2 The Economic Redevelopment Program is designed to improve energy efficiency and reduce energy costs while also helping to foster the rehabilitation of buildings, 3 4 storefronts and neighborhoods in areas that are in need. Additionally, the program can 5 provide financial incentives and resources to help community based organizations and non-profits increase the energy efficiency of their facilities and reduce their operating 6 costs. Through the program, the Company will work with Chambers of Commerce, 7 economic redevelopment organizations, non-profit organizations, as well as private 8 9 development corporations and businesses to facilitate the installation of eligible building shell and other measures that increase the energy efficiency of business districts, K-12 10 public school systems, and public and private subsidized housing. One of the program's 11 objectives is to leverage energy efficiency funds with other investments that are being 12 13 made for community development purposes.

Funding through the Economic Redevelopment Program will focus on projects that demonstrate a strong community impact. A project has a strong community impact when it provides for site rehabilitation, creates jobs, provides housing solutions or is integral in providing community based programs.

18 The program will be open to all Company multifamily, commercial and industrial 19 customers that meet the program's intent. Maximum funding per project will be \$100,000, with a minimum of 50% matching funds requirement by customer. 20 Applications for funding must include a description of the redevelopment project, 21 22 information on the sponsoring organization, identification of additional funding sources, 23 types of energy conserving measures to be installed, estimated energy savings and project schedule. Each application for funding will be evaluated and an analysis will be 24 performed to identify cost-effective opportunities for reducing a customer's energy 25 usage. The analysis performed will lead to a report summary of recommendations and a 26 27 detailed description of the alternatives evaluated, including: total installation costs, 28 annual energy costs, annual savings and simple payback periods.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 21 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 (Compliance Filing) Page 8 of 10

1

2

3

4 5

6

7

8

9 10

11

12

13

14 15

16

17 18

19

2021

### The Emerald Network

The Emerald Network will offer incentives and services to customers focused on developing new green buildings or increasing green aspects of their existing buildings. The program will provide both technical and financial resources to assist customers seeking Leadership Energy and Environmental Design (LEED®) Certification through the US Green Building Council's LEED rating system. These services will aid customers and their design teams in designing and constructing better buildings through high performance heating and building envelope systems. In addition to looking at traditional opportunities for energy efficiency, this track will also promote the use of advanced technologies, such as combined heating or cooling and power and double-effect absorption cooling, by connecting customers with resources from National Grid and industry partners. The Company will assist design teams through technical assessments and integrated engineering and architectural practices during the design development to define best practices toward high performance green standards. This effort will engage architects, engineers and other building and construction industry participants not traditionally reached through other energy efficiency programs, to move toward high performance, green practices. In addition, these services will include design features such as water resource management and advanced lighting systems. To fully support this program and ensure that green buildings are performing as designed, the Company will also provide training for operators of green buildings and increasing their awareness of green applications.

23

2425

2627

28

22

### **Building Practices and Demonstration Program**

The purpose of the Building Practices and Demonstration Program is to establish successful applications of new or underutilized energy efficient procedures, processes, or technologies. Interested parties may file applications for financial and technical assistance directly with the Company. Applications must include a description of the

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests - Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A2, Page 22 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 (Compliance Filing) Page 9 of 10

1 scope of work and an estimate of the savings and benefits to be realized. Participants are

required to allow monitoring of the installation and/or results, tours of the installation by

potential users or other interested stakeholders, and publication of the results in case

study format. 4

2

3

11

12

13

14

15

17 18

19

20 21

23

24

25

To market the program, the Company will rely on industry vendors developing 5 and/or offering new or underutilized natural gas energy efficiency technologies as well as 6 7 the efforts of Company employees.

8 The focus will be technologies that have low customer awareness or market 9 penetration, and the end uses may include cooling, refrigeration, process heat, cooking, 10 thermal measures, cogeneration, load control, or heat recovery. The program may also look at exemplary energy efficient designs or practices as demonstrations.

During the first year, the Company will be working to identify new energy efficient kitchen technologies. Some of these technologies include:

- ⇒ Commercial Steam Cookers
- **⇒** Infrared Pizza Ovens
- Internet Protocol Based Remote Energy Management Systems 16
  - Low-flow Commercial Dishwashers

The Company will develop relationships with key partners and organizations like the Consortium for Energy Efficiency (CEE) Commercial Kitchens Group and the Energy Solutions Center (ESC), to increase its access to new technology information.

#### 22 **Trade Ally Training Program**

Energy efficiency awareness by the Company's trade allies is crucial to reducing barriers to energy efficiency and increasing acceptance of new technologies. Education activities to this segment will be a critical piece of the Company's promotion efforts.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 23 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 2 (Compliance Filing) Page 10 of 10

The Company will support and undertake a wide range of training events in 1 collaboration with GasNetworks<sup>2</sup>, the ENERGY STAR® Homes Joint Management 2 Committee, Northeast Energy Efficiency Partnerships (NEEP), manufacturing training 3 representatives and other trade allies. Outreach will extend to contractors, engineers, 4 5 builders, landlords, realtors, facility managers and housing authorities. In addition, the Company will also support NEEP's Building Operator Certification Initiative. The 6 7 objective of all training activities will be to increase trade ally awareness of the benefits 8 of energy efficiency and provide them with the technical tools to properly select, size, install and maintain energy efficient products. 9 10 Training activities will be promoted via Company newsletters and direct mail campaigns to contractors, in addition to meeting with trade allies at public events. The 11 GasNetworks website (www.gasnetworks.com) will also be used as a vehicle for 12 13 promotion, offering trade allies a central source of information on special event training efforts, in addition to joint energy efficiency programs. 14 The budget for the Trade Ally Training Program will be included within each 15

<sup>2</sup> GasNetworks is a regional collaborative of natural gas distribution companies that coordinate natural gas energy efficiency programs throughout Maine, Massachusetts and New Hampshire. The benefit of GasNetworks membership is that it allows each participating company to offer regional programs at a lower overall cost to its customers. The GasNetworks programs are consistent wherever they have been offered. The GasNetworks programs have received several national awards from the American Council for

an Energy Efficient Economy as exemplary examples of natural gas energy efficiency programs.

2

16

program's budget.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 24 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 3 (Compliance Filing) Page 1 of 4

idential He		Decreed	0				Difference du	ie to:	
Consumption	Jul - Jun on (Therms)	Proposed July-07	Current Rates	Difference	% Chg	Base Rates	GCR	DAC	DSM
	518	\$871	\$869	\$2	0.3%	\$0	\$0	\$0	\$2
	621	\$1,024	\$1,021	\$3	0.3%	\$0	\$0	\$0	\$3
	725	\$1,176	\$1,173	\$3	0.3%	\$0	\$0	\$0	\$3
	828	\$1,325	\$1,322	\$4	0.3%	\$0	\$0	\$0	\$4
	932	\$1,473	\$1,469	\$4	0.3%	\$0	\$0	\$0	\$4
Typical	1,035	\$1,620	\$1,615	\$5	0.3%	\$0	\$0	\$0	\$5
	1,139	\$1,767	\$1,762	\$5	0.3%	\$0	\$0	\$0	\$5
	1,242	\$1,912	\$1,907	\$5	0.3%	\$0	\$0	\$0	\$5
	1,346	\$2,057	\$2,052	\$6	0.3%	\$0	\$0	\$0	\$6
	1,449	\$2,202	\$2,196	\$6	0.3%	\$0	\$0	\$0	\$6
	1,553	\$2,347	\$2,341	\$7	0.3%	\$0	\$0	\$0	\$7
Consumption	Jul - Jun on (Therms)	Proposed July-07	Current Rates	Difference	% Chg	Base Rates	Difference du  GCR	ie to:  DAC	 DSI
•									
	77	\$208	\$207	\$0 \$0	0.2%	\$0 \$0	\$0 \$0	\$0 \$0	\$0
	92	\$231	\$231	\$0 \$0	0.2%	\$0 \$0	\$0 \$0	\$0 \$0	\$0
	107	\$255	\$254	\$0 \$4	0.2%	\$0 \$0	\$0 \$0	\$0 \$0	\$0
	122	\$278	\$278	\$1	0.2% 0.2%	\$0 \$0	\$0 \$0	\$0 \$0	\$
		\$302	\$301	\$1		\$0 <b>\$0</b>	\$0 <b>*</b> 0	\$0 <b>*</b> 0	\$´ <b>\$</b> ′
Ti.a.a.l	138	,	<b>#20</b> F	<b>64</b>					
Typical	153	\$325	\$325	<b>\$1</b>	0.2%	* -	<b>\$0</b>	<b>\$0</b>	
Typical	<b>153</b> 168	<b>\$325</b> \$349	\$348	\$1	0.2%	\$0	\$0	\$0	\$
Typical	<b>153</b> 168 184	<b>\$325</b> \$349 \$372	\$348 \$372	\$1 \$1	0.2% 0.2%	\$0 \$0	\$0 \$0	\$0 \$0	\$^ \$^
Typical	<b>153</b> 168 184 199	<b>\$325</b> \$349 \$372 \$396	\$348 \$372 \$395	\$1 \$1 \$1	0.2% 0.2% 0.2%	\$0 \$0 \$0	\$0 \$0 \$0	\$0 \$0 \$0	\$^ \$^ \$^
Typical	<b>153</b> 168 184	<b>\$325</b> \$349 \$372	\$348 \$372	\$1 \$1	0.2% 0.2%	\$0 \$0	\$0 \$0	\$0 \$0	\$ \$

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 25 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 3 (Compliance Filing) Page 2 of 4

I Small:							Difference du	ue to:	
Consumption	Jul - Jun on (Therms)	Proposed July-07	Current Rates	Difference	% Chg	Base Rates	GCR	DAC	 DSI
	621	\$1,090	\$1,087	\$3	0.3%		\$0	\$0	
	745	\$1,090 \$1,271	\$1,067 \$1,267	\$3 \$3	0.3%	\$0 \$0	\$0 \$0	\$0 \$0	\$
	869	\$1,450	\$1,267 \$1,446	\$3 \$4	0.3%	\$0 \$0	\$0 \$0	\$0 \$0	9
	994	\$1,450 \$1,625	\$1, <del>440</del> \$1,621	\$4 \$4	0.3%	\$0 \$0	\$0 \$0	\$0 \$0	9
	1,118			\$5	0.3%	\$0 \$0	\$0 \$0	\$0 \$0	9
Tunical	•	\$1,800	\$1,795						,
Typical	1,242	\$1,974 \$2,446	\$1,968	<b>\$5</b>	0.3%	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
	1,366	\$2,146	\$2,140	\$6	0.3%	\$0 \$0	\$0 \$0	<b>\$</b> 0	,
	1,490	\$2,317	\$2,311	\$7	0.3%	\$0	<b>\$</b> 0	<b>\$</b> 0	:
	1,615	\$2,489	\$2,482	\$7	0.3%	<b>\$</b> 0	<b>\$</b> 0	<b>\$</b> 0	
	1,739	\$2,661	\$2,653	\$8	0.3%	\$0	\$0	\$0	
	1,863	\$2,832	\$2,824	\$8	0.3%	\$0	\$0	\$0	
I Medium:									
i wearum.							Difference du	ue to:	
i Medium.	Jul - Jun	Proposed	Current				Difference du	ue to:	
	Jul - Jun on (Therms)	Proposed July-07	Current Rates	Difference	% Chg	Base Rates	Difference du GCR	ue to: DAC	 DS
		•		Difference  \$23	% Chg  0.3%	Base Rates \$0			 DS \$
	on (Therms)	July-07	Rates				GCR	DAC	
	on (Therms) 5,174	July-07  \$7,481	Rates  \$7,458	\$23	0.3%	<b>\$</b> 0	GCR \$0	DAC \$0	\$ \$
	5,174 6,209	July-07  \$7,481 \$8,869	Rates  \$7,458 \$8,842	\$23 \$27	0.3% 0.3%	\$0 \$0	GCR \$0 \$0	DAC \$0 \$0	\$ \$ \$
	5,174 6,209 7,244	July-07  \$7,481 \$8,869 \$10,257	Rates  \$7,458 \$8,842 \$10,225	\$23 \$27 \$32	0.3% 0.3% 0.3%	\$0 \$0 \$0 \$0	GCR  \$0 \$0 \$0	DAC  \$0 \$0 \$0	\$ \$ \$
	5,174 6,209 7,244 8,278	July-07  \$7,481 \$8,869 \$10,257 \$11,645	Rates \$7,458 \$8,842 \$10,225 \$11,609	\$23 \$27 \$32 \$36	0.3% 0.3% 0.3% 0.3%	\$0 \$0 \$0 \$0	GCR  \$0 \$0 \$0 \$0	DAC  \$0 \$0 \$0 \$0	\$ \$ \$ \$
Consumptio	5,174 6,209 7,244 8,278 9,313	July-07  \$7,481 \$8,869 \$10,257 \$11,645 \$13,034	\$7,458 \$8,842 \$10,225 \$11,609 \$12,993	\$23 \$27 \$32 \$36 \$41	0.3% 0.3% 0.3% 0.3% 0.3%	\$0 \$0 \$0 \$0 \$0 \$0	GCR 	DAC	\$ \$ \$ \$
Consumptio	5,174 6,209 7,244 8,278 9,313 <b>10,348</b>	July-07  \$7,481 \$8,869 \$10,257 \$11,645 \$13,034 <b>\$14,422</b>	Rates \$7,458 \$8,842 \$10,225 \$11,609 \$12,993 <b>\$14,376</b>	\$23 \$27 \$32 \$36 \$41 <b>\$46</b>	0.3% 0.3% 0.3% 0.3% 0.3% 0.3%	\$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR	DAC	\$ \$ \$ \$ \$
Consumptio	5,174 6,209 7,244 8,278 9,313 <b>10,348</b> 11,383	July-07  \$7,481 \$8,869 \$10,257 \$11,645 \$13,034 <b>\$14,422</b> \$15,810	Rates \$7,458 \$8,842 \$10,225 \$11,609 \$12,993 <b>\$14,376</b> \$15,760	\$23 \$27 \$32 \$36 \$41 <b>\$46</b> \$50	0.3% 0.3% 0.3% 0.3% 0.3% 0.3% 0.3%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR	DAC	\$
Consumptio	5,174 6,209 7,244 8,278 9,313 <b>10,348</b> 11,383 12,418	July-07 \$7,481 \$8,869 \$10,257 \$11,645 \$13,034 <b>\$14,422</b> \$15,810 \$17,198	\$7,458 \$8,842 \$10,225 \$11,609 \$12,993 <b>\$14,376</b> \$15,760 \$17,143	\$23 \$27 \$32 \$36 \$41 <b>\$46</b> \$50 \$55	0.3% 0.3% 0.3% 0.3% 0.3% 0.3% 0.3%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR  \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	DAC	\$ \$ \$ \$ \$ \$ \$ \$

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A2, Page 26 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 3 (Compliance Filing) Page 3 of 4

	Φ.								
I LLF Larg	<u>.</u>						Difference du	ue to:	
	Jul - Jun	Proposed	Current						
Consumpti	on (Therms)	July-07	Rates	Difference	% Chg	Base Rates	GCR	DAC	DSI
	33,637	\$46,676	\$46,528	\$148	0.3%	\$0	\$0	\$0	\$14
	40,364	\$55,796	\$55,618	\$178	0.3%	\$0	\$0	\$0	\$17
	47,092	\$64,915	\$64,708	\$207	0.3%	\$0	\$0	\$0	\$20
	53,819	\$74,034	\$73,797	\$237	0.3%	\$0	\$0	\$0	\$23
	60,547	\$83,153	\$82,887	\$266	0.3%	\$0	\$0	\$0	\$26
Typical	67,274	\$92,273	\$91,977	\$296	0.3%	\$0	\$0	\$0	\$29
	74,001	\$101,392	\$101,066	\$326	0.3%	\$0	\$0	\$0	\$32
	80,729	\$110,511	\$110,156	\$355	0.3%	\$0	\$0	\$0	\$35
	87,456	\$119,630	\$119,246	\$385	0.3%	\$0	\$0	\$0	\$38
	94,184	\$128,750	\$128,335	\$414	0.3%	\$0	\$0	\$0	\$41
	100,911	\$137,869	\$137,425	\$444	0.3%	\$0	\$0	\$0	\$44
IHIFIaro	ιο:								
I HLF Larg	e:						Difference du	ue to:	
	Jul - Jun	Proposed	Current						
		Proposed July-07	Current Rates	Difference	% Chg	Base Rates	Difference du  GCR	ue to: DAC	 DS
	Jul - Jun			Difference  \$148	% Chg  0.3%	Base Rates			
	Jul - Jun on (Therms)	July-07 	Rates				GCR	DAC	\$14
	Jul - Jun on (Therms) 33,638	July-07  \$42,571	Rates  \$42,423	\$148	0.3%	<b>\$</b> 0	GCR 	DAC \$0	\$14 \$17
	Jul - Jun on (Therms) 33,638 40,365	July-07  \$42,571 \$50,869	Rates  \$42,423 \$50,691	\$148 \$178	0.3% 0.4%	\$0 \$0	GCR \$0 \$0	DAC \$0 \$0	\$14 \$17 \$20
	Jul - Jun on (Therms) 33,638 40,365 47,093	July-07  \$42,571 \$50,869 \$59,167	Rates  \$42,423 \$50,691 \$58,960	\$148 \$178 \$207	0.3% 0.4% 0.4%	\$0 \$0 \$0 \$0	GCR  \$0 \$0 \$0	DAC  \$0 \$0 \$0	\$14 \$17 \$20 \$23
	Jul - Jun on (Therms) 33,638 40,365 47,093 53,820	July-07  \$42,571 \$50,869 \$59,167 \$67,465	Rates  \$42,423 \$50,691 \$58,960 \$67,228	\$148 \$178 \$207 \$237	0.3% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0	GCR \$0 \$0 \$0 \$0 \$0	DAC \$0 \$0 \$0 \$0 \$0	\$14 \$17 \$20 \$23 \$26
Consumpti	Jul - Jun on (Therms) 33,638 40,365 47,093 53,820 60,548	July-07  \$42,571 \$50,869 \$59,167 \$67,465 \$75,763	Rates  \$42,423 \$50,691 \$58,960 \$67,228 \$75,497	\$148 \$178 \$207 \$237 \$266	0.3% 0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0 \$0	GCR 	DAC	\$14 \$17 \$20 \$23 \$26 <b>\$29</b>
Consumpti	Jul - Jun on (Therms) 33,638 40,365 47,093 53,820 60,548 <b>67,275</b>	July-07  \$42,571 \$50,869 \$59,167 \$67,465 \$75,763 \$84,061	Rates \$42,423 \$50,691 \$58,960 \$67,228 \$75,497 \$83,765	\$148 \$178 \$207 \$237 \$266 <b>\$296</b>	0.3% 0.4% 0.4% 0.4% 0.4% <b>0.4%</b>	\$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR	DAC	\$14 \$17 \$20 \$23 \$26 <b>\$29</b> \$32
Consumpti	Jul - Jun on (Therms) 33,638 40,365 47,093 53,820 60,548 <b>67,275</b> 74,003	July-07 	Rates \$42,423 \$50,691 \$58,960 \$67,228 \$75,497 \$83,765 \$92,034	\$148 \$178 \$207 \$237 \$266 <b>\$296</b> \$326	0.3% 0.4% 0.4% 0.4% 0.4% <b>0.4%</b>	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR	DAC	\$14 \$17 \$20 \$23 \$26 <b>\$29</b> \$32 \$32
Consumpti	Jul - Jun on (Therms) 33,638 40,365 47,093 53,820 60,548 <b>67,275</b> 74,003 80,730	July-07	Rates	\$148 \$178 \$207 \$237 \$266 <b>\$296</b> \$326 \$355	0.3% 0.4% 0.4% 0.4% 0.4% <b>0.4%</b> 0.4%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR	DAC	DS

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 27 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 3 (Compliance Filing) Page 4 of 4

	Jul - Jun	Drongood	Current				Difference du	ue to:	
Consumpti	ion (Therms)	Proposed July-07	Rates	Difference	% Chg	Base Rates	GCR	DAC	DSM
	142,312	\$175,957	\$175,331	\$626	0.4%	\$0	\$0	\$0	\$626
	170,774	\$210,429	\$209,677	\$751	0.4%	\$0	\$0	\$0	\$751
	199,237	\$244,900	\$244,024	\$877	0.4%	\$0	\$0	\$0	\$877
	227,699	\$279,372	\$278,370	\$1,002	0.4%	\$0	\$0	\$0	\$1,002
	256,162	\$313,843	\$312,716	\$1,127	0.4%	\$0	\$0	\$0	\$1,127
Typical	284,624	\$348,315	\$347,062	\$1,252	0.4%	\$0	\$0	\$0	\$1,252
• •	313,086	\$382,786	\$381,409	\$1,378	0.4%	\$0	\$0	\$0	\$1,378
	341,549	\$417,258	\$415,755	\$1,503	0.4%	\$0	\$0	\$0	\$1,503
	370,011	\$451,729	\$450,101	\$1,628	0.4%	\$0	\$0	\$0	\$1,628
	398,474	\$486,201	\$484,447	\$1,753	0.4%	\$0	\$0	\$0	\$1,753
	426,936	\$520,672	\$518,794	\$1,879	0.4%	\$0	\$0	\$0	\$1,879
I HLF Extr	a-Large:						Difference of	4	
I HLF Extr	Jul - Jun	Proposed	Current				Difference du	ue to:	
		July-07	Rates	Difference	% Chg	Base Rates	Difference du GCR	ue to: DAC	 DSM
	Jul - Jun	•		\$604	0.4%	<b>\$</b> 0	GCR 		\$604
	Jul - Jun ion (Therms) 137,313 164,775	July-07  \$161,257 \$192,788	Rates  \$160,653 \$192,063	\$604 \$725	0.4% 0.4%	\$0 \$0	GCR \$0 \$0	DAC \$0 \$0	\$604 \$725
	Jul - Jun ion (Therms) 137,313 164,775 192,238	July-07  \$161,257 \$192,788 \$224,320	Rates  \$160,653 \$192,063 \$223,474	\$604 \$725 \$846	0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0	GCR  \$0 \$0 \$0	DAC  \$0 \$0 \$0	\$604 \$725 \$846
	Jul - Jun ion (Therms) 137,313 164,775 192,238 219,700	July-07  \$161,257 \$192,788 \$224,320 \$255,851	Rates  \$160,653 \$192,063 \$223,474 \$254,884	\$604 \$725 \$846 \$967	0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0	GCR  \$0 \$0 \$0 \$0	DAC 	\$604 \$725 \$846 \$967
Consumpti	Jul - Jun ion (Therms) 137,313 164,775 192,238 219,700 247,163	July-07  \$161,257 \$192,788 \$224,320 \$255,851 \$287,382	Rates  \$160,653 \$192,063 \$223,474 \$254,884 \$286,295	\$604 \$725 \$846 \$967 \$1,088	0.4% 0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0 \$0	GCR 	DAC  \$0 \$0 \$0	\$604 \$725 \$846 \$967 \$1,088
	Jul - Jun ion (Therms) 137,313 164,775 192,238 219,700	July-07  \$161,257 \$192,788 \$224,320 \$255,851	Rates  \$160,653 \$192,063 \$223,474 \$254,884	\$604 \$725 \$846 \$967 \$1,088 <b>\$1,208</b>	0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0	GCR  \$0 \$0 \$0 \$0	DAC 	\$604 \$725 \$846 \$967 \$1,088 <b>\$1,208</b>
Consumpti	Jul - Jun ion (Therms) 137,313 164,775 192,238 219,700 247,163 274,625 302,088	July-07  \$161,257 \$192,788 \$224,320 \$255,851 \$287,382 <b>\$318,914</b> \$350,445	Rates \$160,653 \$192,063 \$223,474 \$254,884 \$286,295 \$317,705 \$349,116	\$604 \$725 \$846 \$967 \$1,088 <b>\$1,208</b> \$1,329	0.4% 0.4% 0.4% 0.4% 0.4% 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR	DAC	\$604 \$725 \$846 \$967 \$1,088 <b>\$1,208</b> \$1,329
Consumpti	Jul - Jun ion (Therms) 137,313 164,775 192,238 219,700 247,163 274,625 302,088 329,550	July-07 	Rates \$160,653 \$192,063 \$223,474 \$254,884 \$286,295 \$317,705 \$349,116 \$380,526	\$604 \$725 \$846 \$967 \$1,088 <b>\$1,208</b> \$1,329 \$1,450	0.4% 0.4% 0.4% 0.4% 0.4% <b>0.4%</b> 0.4%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR	DAC	\$604 \$725 \$846 \$967 \$1,088 <b>\$1,208</b> \$1,329 \$1,450
Consumpti	Jul - Jun ion (Therms) 137,313 164,775 192,238 219,700 247,163 274,625 302,088 329,550 357,013	July-07 \$161,257 \$192,788 \$224,320 \$255,851 \$287,382 <b>\$318,914</b> \$350,445 \$381,976 \$413,508	Rates \$160,653 \$192,063 \$223,474 \$254,884 \$286,295 \$317,705 \$349,116 \$380,526 \$411,937	\$604 \$725 \$846 \$967 \$1,088 <b>\$1,208</b> \$1,329 \$1,450 \$1,571	0.4% 0.4% 0.4% 0.4% 0.4% <b>0.4%</b> 0.4% 0.4%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR	DAC	\$604 \$725 \$846 \$967 \$1,088 <b>\$1,208</b> \$1,329 \$1,450 \$1,571
Consumpti	Jul - Jun ion (Therms) 137,313 164,775 192,238 219,700 247,163 274,625 302,088 329,550	July-07 	Rates \$160,653 \$192,063 \$223,474 \$254,884 \$286,295 \$317,705 \$349,116 \$380,526	\$604 \$725 \$846 \$967 \$1,088 <b>\$1,208</b> \$1,329 \$1,450	0.4% 0.4% 0.4% 0.4% 0.4% <b>0.4%</b> 0.4%	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	GCR	DAC	DSM \$604 \$725 \$846 \$967 \$1,088 \$1,208 \$1,329 \$1,450 \$1,571 \$1,692

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A2, Page 28 of 44

> National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 4 (Compliance Filing)

### Funding Sources by Sector 2007 and 2008

	Jan. 1, 2007 -	July 1, 2007 -			Total
	June 30, 2007	Dec. 31, 2007	Total 2007	2008	2007 - 2008
Gas Energy Efficiency Surcharge per Dth	\$0.063	\$0.105		\$0.105	
Uncollectible Percentage (Docket 3401)		2.1%		2.1%	
Adjusted Factor		\$0.107		\$0.107	
Forecasted Use (Dth):					
Total Firm THROUGHPUT					
Residential Non-Heating	358,597	258,997	617,594	600,953	1,218,547
Residential Heating	12,900,898	5,243,533	18,144,431	18,322,127	36,466,558
Residential subtotal	13,259,494	5,502,530	18,762,025	18,923,080	37,685,105
Small C&I	1,694,207	621,705	2,315,913	2,371,676	4,687,589
Medium C&I	3,469,096	1,801,356	5,270,452	5,150,039	10,420,491
Large LLF	1,833,909	825,164	2,659,072	2,767,560	5,426,633
Large HLF	506,517	395,170	901,687	959,805	1,861,491
Extra Large LLF	513,565	314,459	828,024	828,024	1,656,048
Extra Large HLF	2,050,464	1,835,570	3,886,035	3,886,035	7,772,069
C&I Subtotal	10,067,758	5,793,424	15,861,182	15,963,139	31,824,321
Total Firm Throughput	23,327,252	11,295,955	34,623,207	34,886,219	69,509,426
Non-Firm	1 275 000	1 125 000	2 500 000	2 500 000	5 000 000
Non-Firm	1,375,000	1,125,000	2,500,000	2,500,000	5,000,000
TOTAL THROUGHPUT	24,702,252	12,420,955	37,123,207	37,386,219	74,509,426
Collections by Sector:					
Residential EE Surcharge Collections	\$835,348	\$575,802	\$1,411,150	\$1,980,173	\$3,391,323
Low Income Weatherization in Base Rates	\$141,344	\$58,656	\$200,000	\$200,000	\$400,000
Total Collections - Residential	\$976,692	\$634,458	\$1,611,150	\$2,180,173	\$3,791,323
Commercial and Industrial EE Surcharge Collections	\$720,893	\$723,966	\$1,444,859	\$1,932,043	\$3,376,902
Total Collections - Commercial and Industrial	\$720,893	\$723,966	\$1,444,859	\$1,932,043	\$3,376,902
	. , ,	. /	. , , , ,	. , , .	
<b>Total Projected Collections</b>	\$1,697,585	\$1,358,424	\$3,056,009	\$4,112,216	\$7,168,225

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A2, Page 29 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 (Compliance Filing)

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 30 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 (Compliance Filing) Page 1 of 7

#### Section:

- 1.0: Purpose of Guidelines
- 2.0: Definitions
- 3.0: Eligibility
- 4.0: Cost Effectiveness Standard
- 5.0: Required Plan Elements
- 6.0: Measurement & Verification
- 7.0: Procedures for Initial Plan Approval and Annual Reporting
- 8.0: Coordination with Utility Program

#### 1.0: Purpose of Guidelines

The purpose of this document is to establish the guidelines which will be followed in order to facilitate the filing, review and approval of self-directed gas demand side management programs by manufacturing customers of gas distribution companies in Rhode Island, as provided for in R.I.G.L. 39-2-1.2(f). Such programs will provide incentives to customers for installing DSM measures that they would not have otherwise installed.

### 2.0: Definitions

- 2.1 Commission: means the Rhode Island Public Utilities Commission.
- 2.2 <u>Demand Side Management ("DSM")</u>: means one or a package of measures consisting of gas energy efficiency, gas conservation, and/or combined heat and power systems.
- 2.3 <u>End –use Customer</u>: means a person or entity in Rhode Island that purchases and uses natural gas.
- 2.4 <u>Manufacturing</u>: means and includes manufacturing, compounding, processing, assembling, preparing or producing. Manufacturers which are considered to be engaged in manufacturing for purposes of R.I.G.L. 44-18-30 and R.I.G.L. 44-13-35 shall be considered to be engaged in manufacturing for the purposes of the guidelines herein.
- 2.5 <u>Measurement & Verification ("M&V")</u>: means measurements and calculations used to determine the level of energy and other resource savings attributable to a particular DSM measure or program.
- 2.6 Other Customer Funds: means the portion of funds that the customer contributes to the Self-Directed Program budget over and above that portion which represents the Self-Directed Funds in a given year.
- 2.7 <u>Self-Directed Funds</u>: means the amount of funds which the customer would have paid to the utility under the gas energy efficiency surcharge in the absence of the Self-Directed Program, but instead is allocated to the Self-Directed Program budget.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 31 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 (Compliance Filing) Page 2 of 7

- 2.8 <u>Self-Directed DSM Program (or "Self-Directed Program")</u>: means the set of activities undertaken by a Manufacturing End-use Customer to identify, implement, and verify the savings associated with a set of DSM measures using funds that the customer would otherwise have paid the Utility under the gas energy efficiency surcharge.
- 2.9 <u>Utility</u>: means the regulated natural gas distribution utility which serves the End-use Customer that is submitting the Self-Directed Program for certification, unless specifically noted otherwise.

### 3.0: Eligibility

- 3.1 Natural gas used for Manufacturing processes (as defined in Section 2 of these guidelines) is eligible to be exempted from the demand-side management charge from the gas distribution utility according to the provisions of these guidelines, subject to the Commission's approval of a Self-Directed DSM Program.
- 3.2 Natural gas consumption is billed according to usage measured by meters. In the event that a meter has mixed usage whereby some natural gas usage recorded by that meter is used for manufacturing processes, and other gas is not, these guidelines adopt the practice of the Division of Taxation whereby it generally deems 95% of the manufacturer's volumes to be for "manufacturing use". If consumption is separately metered for manufacturing use only, the entire amount will be included as natural gas used for manufacturing.
- 3.3 Eligible measures for the purposes of Commission approval of a Self-Directed DSM Program shall include cost-effective energy efficiency, conservation, and combined heat & power systems, consistent with the provisions of R.I.G.L. 39-2-1.2 concerning the utility DSM program. Cost-effectiveness standards are provided in Section 4 of these guidelines.
- 3.4 The Self-Directed DSM Program must be in effect for a minimum of two years.
- 3.5 The Self-Directed DSM Program budget shall be funded to at least the same level (within 2%) as the equivalent payments the customer would have made if the manufacturing natural gas usage for that customer had not been exempted from the utility gas energy efficiency surcharge. The default procedure for determining this funding level shall be to use the previous 12 months gas decatherm consumption applied to the current energy efficiency charge (cents per decatherm). These funds are referred to as Self-Directed Funds. The customer may provide additional funds to the Self-Directed Program budget in any given year, and these additional funds are referred to as Other Customer Funds.

### 4.0: <u>Cost-Effectiveness Standard</u>

4.1 This section describes the cost-effectiveness standard that is to be applied to Self-Directed DSM Programs by Manufacturing End-use Customers, and no precedent is

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 32 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 (Compliance Filing) Page 3 of 7

implied or granted to use this standard for any other utility DSM programs. Since by its nature self direct programs do not involve utility rebates or administrative expenses, the current<sup>1</sup> cost-effectiveness test used in Rhode Island for utility programs is not applicable for self-directed programs.

- 4.2 The cost-effectiveness of Self-Directed DSM Programs will be determined using the Total Resource Cost ("TRC") test. The TRC test assesses whether or not the demand-side management program or measure improves economic efficiency in the broad sense of the term<sup>2</sup>. The test is applicable to conservation, load management, and fuel substitution programs. The TRC test represents the combination of the effects of a program on both the customers participating and those not participating in a program. The TRC test is the primary test used to screen most gas DSM programs in the United States<sup>3</sup>.
- 4.3 Incremental costs refer to the additional cost of the energy efficient measure compared to standard practice. Incremental savings is the difference between the energy use of the recommended measure compared to standard practice.
- 4.4 The benefits calculated in the TRC test value the expected incremental savings using the avoided supply costs the reduction in delivery, capacity, and commodity costs valued at marginal cost for the periods where there is a load reduction. For fuel substitution programs, benefits include the avoided device costs and avoided supply costs for the energy-using equipment not chosen by the program participant.
- 4.5 The costs in the TRC test are the incremental program costs paid by both the utility and the participants, plus the increase in supply costs for the periods in which load is increased. Therefore, all incremental equipment, installation, operation and maintenance costs, cost of removal (less salvage value), and administration costs, no matter who pays for them, are included in this test. For fuel substitution programs, the costs also include the increase in supply costs for the utility providing the fuel that is chosen as a result of the program. The TRC test excludes any transfer payments between parties. Thus incentive payments by the utility to encourage participation are excluded from the calculation.
- 4.6 Measures shall be considered cost-effective if they achieve a benefit-cost ratio above one (1.0). The benefit-cost ratio is the ratio of the discounted total benefits of the program or measure to the discounted total costs over some specified time period (by convention the lifetime of the impacts produced by the measure). A benefit-cost ratio above one indicates that the program or measure is beneficial to the utility and its ratepayers on a total resource cost basis.

-

<sup>&</sup>lt;sup>1</sup> Calendar year 2007.

<sup>&</sup>lt;sup>2</sup> The Total Resource Cost (TRC) test is formally defined in Chapter 4 of the California Standard Practice Manual, Economic Analysis of Demand Side Programs and Projects (October 2001).

<sup>&</sup>lt;sup>3</sup> See, for example, the report entitled "DSM in North American Gas Utilities", prepared for Enbridge Gas Distribution by IndEco Strategic Consulting Inc. and Navigant Consulting Ltd., April 2004.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 33 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 (Compliance Filing) Page 4 of 7

- 4.7 Avoided costs used for the cost-effectiveness calculations shall be those provided by the gas utility and/or electric utility (as the case may merit, for example, with combined heat and power systems) in that utility's most recent DSM filing with the Commission.
- 4.8 For purposes of cost-effectiveness, pre-installation measure savings estimates shall be those reported to the Commission by the Professional Engineer ("PE") conducting a technical assessment that identifies and specifies the DSM measures. These savings estimates shall be calculated in a manner consistent with generally accepted engineering practices comparable to the practices employed by the gas distribution utility administering energy efficiency programs in the state.
- 4.9 The Self-Directed DSM Program shall only include measures which meet the definition of demand side management (DSM), namely those which fall under the categories of energy efficiency, conservation, and/or combined heat and power systems, have a reasonable payback period, and are cost-effective according to the TRC test. The purpose of the reasonable payback period is to ensure that the program encourages measures that would not have been implemented otherwise.

### 5.0: Required Plan Elements

- 5.1 In making application for certification of a self directed program, the applicant shall provide the Commission a **Manufacturing Self-Directed DSM Program Eligibility Application**, which shall contain the following information:
  - Name, contact information, and gas utility account numbers addressed by the program.
  - (ii) Period for which the proposed program will be in force (must be at least 24 months).
  - (iii) Proof that the accounts meet eligibility requirements.
  - (iv) Description of DSM measures to be included in the plan, and expected savings of natural gas and other resources (as applicable).
  - (v) Funding levels by year, for both Self-Directed Funds and Other Customer Funds.
  - (vi) Annual program budget by category:
    - a. Administrative
    - b. Audit and Technical Assessment
    - c. Measure costs (professional services, labor, equipment & materials)
    - d. Measurement & Verification costs
  - (vii) Measurement & Verification ("M&V") plan for program.
  - (viii) .Cost effectiveness estimate for measures to be installed.

### 6.0: Measurement & Verification

- 6.1 Program shall include pre-inspection by a PE and post-inspection by an independent third party not associated with either the customer or the firm installing the measures.
- 6.2 Energy savings are calculated according to industry standard methods by the independent third party per 6.1. See Section 4.0.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 34 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 (Compliance Filing) Page 5 of 7

- 6.3 Program shall assign appropriate M&V methods to specific measures.
- 6.4 Acceptable M&V methods are those which are described in the most recent version of the International Performance Measurement & Verification Protocol.
- 6.5 The Commission shall ensure that parties performing M&V work are appropriately qualified and meet qualifications comparable to those individuals performing M&V for the gas distribution utility.

### 7.0: Procedures for Program Approval and Annual Reporting

### 7.1 Program approval by the Commission

The Commission will approve and certify, or deny, Self-Directed DSM Programs by issuing statements of qualification within ninety (90) days of application. The following procedure will be followed to complete the review and certification:

- (i) Applicants for certification of Self-Directed DSM Programs must submit an application to the Commission which conforms to the requirements of Section 5.1 above
- (ii) The Commission Clerk will keep a list of interested parties who wish to be notified when an application for certification is filed. Such list will include the Division of Public Utilities and Carriers. In addition to filing with the Commission, applicants are required to send, either electronically or in paper copy, a copy of the completed application, including any attachments, to the interested parties. The Commission Clerk will post all completed Manufacturing Self-Directed DSM Program Eligibility applications, including all attachments, on the Commission website.
- (iii) The Commission may request additional information or clarification regarding the application.
- (iv) Any party in interest may comment on such filings to the Commission in writing within 30 days from the date of filing. Following the 30-day comment period, the Commission will consider an application for certification in an open meeting. The Commission may approve the application or request at that time, or it may set the matter down for hearing following not less than 10-day notice to the interested parties.
- The Commission will establish a unique certification number for each Self-Directed DSM Program.

### 7.2 The Commission will verify the on-going eligibility of Self-Directed DSM Programs, as follows:

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 35 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 (Compliance Filing) Page 6 of 7

- (i) Customers with Self-Directed DSM Programs shall file annual reports by May 1 of the year following the program year. Such reports shall contain the following items:
  - a. Description of measures installed in the program during that calendar year;
  - b. Estimate of gas savings, and other resource savings (where applicable), produced by the measures installed, based on the post-installation inspection conducted by an independent third party. (See 6.1.)
  - c. Expenditures during the calendar year, with true-up to projected budget.
  - d. Benefit-cost ratio showing cost-effectiveness of measures installed
  - e. Summary findings from any M&V work completed during the calendar year.
  - f. Plans for the ensuing year, if applicable, including:
    - (i) Budget
    - (ii) Targeted Measures
    - (iii) Cost-effectiveness
    - (iv) M&V Plan
- (ii) The Commission may request other information as desired in its certification order.
- (iii) The Commission or persons acting at its behest may conduct audits or site visits to assist in verification at any time at the Commission's discretion.
- 7.3 End-use Customers, once their program is certified, shall notify the Commission in the event of a change in eligibility status. When and if, in the Commission's opinion, after due consideration, there is a material change in the characteristics of the program or facility that could alter its eligibility, such Self-Directed DSM Program must be recertified. Recertification of a Self-Directed DSM Program will be conducted in the same manner as the certification process outlined above.
- 7.4 Suspension or Revocation: The Commission may suspend or revoke the certification of a Self-Directed DSM Program, certified in accordance with Section 7.1, that is found, after notice and an opportunity for hearing, to provide false information, or that fails to notify the Commission in the event of a change in eligibility status or otherwise comply with law or these guidelines.
- 7.5 Advisory Committee: The Commission may, at its discretion, create an advisory committee to assist it in its administration of the program.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A2, Page 36 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 5 (Compliance Filing) Page 7 of 7

### 8.0: Coordination with Utility DSM Program

- 8.1 Within thirty days of Commission receipt of an application for certification of a Self-Directed DSM Program, the utility shall conduct a true-up analysis which compares customer incentives provided by the utility under its DSM program for the previous 24 months to customer and DSM charge payments made during that same 24 month period. In the event that rebates or other incentives exceed customer payments, customer shall have the option of either (a) delaying implementation of the Self-Directed DSM Program until such time as payments equalize rebates or other incentives, or (b) repaying the utility for the portion by which rebates or other incentives exceeded payments.
- 8.2 Customer facilities which participate in the Self-Directed DSM Program are ineligible to receive services under the utility DSM program during the period for which the Self-Directed DSM Program is in effect.
- 8.3 Within 30 days of Commission certification of the Self-Directed DSM Program, the utility shall stop applying the DSM charge to the bills of accounts which are included in that Self-Directed DSM Program.
- 8.4 If actual expenditures are less than the approved Self-Directed Funds budget for a calendar year, the customer must either carry the funds over and spend them in the next calendar year, or contribute such funds to the utility DSM program. In no event can a customer carry over funds in two successive calendar years.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A2, Page 37 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 6 (Compliance Filing) Page 1 of 2

### National Grid Gas Energy Efficiency Program Budget (\$000) 2007 - 2008

	Program Planning	& Administration				
				Rebates and Other Customer	Evaluation & Market	
Program	External	Internal	Marketing	Incentives	Research	<b>Grand Total</b>
RESIDENTIAL:						
ENERGY STAR Homes	\$100.0	\$2.8	\$37.5	\$71.9	\$4.1	\$216.3
Building Practices and Demonstration Program	\$4.0	\$0.5	\$25.0	\$24.0	\$1.3	\$54.8
ENERGY STAR Heating System	\$41.0	\$8.2	\$37.5	\$482.3	\$13.3	\$582.3
GasNetworks	\$0.0	\$0.0	\$43.7	\$0.0	\$0.0	\$43.7
Total ENERGY STAR Heating System	\$41.0	\$8.2	\$81.2	\$482.3	\$13.3	\$626.0
High-Efficiency Water Heating Program	\$17.6	\$2.2	\$37.5	\$118.9	\$4.2	\$180.4
GasNetworks	\$0.0	\$0.0	\$13.3	\$0.0	\$0.0	\$13.3
Total High-Efficiency Water Heating Program	\$17.6	\$2.2	\$50.8	\$118.9	\$4.2	\$193.7
ENERGY STAR Programmable Thermostat Program	\$11.0	\$1.0	\$37.5	\$42.8	\$2.2	\$94.6
GasNetworks	\$0.0	\$0.0	\$7.3	\$0.0	\$0.0	\$7.3
Total ENERGY STAR Programmable Thermostat Program	\$11.0	\$1.0	\$44.8	\$42.8	\$2.2	\$101.8
Energy Wise	\$0.0	\$42.4	\$75.0	\$830.3	\$22.9	\$970.6
Single Family Low Income Services	\$0.0	\$34.3	\$12.5	\$1,353.4	\$36.4	\$1,436.6
EERMC - Residential	\$78.3	\$0.0	\$0.0	\$0.0	\$0.0	\$78.3
Shareholder Incentive	\$0.0	\$158.4	\$0.0	\$0.0	\$0.0	\$158.4
Subtotal - Residential	\$251.9	\$249.8	\$326.8	\$2,923.6	\$84.5	\$3,836.5

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A2, Page 38 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 6 (Compliance Filing) Page 2 of 2

### National Grid Gas Energy Efficiency Program Budget (\$000) 2007 - 2008

	Program Planning	& Administration				
				Rebates and Other	Evaluation	
				Customer	& Market	
Program	External	Internal	Marketing	Incentives		<b>Grand Total</b>
COMMERCIAL AND INDUSTRIAL:						
Commercial High Efficiency Heating Program	\$20.0	\$6.1	\$37.5	\$325.2	\$9.7	\$398.5
GasNetworks	\$0.0	\$0.0	\$13.3	\$0.0	\$0.0	\$13.3
Total Commercial High Efficiency Heating Program	\$20.0	\$6.1	\$50.8	\$325.2	\$9.7	\$411.8
Economic Redevelopment Program	\$20.0	\$5.4	\$37.5	\$284.2	\$8.7	\$355.8
Building Practices & Demonstration Program	\$15.0	\$4.6	\$37.5	\$244.6	\$7.4	\$309.0
The Emerald Network	\$10.0	\$2.4	\$37.5	\$126.8	\$4.2	\$180.9
Commercial Energy Efficiency Program	\$50.0	\$14.0	\$37.5	\$740.2	\$22.4	\$864.1
Energy Audit and Engineering Services	\$7.5	\$3.9	\$37.5	\$212.1	\$6.3	\$267.3
GasNetworks	\$0.0	\$0.0	\$15.6	\$0.0	\$0.0	\$15.6
Total Commercial Energy Efficiency Program	\$57.5	\$17.8	\$90.6	\$952.4	\$28.7	\$1,147.0
Trade Ally Training Program	\$6.0	\$1.0	\$37.5	\$67.3	\$0.0	\$111.8
EERMC - C&I	\$54.7	\$0.0	\$0.0	\$0.0	\$0.0	\$54.7
Commitments	\$0.0	\$0.0	\$0.0	\$650.0	\$0.0	\$650.0
Shareholder Incentive	\$0.0	\$110.7	\$0.0	\$0.0	\$0.0	\$110.7
Subtotal - Commerical & Industrial	\$183.2	\$148.0	\$291.4	\$2,650.4	\$58.7	\$3,331.7
Grand Total	\$435.1	\$397.8	\$618.2	\$5,573.9	\$143.2	\$7,168.2

Note: (1) A portion of the External Program Planning and Administration budget includes funds that National Grid anticipates paying to Keyspan for their help in administering these programs. If and when the merger with Keyspan is complete, these costs will become Internal Program Planning and Administration expenses.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 39 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 7 (Compliance Filing)

### **Target 2007 - 2008 Shareholder Incentive**

Incentive Rate: 4.40%

	(1)	(2)	(3)	(4)	(5)
			Annual		Target
			Savings	Threshold	Incentive
		Target	Goal	Savings	Per
Sector	Budget	Incentive	(MMBTU)	(MMBTU)	MMBTU
Residential	\$3,599,810	\$158,392	90,525	54,315	\$1.750
Commercial & Industrial	\$2,516,284	\$110,717	108,383	65,030	\$1.022
Total	\$6,116,094	\$269,109	198,908	119,345	

### **Notes:**

- (1) Sector budget excluding the EEMRC Assessment, Shareholder Incentives, and Commitments. See Attachment 6 (Compliance Filing).
- (2) Equal to the incentive rate (4.40%) x Column (1).
- (3) See Attachment 8, Page 3 of 3.
- (4) 60% of Column (3). No incentive is earned on annual MMBTU savings in the sector unless the Company achieves at least this threshold level of performance.
- (5) Column (2)/Column (3)

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A2, Page 40 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 8 (Compliance Filing) Page 1 of 3

#### 2007 and 2008 RHODE ISLAND BENEFIT COST ANALYSIS

Summary of Expected Benefit and Expenses (\$000)

Г	1			ı	
	D. 1 T. 1				
	Rhode Island		Program		a
	Benefit/	Total	Implementation	Evaluation	Shareholder
	Cost(1)	Benefit	Expenses(2)	Expenses(2)	Incentive(3)
Commercial & Industrial					
Commercial Energy Efficiency Program	6.33	\$7,050.3	\$1,086.5	\$28.0	NA
Commercial High Efficiency Heating Program	2.78	\$1,111.9	\$390.7	\$9.4	NA
Economic Redevelopment Program	1.08	\$372.7	\$337.2	\$8.5	NA
Trade Ally Training Program	NA	NA	\$108.5	\$0.0	NA
EERMC - C&I	NA	NA	\$53.2	\$0.0	NA
Building Practices and Demonstrations Program	3.68	\$1,103.3	\$293.0	\$7.2	NA
The Emerald Network	1.60	\$280.4	\$171.6	\$4.1	NA
SUBTOTAL	3.81	\$9,918.5	\$2,440.5	\$57.2	\$107.6
	I	. ,	. ,	· · · · · ·	
Residential Programs					
IN-HOME SERVICES	3.65	\$8,497.6	\$2,270.5	\$57.3	NA
EnergyWise Program	6.89	\$6,496.3	\$920.4	\$22.3	NA
Single Family Low Income	1.44	\$2,001.3	\$1,350.1	\$35.0	NA
PRODUCTS & SERVICES	4.77	\$4,276.3	\$877.5	\$19.2	NA
High Efficiency Heating Program	5.46	\$3,326.4	\$596.2	\$12.9	NA
High Efficiency Water Heating Program	2.31	\$434.6	\$184.3	\$4.1	NA
ENERGY STAR® Thermostat Program	5.19	\$515.2	\$97.0	\$2.2	NA
EERMC - Residential	NA	NA	\$75.9	\$0.0	NA
Building Practices and Demonstrations Program	1.36	72.19	\$51.7	\$1.3	NA
ENERGY STAR® Homes	NA	NA	\$206.6	\$4.0	NA
SUBTOTAL	3.46	\$12,846.0	\$3,482.0	\$81.8	\$153.5
TOTAL	3.60	\$22,764.6	\$5,922.5	\$138.9	\$261.0

#### Notes:

- 1) The Rhode Island Benefit/Cost Test is equal to the expected dollar value of lifetime resource benefits divided by the sum of Implementation Expenses, Evaluation Expenses, and the target shareholder incentive.
- 2) Equal to the Net Present Value of the budget amounts provided in Attachment 6 (Compliance Filing) excluding Commitments. Subtotal and Total rows include expenses for all line items except Commitments whether or not benefits have been quantified.
- 3) See Attachment 7 (Compliance Filing).

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A2, Page 41 of 44

> National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 8 (Compliance Filing) Page 2 of 3

# **2007 and 2008 RHODE ISLAND BENEFIT COST ANALYSIS** Summary of Benefits

	Benefits (\$000)		MMBTU Gas Saved		
Commercial & Industrial	Total(4)	Natural Gas(5)	Participant Resource(6)	Annual(7)	Lifetime(8)
Commercial Energy Efficiency Program	\$7,050	\$7,050	\$0	82,122	1,010,096
Commercial High Efficiency Heating Program	\$1,112	\$1,095	\$17	8,500	166,676
Economic Redevelopment Program	\$373	\$373	\$0	4,341	53,394
Trade Ally Training Program	NA	\$0	\$0	0	0
EERMC - C&I	NA	\$0	\$0	0	0
Building Practices and Demonstrations Program	\$1,103	\$1,103	\$0	10,154	138,093
The Emerald Network	\$280	\$280	\$0	3,266	40,174
SUBTOTAL	\$9,919	\$9,902	\$17	108,383	1,408,433
Residential Programs IN-HOME SERVICES					
EnergyWise Program	\$6,496	\$6,496	\$0	42.631	852,622
Single Family Low Income	\$2.001	\$2.001	\$0 \$0	14.465	260,366
PRODUCTS & SERVICES	Ψ2,001	Ψ2,001	φυ	14,403	200,500
High Efficiency Heating Program	\$3,326	\$3,326	\$0	24.042	432,765
High Efficiency Water Heating Program	\$435	\$435	\$0	2,869	57,375
ENERGY STAR® Thermostat Program	\$515	\$515	\$0	6,160	61,600
EERMC - Residential	NA	\$0	\$0	0	0
Building Practices and Demonstrations Program	\$72	\$42	\$30	358	5,370
ENERGY STAR® Homes	NA	\$0	\$0	0	0
SUBTOTAL	\$12,846	\$12,816	\$30	90,525	1,670,098
TOTAL	\$22,765	\$22,718	\$47	198,908	3,078,531

#### Notes:

- 4) Equal to the sum of Natural Gas benefits and Participant Resource benefits.
- 5) The value of lifetime natural gas savings valued using the avoided gas costs quantified in "Avoided Energy Supply Costs in New England," December 23, 2005 prepared by ICF Consulting for the Avoided-Energy-Supply-Component Study Group. This is also the source of the electric avoided costs that have been used to assess electric energy efficiency program cost-effectiveness.
- 6) Participant Resource Benefits are equal to the dollar value of expected electricity savings that have not been included in National Grid's electric energy efficiency plans for 2007.
- 7) The projection of annual savings reflects results attained for similar programs in other jurisdictions.
- 8) Lifetime savings are equal to annual savings multiplied by the expected life of measures expected to be installed in each program.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A2, Page 42 of 44

National Grid Docket No. 3790 Gas Energy Efficiency Programs Attachment 8 (Compliance Filing) Page 3 of 3

#### SAVINGS AND PARTICIPATION GOALS BY PROGRAM

	Annual Energy Savings (MMBTU Natural Gas)(1)	Participants
Program	(MADIO Natural Gas)(1)	1 ai ticipants
Commercial & Industrial	1	
Commercial Energy Efficiency Program	82,122	176
Commercial High Efficiency Heating Program	8,500	225
Economic Redevelopment Program	4,341	10
Trade Ally Training Program	NA	500
EERMC - C&I	NA	NA
Building Practices and Demonstrations Program	10,154	4
The Emerald Network	3,266	7
SUBTOTAL	108,383	922
IN-HOME SERVICES		
Residential Programs IN-HOME SERVICES	1	
EnergyWise Program	42,631	1,888
Single Family Low Income	14,465	336
PRODUCTS & SERVICES		
High Efficiency Heating Program	24,042	1,475
High Efficiency Water Heating Program	2,869	375
ENERGY STAR® Thermostat Program	6,160	1,400
EERMC - Residential	NA	NA
Building Practices and Demonstrations Program	358	5
ENERGY STAR® Homes	NA	NA
SUBTOTAL	90,525	5,479
TOTAL	198,908	6,401

#### Note:

1) See Attachment 8 (Compliance Filing), Page 2 of 3.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A2, Page 43 of 44

# **Certificate of Service**

I hereby certify that a copy of the cover letter and / or any materials accompanying this certificate has been mailed or hand-delivered to the individuals listed below.

Joanne M. Scanlon

May 31, 2007

Date

Docket 3790 – National Grid – Gas Energy Efficiency Programs Service List as of 4/19/07

Name/	E-Mail Distribution	Telephone/
Address		Facsimile
Laura Olton, Esq.	Laura.olton@us.ngrid.com	401-784-7667
National Grid		401-784-4321
280 Melrose St.	Joanne.scanlon@us.ngrid.com	•
Providence, RI 02907	<u> </u>	
Peter Czekanski, Director of Pricing	Peter.Czekanski@us.ngrid.com	401-272-5040
National Grid		401-751-0698
100 Weybosset St.	djohnson@keyspanenergy.com	
Providence, RI 02903	3	
Andrew C. Dzykewicz	adzykewicz@gov.state.ri.us	401-222-7524
RI Office of Energy Resources		401-222-1260
One Capitol Hill		
Providence RI 02908-5850		
John R. McDermott, Esq.	JRMcDermott.law@gmail.com	401-269-1198
The Carriage House		401-294-4483
90 Willett Rd.		
Saunderstown, RI 02874		
Michael McElroy, Esq.	McElroyMik@aol.com	401-351-4100
Schacht & McElroy		401-421-5696
PO Box 6721		
Providence RI 02940-6721		
John Farley, Executive Director	jfarley316@hotmail.com	401-621-2240
The Energy Council of RI		401-621-2260
One Richmond Square Suite 340D		
Providence RI 02906	1 0	
Samuel P. Krasnow	skrasnow@env-ne.org	
203 South Main St.	dmurrow@env-ne.org	
Providence, RI 02903		

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A2, Page 44 of 44

Roger E. Koontz, Esq.	rkoontz@env-ne.org	860-526-4852
15 High Street Chester, CT 06412		
Karina Lutz, Dir. Dev. & Advocacy	karina@ripower.org	401-861-6111
People's Power & Light		ext. 151
17 Gordon Avenue		401-861-6115
Providence, RI 02906		
Bob Fagan	rfagan@synapse-energy.com	617-661-3248
Synapse Energy Economics		617-661-0599
22 Pearl Street	twoolf@synapse-energy.com	
Cambridge, MA 02139		
William Lueker, Esq.	Wlueker@riag.ri.gov	401-222-2424
Dept. of Attorney General	Sscialabba@ripuc.state.ri.us	401-222-3016
150 South Main Street	Dstearns@ripuc.state.ri.us	
Providence, RI 02903	RDiMeglio@riag.ri.gov	
	KDhvicgho@nag.n.gov	
Original & 9 copies with:	lmassaro@puc.state.ri.us	401-941-4500
Luly Massaro, Commission Clerk		401-941-1691
RI Public Utilities Commission	sfrias@puc.state.ri.us	
89 Jefferson Boulevard Warwick, RI 02888	tmassaro@puc.state.ri.us	

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A3, Page 1 of 23

# STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS PUBLIC UTILITIES COMMISSION

IN RE: NATIONAL GRID'S GAS

DOCKET NO. 3790

DEMAND-SIDE MANAGEMENT PROGRAM

FOR 2007 AND 2008

#### REPORT AND ORDER

In 2006, the State of Rhode Island enacted legislation labeled "The Comprehensive Energy Conservation, Efficiency and Affordability Act of 2006." Pursuant to this legislation, specifically R.I.G.L. § 39-2-1.2, each gas distribution company shall include, with the approval of the Rhode Island Public Utilities Commission ("Commission"), a charge of up to 15¢ per decatherm to pay for demand-side management ("DSM") programs, including energy efficiency, energy conservation, and weatherization for low-income households. The charge is effective January 1, 2007 and for a period of seven years. The gas DSM program is administered by the gas distribution company subject to the regulatory reviewing authority of the Commission.

On December 1, 2006, National Grid's gas division, ("NGrid") filed with the Commission its gas DSM program and proposed surcharge of 6.3¢ per decatherm. On December 15, 2006, the Division of Public Utilities and Carriers ("Division") filed a memorandum recommending approval of the surcharge filed by NGrid. At an open meeting on December 19, 2006, the Commission approved the surcharge on an interim basis, pending further review of NGrid DSM program, in order to comply with the January 1, 2007 effective date mandated by R.I.G.L. § 39-2-1.2(d).

<sup>&</sup>lt;sup>1</sup> P.L. 2006, ch. 236 and P.L. 2006, ch. 237. For purposes of this Order, this legislation will be referred to simply as the "Act."

<sup>&</sup>lt;sup>2</sup> R.I.G.L. § 39-2-1.2(d).

<sup>&</sup>lt;sup>3</sup> R.I.G.L. § 39-2-1.2(e).

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A3, Page 2 of 23

I. NGRID'S DECEMBER 1, 2006 FILING

On December 1, 2006, NGrid submitted the pre-filed testimonies of Peter

Czekanski, a Principal Analyst for NGrid, and Bruce Johnson, Director of KeySpan's

Energy Management Department and a consultant to NGrid for this proceeding.

Mr. Czekanski stated that NGrid's proposed DSM program is modeled after KeySpan's

DSM programs in Massachusetts and New Hampshire. The funding of the proposed

DSM programs in 2007 is \$2.8 million. By February 1, 2007, the final DSM program

will be filed, which will include specific budgets, benefit/cost analysis, proposed goals,

shareholder incentive mechanism and reporting requirements. Mr. Czekanski explained

that the current proposal would not replace NGrid's existing gas DSM program. Instead,

the existing gas DSM program will be maintained during the ramping up of the proposed

gas DSM program. As soon as the proposed gas DSM program is implemented, the

existing DSM rebates would be replaced. The funding of \$2.8 million for 2007 also

includes \$500,000 currently in base rates for DSM and low-income weatherization.

The 6.3¢ per decatherm surcharge will apply to all firm and non-firm throughput.

Mr. Czekanski noted that the law allows an exception to this surcharge for any gas used

for distributed generation or used by a customer with a self-directed energy efficiency

program in accordance with a plan approved by the Commission. Mr. Czekanski

recommended that the implementation of this aspect of the law be taken up in a separate

docket and that the surcharge be charged to all customers. The surcharge of 6.3¢ per

decatherm will cost \$6.51 annually for a typical residential heating customer using 1,035

therms.4

<sup>4</sup> NGrid Ex. 1A (Czekanski's direct testimony), pp. 4-9.

Attachment DIV 7-2 A3, Page 3 of 23

NGrid has proposed the following programs: EnergyWise Program, Internet

Audit Program, High Efficiency Heating Program, High-Efficiency Water Heating

Program, ENERGY STAR Programmable Thermostat Program, ENERGY STAR

Replacement Windows Program, New Construction and ENERGY STAR Homes

Program, Single Family Low-Income Services Program, and Building Practices and

Demonstration Program. For multifamily, commercial and industrial customers, NGrid

proposed the following programs: Business Energy Analyses Internet Audit Program,

Energy Audit and Engineering Services Program, Commercial Energy Efficiency

Program, Commercial High-Efficiency Heating Program, Economic Redevelopment

Program, Emerald Network Program, Building Practices and Demonstration Program,

and Trade Ally Training Program. For residential customers, NGrid is offering six new

gas energy efficiency programs, some of which are sponsored by Gas Networks, and to

combine these efforts with NGrid's existing electric energy efficiency programs. For

commercial and industrial customers, NGrid is offering seven new energy efficiency

programs, some of which are sponsored by Gas Networks, and to combine these efforts to

NGrid's existing electric energy efficiency programs.

Mr. Johnson explained that Gas Networks is a regional collaborative of natural

gas distribution companies that coordinate natural gas energy efficiency programs

throughout Maine, Massachusetts and New Hampshire. Gas Networks allows each

participating company to offer regional programs at a lower overall cost to its customers.

Mr. Johnson stated that the purpose of the gas DSM program is to encourage the most

Issued on June 5, 2008

Attachment DIV 7-2 A3, Page 4 of 23

efficient use of natural gas. Also, NGrid will leverage its experience in creating program

awareness in its electric programs to ensure success with the proposed gas programs.<sup>5</sup>

II. NGRID'S SUPPLEMENTAL FILING

On January 29, 2007, NGrid submitted the pre-filed supplemental testimony of

Bruce Johnson. Mr. Johnson stated the new gas DSM program will include funding for

the Smart Growth program, which is NGrid's existing gas DSM program. The Smart

Growth program is designed to promote the demand for natural gas during non-peak

months of the year, which occurs in the late spring, summer and early fall. The

promotion of the use of gas during non-peak periods lowers the average unit cost of gas

supply services to all firm and non-firm customers. Thus, the Smart Growth program is

based upon customers adding natural gas load during off-peak periods rather than

reducing load through conservative efforts. The Commission authorized this program in

1996, and NGrid intends to continue this program as part of its new gas energy efficiency

efforts.

In developing the DSM budget, NGrid attempted to align program budgets by

sector, residential or commercial and industrial, with the sources of funding coming from

each sector. Also, NGrid attempted to provide a balance between services for existing

customers and services related to new construction or new equipment purchases. In

addition, NGrid indicated that it needed flexibility in managing its proposed gas DSM

program, especially during its implementation phase. Thus, NGrid requested permission

to transfer funds from one program to another in the same sector without prior approval

from the Commission. However, NGrid would seek Commission approval if NGrid

<sup>5</sup> NGrid Ex. 1B (Johnson's direct testimony), pp. 2-8.

Issued on June 5, 2008

Attachment DIV 7-2 A3, Page 5 of 23

transfers funds from one sector to another if the transfer results in a change of funding

within the sector greater than 20 percent of the approved sector budget.<sup>6</sup>

Mr. Johnson indicated that NGrid will coordinate its gas energy efficiency

program with its current electric energy efficiency programs. For residential programs,

NGrid will add gas incentives for the Energy Wise Program currently offered as part of

the electric programs. The ENERGY STAR Homes program already offers incentives

for gas heated new homes and those will continue. The Single Family Low Income

Program will continue to provide funding to support weatherization. Also, the new

ENERGY Star Gas Networks rebates for heating equipment, water heaters, thermostats,

and replacement windows will be offered to customers. For commercial and industrial

programs, there will be coordination with the current Technical Assistance Program for

electric customers, and proposed Energy Audit and Engineering Services Programs for

natural gas customers. Specifically, as part of the Gas High Efficiency Heating Program,

NGrid will offer a \$400 incentive for high efficiency furnaces, which are 92% AFUE,

with ECM motors. This program encompasses both gas and electric efforts. As a result,

\$200 of the funding for this particular incentive will come from NGrid's electric energy

efficiency programs which were approved by the Commission in NGrid's electric DSM

program for 2007. ECM motors in gas furnaces save about 600 kWh of electricity per

year for consumers.<sup>7</sup>

As for cost effectiveness, Mr. Johnson indicated that the benefit/cost ratio for the

proposed gas energy efficiency programs is \$3.19, which means that \$3.19 in benefits is

expected to be created for each \$1 invested in the programs. The benefits are calculated

<sup>6</sup> NGrid Ex. 2 (Johnson's supplemental testimony) pp. 1-4.

<sup>7</sup> <u>Id.</u>, pp. 5-7.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A3, Page 6 of 23

utilizing a Utility Cost Test, which is comparable to the test used for electric energy efficiency programs in Rhode Island. The benefits take into account the value of savings over its expected life. Lifetime gas savings were valued using the avoided gas costs identified in "Avoided Energy Supply Costs in New England" (December 23, 2005) prepared by ICF Consulting for the Avoided Energy-Supply-Component Study Group. As is done for the electric DSM program, the value of other resource benefits has also been included in the analysis of expected benefits such as expected electricity savings that are incremental to the electricity savings expected through the electric efficiency programs. Mr. Johnson estimated that the residential gas DSM programs will serve 3,349 customers and produce 36,419 MMBTU of natural gas savings per year while commercial and industrial gas DSM programs will serve 592 customers and produce 40,598 MMBTU of natural gas savings per year.

Regarding a shareholder incentive, Mr. Johnson stated that a shareholder incentive will align NGrid's interest with Rhode Island energy efficiency policy objectives. He noted that the DSM program will cause customers to use less natural gas, and thus NGrid will lose revenue. According to Mr. Johnson, a shareholder incentive is necessary to encourage NGrid to implement the DSM program efficiently. The shareholder incentive would be equal to the same percentage of the DSM budget for the shareholder incentive as in the electric DSM program. The total target incentive for 2007 is 4.4 percent of the eligible budget of \$2.7 million, for an incentive of \$119,642. The threshold performance level for energy savings by sector is equal to 60 percent of annual energy savings goals for the sector. NGrid must attain at least this threshold level of savings in the sector before it can earn an incentive related to energy savings in the

Issued on June 5, 2008

Attachment DIV 7-2 A3, Page 7 of 23

sector. NGrid would be able to have the ability to earn an incentive for each MMBTU of

gas saved, once threshold savings for the sector are achieved, up to 125 percent of target

savings. Since this is the first year of the gas DSM program, NGrid did not recommend

including performance metrics.8

As for reporting requirements, Mr. Johnson proposed to provide the Commission

with quarterly reports on the most currently available program performance, and will

include a comparison of budgets and goals by program to actual expenses and savings on

a year-to-date basis. The 2007 Year End Report will be provided to the Commission no

later than May 1, 2008, which will include a comparison of budgets and goals by

program to actual expenses and savings in the year as well as NGrid Gas' calculation of

the earned shareholder incentive.9

III. SETTLEMENT

On April 2, 2007, the parties filed a settlement agreement. Parties to the

settlement agreement included NGrid, the Division, the Energy Council of Rhode Island

("TEC-RI"), the Rhode Island Office of Energy Resources ("OER"), the Energy

Consumer Alliance of New England d/b/a People's Power and Light ("People's Power"),

and Environment Northeast ("Enviro North"). The settlement established funding and

programs for an 18 month period beginning in mid 2007 through the end of 2008. Many

of the programs are currently offered by KeySpan, and NGrid anticipates contracting for

program support services with KeySpan to expedite the effective roll-out of the proposed

programs. Also, because joint delivery of gas and electric efficiency programs might

reduce marketing and implementation costs, where flexible, the proposed programs will

<sup>8</sup> <u>Id.</u>, pp. 7-11.

<sup>9</sup> <u>Id.</u>, pp. 11-12.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A3, Page 8 of 23

be integrated with the already approved electric energy efficiency programs in Rhode Island. The existing gas DSM program for commercial and industrial customers labeled Smart Growth, which promotes demand for natural gas during non-peak periods, will continue but will not be incorporated into the new gas DSM program or be funded by the gas DSM surcharge.<sup>10</sup>

The settlement sets forth the residential programs. The Energy Wise Program provides a free in home assessment for both single and multi-family homes and provides recommendations, technical assistance and incentives for the installation of energy saving This program's budget is \$1,124,900 for 2007 through 2008 with a measures. benefit/cost ratio of 5.95 caused by saving 852,622 MMBTU during its lifetime for 1,888 participants. The Single Family Low Income Program provides free weatherization services to income eligible 1 to 4 unit homes. The funding for this program is, in part, currently built into base rates. This program's budget is \$1,436,000 for 2007 through 2008 with a benefit/cost ratio of 1.45 caused by saving 260,366 MMBTU during its lifetime for 336 participants. The High Efficiency Heating Program will provide incentives ranging from \$100 to \$800 for energy efficient furnaces and boilers. This program's budget is \$670,100 for 2007 through 2008 with a benefit/cost ratio of 5.10 caused by savings of 432,765 MMBTU during its lifetime for 1,475 participants. The High Efficiency Water Heating Program provides incentives of \$300 for certain energy efficient water heating systems. This program's budget is \$207,400 for 2007 through 2008 with a benefit/cost ratio of 2.16 caused by savings of 57,375 MMBTU during its lifetime for 375 participants. The ENERGY STAR Programmable Thermostat program provides a \$25 incentive each for up to two ENERGY Star thermostats. This program's

<sup>&</sup>lt;sup>10</sup> Joint Ex. 1 (Settlement) pp. 2-3.

Attachment DIV 7-2 A3, Page 9 of 23

budget is \$109,000 for 2007 through 2008 with a benefit/cost ratio of 4.85 caused by

saving 61,600 MMBTU during its lifetime for 1,400 participants. The Building Practices

and Demonstration program provides demonstration projects that apply new or

underutilized technologies. This program's budget is \$58,700 for 2007 through 2008

with a benefit/cost ratio of 1.27 caused by saving 5,370 MMBTU during its lifetime for 5

participants. The New Construction and ENERGY Star Homes provides free building

plans review and certification for new ENERGY STAR residential construction. This

program's budget is \$216,200 for 2007 through 2008. The Energy Analysis: Internet

Audit program provides a free online energy analysis service that makes customized

energy efficiency recommendations based on a customer's energy consumption profile.

This program's budget totals \$136,900 for 2007 through 2008. However, the cost of this

program is included in the budgets for the previously identified residential DSM

programs.11

The settlement sets forth the commercial and industrial programs. The

Commercial Energy Efficiency Program provides incentives for more sophisticated

systems for eligible combined heat and power ("CHP") projects. The program's budget

is \$1,221,200 for 2007 and 2008 with a benefit/cost ratio of 5.94 caused by saving

\$1,010,096 MMBTU during its lifetime for 176 participants. The Commercial High

Efficiency Heating program provides incentives up to \$6,000 for high-efficiency furnaces

or steam boilers and incentives up to \$300 for qualified efficient water heating measures.

The budget for this program is \$411,500 for 2007 through 2008 with a benefit/cost ratio

of 2.78 caused by saving 166,676 MMBTU during its lifetime for 225 participants.

<sup>11</sup> Id. at p. 3; Attachment 1, p. 1; Attachment 6, p. 1; and Attachment 8.

Attachment DIV 7-2 A3, Page 10 of 23

The Economic Redevelopment Program provides matching grants up to \$100,000

for energy saving measures in commercial properties in designated Economic

Redevelopment areas. The budget for this program is \$355,600 for 2007 through 2008

with a benefit/cost ratio of 1.08 caused by saving 53,394 MMBTU during its lifetime for

10 participants.

The Trade Ally Training program provides energy management training sessions

targeted to individuals responsible for the maintenance and operation of equipment and

systems in commercial buildings, industrial plants, and public facilities. The information

and training in energy efficiency issues is provided to plumbing and heating contractors,

builders, architects, engineers, realtors, appraisers and others. The budget for this

program is \$111,700 for 2007 through 2008 with an estimated 500 participants.

The Building Practices and Demonstration program provides funding for

demonstration projects that apply to new or underutilized technologies. The budget for

this program is \$308,800 for 2007 through 2008 with a benefit/cost ratio of 3.68 caused

by saving 138,093 MMBTU during its lifetime for 4 participants. The Emerald Network

provides incentives and services to customers focused on developing new green buildings

or increasing green aspects of existing buildings. The budget for this program is

\$180,800 with a benefit/cost ratio of 1.60 caused by saving 40,174 MMBTU during its

lifetime for 7 participants. The Energy Audit and Engineering services provides, at no

cost, energy auditing services to help customers evaluate energy efficiency improvements

in their facilities or 50 percent matching funds up to \$10,000 for outside studies that

evaluate more complex technologies. The cost of this program, which is \$267,100 for

2007 through 2008, is incorporated in the budget for the Commercial Energy Efficiency

Issued on June 5, 2008

Attachment DIV 7-2 A3, Page 11 of 23

program. The Business Energy Analyzer provides a free online energy analysis service

that makes customized energy efficiency recommendations based on the customer's

energy consumption profile. The total cost of this program, which is \$159,100 for 2007

through 2008, is incorporated in the budget for the Energy Wise and Commercial Energy

Efficiency program. 12

The parties requested to increase the energy efficiency surcharge to \$0.114 per

decatherm effective July 1, 2007 through December 2008. The gas DSM budget would

be funded through this surcharge, interest accrued on this fund balance, and the current

base rate collections for Low Income weatherization. The overall projected gas DSM

budget for 2007 and 2008 is approximately \$7.5 million. NGrid will be able to transfer

up to 10 percent of proposed funding for a program to another program within a sector,

but transfer of more than 10 percent will require prior Division approval. Division

approval is also required for transfer of funds from one sector to another sector if it

reduces the approved budget for that sector by 20 percent or less. Transfers that would

reduce a sector's budget by more than 20 percent in aggregate over the course of the

program year will require Commission approval. The parties will inform the

Commission of all transfers requiring Division approval.<sup>13</sup>

The shareholder incentive will be equal to 4.4 percent of the eligible budget. The

total target incentive for 2007 to 2008 is \$288,734. The threshold performance level for

energy savings by sector will be set at 60 percent of the annual energy savings goal for

the sector. Only when the threshold savings for the sector are achieved will NGrid have

the ability to earn an incentive up to 100 percent of targeted savings. To determine the

 $^{12}$  <u>Id.</u>, p. 3; Attachment 2, p. 1; Attachment 6, p. 2; and Attachment 8.  $^{13}$  <u>Id.</u>, pp. 3-7.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A3, Page 12 of 23

cost-effectiveness of the gas DSM programs, the parties used a Utility Cost Test, which is

comparable to the test used for electric DSM programs in Rhode Island. The lifetime gas

savings have been valued using avoided gas costs identified in "Avoided Energy Supply

Costs in New England" prepared by ICF Consulting, which is the same source to value

electricity savings for electric DSM programs. The value of other resource benefits has

also been included in the analysis of expected benefits from program efforts such as

electricity savings. There is a benefit/cost ratio of 3.43 for the gas DSM programs. Also,

the parties agreed to review alternatives to the current utility cost test for use in 2009.

NGrid will provide quarterly reports to the parties on current program performance,

which will include a comparison of budgets and goals by program to actual expenses and

savings on a period-to-date basis. NGrid will file a report summarizing its 2007 through

2008 gas energy efficiency program efforts with the Commission by May 31, 2009. The

report will provide a comparison of budgets and goals to actual expenses and savings by

program and document NGrid's performance under the proposed shareholder incentive

mechanism.14

A DSM Collaborative has been meeting regularly since 1991 to analyze and

discuss NGrid's electric DSM program. The Collaborative will be expanded to include

all the parties in this proceeding and to focus on the gas DSM program. The parties will

assess filing a coordinated gas and electric DSM program and assess filing a multi-year

gas and electric DSM program. By November 1, 2008, the parties will file with the

Commission an agreement regarding NGrid's 2009 gas DSM program or the parties will

file their individual proposals for 2009 gas DSM programs. If the Commission does not

<sup>14</sup> <u>Id.</u>, pp. 7-9.

Issued on June 5, 2008 Attachment DIV 7-2 A3, Page 13 of 23

review the 2009 DSM program by December 31, 2008, NGrid will continue to offer the

2008 program until the Commission review has occurred. 15

In Attachment 5 to the settlement, the parties agreed to guidelines. These

guidelines will facilitate the filing, review and approval of self-directed gas DSM

programs initiated by manufacturing customers of NGrid in order to have an exemption

from the gas DSM surcharge. The guidelines require a self-directed DSM program to be

in effect for a minimum of two years and to be cost-effective using the total resource cost

test. To be eligible for the exemption, a self-directed DSM program must be approved by

the Commission, and once approved, annual reports must be filed regarding the self-

directed DSM program. Also, gas used for distributed generation will not be subject to

the gas DSM surcharge when the gas used for that purpose can be clearly identified

through uniquely metered use and when requested in writing by the customer.<sup>16</sup>

IV. PARTIES' TESTIMONY

On April 3, 2007, various parties submitted pre-filed testimony in support of the

settlement. The Division submitted the pre-filed testimony of Timothy Woolf, an outside

consultant. He explained that the gas residential DSM programs have a benefit/cost ratio

of 3.25 and the gas commercial and industrial DSM programs have a benefit/cost ratio of

3.68. The programs are expected to result in total benefits of \$22.8 million and net

benefits of roughly \$16 million. Mr. Woolf noted that the requested surcharge is less

than the maximum allowed under the law. He explained that the programs are properly

balanced across customer classes. Also, Mr. Woolf indicated that several of the gas DSM

programs are already being provided by KeySpan, and NGrid will employ KeySpan staff

<sup>15</sup> <u>Id.</u>, pp. 9-10.

16 Id., p 5 and Attachment 5.

Issued on June 5, 2008

Attachment DIV 7-2 A3, Page 14 of 23

to assist with the development and implementation of these DSM programs. In addition,

he explained that the proposed shareholder incentive is similar to NGrid's incentive in the

electric DSM program. However, there are no metrics associated with the incentive

because the gas DSM programs are being ramped-up. Also, NGrid will not be eligible to

earn shareholder incentives beyond those associated with 100 percent of the efficiency

savings goal.17

TEC-RI submitted the pre-filed testimony of John Farley, TEC-RI's Executive

Director. First, he noted the settlement recognizes that distributed generation is exempt

from the gas DSM surcharge. Second, he explained that the settlement establishes an

administratively simple procedure to certify and verify gas used for manufacturing to be

exempt from the gas DSM surcharge due to the existence of a self-directed DSM

program. Third, he stated that the proposed commercial DSM program includes a

combined heat and power program. Fourth, he asserted that the budgets for each sector,

residential versus commercial/industrial, are balanced and are equivalent to the amount of

funding contributed by that sector from the surcharge. Fifth, he supported expanding the

focus of the Rhode Island Collaborative to gas efficiency programs as well as

electricity.18

Enviro North submitted the pre-filed testimony of Sam Krasnow. Mr. Krasnow

discussed the savings from the gas DSM programs as well as promoting energy

independence, job and economic growth, and reduced carbon dioxide emissions. Also,

<sup>17</sup> Div. Ex. 1 (Woolf's direct testimony), pp. 3-6.

<sup>18</sup> TEC-RI, Ex. 1 (Farley's direct testimony), pp. 2-7.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A3, Page 15 of 23

he indicated that the settlement lays the foundation for the integration of gas and electric DSM programs.<sup>19</sup>

#### V. HEARING

Following published notice, a public hearing was conducted on May 1, 2007, at the Commission's offices on 89 Jefferson Boulevard, Warwick, Rhode Island. The following appearances were entered:

FOR NGRID : Laura Olton, Esq.

FOR DIVISION : William Leuker, Esq.

Special Assistant Attorney General

FOR OER : John McDermott, Esq.

FOR TEC-RI : Michael McElroy, Esq.

FOR COMMISSION : Steven Frias, Esq. Executive Counsel

were Bruce Johnson, Carol White, Laura McNaughton, Michael McAteer, and Peter Czekanski. The witness for the Division was Robert Fagan, who adopted Mr. Woolf's

The witnesses for the parties were presented as a panel. The witnesses for NGrid

pre-filed testimony. The witness for OER was William Ferguson. The witness for TEC-RI was John Farley. The witness for Enviro North was Roger Koortz, who adopted Mr.

Krasnow's pre-filed testimony. Under cross-examination by the Commission, Ms. White

indicated there is funding in the proposed gas DSM budget for the Energy Efficiency and

Resources Management Council ("EERMC"). Mr. Ferguson stated that the EERMC is

not currently in existence. Mr. Czekanski explained that the \$200,000 included in the

proposed gas DSM budget for the current low-income weatherization program will not

come from the surcharge but from base rates. Mr. Czekanski concurred that gas

<sup>&</sup>lt;sup>19</sup> Enviro North Ex. 1 (Krasnow's direct testimony), pp. 3-5.

Attachment DIV 7-2 A3, Page 16 of 23

consumption for NGrid declined for the year ending October 31, 2006 by 5 percent even

with gas usage normalized for weather and that gas usage has remained at this level. He

admitted that the decline in usage was due, in part, to higher prices and the actions of

consumers on their own to conserve without a gas DSM surcharge. However, Ms. White

explained that the DSM program funded through this surcharge will encourage customers

to conserve even more.

Regarding the shareholder incentive for NGrid, Ms. White justified it by arguing

that an incentive encourages the company to design and implement DSM programs and

to mitigate lost revenues due to increased conservation and efficiency. However, Ms.

White agreed NGrid would implement the legislative mandate to administer a DSM

program without an incentive. Ms. White also indicated that no analysis has been

performed to determine if a shareholder incentive of 4.4 percent of budget equates to the

loss of profits from reduced revenues due to conservation and efficiency.<sup>20</sup>

Ms. White noted that the amount of lifetime gas savings would go away in a rate

proceeding where rates are adjusted. Also, Ms. White indicated that the total resource

cost test is a stricter test than the utility cost test used in Rhode Island. In addition, Ms.

White indicated that "NA" means NGrid cannot quantify any energy savings associated

with a program. She explained that the trade and ally program has an NA but it is

necessary to create an infrastructure to support the delivery of energy efficiency services

for gas. She also explained that ENERGY STAR Homes Program has an NA because the

savings are already included in the electric DSM program. Furthermore, Ms. White

indicated that the internet programs in the DSM program will provide specific

information about programs for which customers may benefit from participating. Also,

<sup>20</sup> Tr. 5/1/07, pp. 31-43.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A3, Page 17 of 23

Ms. White indicated that when NGrid provides regular updates on the results of the DSM programs to the Collaborative it will also provide this information to the Commission.<sup>21</sup>

#### VI. POST-HEARING DEVELOPMENTS

After the hearing, NGrid provided record responses and responded to various post-hearing data requests. At an open meeting held on May 23, 2007, the Commission reviewed the evidence and adopted the proposed settlement with two modifications. First, funding for two internet programs totaling approximately \$296,000 was eliminated. Second, the shareholder incentive was reduced by the elimination of the two internet programs and by not basing the incentive on funding the EERMC. On May 31, 2007, the parties made a compliance filing accepting the modifications to the settlement. At an open meeting on June 14, 2007, the Commission reviewed and approved the compliance filing, which implemented a gas DSM surcharge of 10.7¢ per decatherm for effect July 1, 2007.

#### **COMMISSION FINDINGS**

In 2006, the Rhode Island General Assembly mandated the creation of a gas DSM surcharge to fund gas DSM programs to reduce gas consumption. Ironically, prior to the implementation of the gas DSM surcharge, weather normalized natural gas sales for NGrid declined by 5 percent.<sup>22</sup> However, this gas DSM surcharge is a legislative mandate which the Commission is required to implement. Furthermore, a new gas DSM program should further reduce natural gas consumption beyond the initiatives taken by ratepayers in the absence of specific DSM programs. Fortunately, the R.I. General Assembly granted the Commission the discretion regarding the appropriate level of the

<sup>22</sup> Order No. 18879.

<sup>&</sup>lt;sup>21</sup> <u>Id.</u>, pp. 49, 54, 76-77, 82, 118-119.

Issued on June 5, 2008

Attachment DIV 7-2 A3, Page 18 of 23

gas DSM surcharge up to 15¢ per decatherm. This gives the Commission flexibility in

establishing the surcharge level so that it will not be excessive and will only be sufficient

to pay for programs which will efficiently provide benefits to ratepayers.

In determining whether ratepayers' funds are being efficiently and properly spent

on a DSM program, it must be determined if the economic benefit ratepayers receive is

greater than the amount spent. Overall, utilizing a Utility Cost Test which is also

currently used for NGrid's electric DSM programs, NGrid's proposed DSM programs

have a benefit/cost ratio of 3.43. However, it is important to review the individual DSM

programs included to determine if each program or aspect of a program has an

appropriate benefit/cost ratio.

Two programs proposed by NGrid did not have a benefit/cost ratio. They are the

Energy Star Homes program and the Trade Ally Training program. NGrid provided a

reasonable explanation that there is no benefit/cost ratio for Energy Star Homes because

the benefit/cost ratio for gas savings from this program was already included in NGrid's

electric DSM program.<sup>23</sup> Also, NGrid provides a reasonable explanation that although

the Trade Ally Training program did not have a benefit/cost ratio, it was necessary

because it provided training and education to various building professions and trades so

as to encourage the utilization of gas efficient products and techniques.<sup>24</sup> Since the gas

DSM program is a new initiative, it is reasonable to have some training and education.

However, over time, this program should become unnecessary or substantially less costly

as individuals become more familiar with the pertinent gas efficient products and

techniques.

<sup>23</sup> Tr. 5/1/07, p. 77. <sup>24</sup> <u>Id.</u>, pp. 76-78.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A3, Page 19 of 23

Not only should individual DSM programs be reviewed, but also specific aspects

of these DSM programs should be scrutinized. In its proposal, NGrid included two

internet programs entitled Energy Analysis: Internet Audit program and the Business

Energy Analyzer. These two internet program are components of various residential and

commercial and industrial DSM programs. The Energy Analyzer program costs

approximately \$136,900 and the Business Energy Analyzer costs approximately

\$159,100 for a total of approximately \$296,000. NGrid indicated that KeySpan had

similar internet programs in other jurisdictions.<sup>25</sup> However, NGrid could not identify a

single customer who utilized the Business Energy Analyzer and went on to use a gas

efficiency program. Also, NGrid could only identify 1.4 percent of customers who used

the Energy Analysis: Internet Audit programs and went on to use a gas efficiency

program.<sup>26</sup> NGrid has failed to demonstrate that the expenditure of \$296,000 in ratepayer

funds is justified and would result in a quantifiable amount of gas savings to ratepayers.

In the future, NGrid could request funding for these internet programs if it can

demonstrate there will be real gas savings to justify the expenditure of these funds.

Overall, it appears that the proposed gas DSM programs are justified on a

benefit/cost basis. As these programs are implemented, the Commission can better assess

how these ratepayers' funds can be utilized through these DSM programs to maximize

gas savings to ratepayers. Furthermore, in 2009, the parties have agreed to review the

benefit/cost test for DSM programs. This will provide an opportunity for the

Commission and interested parties to ensure the accuracy of these estimated gas savings

to ratepayers from this ratepayer funded gas DSM program.

<sup>25</sup> <u>Id.</u>, p. 85.

<sup>26</sup> PUC Rec. Res. 1-3 and 1-4.

Attachment DIV 7-2 A3, Page 20 of 23

The next significant issue is NGrid's shareholder incentive for administrating the

gas DSM program. Currently, R.I.G.L. § 39-2-1.2 does not require NGrid to receive an

incentive for administrating the gas DSM program. Furthermore, NGrid has indicated

that even if it did not receive a shareholder incentive it would comply with the law and

administer the gas DSM program.<sup>27</sup> However, a shareholder incentive will help ensure

that NGrid does its utmost to efficiently administer this gas DSM program, which is

legislatively mandated, so as to maximize the benefit to ratepayers. Thus, in order to

provide the efficient use of ratepayer funds, NGrid should receive a shareholder incentive

for administrating the gas DSM program. As for the amount of the incentive, NGrid has

proposed \$288,734 or 4.4 percent of the eligible DSM budget, which is the same method

of calculating the incentive for the electric DSM budget. Furthermore, NGrid calculated

an annual loss in profits of \$330,200 from the implementation of the gas DSM program,

which approximates the proposed shareholder incentive.<sup>28</sup> Therefore, at this time, it is

appropriate to follow the approach taken in the electric DSM program for setting the

amount of a shareholder incentive.

However, two small adjustments must be made to the shareholder incentive.

First, the incentive must be reduced since the Commission is eliminating funding for the

internet programs. Since the shareholder incentive is based on 4.4 percent of the eligible

DSM budget, elimination of funding for the internet programs will result in a

commensurate reduction in the shareholder incentive. Second, the shareholder incentive

is based on funding the EERMC, which is a public agency currently not functioning.

Although R.I.G.L. § 39-2-1.2 (h) requires 2 percent of the gas DSM budget to fund the

<sup>27</sup> Tr. 5/1/07, p. 40.

<sup>28</sup> PUC Rec. Resp. 2-1.

Issued on June 5, 2008

Attachment DIV 7-2 A3, Page 21 of 23

EERMC, there is no requirement that NGrid's shareholder incentive be based on funding

the EERMC. Also, there is no incentive necessary for NGrid to properly fund a public

agency. In addition, funding the EERMC, unlike other DSM programs, will not cause

NGrid to lose profits from conservation or greater energy efficiency. Thus, the EERMC

budget is to be excluded from the calculation of the shareholder incentive. These two

adjustments cause a reduction in NGrid's shareholder incentive from \$288,734 to

\$269,109. The elimination of the funding for the internet funding and the reduction in

the shareholder incentive reduces the overall gas DSM budget by \$332,700 from

\$7,500,900 to \$7,168,200.<sup>29</sup> As a result, the gas DSM surcharge will be 10.7¢ per

decatherm effective July 1, 2007. This is an annual increase of \$12 from \$1,609 to

\$1,621 for a typical residential heating customer using 1,035 therms.<sup>30</sup>

With adjustments previously mentioned, the overall settlement appears just and

reasonable. Since this is the initial implementation phase of a new gas DSM program,

the Commission may, in the future, alter these programs or funding for these programs

after the results become apparent. The provision in the settlement for transferring funds

within and between sectors should give NGrid the flexibility to properly implement these

programs. Furthermore, the reports which will be provided to the parties and filed with

the Commission will give all interested parties and the Commission the ability to monitor

this new gas DSM program and make changes to the gas DSM program in the future.

Accordingly, it is

(19024) ORDERED:

<sup>29</sup> Compare Joint Ex. 1, Attachment 6 to the Compliance Filing, Attachment 6.

<sup>30</sup> Compare Order No. 18879, and the Compliance Filing, Attachment 3.

National Grid
R.I.P.U.C. Docket No. 3943
Rhode Island Gas Rate Case
Responses to Division Data Requests – Set 7
Issued on June 5, 2008
Attachment DIV 7-2 A3, Page 22 of 23

- A gas demand-side management charge of \$0.063 per decatherm is hereby approved for usage from January 1, 2007 through June 30, 2007.
- 2. A gas demand-side management charge of \$0.107 per decatherm is hereby approved for usage from July 1, 2007 through December 31, 2008.
- 3. The settlement filed on April 2, 2007 is hereby approved with the following modifications:
  - a. elimination of funding for the Energy Analysis: Internet Audit Program and the Business Energy Analyzer; and
  - b. a reduction in the Shareholder Incentive reflecting the elimination of funding for internet programs and exclusion of the funding for the Energy Efficiency Management Council from the calculation of the incentive.
- 4. The compliance filing of May 31, 2007 is hereby approved.
- 5. The parties shall act in accordance with all other findings and instructions contained in this Report and Order.

National Grid R.I.P.U.C. Docket No. 3943 Rhode Island Gas Rate Case Responses to Division Data Requests – Set 7 Issued on June 5, 2008 Attachment DIV 7-2 A3, Page 23 of 23

EFFECTIVE IN WARWICK, RHODE ISLAND PURSUANT TO OPEN MEETING DECISIONS ON MAY 23, 2007 AND JUNE 14, 2007. WRITTEN ORDER ISSUED JULY 23, 2007.

#### PUBLIC UTILITIES COMMISSION



Elia Germani, Chairman

Robert B. Holbrook, Commissioner

Mary E. Bray, Commissioner

# **Division Data Request DIV 7-4**

## Request:

Re: page 4, lines 8-18 of witness Simpson's direct testimony, please:

- a. Provide the Company's proposed definition of a "new" customer for the C&I Large and Extra Large rate classes.
- b. Explain what differentiates such "new" customers from an existing customer that may seek to expand its use of natural gas in a manner that would require National Grid's provision of new or expanded gas facilities;
- c. Identify the "other states" and utility service territories within those states where such customers would **not** be required to make significant additional payments to offset customer connection costs;
- d. Provide the Company's assessment of the current economics of Large and Extra Large C&I customer use of "fuels that would be more harmful to the environment."

#### Response:

- a As explained on page 8, lines 3 − 9 of Mr. Simpson's testimony, "the Company defines a new Large or Extra Large customer to be a gas load that will require that the Company make additional investments to serve that load. For example, based on this definition, an interruptible load or non-firm load that switches to firm service in one of the Large or Extra Large rate classes would not be considered a new customer unless the Company is required to make additional investments to provide firm service to that load."
- b. From the Company's perspective, for purposes of administering the proposed RPC mechanism, there is no basis for differentiating between a completely "new" customer (e.g. new premise, newly installed service and meter and possibly, new main extension) and a customer seeking to expand its use of natural gas in a manner that would require that National Grid construct additional or expanded facilities. As explained on page 5 of Mr. Simpson's testimony, the proposed RPC mechanism would potentially impact the CIAC calculations for Large and Extra Large customers; the potential impact on the CIAC calculations is equally likely for completely "new" customers and for "existing" customers that are

considering a significant expansion in their use of natural gas at the existing facility.

c. In a situation where National Gird required significant CIAC payments to offset the costs of connecting a prospective new customer only because this prospective customer was included in the RPC decoupling calculations, and where CIAC payments would not be required of the same customer if the customer was not included in the RPC decoupling calculations, the CIAC payments would be a factor, along with many other economic and business considerations, that may cause the prospective customer to decide to use another energy source or to locate in another state.

For example, if a prospective customer with above average gas use was considering locating either (a) in the Company's service territory or (b) at a site in another utility's service territory, and the two locations were equally attractive<sup>1</sup>, before factoring in the impact of required CIAC payments by the Company, those CIAC payments would likely cause the prospective customer to select the other site.

d. The current economics of Large and Extra Large C&I customer use of "fuels that would be more harmful to the environment" is greatly impacted by a number of factors that are not specified in the request. However, for example, a large oil user that is located a significant distance from the Company's existing distribution system could determine that, in spite of the current differences between oil and gas burnertip prices, it was more cost effective to continue to use oil rather than to make significant CIAC payments to connect to the Company's distribution system, in addition to incurring the costs of converting from oil to gas equipment.

Prepared by or under the supervision of: James Simpson

Based on such considerations as market conditions, transportation costs, energy costs, other raw material costs, cost and skill levels of the labor pool, taxes, infrastructure, land, buildings, etc.

# **Division Data Request DIV 7-7**

## Request:

Re: page 7, lines 6-8 of witness Simpson's direct testimony, please:

- a. Identify all Large and/or Extra Large C&I customers for whom the Company has received either a service application or other notice of intent to seek new or expanded service during the rate year; and
- b. Provide the Company's best estimates of the increase in the Company's annual service volumes that is expected to be associated with each customer identified.

# Response:

The requested information is as follows:

Туре	Name	
New		_
Construction	Central Ave, Factory Mutual Insurance Company, Johnston	12,500 dth
New		
Construction	25 Concord St , Pawtucket	8,000 dth
New		
Construction	Hillside Ave, Newport Housing Authority	4,000 dth
New		_
Construction	1 Ferry Rd, Roger Williams University-New Residence Hall	3,500dth
New		
Construction	21 Ernest St, Narragansett Bay Commission Pump House	25,000 dth
New		
Construction	Old Louisquisset Pike (at Eddie Dowling Hwy)	4,000 dth

# **Division Data Request DIV 7-8**

## Request:

Re: page 7, lines 13-18 of witness Simpson's direct testimony, please:

- a. Provide an illustrative example of the impact that the Company perceives the RPC decoupling mechanism would have on new large and extra large C&I customers;
- b. Provide the basis for the Company's assumption that a "new" large or extra large C&I customer would have "above-average revenue;"
- c. Explain how and when a "new" large or extra large C&I customer would lose the label "new" and be treated in the same manner as other customers in those rate classes.

# Response:

- a. The requested example is provided in response to Data Request DIV-7-5(b).
- b. The Company makes no assumptions concerning whether a new Large or Extra Large C&I customer would have above-average revenue. The discussion on page 5, lines 9 through 14 of Mr. Simpson's prefiled direct testimony that includes the reference to "above-average revenues" highlights the fact that it is customers with above-average revenues whose CIAC calculations would be most impacted. For example, the CIAC payments to a new Large or Extra Large C&I customer whose projected revenues were the same as the Target RPC for that class would <u>not</u> be affected by the RPC mechanism.
- c. The revenues from a "new" large or extra large C&I customer would be included in the RPC calculations at the conclusion of a base rate case that included 12 months of normal consumption from the "new" customer; the RPC targets in that base rate case would reflect 12 months of normal usage from that "new" customer.

That is, in the billing month that new base rates become effective.

In this context, the term "normal" is meant to convey "normal business operations", as distinguished from initial operations during which the new gas equipment is being tested and adjusted.

# **Division Data Request DIV 7-9**

## Request:

Re: page 7, lines 13-18 of witness Simpson's direct testimony. If a "new" large or extra large C&I customer reduces consumption over time due to participation in the Company's energy efficiency programs, please explain how the Company would be compensated for the revenue impacts of such reductions in gas use.

#### Response:

Although it may be possible that a "new" Large or Extra Large customer would install new equipment at the time that it became a gas customer and at a later date install retrofitted energy efficiency measures through the Company's energy efficiency programs, the focus of the Company's energy efficiency programs for new customers is to ensure that all new customers install original equipment that is suitably energy efficient. The Company does not believe that there is a need to devise provisions to account for reductions in consumption from "new" Large or Extra Large customers that install retrofitted energy efficiency measures, because of the limited likelihood of such an occurrence.

# Division Data Request DIV 7-10

## Request:

Re: page 7, lines 13-18 of witness Simpson's direct testimony. If a "new" large or extra large C&I customer reduces consumption over time due to conservation or improved energy efficiency outside of a Company sponsored energy efficiency program, please explain how the Company would be compensated for the revenue impacts of such reductions in gas use.

#### Response:

As explained in the response to DIV-7-10, the Company does not believe that there is a need to devise provisions to account for reductions in consumption from "new" Large or Extra Large customers that install retrofitted energy efficiency measures, because of the limited likelihood of such a situation occurring, either as a result of the Company's energy efficiency programs, or outside of a Company sponsored energy efficiency program.

The Company recognizes that the likelihood that a customer would install retrofitted energy efficiency measures increases over time. However, as explained in the response to DIV-7-8(c), a customer would lose its designation as "new" when new base rates that included 12 months of normal consumption from the "new" customer became effective.

In this context, the term "normal" is meant to convey "normal business operations, as distinguished from initial operations during which the new gas equipment is being tested and adjusted.

# Division Data Request DIV 7-11

## Request:

Re: page 8, lines 1-9 of witness Simpson's direct testimony, please indicate whether there is a minimum level of new investment that is required or the Company for a Large or Extra Large C&I to be classified as a "new" customers, and if not, please explain how the Company will guard against existing large or extra large C&I customers gaining exemption from the RDM by requesting a small expansion of the facilities used to serve them.

#### Response:

To clarify, as explained in the response to DIV-7-5(c)(ii), the Company is proposing to charge the appropriate Revenue Decoupling Mechanism factors to all new customers in the Large and Extra Large C&I rate classifications; the Company is not proposing to calculate separate DAC charges for new and existing customers of any class. The proposed Revenue Decoupling Mechanism as designed would not result in counterintuitive business decisions, such as the result suggested in this question.

# **Division Data Request DIV 7-12**

## Request:

Re: page 8, lines 14-21 of witness Simpson's direct testimony, please:

- a. Explain why it is necessary to do RPC decoupling calculations on a monthly basis;
- b. Explain why an annual RPC decoupling mechanism would not suffice;

#### Response:

- a. Performing the RPC calculations on a monthly basis is necessary to account for the interest expense, i.e. the working capital requirement, associated with the monthly overcollection of actual revenue per customer compared to target revenue per customer that would be owed to customers, or undercollection that would be owed to the Company. In addition, performing RPC calculations on a monthly basis has the following advantages:
  - Monthly calculations will better account for increases or decreases in number of customers throughout the year than an annual RPC calculation.
  - Performing the RPC calculations on a monthly basis will allow the Company and the Commission to monitor the RPC deferred balances and to project end-of year balances more accurately than would be possible with one annual RPC calculation.
  - Performing the RPC calculations on a monthly basis would not result in any extra effort for the Company; if an annual RPC mechanism was implemented, the Company would nonetheless likely be required to make monthly RPC calculations in order to accurately report quarterly financial results.
- b. An RPC mechanism with one annual calculation would not suffice for the reasons provided in the response to DIV-7-12(a).

\_\_\_\_\_

# **Division Data Request DIV 7-13**

#### Request:

Re: page 9, lines 1-18 of witness Simpson's direct testimony, please:

- a. Clarify whether the Company plans to file monthly reports detailing its monthly RPC calculations for each rate class, and if not, explain why not;
- b. Provide the Company's best estimate of the amount of the resources the Commission will require to verify the accuracy and reasonableness of the specified monthly calculations for each rate class;
- c. Explain how adjustments to monthly billings, made after monthly calculations are completed for a rate class, will be reflected in the RPC calculation process and provide an example of the manner in which such adjustments would be documented;
- d. Explain how monthly RPC calculations would be adjusted to reflect movements of customers, particularly C&I customers, between rate classes and provide an example of the manner in which such adjustments would be documented;
- e. Provide an example of the full detail of the RPC calculations that the Company would make for a rate class based on an application of the RPC mechanism to data from a recent winter month assuming target revenue levels and use per customer are premised on the values used for the rate class when base rates were last established for the Company.

- a. The Company proposes to file reports concerning the Revenue Decoupling Mechanism in a similar format and according to the same schedule as reports related to all other components of the Distribution Adjustment Clause are filed. As described on pages 11 and 12 of the testimony of Mr. Simpson's testimony, the annual RPC filing would be included with the August 1 DAC filings, based on data for the 12 months ended June 30 of each year.
- b. The Company estimates that the monthly calculations related to the Revenue Decoupling mechanism will not have any effect on the time spent per month to make the calculations required by the currently

effective Distribution Adjustment Clause; the RPC calculations will be based on the same data that is already used in monthly calculations for components of the current DAC.

- c. Implementation of the proposed Revenue Decoupling mechanism will not require any changes to current Company accounting procedures. Adjustments to monthly billings that are made after monthly calculations are completed for a rate class will be booked in the month that the adjustment is made, which will affect the revenue per customer calculations in that month. The Company's billing determinants in this proceeding includes billing adjustments of this nature; therefore, the Target and actual revenues per Customer will be calculated on a consistent basis.
- d. RPC calculations will not be adjusted to reflect movements of customers, particularly C&I customers, between rate classes; monthly revenues and monthly customers will reflect the customers in each class in that month. The Company's billing determinants in this proceeding includes movements of customers of this nature; therefore, the Target and actual revenues per Customer will be calculated on a consistent basis.
- e. The table below provides full detail of the RPC calculations that the Company would make for the Residential Heating class for January 2008.

		Jan-08
Residential Heating		
Target Revenue Per Customer (RPC)	Docket 3401	\$63.7012
RPC Factor Acct Beg. Bal.		\$0
Actual Number of Customers		194,327
Actual Base Revenue		\$11,829,275
Actual Base Revenue Per Customer		\$60.8730
RPC Variance (Target- Actual)		\$2.83
Monthly Variance		\$549,592
Preliminary End Balance		\$549,592
Average Balance		\$274,796
Bk America Rate less 200 Basis		
Points		4.00%
Interest Applied		\$916
RPC Factor Account End Balance		\$550,508
Under/(Over) Recovery		\$550,508

# **Division Data Request DIV 7-15**

## Request:

Re: page 10, lines 12-17 of witness Simpson's direct testimony, please explain why in the context of the Company's RPC decoupling mechanism there should not be a requirement that the Company file a rate case at least every two or three years to ensure that usage levels by class remain reasonably reflective of actual weather-normalized usage.

#### Response:

One of the primary objectives of a RPC decoupling mechanism is to reduce the number of costly and time-consuming rate cases. This is also the primary objective of many common tracking mechanisms, such as gas-cost recovery clauses, pension and PBOP trackers, and infrastructure replacement cost adjustments. A requirement that the Company file a rate request case at least every two or three years would reduce the overall benefits of decoupling measures, which include the following:

- Decoupling measures can prevent frequent, expensive and time consuming rate increase filings, which would otherwise be likely in periods that LDC revenues are impacted by aggressive energy efficiency programs and overall declining use per customer trends;
- Decoupling measures allow the financial interests of an LDC to be better aligned with customer interests and with major policy objectives related to energy efficiency, price stabilization, and environmental and other policy goals; and
- Like the weather normalization clause currently in effect for the Rhode Island gas operations, decoupling measures provide greater stability to both customer rates and utility earnings over the long run.

# **Division Data Request DIV 7-16**

## Request:

Re: page 11, lines 13-15 of witness Simpson's direct testimony, please provide the Company's best estimate of the added resources and costs that the Commission and the Division will require to review and verify the appropriateness of the Company's annual RPC filing.

### Response:

The Company does not have sufficient information to estimate the resources and costs that the Commission and Division will require to review and verify the appropriateness of the Company's annual RPC calculations that would be included in the annual DAC filing. However, the Company assumes that the resources and costs that the Commission and Division would require to review and verify the appropriateness of the Company's rate increase filings are significantly greater than the resources and costs associated with annual RPC calculations that would be part of an annual DAC filing. This is an appropriate comparison because one of the primary objectives of a Revenue Decoupling mechanism is to reduce the frequency of rate increase filings in periods that LDC revenues are impacted by aggressive energy efficiency programs and overall declining use per customer trends.

# Division Data Request DIV 7-17

## Request:

Re: page 12, lines 1-3 of witness Simpson's direct testimony. Given the other matters which the Commission and the Division are presently required to review on a similar time schedule, please provide all information upon which the Company relies to support the reasonableness and appropriateness of its proposed schedule for review of the Company's annual RPC calculations.

#### Response:

Attachment NG-PCC-6 provides illustrative examples of the RPC calculations, which are based entirely on readily verifiable data: monthly revenues by class, monthly customers by class and carrying costs at the Commission-approved interest rate. The proposed schedule is consistent with and compatible with the established schedule for review of the Company's current DAC annual filing.

# **Division Data Request DIV 7-18**

## Request:

Re: page 12, lines 13-15 of witness Simpson's direct testimony, please explain the manner in which RPC calculations would be adjusted to account for such non-weather-related influences on usages as:

- a. Localized service outages
- b. Service curtailments
- c. Mid billing month disconnections of service
- d. Over-recording or under-recording meters

- a. The Company has no records of localized service outages.
- b. The Company has no records of curtailments of firm distribution service.
- c. The RPC calculations will not be adjusted for mid billing month disconnections, which is consistent with the way that mid billing month disconnections are treated in the calculation of test year and rate year billing determinants. Mid billing month disconnections are reflected in both (i) the Company's billing determinants in this proceeding, which will be used to determine the target RPC values and (ii) in the actual billing month customer and revenue values that will be used in the monthly RPC calculations.
- d. The RPC calculations will not be adjusted for over-recording or under-recording meters, which is consistent with the way that over-recording or under-recording meters are treated in the calculation of test year and rate year billing determinants. Over-recording or under-recording meters are reflected in both (i) the Company's billing determinants in this proceeding, which will be used to determine the target RPC values and (ii) in the actual billing month customer and revenue values that will be used in the monthly RPC calculations.

## Division Data Request DIV 7-19

#### Request:

Re: page 13, lines 4-9 of witness Simpson's direct testimony, please:

- a. Identify all LDCs that presently do not have a "decoupling mechanism" in all of the jurisdictions in which they provide service;
- b. For each of the LDCs listed in Attachment NG-JDS-3, identify each jurisdiction in which the LDC provides service but does not have a "decoupling mechanisms that account for the revenue impact of both weather and non-weather related customer usage;"
- c. Provide any and all information not included explicitly in Attachment NG-JDS-3 upon which the witness relies to assert that "the <u>vast majority</u> of LDCs have implemented decoupling mechanisms that account for the revenue impact of both weather and non-weather related customer usage." (Emphasis Added)

- a. Page 13, lines 1-3 of witness Simpson's direct testimony indicates that Attachment NG-JDS-3, which is described in the lines 4-9 that are referenced in this request, is a summary of recently proposed decoupling mechanisms. Concentric has not performed research on LDCs that presently do not have a "decoupling mechanism" in all of the jurisdictions in which they provide service.
- b. Of the 25 LDCs listed in Attachment NG-JDS-3, 14 out of the 18 LDCs with approved decoupling mechanisms and 5 out of the 7 LDCs with proposals for decoupling mechanisms awaiting a final regulatory decision account for the revenue impact of weather related usage either through a separate Weather Normalization Adjustment clause, or through the decoupling mechanism. Of the 19 LDCs that account for the revenue impact of weather, 9 LDCs have separate Weather Normalization Adjustment clauses and the remaining 10 LDCs account for both weather and non-weather related changes in usage through the decoupling mechanism.
- c. As explained in the response to DIV 7-19b, above, 19 out of 25, or 76% of decoupling mechanisms that have implemented or have been proposed to

be implemented<sup>1</sup> accounts for the revenue impact of both weather and non-weather related customer usage.

-

And are waiting for a final regulatory decision on the decoupling proposal.

## Division Data Request DIV 7-20

## Request:

Re: page 13, line 10 through page 14, line 16 of witness Simpson's direct testimony, please:

- a. Provide the Company's assessment of the influence of the array of rate surcharges and credits that National Grid seeks in this proceeding on customers' ability to understand and verify their monthly billings.
- b. Provide the Company's assessment of the influence of the array of rate surcharges and credits that National Grid seeks in this proceeding on customers' ability budget for their monthly non-gas charges.

- a. The Company is not proposing any changes in the number of separate rates that will appear on a customer's bill. For example, the proposed Revenue Decoupling Adjustment factor will be an additional component of the Distribution Adjustment Charge factor that is already in effect.
- b. The overall effect of the Company's proposals would be to make the distribution charge portion of a customer's total gas bill more stable and predictable. The Company believes that customers budget for their total gas charges, not just for their non-gas charges.

# **Division Data Request DIV 7-22**

# Request:

Please provide the data and electronic spreadsheet files from which the graphs provided in Attachments NG-JDS-4, NG-JDS-5, NG-JDS-6, NG-JDS-8, NG-JDS-9, and NG-JDS-10 were generated. Please include in the response to this request all supporting workpapers, studies and analyses.

### Response:

The requested data and files have been provided in response to Data Request DIV-2-7.

# **Division Data Request DIV 7-23**

# Request:

Re: page 17, lines 13-15 of witness Simpson's direct testimony, please provide the information upon which the witness relies to assess the likelihood that National Grid has experienced declining NUPC since as early as 2000 or 2001.

# Response:

Mr. Simpson relied on his overall experience and review of industry data and studies, including the AGA reports that have been provided as Attachments NG-JDS-11 and ND-JDS-12.

# **Division Data Request DIV 7-24**

## Request:

Re: page 18, lines 4-8 of witness Simpson's direct testimony, please provide all information available to the Company regarding changes in the number of burner tips per residential customer over the last 10 years, and provide the Company's understanding of the factors contributing to such changes.

### Response:

The Company does not have information regarding changes in the number of burner tips per residential customer over the past 10 years. Residential natural gas applications are generally limited to space heating, water heating, cooking<sup>1</sup> and clothes drying<sup>2</sup>; residents decide to use gas equipment or equivalent electric, propane, or oil equipment based on a number of considerations, including their perceptions of the likely life cycle costs of all alternatives at any point in time.

E.g., ranges, cooktops, ovens

<sup>&</sup>lt;sup>2</sup> In addition, some residences also use natural gas in fireplace units, outdoor grills, and pool heaters.

# **Division Data Request DIV 7-25**

# Request:

Re: Attachment NG-JDS-12, please provide all data that National Grid or its processor companies in Rhode Island submitted to the AGA or the authors of the study provided in Attachment NG-JDS-7 in support of the preparation of that study.

# Response:

Neither National Grid nor its predecessor companies in Rhode Island provided any data to the AGA or the authors of the study provided in Attachment NG-JDS-12 in support of the preparation of that study.