

BEFORE THE STATE OF NEW HAMPSHIRE

PUBLIC UTILITIES COMMISSION

In the matter of:)
Granite State Electric Company d/b/a Liberty Utilities)
New Hampshire Electric Cooperative, Inc.)
Public Service Company of New Hampshire)
Unitil Energy Systems, Inc.) **DE 12-262**
EnergyNorth Natural Gas, Inc. d/b/a Liberty Utilities)
Northern Utilities, Inc.)
)
)
2013-2014 CORE Energy Efficiency Programs)

Direct Prefiled Testimony

of

Stephen R. Eckberg

Utility Analyst

on behalf of

the Office of Consumer Advocate

Dated: December 4, 2012

1 **I. Introduction**

2 **Q. Please state your name, business address and position.**

3 A. My name is Stephen R. Eckberg. I am employed by the Office of Consumer Advocate (OCA) as
4 a Utility Analyst. I include as Attachment SRE-1 to my testimony a statement of my education
5 and experience.

6
7 **Q. Have you previously testified before the Commission?**

8 A. Yes. I have testified on behalf of the OCA in a number of dockets including multiple phases of
9 the most recent CORE Energy Efficiency Programs proceeding, DE 10-188.

10
11 **II. Summary of Testimony**

12 **Q. Please summarize the purpose of your testimony.**

13 A. The purpose of my testimony is to support several of the specific proposals in the utility's core
14 energy efficiency program for the upcoming biennium. I also identify an area of concern with
15 PSNH's use of the core energy program at its own facilities.

16
17 **Q. Please list the items you address in your testimony.**

18 A. My testimony addresses the following issues:

19 1. The OCA supports the electric and natural gas utilities' proposal to provide an
20 opportunity for a deeper energy efficiency retrofit project for participants in the Home
21 Performance with Energy Star (HPwES) program. This is a good policy decision because
22 this subgroup of customers contribute to funding both electric and gas utility programs as
23 they are customers of two regulated energy utilities.

24 2. The OCA supports using some of the RGGI funds transferred to CORE programs in
25 accordance with HB 1490 (2012 Session) to supplement participant loan programs to

1 encourage energy efficiency investment.

- 2 3. The OCA is concerned about the cost effectiveness of energy efficiency projects
3 performed by PSNH at its own facilities using Systems Benefits Charge (SBC) funds
4 as authorized by RSA 125:O-5.

5
6 **III Discussion of OCA Issues**

7 **Q. Please discuss the incentive levels for deeper energy efficiency retrofits for customers who**
8 **contribute to both the electric and natural gas energy efficiency programs.**

9 A. At page 27 of the 2013-2014 CORE filing, it states “Gas customers participating in the
10 HPwES program can receive an incentive of 50% up to \$4,000 from their electric
11 company in addition to the \$4,000 incentive from the gas company. This would apply
12 after they [the participant] reach their \$4,000 maximum from their gas company. The
13 goal is to provide gas customers with an opportunity for deeper savings and to allow gas
14 customers to take advantage of their paying into the electric SBC fund. This would also
15 allow the gas and electric utilities to determine customer interest in doing ‘deep
16 retrofits’.”

17
18 **Q. Does the OCA have any background on the origin of this utility proposal?**

19 A. The OCA believes this proposal is a response by the utilities to a concern voiced by Staff
20 during the HPwES “Fairness” phase of DE 10-188. In rebuttal testimony filed by Staff in
21 that proceeding, Staff stated “PSNH residential customers who heat with natural gas pay
22 both the SBC and the [Local Delivery Adjustment Clause] LDAC charges. These
23 customers, however, can participate in only one program – either the electric program or

1 the natural gas program. This results in PSNH's residential electric customers who heat
2 with natural gas paying twice but benefiting only once as compared to PSNH customers
3 who don't heat with natural gas." See Staff Rebuttal filed May 4, 2012 at page 6, lines 6-
4 9.

5
6 **Q. Does the CORE program proposal to allow electric utility customers who heat with
7 natural gas to participate in more energy efficiency measures apply to all utilities?**

8 A. Yes. Although Staff's example, as quoted above, referred to a hypothetical PSNH
9 customer, the current CORE filing proposes that "[a]ll four electric utilities offer this
10 program to their electric heat customers and other customers looking to improve the
11 energy efficiency of their homes." See filing at page 26. Thus, Staff's example would
12 also extend beyond just PSNH customers to all electric utility customers who are natural
13 gas heating customers of either EnergyNorth or Northern Utilities.

14
15 **Q. Under the CORE Program proposal are natural gas heat customers eligible for up
16 to \$8,000 in rebates through the HPwES program?**

17 A. Yes. The natural gas utility would provide the first \$4,000 of incentives for
18 weatherization type improvements and the electric utility would provide up to an
19 additional \$4,000 of incentives. These incentives are based on 50% of the installed costs
20 of the energy efficiency measures.

21
22 **Q. What is the maximum incentive a customer could receive?**

23 A. The proposed maximum incentive the HPwES customer could receive is \$8,000. There

1 is no hard limit on the maximum amount of cost effective energy efficiency
2 improvements that can be proposed by the approved, certified contractor. This is
3 determined by the energy audit and the building characteristics. It is possible that the
4 approved, qualified energy efficiency contractor could identify cost effective measures
5 which in total would have an installed cost of greater than \$16,000. If, for example, the
6 contractor identified \$20,000 of cost effective measures, the maximum incentive the
7 customer would be eligible to receive under this proposal is capped at \$8,000. Therefore,
8 in this example, the incentive is less than 50% of the total job cost.

9
10 **Q. What data supports the proposal that there are larger, deep energy retrofit jobs out
11 there which are going undone due to lack of financial support?**

12 A. The data is not yet developed. This proposal, as included in the current CORE filing, is
13 an extension of existing programs and the OCA finds it worth pursuing to assess the
14 potential impact. The proposal presents the opportunity to gather data on the level of
15 potential activity and interest among participants. Even if there are no takers – no
16 projects which get done under this proposed larger project approach for certain customers
17 - it is our understanding that there would be little if any incremental administrative cost to
18 offer this program approach.

19
20 **Q. Please summarize the OCA's position on this proposed larger rebate for HPwES
21 participants who heat with natural gas.**

22 A. The OCA supports this utility proposal. This proposal is an effective way to address the
23 concern raised by Staff in an earlier CORE docket regarding customers who contribute to

1 both the SBC and the natural gas energy efficiency charge included in the LDAC for gas
2 customers. Further, as the filing itself suggests, the proposal allows the program
3 administrators to assess the interest in “deep retrofits” among this group of customers.
4

5 **Q. Please address the OCA’s second issue regarding the use of RGGI funds to support**
6 **customer loan programs.**

7 A. HB 1490 from the 2012 Legislative session made changes to the implementation of
8 RGGI resulting in additional funds which will supplement the SBC funded CORE energy
9 efficiency programs. Providing and/or expanding the existing loan programs is one very
10 useful way to make use of the additional RGGI funds which will supplement the SBC
11 funds. Providing the opportunity for homeowners to borrow the funds for all or some of
12 the “customer contribution” portion of energy efficiency projects may encourage both
13 more and deeper, cost effective energy efficiency projects to be completed.
14

15 **Q. Does the OCA have any recommendations for specific dollar amounts that should be**
16 **allocated from the RGGI funds to expand or supplement the loan funds?**

17 A. We do not have a specific dollar amount to recommend for each electric utility’s loan
18 program. These specific amounts should be developed in discussion with the Companies,
19 Staff, and other interested docket participants. Our intent is to encourage expanded
20 availability and active marketing of this existing limited program component in order to
21 encourage cost effective energy efficiency investment and possibly deeper energy
22 retrofits as well.
23

1 **Q. Please address the OCA's next issue regarding the cost effectiveness of energy**
2 **efficiency projects performed by PSNH at its own facilities using SBC funds as authorized**
3 **by RSA 125-O:5.**

4 A. During docket DE 09-170, the CORE filing for electric utility programs for 2010, PUC Audit
5 Staff conducted an audit of each of the electric utilities related to 2008 program activities and
6 expenses. Some issues were identified concerning PSNH's use of SBC funds for energy
7 efficiency projects at their own facilities. These issues were resolved in a Settlement which was
8 filed with the Commission on July 13, 2010 and approved by Secretarial Letter on November 4,
9 2010.

10
11 **Q. Is that Settlement directly related to the OCA concerns at this time?**

12 A. Yes it is. That Settlement states, at page 7, that "All projects funded by the RSA 125-O funds
13 must be cost effective pursuant to statute." The concern is that it appears PSNH may not be using
14 the same cost effectiveness standards to evaluate projects at its own facilities that it uses for
15 projects at customer facilities.

16
17 **Q. What information did the OCA review which raised this concern?**

18 A. In reviewing the current CORE proposal filed on September 17, 2012, the OCA examined
19 information on Attachment F, page 1b of 5, which provides details on the Planned Cost-
20 Effectiveness of all programs including, specifically, the Large Business Energy Solutions
21 Program and the Small Business Energy Solutions Program. See Attachment SRE-2. On this
22 page there is summary information provided on the costs and benefits of each Residential and
23 Commercial/Industrial Program. Examining the information related to the Large Business
24 Energy Solutions Program, I added the Utility Costs and the Customer Costs together and divided
25 this sum by the predicted 2013 Lifetime MWh Savings. In this way, I estimate the approximate

1 cost to save a lifetime kWh of electricity to be \$0.0456/kWh for this program. Similarly, the
2 same calculation for the Small Business Energy Solutions Program gives a corresponding cost to
3 achieve result of \$0.0612/Lifetime kWh.
4

5 **Q. What other values did you review?**

6 A. I also compared the predicted Lifetime MWh Savings estimate with the Annual MWh Savings
7 estimate. Dividing the former by the latter gives an estimate of the average lifetime of all energy
8 efficiency measures predicted to be installed through the program. The calculation for the Large
9 Business Energy Solutions Program results in an estimate of 13.3 years ($205,517.8 / 15,447.8 =$
10 13.3). Similarly for the Small Business Energy Solutions Program, an estimate of the average
11 lifetime of all energy measures installed is 13.6 years ($107,385.3 / 7,900.4 = 13.6$).
12

13 **Q. How do PSNH's savings cost and measure lifetime figures in the CORE program compare**
14 **to similar figures reported elsewhere?**

15 A. These values appear to result in two different thresholds for determining project cost
16 effectiveness. When the values, which represent CORE program costs to save a lifetime kWh of
17 electricity and the estimated average lifetime of energy efficiency measures installed through the
18 CORE programs are compared to similar information provided in PSNH's "RSA 125-O:5"
19 Report dated October 12, 2012 and responses to OCA data requests on this report, the results are
20 different.
21

22 **Q. What information did the OCA receive which caused concern?**

23 A. At page 2 of the RSA 125-O:5 report, included as Attachment SRE-3, the Company states that
24 "The cost to save a lifetime kWh must be less than or equal to [\$0.08]/kWh." Further, in
25 response to discovery, the Company provided a comprehensive list of PSNH Facility Projects that

1 have been completed in recent years and others which have been evaluated and are being
2 considered. See response to OCA 2-3 included as Attachment SRE-4. That list includes
3 information on the predicted total Lifetime and Annual energy savings. As described above, this
4 information can be used to estimate the average lifetime of all energy efficiency measures
5 installed. Simple calculations show that for the seven (7) projects completed in 2011, the
6 estimated lifetime of the measures installed is 13 years. Similarly, the possible future projects
7 identified as “TBD” in the final column to the right, have estimated measure life of 20 years. It is
8 these projects – where an estimated measure life of 20 years is used – that cause concern.

9
10 **Q. Please explain the importance of these different costs and average lifetimes.**

11 A. There are two concerns related to the calculations I present: 1) the cost per lifetime kWh saved on
12 efficiency projects in PSNH’s own facilities appears to be higher than the cost for projects
13 evaluated through the CORE Large and Small Business Programs (8 cents compared to 4.6 cents
14 and 6.1 cents respectively); and 2) the measure life for efficiency measures under consideration in
15 certain projects at PSNH facilities appears to be much greater than the measure life for average
16 projects anticipated in the CORE Large and Small Business Programs (20 years versus 13 years).
17 The measure life is an important factor in calculating the cost effectiveness of an energy
18 efficiency project. The cost per lifetime kWh saved is not an input into the cost effectiveness
19 calculation but is more of a measurement or indication of the level of cost effectiveness.

20
21 **Q. Does the OCA have a recommendation on these issues?**

22 A. Yes. We want to ensure that the standards PSNH uses to evaluate energy efficiency projects at its
23 own facilities are no less strict than the standards used to evaluate projects at the homes and
24 businesses of its customers. The OCA requests the Commission direct PSNH to apply the same
25 standards approved for the CORE programs to projects at its own facilities.

1

2 Q. **Are there any other issues related to the RSA 125-O:5 Report or the Settlement from DE**
3 **09-170?**

4 A. Yes there is one other issue. At page 6 of the RSA 125-O:5 Settlement referred to earlier, it
5 states "Should additional funding sources be identified in the future, PSNH will consult with the
6 Parties and Staff to determine whether they are eligible for inclusion in determining RSA 125-O
7 funds available for set aside."

8

9 Q. **Has PSNH consulted with Parties and Staff as directed regarding the inclusion of RGGI**
10 **funds in the CORE programs?**

11 A. The OCA is not aware of any conversations on this particular issue that have taken place thus far
12 in this Docket. The OCA recommends that the RGGI funds discussed in my testimony on page 4
13 should not be eligible for use by PSNH on its own facilities. A significant part of the need for an
14 incentive to get participation in energy efficiency is due to lack of understanding by customers of
15 the availability and effectiveness of these programs. PSNH, as an expert in the field and a
16 developer of efficiency programs does not need additional ratepayer supplied incentive to
17 overcome the investment barrier. We look forward to discussing the issue with the Company,
18 Staff, and other Parties.

19

20 Q. **Does that conclude your testimony?**

21 A. Yes it does.