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N.H.P.U.C. Case No.	DE 10-188
Exhibit No.	47
Witness	S. Eckberg
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**BEFORE THE STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION**

In the matter of:)
Granite State Electric Company d/b/a National Grid)
New Hampshire Electric Cooperative, Inc.)
Public Service Company of New Hampshire)
Unitil Energy Services, Inc.)
EnergyNorth Natural Gas, Inc. d/b/a National Grid NH)
Northern Utilities, Inc. d/b/a/ Unitil)
2012 CORE Energy Efficiency Programs)

DE 10-188

Direct Prefiled Testimony
Of
Stephen R. Eckberg
Utility Analyst
on behalf of
the Office of Consumer Advocate

Dated: March 23, 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 the 2010 CORE
9 docket, DE 09-170, and both earlier portions of this docket, DE 10-188 which include the original
10 approval of the two year programs (testimony filed October 15, 2010) and the utilities' update
11 filing regarding proposed changes for the 2012 program year (testimony filed November 10,
12 2011).
13

14 **II. Overview of OCA Testimony**

15 **Q. Please describe the purpose of your testimony.**

16 A. The purpose of my testimony is to support the implementation of a full, non-pilot version of the
17 Home Performance with Energy Star (HPwES) residential energy efficiency program as proposed
18 by PSNH and Unitil in the 2012 Core Program Update filing, with consideration for the
19 recommendations related to the program that I will discuss in my testimony.
20

21 **III. OCA Testimony Regarding Home Performance with Energy Star Program**

22 **Q. Would you please provide some background on this phase of this Docket?**

23 A. In its Order No. 25,315 dated January 9, 2012 approving the CORE 2012 Energy Efficiency
24 Program Updates, the Commission provided an opportunity for "...Staff and the parties to file
25 testimony and positions regarding whether to fully implement a HPwES program such as is
26 described in the 2012 Update and allow the Commission time to render a decision on the matter

1 prior to the filing of the 2013-2014 programs. Parties and Staff may address whether the program
2 should be continued under the present funding sources, fairness of the program as designed, and
3 the issues raised in Order No. 24,930 at pages 19-22, with the exception of the legal authority to
4 operate a fuel-blind program at all, which has been resolved. 2009 CORE Energy Efficiency
5 Programs, 94 NH PUC 1, 11-12 (2009).” see Order at pp 9-10.

6
7 **Q. What are the issues referred to at pages 19-22 in Order No. 24,930?**

8 A. The utilities’ plan for the 2009 Core programs included a proposal to implement a fuel neutral
9 weatherization program. Order No. 24,930, issued in Docket DE 08-120 on January 5, 2009
10 approved the Settlement Agreement regarding the 2009 Core Energy Efficiency Programs. The
11 Settlement did not include a full resolution of concerns regarding the fuel neutral program
12 proposal. That Order states that “[t]here are a number of questions that merit further
13 consideration, among them:

14 1) Whether PSNH or UES might first modify their existing Home Energy program
15 requirement, which limits participation to customers who use electricity for more than 65%
16 of their heating needs, to target customers who still use electricity for a large or even
17 majority portion of their heating needs, but less than 65%, or who otherwise have
18 significantly higher than average electric usage, such as might be due to high air conditioning
19 loads.

20 2) Whether the funds in the Home Energy Solutions program that PSNH and UES do not
21 expect to be utilize in 2009 with their present criteria might be better directed into the Home
22 Energy Assistance program with a somewhat higher income eligibility cap such as has been
23 put into place for this year’s Fuel Assistance Program.

24 3) Whether PSNH’s use of its waiting list is the most appropriate method to select program
25 participants.

26 4) The discrepancy between PSNH and UES on the projected benefit to cost ratio for the
27 existing and proposed fuel blind Home Energy Solutions program; where PSNH’s ratio is
28 0.90, below the cost-effectiveness threshold of 1.0, while UES’s ratio is 1.9, well above the
29 cost-effectiveness threshold.³ Ex 1, Attachment A, at 71 and 75, respectively.

30 5) Whether, in light of a benefit to cost ratio of less than 1.0, the PSNH expanded fuel-blind
31 program merits approval for other reasons, such as the learning value provided by a pilot or
32 the market transformation value that may to lead to a cost-effective program.

1 6) Whether a broad fuel blind home energy efficiency program should be designed consistent
2 with the national “Home Performance with Energy Star” standards promoted by the U.S.
3 Environmental Protection Agency and Department of Energy and used in neighboring states.
4

5 7) Whether it is appropriate to subsidize 75% of the cost of non-electric weatherization
6 measures for other than low income customers who might otherwise be able to afford the cost
7 of such measures.
8

9 8) Whether the 25% up-front customer co-payment might prove to be a market barrier for
10 moderate income customers in light of current economic conditions.

11 9) Whether the “Smart Start” program might be modified to make it more accessible to
12 customers who might not be able to afford up front co-payments.

13 10) How “competing” home energy programs might interact in areas where there are both gas
14 and electric utility programs.

15 11) What results should utility performance incentives be based on and whether PSNH and
16 UES should have different incentive structures.

17 12) How the programs will be evaluated, quantitatively and qualitatively. “
18
19

20 **Q. Are all of these issues still relevant for discussion?**

21 A. Some issues may be less important now than when they were first identified. For example, items
22 7 and 8 which relate to the rebate levels provided by the program on qualifying cost effective
23 energy efficiency measures may be of less concern now than they were previously. PSNH and
24 Until have reduced the rebate level from 75% to 50% on qualifying measures so to the extent
25 that these items were of concern because parties were concerned that rebate levels were too high,
26 they have been reduced. This is not to say that the issue is now fully settled. Indeed, rebate
27 levels should be an ongoing concern and program evaluations can help to inform program
28 administrators and stakeholders as to the most appropriate rebate levels as markets for energy
29 efficiency products and services change and mature.
30

31 Also, issue 3 above which relates to PSNH’s initial proposed approach of marketing the fuel blind
32 pilot program to customers that were then on a waiting list may be of less importance to the
33 extent that those customers have been served during the subsequent two years of implementation

1 of the pilot program. PSNH and Unitil now use the Home Heating Index to educate and inform
2 customers about their energy usage level and establish program eligibility. The OCA is not aware
3 of whether there is currently a “wait list” to receive services through the HPwES pilot program.
4 To the extent the program remains in a limited status, this may contribute to the need for a wait
5 list if more households express interest than can be served by the limited program.

6
7 Further, issue 10 which relates to “competing” programs and which utility should pay for energy
8 efficiency improvements when a customer is in the service territory of both electric and natural
9 gas utilities which offer similar energy efficiency programs seems to be currently managed
10 effectively. It is the OCA’s understanding that the primary deciding factor about which utility
11 should pay for energy efficiency improvements is generally determined by the customer’s
12 primary heating fuel. That is, if the customer heats with natural gas, the natural gas utility would
13 pay for weatherization services through its program. Energy auditors would also conduct an
14 evaluation relative to participation in the applicable electric utility program which may include
15 evaluating appliances and installing certain no-cost/low-cost electric utility measures. Thus, this
16 issue has to some extent been addressed through current program implementation, though I
17 believe that it would be appropriate for parties to continue discussing and improving, where
18 necessary, the ongoing interaction of utility programs.

19
20 Finally, issue 5 above relates to PSNH’s initial Benefit Cost ratio at the time the Company
21 initially proposed the pilot program. At that time, the pilot had a BC ratio of less than 1.0 which
22 caused concern about whether it was appropriate to move forward. As filed in the 2012 Core
23 Program Update, PSNH’s HPwES pilot program has a BC ratio of 2.38 (see 2012 Core Update
24 filing page 23) so this issue should not be a concern at this time.

1 **Q. Are there remaining issues from this list that the OCA would like to address?**

2 A. Yes. I would like to provide the OCA's input on issues, 6, 11, and 12 from the Commission's list
3 of a dozen issues as set forth above.

4

5 **Q. Please begin with your comments on issue 6 regarding whether a fuel blind program should**
6 **be designed consistent with the Home Performance with Energy Star standards promoted**
7 **by the U.S. Environmental Protection Agency and Department of Energy and used in**
8 **neighboring states.**

9 A. It is the OCA's position that any fuel blind residential energy efficiency program offered by New
10 Hampshire utilities should be designed to be consistent with the Home Performance with Energy
11 Star standards. The OCA believes that having a program that is consistent with national standards
12 will provide the greatest opportunity to take advantage of best practices that are reviewed in
13 multiple jurisdictions, and will facilitate use of the Energy Star brand with associated marketing
14 materials which may reduce costs in developing marketing materials and approaches. This will
15 also allow our New Hampshire utilities to be more consistent with other programs offered by
16 their affiliates in other states. The OCA understands that meeting the HPwES standards is not
17 overly burdensome and that being associated with this nationally recognized brand name is
18 generally beneficial.

19

20 **Q. Please continue with your comments on issue 11 which relates to what results utility**
21 **performance incentives should be based on, and whether PSNH and UES should have**
22 **different incentive structures.**

23 A. I do not believe that utilities offering the same or similar programs should have different incentive
24 structures. To the maximum extent possible, all aspects of program implementation and delivery
25 should be consistent across all utilities. The OCA's understanding of the first part of this issue

1 relates to whether the utility performance incentive should be based only on electric savings
2 achieved or should be based on all energy savings achieved. It is the OCA's position that the
3 issue should be thoroughly vetted by all parties, that the methodology used should be consistent
4 across all utilities implementing a fuel neutral program and that the Commission should approve
5 the methodology used. Given the current Performance Incentive (PI) formula, the OCA is not
6 convinced that the issue of whether to use only electric savings or to include all savings in the PI
7 calculation is significant.

8
9 **Q. Please explain that point further.**

10 A. Certainly. The current PI formula calculation is based in part on the ratio of actual kWh savings
11 to planned kWh savings. Again, the OCA understands the main question in this regard to be
12 whether for both the actual kWh savings and the planned kWh savings utilities should count
13 ONLY actual kWh savings (from lighting replacements, refrigerator replacements, etc.) or
14 whether they should ALSO include "equivalent kWh" savings which would be the estimated
15 thermal energy savings (BTUs) converted to kWh savings. As I explained, the PI calculation
16 includes a term which is the ratio of the actual to the planned kWh savings. So, if for example the
17 overall program performance is 20% better than planned, it is not unreasonable to believe that this
18 means 20% more actual kWh savings and also 20% more "equivalent kWh" savings. Thus, the
19 ratio of actual savings to planned savings would be the same (ratio = 1.2) whether one considers
20 only actual kWh savings or also includes thermal energy savings converted to "equivalent kWh
21 savings." Similarly, if the program underperformed and there was 30% less energy saved than
22 predicted, it is not unreasonable to think that the ratio of "actual to planned" would be the same
23 (ratio = 0.7). In these examples, the numerator and denominator of the ratio would both be larger
24 in one situation and smaller in the other, but the ratio would be the same. Thus it may be
25 immaterial whether the PI calculation considers only actual kWh or also includes equivalent
26 kWh.

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Q. What is the OCA’s recommendation on this issue?

A. The OCA recommends that the Commission direct the parties to review common practices related to performance incentives for fuel neutral programs in other jurisdictions and to evaluate the impact of the concept I have explained above as it relates to the NH HPwES pilot program experience over the last several program years and report the results of this review with a recommendation to the Commission. Until such time as this review and recommendation is completed, the OCA recommends that the Commission direct the utilities to include only electric savings in the calculation of performance incentive related to the HPwES program.

Q. Please continue with your comments on issue 12 which concerns how the programs will be evaluated, quantitatively and qualitatively.

A. As required by the Commission and discussed in detail in the PSNH/Unitil testimony filed on February 15, 2012, the utilities have engaged a third party to perform process and impact evaluations of the pilot program. The evaluations are available on the Commission’s website at http://www.puc.nh.gov/Electric/Monitoring%20and%20Evaluation%20Reports/Monitoring_Evaluation_Report_List.htm (see item #124). We believe that it is important for all stakeholders to continue to be concerned about monitoring and evaluation activities, as they are critical to the ongoing success and improvement of not only the HPwES program but all energy efficiency programs. Monitoring and Evaluation studies should be a key tool to assessing the success of programs, and for making program improvements. Unfortunately, the litigated approach to the Core programs has meant that in recent years there has not been enough of a focus on evaluation and continuous improvement of the programs. In addition, although the Commission ordered that a multi-year monitoring and evaluation program be designed and implemented in Order No. 25,062 on January 5, 2010, my understanding is that the RFP for those services has not even been issued yet. *See* Settlement in DE 09-170 at page 8. The OCA continues to believe that

1 developing a strategic plan for monitoring and evaluation is an important step towards ensuring
2 that ratepayer funds are being prudently invested in efficiency programs, and we urge the
3 Commission to issue the RFP as soon as possible.
4

5 **Q. Do you have any other comments related to the HPwES program?**

6 A: Yes. First, I would note that the Commission has determined it has the authority to approve
7 the fuel neutral energy efficiency program, as cited above, and that as the Commission has
8 pointed out, several fuel neutral programs have been in the utilities' efficiency programs for
9 many years, some even predating the Core programs. They include the low income program,
10 and Energy Star homes to name two. Second, the HPwES program meets the Benefit Cost
11 criteria applied to the Core programs. Third, the pilot program has been tested with
12 customers and evaluated by a third party contractor, and both the response to and
13 performance of the program has been very strong. In addition, the OCA understands that the
14 utilities have made program adjustments relative to certain recommendations in the
15 evaluations. Fourth, PSNH and Unitil have shown that they simply do not have a sufficient
16 number of electric heat households who have come forward to be served through a
17 weatherization program. Fifth, we must keep in mind that New Hampshire households are
18 increasingly using air conditioning in the summer months, and that weatherization
19 improvements will help reduce costs related to air conditioning, and perhaps more
20 importantly, will help to reduce electricity usage on peak days in the summer when costs are
21 highest and air quality is often compromised. We are supportive of evaluation efforts which
22 would quantify these savings so they could be accounted for by the program. Finally, I
23 would note that implementing cost effective fuel blind programs is consistent with several
24 state policies, including the Climate Change Action Plan as well as the VEIC SB323 Study.
25

1 **Q. Do you have any other suggestions regarding the implementation of the HPwES**
2 **program?**

3 A. I do have one suggestion, which is that the utilities should continue focused marketing
4 efforts, including outreach to customers they have identified through billing analysis efforts
5 as likely electric heat, or high electric use, customers. In this way all stakeholders can be
6 assured that the Companies have undertaken appropriate steps to serve this specific customer
7 group within the context of a fully implemented fuel neutral Home Performance with Energy
8 Star program.

9

10 **Q. Does that complete your testimony?**

11 A. Yes.

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