

**STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION**

DE 09-170

2010 CORE Electric Energy Efficiency Programs

PREFILED REPLY TESTIMONY OF

**THOMAS PALMA
ON BEHALF OF**

UNITIL ENERGY SYSTEMS, INC.

DECEMBER 9, 2009

1 **Q. Please state your name, position and business address for the record.**

2 A. Thomas Palma, Manager, Distributed Energy Resources, Planning and Design,
3 Unitil Service Corporation, 325 West Road, Portsmouth, New Hampshire, 03801.

4 **Q. Please summarize your educational background and experience.**

5 A. I have several years experience working as an energy engineer and attorney.
6 Most recently, I worked at the New Hampshire Electric Cooperative as the Project
7 Development Executive. In that position I developed renewable energy programs
8 and new energy efficient technology programs such as the low temperature heat
9 pump program. I started working at Unitil on November 30, 2009. My
10 responsibilities include planning and designing new renewable energy, energy
11 efficiency, and Smart Grid programs. I manage two staff members whose main
12 focus is energy efficiency program planning in MA and NH.

13 **Q. What is the purpose of your reply testimony?**

14 A. The purpose of my reply testimony is to support the sections of the filing made on
15 September 30, 2009 entitled "2010 CORE New Hampshire Energy Efficiency
16 Programs" that apply to Unitil Energy Systems, Inc. and to respond to some
17 issues that have been raised in the testimony submitted by Mr. Cunningham on
18 behalf of Commission Staff, the testimony submitted by Mr. Eckberg on behalf of
19 the Office of Consumer Advocate ("OCA"), as well as some issues that have
20 arisen during the discovery phase of this proceeding. More specifically, my
21 testimony addresses the following topics: 1) Staff's recommendation that

1 neither PSNH nor Unitil should earn a performance incentive on the portion of the
2 2010 fuel neutral program related to non-electric heating customers;

3 2) recommendations made in the audit report regarding the inclusion of Forward
4 Capacity Market ("FCM") revenues, interest and expenses in the CORE Energy
5 Efficiency filing and properly accounting for that information on a quarterly
6 basis; 3) OCA's argument that costs associated with auditing the energy
7 efficiency programs should not be paid from the system benefits charge ("SBC")
8 fund; and 4) an explanation of why Unitil's energy efficiency programs budget
9 includes costs of website functions that are devoted to energy efficiency topics.

10 **Q. Please describe Unitil's position regarding Staff's argument that the budget**
11 **for the proposed NH Home Performance with Energy Star Program should**
12 **not recognize performance incentives for the non-electric heating portion of**
13 **the program.**

14 A. Unitil supports PSNH's position on this issue as presented by Mr. Gelineau.

15 **Q. Please explain the issues raised by Commission Audit Staff in the report of its**
16 **audit of Unitil's energy efficiency programs.**

17 A. Staff's audit report concerning Unitil's energy efficiency programs is included in
18 Appendix A to Mr. Cunningham's prefiled direct testimony. The report raises
19 two issues, both of which concern Forward Capacity Market revenues and
20 expenses. The first audit report recommendation is that Unitil review the types of
21 expenses associated with the CORE programs and participation in the FCM and to
22 reflect those expenses in the most reasonable program category. In addition, Staff

1 recommends that the FCM revenue and related interest calculation should be
2 included with the CORE programs. The second audit report recommendation is
3 that Unitil should correct a reporting error to reflect FCM revenues and expenses
4 as they relate to energy efficiency programs on a quarterly rather than cumulative
5 basis. The Audit Staff found that although Unitil's accounting model for posting
6 FCM information to the general ledger produced correct income, expenses and net
7 activity for the quarterly period, a reporting error had occurred. This error was
8 that FCM information was reported in terms of cumulative rather than quarterly
9 figures, thereby overstating amounts for the second and third quarters of 2008.

10 **Q. Does Unitil concur with Staff's recommendations concerning the accounting**
11 **and reporting of FCM revenues and costs?**

12 A. Yes.

13 **Q. What is Unitil's response to the OCA's position that the utilities' costs**
14 **associated with the Staff's audit of the energy efficiency programs should not**
15 **be paid by SBC funds?**

16 A. Unitil supports PSNH's position on this issue as presented by Mr. Gelineau.

17 **Q. During the discovery phase of this proceeding, questions arose concerning**
18 **Unitil's practice of including certain website costs in its energy efficiency**
19 **programs budget. Please describe the website costs that Unitil includes in its**
20 **energy efficiency programs budget and why Unitil believes it is appropriate**
21 **to do so.**

22 A. The costs in question, \$44,500, are licensing and maintenance fees associated
23 with the Company's web-based energy use applications, HomeEnergySuite™ and

1 the CommercialEnergySuite™. The suites provide customers with on-line tools
2 which help them to better understand how they use energy in their home or
3 business. As discussed in its response to Staff Question No. 3 from the
4 December 1, 2009 Technical Session, (attached), benefits include:

- 5 • Customers who run audits receive customized actionable items, and as a
6 result, learning how to make a real difference in energy use in their homes
7 and/or businesses.
- 8 • Customers are steered towards energy efficiency programs through
9 completing the audits. Well placed links and icons on the audit pages direct
10 customers to specific programs.
- 11 • The administrative tool collects all the data on the individual home profiles
12 and any potential changes the homeowners analyzed. This provides a wealth
13 of knowledge about customer interests to help target rebate programs and
14 direct recommendations for efficiency improvements.

15
16 The attached data response provides more information on the functionality of the
17 tools, how Unitil customers use the Apogee tools to save money and energy and
18 their adaptability to changing requirements by the Company or customer. Overall,
19 the website tools provide Unitil's customers with a high value marketing,
20 informational and promotional tool for energy efficiency. Given that these tools
21 directly relate to energy use and energy efficiency issues, expenses related to the
22 tools should be included with the CORE programs for cost recovery.

23
24 **Q. Does this conclude your testimony?**

25 **A. Yes.**

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Q-Staff Technical Session #2:

3. Reference OCA set 1, Q-OCA-008. Please provide the usage data of the proprietary software used by Unitil as follows:
- a. How many customers used the tool in last twelve months?
 - b. What data does Unitil collect through the tool?
 - c. How is that data used (please provide an illustrative example)?

Response:

- a. In the last 12 months, there have been 24,956 visits to the on-line tool with a total of 120,200 page visits. The Company is expecting that customers will perform 1,750 audits by the end of the year. Attachment PUC-3a shows the page visits broken down by month.
- b. Attachment PUC-3b shows the data points collected by users of the on-line audit tool and a sample of the level of detail that is collected when a customer completes an audit.
- c. The data that is collected is used in several ways:
 - Customers who run audits are coming away with actionable items that are customized for them and as a result, are learning about how to make a real difference in energy use in their home.
 - Customers are steered towards EE programs through completing the audits. Well placed links and icons on the audit pages direct customers to specific programs.
 - The administrative tool collects all the data on the individual home profiles and any potential changes homeowners analyzed. This is providing a wealth of knowledge about where customer interests lie to help target rebate programs and direct recommendations for efficiency improvements. Attachment PUC-3c provides an illustration of how Unitil customers use the Apogee tool to save money and energy.

The Apogee tools come with over \$20,000 in marketing value (free of charge) to promote the tools and steering of customers into PUC-approved programs provided by Unitil.

The Apogee tools are "future proof" meaning that they are adaptable to future changes in programs and information. (This is not the case with free tools.) This feature is important

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because the tools can expand to accommodate new programs and initiatives. The analytical engine that our customers are currently using in the estimator mode, can be amped up with billing and meter data and supplemental inputs to provide deeper levels of customer understanding and action. As energy efficiency initiatives expand and improve, the Apogee tools will provide a level of consistency in the analysis and presentation of information that simply can't be matched with free tools. Finally, the DOE and EPA are currently going through the process of authorizing software to make sure that any tool that provides savings estimates or advice is accredited. Free tools will not be able meet these accreditation standards.

Person Responsible: Lisa Glover

Past 12 Months	Visits	Pages
Dec-08	1,555	6,265
Jan-09	1,323	6,249
Feb-09	1,174	3,920
Mar-09	1,462	6,487
Apr-09	975	3,027
May-09	1,236	3,622
Jun-09	1,760	6,998
Jul-09	1,744	5,611
Aug-09	3,123	19,399
Sep-09	3,677	20,686
Oct-09	3,890	21,682
Nov-09	3,037	16,254
Total	24,956	120,200

	# of Audits	Value per Audit	Total
Online Audits	1,750	\$50/audit	\$ 87,500.00

Data Points Collected in the Home from Unitil Customers

Home Type
Water Heat Type
Home Built
Water Heat Setting
Sq Ft
Air Conditioner
Occupants
Windows
Cool Setting
Cook Stove
Heat Setting
Dishwasher
Heat Type
Clothes Washer
Air Leaks
Clothes Dryer
Refrigerators
Big Screen TVs
Refrigeration Total
Lighting Total
Cooking Total
Washer Total
Dryer Total
Dishwasher Total
Cooling Total
Heating Total
Water Heating Total

http://unitil.apogee.net/homes/info/calcs/rescalc/ie...
 http://unitil.apogee.net/homes/info/calcs/rescalc/ie...
Energy Savings Recommendations

The following are recommended actions based on your home profile as you described it.

Low Cost Recommendations

- Heating Setting: If you lower your heating setpoint from 72 to 68, you could save as much as \$1,161 a year.
- Weatherize your Home: If you caulk around your windows and doors, make certain the weather stripping on your doors and windows is tight, weather strip your attic door, and take other actions to seal your house further, you could save up to \$85 a year.
- Compact Fluorescent: If you changed out 50% of the light bulbs in your house you use most often and replace them with compact fluorescent bulbs, you could save up to \$74 a year.

Long Term Recommendations

- Energy Star®: If you changed out the major appliances in your house to Energy Star®, you could save up to \$191 a year.
- Heating System Upgrade: If your heating system is over 10 years old, consider replacing it with a new high efficiency model.

Customize your Recommendations: You can go back to the calculator, make changes to your profile, and run the calculator again to directly see the benefit of making those changes compared with your existing home profile.

Print Recommendations Close this window and return to the Calculator.

Unitil

Energy Calculator **LIBRARY** **HELP**

Instructions

Estimated Costs

Propane ☒ **Water Heat Type**
High ☒ **Water Heat Setting**
Leaky ☒ **Air Leaks**
Single Pane ☒ **Windows (panes)**
Electric ☒ **Cook Stove**
Electric ☒ **Dishwasher**
Electric ☒ **Clothes Washer**
Electric ☒ **Clothes Dryer**
1 ☒ **Refrigerator/Freezers**
Pre 1993 ☒ **Refrigerator Type**

View Monthly **View Report** **Compare Months**

Our Recommended Changes

Give us your feedback

Calculating Your Energy Costs

Tip: This calculator will provide you with estimates of energy use costs based on your inputs. The Annual and Monthly results are not intended to be extremely accurate, but rather, in provide a

Your Approximate Energy Costs

Your Current Estimated Costs

	Annual	Monthly
Electricity	\$1,130	\$94
Fuel Costs	\$8,383	\$699
Base Total	\$9,513	\$793
Carbon	22.7 Tons	1.9 Tons

Click to Enlarge

Start Over

Other that is representative of the Concord, NH area.