

STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

DE 09-170

2010 CORE Electric Energy Efficiency Programs

DIRECT TESTIMONY
OF
JAMES J. CUNNINGHAM JR.

November 6, 2009

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

2 A. My name is James J. Cunningham Jr. and I am employed by the New Hampshire Public
3 Utilities Commission (Commission) as a Utility Analyst. My business address is 21 S.
4 Fruit Street, Suite 10, Concord New Hampshire, 03301.

5
6 **Q. Please summarize your educational and professional background.**

7 A. I am a graduate of Bentley College, Waltham, Massachusetts, and I hold a Bachelor of
8 Science-Accounting Degree. I joined the Commission in 1988. In 1995, I completed the
9 NARUC Annual Regulatory Studies Program and Michigan State University, sponsored
10 by the National Association of Regulatory Utility Commissioners. In 1998 I completed
11 the Depreciation Studies Program sponsored by the Society of Depreciation Professionals
12 and I'm a member of the Society. In 2002, I worked on the Staff team that recommended
13 re-institution of the Commission's natural gas energy efficiency programs. I have
14 reviewed and provided direct testimony on a variety of topics pertaining to New
15 Hampshire electric, natural gas, steam and water utilities. In 2008, I was promoted to my
16 current position of Utility Analyst IV.

17
18 **Q. What is the purpose of your testimony?**

19 A. The purpose of my testimony is to (1) provide a report on the highlights of the 2009
20 CORE Team activities and (2) provide my recommendations on the proposed 2010
21 CORE programs.

1 **I. REPORT ON THE HIGHLIGHTS OF THE 2009 CORE TEAM ACTIVITIES**

2
3 **Q. Please describe the decision process used by the CORE Team.**

4 A. The CORE Team uses a “consensus” process in decision making. Consensus means that
5 everyone is at least “willing to live with a decision.” If unable to reach consensus, a
6 representative that is unwilling to live with a decision is required to provide an
7 explanation and offer an alternative.
8 Inputs to the decision process are gathered from various sources including (1) working
9 groups created by the CORE Team to examine complex issues,¹ (2) plant visitations to
10 utility companies to evaluate energy efficiency models² and to examine documentation
11 supporting energy efficiency costs and revenues,³ (3) special sessions of the CORE
12 Team to review matters pertaining to Commission orders and other urgent topics that
13 arise from time to time,⁴ (4) quarterly CORE Team meetings to review quarterly
14 performance and (5) informal exchange of e-mails among the parties to clarify issues
15 from time to time.
16 The Commission is notified of the decisions made by the CORE Team via periodic letters
17 from Staff to the Commission,⁵ and via enhancements to CORE filings.⁶

¹ Authorization to create 2009 working groups comes from the Settlement Agreement approved by the Commission in Order No. 24, 930, page 8. Two working groups were created in 2009: the HEA budget allocation working group and the performance incentive working group.

² The working group created to review performance incentives attended a presentation at PSNH that provided an overview of a computer model used to calculate savings and benefit amounts.

³ Staff participated in plant visitations to each utility to assist the NHPUC auditors in their audit of 2008 CORE programs.

⁴ The CORE Team addressed the issue of the fuel neutral HES pilot after which a “Joint Petition for Approval of Amended Design in the Home Energy Solutions Program” was filed on April 9, 2009 and subsequently approved by the Commission in June in its Order No. 24,974.

⁵ In 2009, informational letters were filed by Staff pertaining to the 2009 EM&V plan and the fuel neutral HES pilot program.

⁶ The 2010 filing was enhanced to include additional information pertaining to capacity and energy benefits and non-electric resource benefits (at p. 69, 74, 79, 84, and additional information pertaining to mapping the GDS report to CORE program offerings (at p. 8, 9, 94-99).

1 **Q. Please provide an overview of the 2009 CORE Team activities.**

2 A. Commission Order No. 24,930 approved the 2009 CORE programs and Commission
3 Order No. 24,974 approved an additional fuel neutral pilot component of the Home
4 Energy Solutions (HES) program. These orders identified a number of activities to be
5 reviewed by the CORE Team. Many of the activities are continuous (i.e. such as periodic
6 review of savings and costs) while others are completed (i.e. requiring no action by the
7 Commission). After each activity I indicate, in parenthesis, the status (i.e. “continuous”,
8 “completed, or “requires Commission approval”. One activity is not yet finalized (i.e. the
9 Home Energy Assistance (HEA) Budget Allocation\ and Commission guidance is
10 requested. Later in my testimony, I provide a recommendation on this item for
11 Commission consideration (pages 19-24). Following is an overview of the CORE Team
12 activities for 2009.

13
14 **Budget vs. Actual Analyses (continuous):** Staff analyzed the savings and costs of
15 the 2008 CORE programs. On an *overall basis*, actual costs were approximately 5
16 percent below the 2008 projected costs and kilowatt hour (kWh) savings were
17 approximately 27 percent above budget savings. With respect to *residential programs*,
18 actual costs were 2 percent below budget due mostly to the Home Energy Solutions
19 program and actual kWh savings were 13 percent above projections due mostly to the
20 Energy Star Homes program and the Energy Star Appliances program. With respect to
21 Commercial and Industrial (*C&I programs*), actual costs were 7 percent below projected
22 levels due mostly to the Small Business Energy Solutions program and kWh savings
23 were 33 percent above projected levels due mostly to the New Equipment and
24 Construction program.

1 **Consideration of New EM&V⁷ Ideas (continuous):** Staff, after consultation
2 with the utilities, established a 2009 (Evaluation, Measurement and Verification)
3 EM&V plan and filed it with the Commission in February 2009.⁸ With respect to
4 2010 and beyond, the CORE Team discussed the framework of a multi-year EM&V plan
5 along with a 2010 EM&V plan.⁹

6

7 **Continuing Discussion and Incorporation of the Report Prepared by GDS**

8 **Associates¹⁰ (continuous):** The CORE Team continues to evaluate the GDS Report on
9 energy efficiency potential in New Hampshire to incorporate potential energy efficiency
10 ideas into CORE programs going forward. At the September 2009 CORE Team meeting,
11 Public Service Company of New Hampshire (PSNH) reported that the programs planned
12 for 2010 are aligned with the recommendations of the GDS report. For instance, the
13 GDS Report indicates that approximately sixty percent of potential savings pertains to
14 lighting.¹¹ The 2010 CORE budgets are similarly aligned, with approximately sixty
15 percent of the overall CORE savings attributable to lighting programs.¹²

16

17 **Consideration of Ideas to Enhance Education and Outreach (continuous):**

18 The utilities continue to discuss ideas about education and outreach in the context of
19 customer seminars, point-of sale display, brochures, and catalogs. In 2010, the utilities
20 will be working to provide the necessary training for builders to educate them as to new
21 2011 Energy Star Homes certification requirements. Also, in response to increasing

⁷ Evaluation, Measurement and Verification (EV&M) is defined as a wide range of assessment studies including cost effectiveness as well as measurement and verification (M&V) of energy savings.

⁸ Reference Staff Letter to the Commission dated February 2, 2009 in Docket DE 08-120.

⁹ Reference CORE Filing at page 46-47 for additional details on the 2010 EM&V plan.

¹⁰ “Additional Opportunities for Energy Efficiency in New Hampshire”, January 2009, prepared by GDS Associated, Inc.

¹¹ Reference GDS Report at page 70-71, Maximum Achievable Cost Effective (M.A.C.E).

¹² Reference CORE filing at page 90: estimated Residential Energy Star Lighting lifetime kWh savings are 90.96 million kWh's, 60 percent of total Residential lifetime kWh savings of 151.71 million kWh's.

1 efficiency standards for Energy Star labeled clothes washers, the utilities will be working
2 with retailers to ensure accuracy in point of sale labeling and monitoring program cost-
3 effectiveness.¹³

4

5 **Coordination of CORE and Natural Gas Programs (continuous):** Natural gas
6 and electric companies are collaborating by referring customers to each other for
7 participation in their respective programs. This collaboration effort has been successful,
8 resulting in the doubling of participation in PSNH's Home Energy Solutions program,
9 with natural gas customers paying for natural gas measures and electric customers paying
10 for electric measures. Also, natural gas company representatives are participating in the
11 quarterly CORE Team meetings.

12

13 **NHPUC Financial Audit (completed):** The New Hampshire Public Utilities
14 Commission (NHPUC) financial audit focused on the 2008 CORE programs. This audit
15 was a major undertaking, representing the first audit of the CORE Programs since their
16 inception in 2002. Staff participated in the audits, under the direction of Stuart Hodgdon,
17 Chief Auditor, making plant visitations to each electric utility. The audit activity spanned
18 a six-month period, from May 2009 to October 2009. The results of the audit report were
19 provided to the utilities on October 30, 2009. Later in this testimony, I comment on
20 certain several issues identified in the audit report that have an impact on CORE
21 reporting (pages 25-26). Also, see Appendix A for copies of the NHPUC Audit Reports.

22

23 **2009 Home Energy Solution (HES) Fuel-Neutral Pilot (completed):** The
24 Commission directed the CORE Team to review PSNH's revised 2009 HES program

¹³ Reference CORE filing at page 13.

1 budget.¹⁴ The revision was prompted by the Commission’s order which specified a
2 significant reduction to PSNH’s proposed “fuel-neutral” pilot component (i.e. electric and
3 fossil fuel heating participants). PSNH proposed 617 participants,¹⁵ but the Commission
4 approved a pilot of only 200 participants. Staff did some informal discovery with PSNH
5 in response to the Commission’s directive. According to PSNH, it retained the same
6 budget dollars but increased the participation from 200 participants to 1315 participants.
7 PSNH explains that this increase is due to the successful work that it has been doing with
8 7 auditing companies resulting in a 2009 increase of 285 participants in the HES electric
9 heating only program. Also, PSNH explains that it enrolled an additional 848 customers
10 in this program in 2009 due to the successful collaboration with the natural gas
11 companies. The company notes that the work paid for by PSNH is for electric measures
12 only (i.e. including compact fluorescent lighting (CFL) and lighting fixtures); and the
13 weatherization services and other gas savings measures that are provided by the natural
14 gas companies are paid for by the natural gas companies.¹⁶ Later in my testimony, I will
15 address the company’s 2010 proposal which projects 685 participants for this program.
16 In the 2010 CORE filing, this program has been renamed to NH Performance with
17 Energy Star.

18
19 **Allocation of Forward Capacity Market proceeds (completed):** The CORE Team
20 discussed the formula used to allocate ISO-New England Forward Capacity Market
21 (FCM) proceeds to the CORE Residential and C&I programs. The formula is a two-part

¹⁴ Order No. 24,974, page 6.

¹⁵ Source: The total number of fuel neutral participants was 650 (CORE Filing at page 80). This number was adjusted to 617 in the Company’s “Joint Petition for Approval of Amended Design in the Home Energy Solutions Program” filed by PSNH and UES on April 9, 2009.

¹⁶ Source: Data Response Staff 1-10 (See Appendix B for a copy).

1 formula that is based on the average of forecasted kWh sales and estimated demand
2 savings.¹⁷ No changes are recommended by the CORE Team.

3
4 **Performance Incentive Calculations (completed):** A working group was created to
5 review performance incentive calculations. Staff and five other parties participated: a
6 representative from each utility and the Office of Consumer Advocate (OCA). The
7 working group met in a technical session at the offices of PSNH. Consensus was reached
8 on the issues. Specifically, the companies have clarified their calculation of performance
9 incentives such that performance incentives are included in the cost for purposes of
10 calculating the benefit cost ratio; and, the companies agree to include an additional page
11 in the CORE filings going forward to summarize total benefits including: capacity
12 components, energy components and non-electric components.

13
14 **HEA Budget Allocations (requires Commission approval):** A working group was
15 created to review the HEA budget allocation for 2010. Staff and seven other parties
16 participated: the New Hampshire Legal Assistance (NHLA), representing The Way
17 Home (TWH); a representative from the Community Action Agencies (CAA); the Office
18 of Energy Planning (OEP), and; a representative from each of the electric utilities. Two
19 HEA budget allocations were recommended: one by the NHLA and another by Staff. A
20 consensus was not reached. The 2010 CORE proposal is based on NHLA's
21 recommendation, on behalf of The Way Home. Please refer to Appendix C for a copy of
22 this proposal. I will discuss my recommendation later in this testimony (pages 19-24).

23

¹⁷ The two part formula for the Residential Sector is 30 percent (i.e. the average of 45 percent kWh sales and 15 percent demand savings). The two part formula for the C&I Sector is 70 percent (i.e. the average of 55 percent kWh sales and 85 percent demand savings).

1 **Multi-year CORE program filings (continuing):** The CORE Team discussed the
2 initiative to institute a multi-year CORE filing instead of annual filings. The annual
3 filings are made in September and the procedural schedule is very compressed. A multi-
4 year filing could be filed sooner than September and would allow more time for in-depth
5 review.

6

7 **II. RECOMMENDATIONS ON THE PROPOSED 2010 CORE BUDGET**

8

9 **Q. Please summarize your testimony and recommendations on the proposed 2010**
10 **CORE budget?**

11 A. My testimony pertains to the following:

- 12 1. NH Home Performance with Energy Star
13 2. HEA Low Income Budget Allocation
14 3. Performance Incentives
15 4. Other matters

16

17 With respect to the NH Home Performance with Energy Star program, I recommend that
18 the Commission not approve the proposed NH Performance with Energy Star program.
19 Instead, I recommend a continuation of the existing 2009 HES electric heating program
20 for another year and a continuation of the existing 2009 fuel neutral Pilot for another
21 year.¹⁸

22

¹⁸ Assumptions for calculation performance incentives are the same as approved by the Commission in the existing 2009 fuel neutral pilot.

1 With respect to the HEA Low Income budget allocation, I recommend that the
2 Commission not approve the proposed 14 percent budget allocation.¹⁹ Instead, I
3 recommend a formula based approach that supports a 13.5 percent budget allocation.
4

5 With respect to the actual 2008 performance incentives, I recommend that the
6 Commission approve the amounts provided by the companies for 2008, modified by
7 certain adjustments that I explain later in my testimony; also, I recommend certain
8 procedural changes pertaining to the filing of actual performance incentives including
9 earlier filing dates²⁰ (pages 24-25)
10

11 With respect to other matters, my testimony provides comments pertaining to 2008
12 performance incentives. In addition, I identify several topics for review by the CORE
13 Team in 2010 including: (1) possible additional reporting requirements stemming from
14 the issues identified in the NHPUC Audit Report²¹ (2) caps on rebates for the filings
15 going forward, (3) multi-year CORE filings.
16

17 **NH Home Performance with Energy Star**
18

19 **Q. What are your reasons for recommending that the Commission not approve the**
20 **proposed fuel neutral NH Home Performance with Energy Star program?**

21 A. The Commission has the authority to approve a fuel neutral Home Energy Solutions
22 (HES) program.²² However, to date, the Commission has approved only a Pilot to test
23 the HES fuel neutral concept and is awaiting the Pilot evaluation report. PSNH and

¹⁹ The CORE filing is inconsistent on the percentage used for the HEA budget allocation. Page 35 indicates 14 percent but page 88 indicates 14.9 percent (i.e. \$2,870,141 / \$19,289,196 = 14.9%)

²⁰ Adjustments include the issues identified in the NHPUC Audit Report.

²¹ Reporting requirements pertaining to a reconciliation of the SBC funding and expenditures.

²² Reference DE 08-120, Order No. 24,974.

1 Unitil Energy Systems, Inc. (UES) are now proposing to implement a full-scale fuel
2 neutral HES program in this instant filing, effective January 1, 2010, giving it a new
3 name – i.e. the NH Home Performance with Energy Star program.

4

5 Following are my reasons for recommending that the Commission not approve the
6 proposed NH Home Performance with Energy Star.

7

8 *1. The proposed NH Performance with Energy Star program is not ripe for the*
9 *Commission review.* In 2009, PSNH and UES are continuing to run the electric heating
10 Home Energy Solutions (HES) program which includes a new fuel neutral Pilot
11 component. The HES program is essentially a weatherization program that serves
12 electric heating customers; whereas the Pilot is testing a new fuel neutral component that
13 serves both electric heating as well as fossil fuel heating customers.²³ The Pilot was
14 approved in June 2009 and is not yet completed. Also, the final evaluation report for the
15 Pilot has not yet been filed.

16

17 Despite the incomplete Pilot, PSNH and UES are proposing to implement a full-scale fuel
18 neutral program for 2010. The reason given is that “few things are detrimental to a
19 program’s infrastructure as starting and stopping delivery.”²⁴ However, I believe it would
20 be detrimental to start a new program before the Pilot and related evaluation has been
21 completed. As of October 19, 2009, there were only 107 participants enrolled in the
22 Pilot.²⁵

23

²³ Fossil fuel heating includes natural gas, oil, propane, kerosene and wood.

²⁴ Reference Filing at page 10.

²⁵ As of October 19, 2009, only 107 participants were enrolled in the program. Reference Data Request Staff 1-1 (see attached Appendix B for a copy).

1 I believe that the Commission can benefit from the information derived from a
2 continuation of the Pilot through the 2009-2010 winter heating season. Further, I
3 recommend that PSNH serve an additional 200 PSNH participants in 2010 and that UES
4 serve an additional 100 UES participants in 2010. After the 2010 Pilot is completed and
5 the Commission reviews the evaluation report, then the fuel neutral program would be
6 ripe for Commission consideration. The additional year of the Pilot eliminates the
7 concern about starting and stopping the program while providing more data upon which
8 to evaluate the program.

9

10 2. The proposed NH Performance with Energy Star program is premature. PSNH and
11 UES indicate in the filing that the market for the existing HES electric heated homes is
12 saturated.²⁶ However, this program continues to experience excellent participation. For
13 instance, PSNH expects to serve 285 electric heating customers in 2009 (i.e.
14 weatherization, CFL's and lighting fixtures) due to the work the company has been doing
15 with 7 audit companies. This participation is over and above the 200 participants that are
16 expected to be served in the pilot fuel neutral program.²⁷

17

18 In addition, PSNH expects to serve an additional 848 customers with electric measures
19 (i.e. CFL's and lighting fixtures) (Staff 1-10) due to the collaborative activities between
20 PSNH and the natural gas companies. Again, this participation is over and above the 200
21 participants that are expected to be served in the Pilot fuel neutral program.²⁸

22

²⁶ Reference Filing at page 22.

²⁷ Reference Data Request Staff 1-10 (attached Appendix____).

²⁸ Source: Staff 1-10 and the revised budget filed by PSNH on June 30, pursuant to Commission Order No. 24, 974.

1 PSNH's continuing success in serving electric customers with CFL's and lighting fixtures
2 is confirmed by the GDS report which shows significant remaining potential for such
3 programs. Specifically, the GDS report indicates that approximately 60 percent of the
4 untapped potential savings pertains to lighting.²⁹

5
6 I believe that, based on the success that PSNH had in 2009 in providing electric energy
7 efficiency service to its customers, PSNH and UES should continue the HES electric
8 heating program for another year.

9

10 3. The budget for the NH Performance with Energy Star is overstated for purposes of
11 calculating performance incentives. The filing overstates performance incentives
12 because PSNH and UES have not excluded budgeted utility costs for non-electric
13 benefits.³⁰ According to the filing at page 80 and 85, PSNH and UES are proposing to
14 calculate performance incentives based on the *combined* electric and non-electric portions
15 of the budget for the NH Performance with Energy Star. This is contrary to the
16 Commission's Order No. 24,974 which states: "we will accept Staff's recommendation
17 that PSNH and UES receive a performance incentive based on the electric-related
18 portions of the fuel neutral HES Pilot budget."

19

20 Performance incentives are calculated by multiplying budgeted costs by 8 percent. Since
21 PSNH and UES include non-electric costs in the combined budget, the performance
22 incentive calculations for both companies are overstated. I estimate the amount of the
23 overstatement of performance incentives at approximately \$132,000, with PSNH's
24 portion estimated at \$116,000 and UES' portion estimated at approximately \$16,000.

²⁹ Source: GDS Report, page 71-72.

³⁰ Source: Data Request Staff 1-10 (see attached Appendix B for a copy).

1 See Schedule JJC-1 for a summary of these estimates. Given that the proposed
2 performance incentives are higher than authorized, I believe that there will be an
3 unauthorized transfer from ratepayers to shareholders. This unauthorized transfer occurs
4 since the shareholders would receive performance incentives that would otherwise have
5 gone to ratepayers in the form of energy efficiency programs.³¹

6
7 Based on the above, if the Commission were to approve the NH Performance with
8 Energy Star program, I'd recommend that the proposed amount of performance
9 incentives be reduced by \$132,000. Going forward, if the Commission were to continue
10 approve the program, I'd recommend that the Commission require PSNH and UES to
11 identify the costs related to the electric and non-electric portions of the program's budget
12 and calculate performance incentives based on the electric-related measures only.

13
14 5. The cost per kWh of the proposed NH Performance with Energy Star program is
15 significantly higher than the cost per kWh of other electric programs. The cost per kWh
16 of savings for PSNH's NH Home Performance with Energy Star program is 49 cents per
17 kWh.³² By comparison, the cost of the Energy Star Lighting program is 1.5 cents per
18 kWh³³ and the cost of the Energy Star Appliances program is 4.3 cents per kWh.³⁴

19
20 The Cost per kWh of savings for UES' NH Home Performance with Energy Star is 30
21 cents per kWh.³⁵ By comparison, the cost of the Energy Star Lighting program is 1.3

³¹ Reference Staff letter to Debra Howland, Executive Director, April 30, 2009. In this letter, Staff calculated that a fuel neutral program for an estimated 500 thousand New Hampshire households would generate a wealth transfer of approximately \$93 million.

³² Based on the Filing at page 78: \$1,620,100 divided by 3,298,700 lifetime kWh savings.

³³ Based on the Filing at page 78: \$945,000 divided by 63,748,100 lifetime kWh savings.

³⁴ Based on the Filing at page 78: \$630,000 divided by 14,577,400 lifetime kWh savings.

³⁵ Based on the Filing at page 83: \$261,100 (incl. PI) divided by 870,000 lifetime kWh savings.

1 cents per kWh³⁶ and the cost of the Energy Star Appliances program is 5.9 cents per
2 kWh.³⁷

3
4 The significant increase in the cost per kWh spent of the NH Performance with Energy
5 Star is caused mostly by the fact that only 10 percent of the benefits are electric benefits
6 while 90 percent of the benefits are fossil fuel benefits (i.e. oil, natural gas, propane,
7 kerosene, wood).

8
9 Based on the significantly higher costs, I'd recommend that PSNH and UES continue to
10 enroll electric customers in the existing HES program, while continuing the fuel neutral
11 Pilot. As noted earlier in my testimony, PSNH's experience in 2009 and the GDS Report
12 indicate an untapped potential for the electric lighting and appliance programs going
13 forward in the context of the existing HES program.

14
15 6. Demand savings for the proposed NH Performance with Energy Star are significantly
16 lower than other programs. The demand savings for PSNH's NH Home Performance
17 with Energy Star program are estimated to be 77.9 kW's in the summer of 2010. By
18 comparison, the estimated summer demand savings for the Energy Star Lighting program
19 and the Energy Star Appliance programs are significantly higher in 2010 – i.e. 731.9
20 kW's and 316.5 kW's respectively.³⁸

21
22 The estimated kW savings for PSNH's NH Home Performance with Energy Star program
23 are 9.5 kW's in 2010. By comparison, the estimated demand savings for the Energy Star

³⁶ Based on the Filing at page 83: \$254,400 (incl. PI) divided by 18,938,200 lifetime kWh savings.

³⁷ Based on the Filing at page 83: \$249,300 (incl. PI) divided by 4,249,100 lifetime kWh savings.

³⁸ Source: Filing at page 78.

1 Lighting program is 212.7 KW's. The summer KW savings for the Energy Star
2 Appliance program is 77.0 KW's.

3
4 The significantly lower summer demand savings of the NH Performance with Energy
5 Star corresponds to the relatively minor percentage of the savings that is attributable to
6 electric benefits.

7
8 7. The NH Performance with Energy Star program results in less FCM proceeds. The
9 proposed NH Performance with Energy Star is fuel neutral and most of the savings
10 generated is non-electric related savings – i.e. 90 percent for PSNH and 89 percent for
11 UES.³⁹ Since the non-electric savings component is not counted in the calculation of
12 FCM proceeds, the amount of FCM proceeds that will be received under a fuel neutral
13 program decreases. In 2008 the HES electric heating program generated 12,603,523
14 kWh's of lifetime savings for PSNH. In 2010, PSNH projected that the kWh lifetime
15 savings for the NH Home Performance with Energy Star filing will be only 3,298,700
16 kWh's, a reduction of 9,304,823 or 74 percent from 2008.

17
18 8. The NH Performance with Energy Star reduces the double benefits historically
19 attributed to energy efficiency programs. The Commission Order No. 20,362 in Docket
20 No. DR 91-128 states: "One consequence of Conservation and Load Management
21 (CL&M) as a resource option is that customers who participate directly in C&LM
22 programs not only share in the system benefits these programs provide, but also benefit
23 directly through their individual participation." The double benefits that always flowed
24 to electric participants and the electric system are reduced significantly in the proposed
25 PSNH and UES Pilots. PSNH's proposed NH Performance with Energy Star

³⁹ Reference Filing at page 78, 79, 83, 84.

1 incorporates electric-related savings of only 10 percent of the total benefits.⁴⁰ UES's
2 proposed NH Performance with Energy Star incorporates electric-related savings of only
3 9 percent of the total benefits.⁴¹
4

5 **Q. Do you have any other comments about the NH Performance with Energy Star**
6 **program?**
7

8 A. Yes. I have the following comments:

- 9 1. If the Commission were to authorize PSNH and UES to implement the NH
10 Performance with Energy Star program, I'd recommend that performance incentives
11 be calculated based on the electric related portions of the fuel neutral NH
12 Performance with Energy Star, consistent with Commission Order No. 24,974.
13 In order to make this calculation, I'd recommend that the Commission direct PSNH
14 and UES to segregate the utility costs between the electric vs. non-electric portions in
15 order to calculate limited performance incentives – i.e. based only on the budget
16 related to electric benefits. Such limited performance incentives for shareholders
17 would be reasonable, given the unfavorable impact on electric ratepayers due to
18 reduced double benefits, reduced FCM proceeds, reduced kWh savings and reduced
19 demand savings caused by the fuel neutral NH Performance with Energy Star
20 program.
21
- 22 2. If the Commission were to continue the pilot into 2010, concurrent with the NH
23 Performance with Energy Star, then the programs should be treated as separate
24 programs, with costs, benefits and savings of the Pilot should be segregated from the

⁴⁰ Reference Filing at page 78 and 79.

⁴¹ Reference Filing at page 83 and 84.

1 NH Performance with Energy Star. This will ensure proper evaluation of the Pilot.

2 In addition, costs and benefits for both programs should be further sub-divided into
3 electric versus non-electric categories in order to properly ensure proper calculation
4 of performance incentives according to the Commission Order No. 24,974.

- 5
- 6 3. If the Commission were to authorize the NH Performance with Energy Star for
7 PSNH and UES, I'd recommend that the NH Performance with Energy Star program
8 be re-labeled as a utility-specific programs rather than a CORE Program. CORE
9 programs are designed to be offered to all customers across the state and represent a
10 coordinated effort by all four electric utilities to offer the same program statewide.⁴²
11 The proposed NH Performance with Energy Star program is offered only to PSNH
12 and UES customers and is not a CORE program.

13
14 By the same token, the proposed HES program is still being offered to Granite State
15 Electric Company d/b/a National Grid (National Grid) and the New Hampshire
16 Electric Cooperative (NHEC) customers. This is not a state-wide program; yet,
17 National Grid and NHEC are labeling this program as a CORE program – i.e. NH
18 Performance with Energy Star.

19
20 If the Commission were to authorize the NH Performance with Energy Star for
21 PSNH and UES, I'd recommend that the filing be clarified by re-labeling both
22 programs as utility-specific programs rather than CORE programs.

- 23
- 24 4. However, if the Commission were to accept my recommendation to continue the
25 existing HES program for PSNH's and UES' electric customers in 2010 and continue

⁴² Reference Filing at page 3: Core programs are a coordinated effort by the four electric utilities to offer the same programs statewide.

1 the Pilot in 2010, then the HES program could continue to be labeled as a CORE
2 program and the PSNH and UES Pilot could be labeled as a utility-specific program.

3
4 **HEA Low Income Budget Allocation**

5
6 **Q. Please summarize the proposed HEA budget allocation and your recommendation.**

7 A. The proposed HEA budget allocation is 14 percent. My testimony recommends 13.5
8 percent.⁴³

9
10 **Q. Please explain why you are not recommending the adoption of the proposed 14**
11 **percent HEA budget allocation.**

12 A. The proposed 14.0 percent is an overall estimate that was the result of a discussion
13 among the CORE Team members. It is not supported based on any formula approach;
14 but, rather is based on a negotiated approach among the parties and hence it is not
15 transparent. It is not specifically supportable by Census Bureau data or by other criteria
16 used by the US Department of Energy (DOE) or by the New Hampshire Office of Energy
17 and Planning (OEP). The negotiation process is an annual process and it is a time
18 consuming process. In the final analysis, there is no data or methodology to support the
19 specific budget allocation percentage of 14 percent.

20
21 **Q. Why do you believe that your formula approach is preferred?**

22 A. My formula approach is an attempt to make the HEA budget allocation more transparent
23 in that it is based on readily available data from the Census Bureau and the DOE. It is
24 less burdensome from an administrative standpoint without sacrificing any accuracy and

⁴³ There appears to be an inconsistency in the filing. Although the companies are proposing 14 percent (page 35), the calculated percentage is 14.9 percent (page 88: \$2,870,141 / \$19,289,196).

1 will save time and effort that would otherwise be spent in negotiation sessions. My
2 formula approach is consistent with Commission orders. Specifically, it is consistent
3 with Commission Order No. 23,574 that directs “that program funds should be allocated
4 to the residential and commercial and industrial sectors in approximate proportion to their
5 contributions to the fund” and that “the low programs should be funded by all
6 customers.”⁴⁴ My recommendation for the HEA budget allocation is 13.5 percent.
7

8 **Q. Please state what data and sources are used in your recommended formula**
9 **approach.**

10 A. My recommended formula approach for the HEA low income budget allocation is based
11 on the (1) utilities’ proposed CORE budgets, (2) U.S. Census Bureau data for New
12 Hampshire households and (2) eligibility guidelines prescribed by the DOE as used by
13 the OEP. My recommended formula-approach is easily updated to reflect annual updates
14 published by the U.S. Census Bureau data and revised guidelines published by the DOE
15 as used by the OEP. Also, the formula approach allows the Commission the discretion to
16 adjust the variables in the formula to increase or decrease the budget allocation, as it
17 deems appropriate.
18

19 **Q Please explain how your recommended formula approach calculates the HEA**
20 **Budget Allocation.**

21 A. My recommended formula calculates the HEA budget allocation amount for the
22 Residential Sector and the C&I Sector. The Residential Sector is calculated by
23 multiplying the proposed Residential Sector budget by the low income percentage based

⁴⁴ Reference Commission Order No. 23,574, at page 6.

1 on the DOE⁴⁵ and U.S. Census Bureau data.⁴⁶ The C&I Sector is calculated by
2 multiplying the proposed C&I Sector percentage by the Residential Sector amount. This
3 C&I contribution to fund the HEA programs is made pursuant to Commission
4 requirements.⁴⁷ The sum of the Residential and C&I Sector amounts represents the HEA
5 Budget allocation amount.

6
7 The HEA budget allocation percent is calculated by dividing the HEA budget allocation
8 amount by the total CORE Budget. See Schedule JJC-2 for a summary of the
9 calculations.

10

11 **Q. How is the remaining budget split after the HEA budget amount is determined?**

12 A. The remaining budget amount is split between Residential and C&I Sectors based
13 on the split of projected 2010 kWh sales. See Schedule JJC-1 for a summary of
14 the FCM allocations.

15

16 **Q. How can the Commission use its discretion to adjust your formula approach?**

17 A. The Commission may decide to increase or decrease the HEA budget allocation from the
18 recommended “formula” approach. This could be done by simply changing the Income-
19 To-Poverty ratio in the formula. For instance, the formula approach that I’m

⁴⁵ Source: Department of Energy, Weatherization Program Notice 09-5, effective February 18, 2009. The most recent update shows that the income eligibility requirement for a family of four is \$44,100. The threshold eligibility is \$22,050 for a family of four; and, at 200 percent of the threshold, the eligibility requirement is \$44,100. This eligibility income guideline is updated by the DOE in February of each year.

⁴⁶ Source: www.census.gov/cgi-bin/broker. This site tells us that there are an estimated 238,875 persons at or below the federal poverty guidelines in the state of New Hampshire, approximately 18.3 percent of the total population of 1,306,207. This estimate is based on the U.S Census Bureau data, collected for the 3-year period 2006-2008 (reported during 2007-2009).

⁴⁷ Since the SBC rate for Energy Efficiency is the same rate for all customers, the C&I contribution is made via a reduction in the C&I budget and a corresponding increase in the Residential Low Income budget. In effect, the “contribution” to the Low Income Budget arises from a C&I Rate that remains *unchanged* while the C&I budget is *reduced*.

1 recommending incorporates an eligibility guideline of 200 percent Income-To-Poverty
2 ratio federal poverty guideline (FPG). By simply increasing or decreasing the Income-
3 To-Poverty ratio, the Commission could easily change the HEA budget allocation,
4 thereby increasing or decreasing the results of the formula.

5

6 By comparison, the “negotiated” approach is difficult if not impossible to adjust because
7 it is the result of an overall settlement among the parties.

8

9 **Q. Please explain why you increase the HEA budget by the C&I contribution.**

10 A. In keeping with Commission Order No. 23,574, it is required that the HEA program be
11 funded by all customers, including C&I customers. The Energy Efficiency (EE) portion
12 of the System Benefit Charge (SBC) rate to C&I customers (and Residential customers)
13 is \$0.00018 per kWh and cannot be increased to require C&I customers to fund the HEA
14 low income programs. The only way C&I customers can fund the HEA low Income
15 program is to transfer a portion of its C&I Program spending to the HEA low income
16 program. Hence, the C&I program budget is reduced and the HEA low income budget is
17 increased. The effect of this adjustment is to comply with the Commission Order that the
18 HEA low income program should be funded by all customers, including C&I
19 customers.⁴⁸

20

21 **Q. Please provide your recommendation for the distribution of ISO-New England**
22 **Forward Capacity Market (FCM) proceeds to the CORE programs.**

23 A. I recommend no change to the existing methodology. The FCM proceeds are first
24 reduced by 13.5 percent, the HEA budget allocation percent that I recommend. The

⁴⁸ Reference Commission Order No. 23,574, at page 6: “the Group agreed that low-income programs should be funded by all customers.”

1 remaining funds are then allocated between the residential sector (30 percent) and the
2 C&I sector (70 percent). The formula used to allocate ISO-New England FCM proceeds
3 to the CORE Residential and C&I programs is based on a two-part formula reflecting the
4 average of (1) forecasted kWh sales and (2) estimated demand savings. The remaining
5 budget amount is split between Residential and C&I Sectors based on the split of
6 projected 2010 kWh sales.

7
8 **Q. Do you believe that your formula approach is a fair and reasonable approach?**

9 A. Yes, I believe it is fair and reasonable. The goal of recommending a formula approach is
10 to save administrative time in negotiating the HEA budget allocation each year while still
11 producing a result that is fair and reasonable. To measure whether the formula
12 approach produces a fair and reasonable result, I compare the formula approach to
13 the existing Commission approved HEA budget allocation. The existing
14 Commission approved formula is 13.5 percent. The formula approach is 13.5
15 percent.

16
17 A formula approach is only as good as the data that's used in the formula. My
18 formula approach incorporates the most recent U.S. Census Bureau data and the
19 most recent DOE federal poverty guidelines.

20
21 Also, my formula reflects a 3-year average of 2006-2008 Census Bureau data and
22 avoids any spikes that might occur in the annual data.

23

1 Also, in order to examine whether any HEA budget allocation is fair and
2 reasonable, one needs supporting documentation that is transparent and allows for
3 examination of the data. My proposal meets those criteria; the current
4 “negotiation” process does not.

5
6 My formula approach also allows the Commission to make adjustments if it
7 thinks the result is not fair and reasonable. By changing the Income-To-Poverty
8 ratio, the Commission could increase or decrease the budget allocation, as it
9 deems appropriate. See Schedule JJC-2, page 3 of 3 for an illustration of options
10 at various Income-To-Poverty ratios.

11

12 **Q. Please summarize your testimony on the HEA Budget Allocation.**

13 A. I recommend that the Commission approve my recommended formula approach for 2010
14 and thereafter. It is a streamlined approach that is administratively easy to use each year
15 and will save a lot of time and expense while, at the same time, it will generate a
16 reasonable and fair HEA budget allocation. If the Commission were to conclude that the
17 outcome of the formula approach was either too high or too low, the Commission could
18 adjust the Income-To-Poverty ratio to achieve the outcome that it believed is fair and
19 reasonable. In essence, the Commission could use the formula approach as the
20 foundation in its decision making.

1 **Performance Incentive Calculations**

2
3 **Q. Earlier in your testimony, you mentioned that a working group was created to**
4 **review performance incentives. What were the recommendations of the working**
5 **group.**

6 A. The recommendations of the working group pertained to two matters as follows:
7 technical review of how the performance incentives are calculated and a review of the
8 format for reporting performance incentives.
9

10 **Q. Were the recommendations implemented in the 2010 filing?**

11 A. Yes. Both recommendations were implemented in the 2010 filing. With respect to the
12 calculation of performance incentives, some differences among the companies were
13 identified and have been clarified in the 2010 CORE budget. With respect to the
14 expansion of the format for proposing performance incentives, each company provided
15 additional information in support of performance incentives in the 2010 CORE budget.
16 Specifically, each company provided additional information pertaining to capacity and
17 energy savings.⁴⁹
18

19 **Q. Do you have any other comments about performance incentives?**

20 A. Yes. I recommend two changes for 2010 and going forward to improve the
21 Commission's documentation pertaining to performance incentives. First, I recommend
22 that the companies file their respective annual performance incentive filings by June 1 of
23 each year. The companies have indicated that they will make an effort to file in May or
24 June. Staff, in turn, will make an effort to review the filings and resolve any differences
25 within ninety days.

⁴⁹ Reference CORE Filing at page 69, 74, 79 and 84.

1 **Other Matters:**

2
3 **Q. Please provide your comments on any other matters.**

4 A. With respect to the calculation of 2008 performance incentives, I'll be incorporating
5 several issues identified in the NHPUC Audit Report in the final calculation of 2008
6 performance incentives.

7
8 In addition, I suggest several topics for review by the CORE Team in 2010 including: (1)
9 additional reporting requirements stemming from the issues identified in the NHPUC
10 Audit Report pertaining to a reconciliation of the SBC funding and expenditures, (2) caps
11 on rebates for the C&I programs, (3) accounting for common costs of CORE vs. RGGI
12 programs, and (4) whether to implement multi-year CORE filings and what the
13 appropriate timing for the filing should be.

14
15 **Q. Does that complete your testimony?**

16 A. Yes, it does, thank you.