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STATE OF NEW HAMPSHIRE



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March 29, 2018

Debra A. Howland Executive Director New Hampshire Public Utilities Commission 21 South Fruit Street, Suite 10 Concord, NH 03301-2429

Re: DE 14-216 Final Audit Reports of the 2016 Gas Efficiency Programs and CORE Electric Programs

Dear Ms Howland:

Enclosed are Final Audit Reports of the 2016 Gas Efficiency Programs and CORE Electric Programs for:

	Date Audit	1	Vet Over/	Page
<u>Utility</u>	Report Issued	(Und	er) Collection F	Reference
Liberty Utilities (EnergyNorth Natural Gas) Corp.	10/17/2017	\$	328,868	3
Northern Utilities, Inc.	11/09/2017	\$	(18,836)	16
Net Gas Utilities' Over-collection at 12/31/2016		\$	310,032	
Liberty Utilities (Granite State Electric) Corp.	12/15/2017	\$	22,657	32
Unitil Energy Systems, Inc.	03/28/2018	\$	892,222	48
PSNH d/b/a Eversource Energy	01/31/2018	\$	(482,656)	69
New Hampshire Electric Cooperative	01/31/2018	\$	11,129	88
Net Electric Utilities' Over-collection at 12/31/201	6	\$	443,352	
Combined 2016 net Over-collection		\$	753,384	

If you have any questions, please do not hesitate to contact me.

Sincerely

Karen J. Moran

Chief Auditor

New Hampshire Public Utilities Commission

Enclosures

Cc: Service List

Gas Utilities

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: October 17, 2017 **AT (OFFICE):** NHPUC

FROM: Anthony Leone, Examiner

SUBJECT: Liberty Utilities (Energy North Natural Gas) Corp.

DE 14-216 2016 CORE **FINAL** Audit Report

TO: Tom Frantz, Director, NH PUC Electric Division

Steve Frink, Assistant Director, NH PUC Gas/Water Division Les Stachow, Assistant Director, NH PUC Electric Division

James Cunningham, NH PUC Analyst IV

Introduction

The Public Utilities Commission Audit Staff (Audit) has conducted an audit of the books and records related to the CORE Energy Efficiency Program for the calendar year 2016. The four participating electric utilities, Unitil Energy Systems, Inc. (UES), PSNH d/b/a Eversource, New Hampshire Electric Cooperative (NHEC), and Granite State Electric (GSE) and two gas utilities, Northern Utilities, Inc. (Northern) and Energy North (ENG) filed a joint petition for the program years 2015 through 2016. Each utility was audited individually.

In accordance with Commission Order #24,630 in Docket DG 06-036, ENG provided the Commission with monthly summaries of expenses and recoveries related to the energy efficiency programs. For the 2016 program year, the monthly summaries were properly filed in the instant docket, DE 14-216.

Audit appreciates the assistance of Eric Stanley, Tina Poirier, Sue-Ellen Billeci, Heather Tebbetts, Jim Bonner, and Dave Simek from Liberty Utilities. The Company provided access to all supporting documentation requested by Audit.

Approved 2016 Programs

The participating utilities submitted a joint energy proposal to the Commission on 9/12/2014 for the program years 2015 through 2016 and a joint Settlement Agreement on 12/11/2014. The Commission then approved the 2015 programs by Order 25,747 on 12/31/2014 and the 2016 programs by Order 25,856 on 12/24/2015. As found in the revised Joint Settlement Agreement, the ENG programs for program year 2016 were approved as follows:

Residential

Home Energy Assistance Program (HEA weatherization program)
Home Performance with Energy Star (HPwES- weatherization program)
Energy Star Homes – New Homes & Complete Rehab
Energy Star Products – Lighting & Appliance
Building Codes and Demonstrations

Commercial & Industrial

Large Business Energy Solutions Program Small Business Energy Solutions Program C&I Building Codes

Utility Specific Programs

Home Energy Reports (HER) Pilot-Liberty Utilities will continue the Gas HER behavioral pilot program whereby a paper report is delivered to a randomly selected group of residential natural gas customers with the intent on saving and reducing overall consumption of natural gas. The methods used are detailed on page 90 of the original Joint Settlement Agreement for the 2015 and 2016 programs years.

<u>Early Boiler Replacement Program</u>- Liberty Utilities will continue this pilot program of encouraging residential customers to replace old, inefficient, but still operating natural gas appliances with new, high-efficiency Energy Star rated equipment.

Significant Changes or Updates to the Gas Programs

Third Party Financing- Liberty Utilities began offering a Third Part Financing Pilot program in 2014. This program is essentially designed to encourage residential participation in the HPwES and Energy Star Products programs by offering low interest financing through local, third party creditors. In this program, Liberty secures the ability to buy down a loan from a stated rate of 6.99% or below to 2%. Since inception the program has been adopted by all NH CORE utilities and is no longer specific to Liberty.

Mid-Year Adjustments

Program

The Company notified the Commission of the following transfers on 12/15/2016 and again on 12/22/2016:

To/ (From)

Home Energy Assistance	\$895,000	\$179,000	\$119,000	+13%
Building Practices & Demos	\$298,000	\$ 59,600	\$(20,000)	-7%
Energy Star Products	\$995,000	\$199,000	\$(15,000)	-2%
HPwES	\$645,815	\$129,163	\$(84,000)	-13%
Program	Budget	20% Cap	To/ From	%
Energy Star Homes	\$85,000	\$17,000	\$14,000	+16%
HPwES	\$645,815	\$129,163	\$(14,000)	-2%

Budget20% Cap

Filing Summary

Expenses

Demand Side Management (DSM) expenses for the year ending December 31, 2016 as reported in the shareholder incentive on 5/30/2017 were \$4,979,871. Audit reviewed Table 8 of the shareholder incentive report and noted the totals of the Residential and Commercial & Industrial correspond to the totals found in the rest of the Filing, the Shareholder Incentive calculation and to the GL Activity of EnergyNorth.

Audit reviewed the overall initial and revised budget totals by program and compared them to the reported actuals. As detailed below there were no exceptions.

		2016 Filed Budget per		Revised Budget	Actual Spending	Actual Spent as % of
Program	Jt	Stlmt Agrmt	fro	m Transfers	from Filing	revised Budget
EnergyStar Products	\$	995,000	\$	980,000	\$ 970,998	99.1%
EnergyStar Homes	\$	85,000	\$	99,000	\$ 99,240	100.2%
Home Energy Assistance	\$	895,000	\$	1,014,000	\$ 1,003,642	99.0%
HPwES	\$	646,000	\$	548,000	\$ 478,819	87.4%
Residential Building Practices	\$	298,000	\$	278,000	\$ 245,049	88.1%
Subtotal Residential	\$	2,919,000	\$	2,919,000	\$ 2,797,748	95.8%
C&I Education	\$	25,000	\$	25,000	\$ 24,070	96.3%
Large Business	\$	1,488,000	\$	1,488,000	\$ 1,362,063	91.5%
Small Business	\$	1,190,000	\$	1,190,000	\$ 795,989	66.9%
Subtotal C&I	\$	2,703,000	\$	2,703,000	\$ 2,182,122	80.7%
Grand Total	\$	5,622,000	\$	5,622,000	\$ 4,979,870	88.6%

^{**}Filed & Revised Budget #'s may be rounded for presentation purposes

The actual expenses were 89% of the budgeted totals. The reported actual Home Energy Assistance figure of \$1,003,642 represents 20% of the total expenses, excluding the performance incentive.

The total expenses per the Performance Incentive were \$4,979,870. In the filing, and on the GL, a total of \$4,785,179 can be found, a difference of \$194,692. Liberty indicated the difference is due to the following:

Subtracting 2015 Expenses Recorded in 2016	\$(87,898)
Adding back 2016 Expenses recorded in 2017	\$ 286,701
Subtract Prepaid Funds in the 3 rd Party Fin. Program	\$ (4,112)
	\$194,691

General Ledger Detail (GL)

Audit verified the 2016 Rolling Fund Balance from the <u>monthly reports</u> filed in docket DE 14-216 to:

12/31/2016 Balance reconciliation	\$ (328,868)
2016 Interest	\$ (47,882)
2016 Estimated Incentive	\$ 337,309
2015 Incentive True-Up	\$ 170,731
2016 Expenses Recorded in 2016	\$ 4,785,179
2016 Revenue Collected	\$(5,466,915)
12/31/2016 End & Begin. Balance	\$ (107,290)

GL 8840-2-0000-10-1163-1755 12/31/2016 \$ 328,534 The variance of \$334 is due to rounding and can be seen over the course of the calendar year as separate, smaller amounts.

Audit was provided with the Energy North Gas Company Account Reconciliation for account 8840-2-0000-10-1163-1755, Deferred Peak Reserve DSM, which reflects the ending balance for 2016 of \$328,868. The Wennsoft Financial Reporting system is a system report by project code. Wennsoft is the basis for the expenses reported. If manual journal entries are made to the general ledger (known as Microsoft Dynamics GP 2010), there may not be the necessary system code associated with it. The Company has reconciled each month's reported information to the general ledger, resulting in the report to the Commission agreeing with the ending general ledger.

Performance Incentive

The incentive totals included in the overall ending balance are comprised of:

Calcu	ulated PI_	Activity in GL	PI True-UP for Next Year
2015	\$490,340	\$319,609	\$170,731
2016	\$337,309	\$337,309	\$99,996

Each year, a budget is set of 8% of the estimated expenses. This figure is then charged monthly as the estimated PI. At the end of the year, the total expenses are finalized so the Company can calculate the actual, final PI. This figure is then compared to the estimated/booked amount during the year and a true-up for the remaining or over charge is scheduled for the next calendar year after this Audit report is finalized. Therefore the 2015 true up of \$170,731 was booked in 2016 and the 2016 true up of \$99,996 will be booked to the GL and reflected in the expenses in 2017. Audit recalculated the 2016 submitted PI without exception and notes that the true-up entry is not counted in the total expenses and therefore the Company is NOT earning a PI on a PI.

Revenue - \$5,468,577

Audit reviewed the monthly reports provided to the Commission in the instant docket and noted therm sales by Residential sector, therm sales by C&I sector and a combined report. Audit noted the accurate reflection of the approved Energy Efficiency rates as authorized by the Commission in the last four Cost of Gas Dockets and subsequent Orders. Audit notes that the usage and derived revenue files have been shown to include past billings at appropriate past EE rates;

however the amounts included were not material and such transactions are part of the normal course of business. The Energy Efficiency (EE) and Low Income (LI) rates indicated in the Revenue files submitted by Liberty included the following:

|--|

Customer	Environ.	Energy	Low	Rate	Total
<u>Class</u>	<u>Rate</u>	Efficiency	<u>Income</u>	<u>Case</u>	<u>LDAC</u>
Residential	\$0.0011	\$0.0147	\$0.0073	\$0.0027	\$0.0258
Comm/Ind	\$0.0011	\$0.0076	\$0.0073	\$0.0027	\$0.0187

Docket DG 13-251, Order #25,591 issued for 11/1/2013 – 10/31/2014

Customer	Environ.	Energy	Low	Rate	Total
Class	Rate	Efficiency	<u>Income</u>	Case	LDAC
Residential	\$0.0018	\$0.0197	\$0.0075	\$0.0000	\$0.0290
Comm/Ind	\$0.0018	\$0.0264	\$0.0075	\$0.0000	\$0.0357

Docket DG 14-220, Order #25,730 issued for 11/1/2014 – 10/31/2015

Customer	Environ.	Energy	Low	Rate	Total
Class	Rate	Efficiency	Income	Case	LDAC
Residential	\$0.0055	\$0.0646	\$0.0071	\$0.0000	\$0.0772
Comm/Ind	\$0.0055	\$0.0502	\$0.0071	\$0.0000	\$0.0628

Docket DG 15-353, Order #25,833 issued for 11/1/2015 – 10/31/2016

Customer	Environ.	Energy	Low	Rate	Total
Class	Rate	Efficiency	Income	Case	LDAC
Residential	\$0.0144	\$0.0585	\$0.0145	\$0.0140	\$0.1014
Comm/Ind	\$0.0144	\$0.0256	\$0.0145	\$0.0140	\$0.0685

<u>Docket DG 16-814, Order</u> #25,958 issued for 11/1/2016 – 10/31/2017

Customer	Environ.	Energy	Low	Rate	Total LDAC
Class	Rate	Efficiency	Income	Case	(thru 12/31/16)
Residential	\$0.0155	\$0.0402	\$0.0067	\$(0.0071)	\$0.0553
Comm/Ind	\$0.0155	\$0.0219	\$0.0067	\$(0.0071)	\$0.0370

Per the Company, the Cogsdale billing system calculates customer invoices which are processed and printed from Fiserv, the Company's billing service provider. Audit requested and was provided with a summary revenue consumption file for the month of June 2016. The summary reflected fixed revenue, therms, cost of gas, LDAC, as well as other sources such as Gas Supply charges, Base Revenue charges and Fixed Revenue charges. Transportation customers' revenue, which is booked to general ledger account 8840-2-0000-40-4460-4893, was summarized in one section, and the non-transportation residential and commercial/industrial customers' revenue was separately summarized. Those revenues are booked to general ledger account 8840-2-0000-40-4295-4800 and 4810.

Audit verified that the combined C&I and Residential June therm usage was 6,699,259 which agreed with the monthly reports filed in the instant docket. The information supplied broke down the

therm usage by Rate Class. The month of June LDAC revenue was calculated at \$521,599 and the energy efficiency revenue portion being verified at \$234,267. Audit verified the EE portion using only the gross therm sales as reported (not counting occupant billings) and recalculated a figure of \$234,282, a \$15 difference from the reported revenue figure.

Liberty has described Mr. Occupant billings as locations which are listed "vacant" in their system, but once the meter usage reaches a certain threshold a bill is triggered and sent to the address. On the accounting side, Liberty states they back out the revenue from Mr. Occupant billings until such time as deemed uncollectable or the new owner/tenant pays the bills. This also helps to explain the reason for having bills in the current revenue report with non-current (past) LDAC rates as they are collected after the fact.

Interest - \$47,882

Audit reviewed the rolling monthly summary for the period ended 12/2016 filed in the instant docket. The reported interest was properly calculated at 3.50% on the average monthly balance, including interest from the previous month. Specifically, EnergyNorth calculates the interest using the average of the beginning and ending balances divided by 365 then multiplied by the actual number of days in that month.

Expense Review - \$4,979,871

Expenses were verified to the summary of expenses provided in the detailed Excel spreadsheet and the reconciliation of the GL to the actual expenses. Expenses are debited to general ledger account #8840-2-0000-69-5390-9080 and credited to the balance sheet #8840-2-0000-10-1163-1755.

Residential Programs	Evaluation	Int	. Admin	Int. Impl.	M	arketing	F	Rebates		Total
ES Products	\$ 23,055	\$	7,109	\$ 79,279	\$	15,349	\$	846,206	\$	970,998
ES Homes	\$ 21,747	\$	1,269	\$ 6,449	\$	2,209	\$	67,564	\$	99,238
HEA	\$ 21,273	\$	8,143	\$ 59,268	\$	-	\$	914,958	\$:	L,003,642
HPwES	\$ 20,371	\$	12,020	\$ 54,356	\$	9,950	\$	382,122	\$	478,819
Demos & Codes	\$ 9,300	\$	2,736	\$ 23,173	\$	4,952	\$	204,888	\$	245,049
Total residential	\$ 95,746	\$	31,277	\$222,525	\$	32,460	\$2	2,415,738	\$2	2,797,746
% of total Program Spending	3%		1%	8%		1%		86%		100%
Commercial & Industrial										
Large Business	\$ 38,587	\$	10,237	\$ 88,962	\$	12,283	\$1	L,211,994	\$:	L,362,063
Small Business	\$ 27,739	\$	8,428	\$ 87,899	\$	16,730	\$	655,192	\$	795,988
C&I Codes and Education					\$	6,000	\$	18,070	\$	24,070
Total C&I	\$ 66,326	\$	18,665	\$176,861	\$	35,013	\$1	L,885,256	\$2	2,182,121
% of total Program Spending	3%		1%	8%		2%		86%		100%
Grand Total	\$ 162,072	\$	49,942	\$399,386	\$	67,473	\$4	1,300,994	\$4	1,979,867

^{**}Actual Expenses may vary from other sources due to rounding

Audit selected a sample of the expenses for detailed review. Those results are summarized below. Expenses which are allocated among energy efficiency programs and between EnergyNorth and Granite State Electric are based on budget percentages.

Selected Allocated Expenses

Audit reviewed a detailed Excel listing of entries which were allocated to <u>Internal Administration and Internal Implementation</u>, which as reported, sum to \$449,328 and matched the reported totals for the same categories of expenses in the Reconciliation Filing.

	Internal	Internal
	Administration	Implementation
Journal entries-labor	\$ -0-	\$ 71,092
Margaret Curran	\$ -0-	\$ 37
IPP	\$ -0-	\$ 129
Robert McLean	\$ -0-	\$ 3,024
Matthew Minghella	\$ -0-	\$ 811
Eric Stanley	\$ 2,031	\$ -0-
CORE Team labor	\$47,912	\$410,104
Total	\$49,943	\$398,844

The <u>journal entries-labor</u> figure of \$71,092 represents the net activity for the year of labor cost accruals and reversals plus bonus pay and pay rate increases during the year. All of the individuals listed in the above table are Liberty employees who work in the EE Group or provide support to the group.

The Company paid <u>ANB Enterprises</u> to provide the software used to track the energy efficiency programs. The costs were allocated between ENG and GSE with ENG having \$102,627. Liberty has stated that the charges from ANB are allocated on an invoice basis and in doing so Liberty attempts to more precisely match the actual charges to the programs which it impacted and only those programs. The total costs allocated to ENG were expensed as evaluation, and were spread among the programs as follows:

C&I Large Business - Evaluation	\$	26,605
C&I Small Business - Evaluation	\$	21,066
Residential Appliance - Evaluation	\$	17,489
Residential Low Income - Evaluation	\$	16,009
Residential ES Home - Evaluation	\$	1,546
Residential Tech Demo - Evaluation	\$	7,172
Residential HPwES - Evaluation	\$	12,740
Total ANB Enterprises \$102,6	27	

Program Rebate and Service Expense Review

The total expenses for the year were \$4,979,871 and of that amount \$4,785,179 or 86% was spent on Rebates/Services. The remaining 12% was spent on everything from Marketing to Administration to Implementation. Audit has reviewed and included selected invoices in the

summaries below. Each program is listed separately and contains a description of the invoice(s) reviewed.

C&I Education \$24,070

Audit reviewed one invoice from GDS Inc. for conducting a C&I Energy Codes workshop. The invoice indicated a total cost of \$22,500 for 4 workshops (2x Residential and 2x C&I). The \$22,500 was further broken down between the 4 CORE utilities in NH; Eversource, NHEC, Liberty and Unitil. Liberty was initially assigned 24.8% (\$5,595.75) and further divided that amount into \$4,084.90 (73%) to Gas and \$1,510.85 (27%) to Electric. Liberty gave further information regarding attendance:

Residential 67 Combined total for both workshops C&I 58 Combined total for both workshops

Large Business Energy Solutions \$1,362,063

The first invoice reviewed by Audit covered energy efficiency improvements installed at a Fed Ex facility in Londonderry, NH. In the facility, a new construction project, the contractor installed 73 infrared heaters at a cost of \$162,936 after a rebate of \$54,750 (25%). The contractor also installed 221 custom, energy efficient high speed doors with an incremental cost of \$85,518 and a rebate of \$42,759 (50%).

The second invoice reviewed was a rebate for energy efficiency measures installed at a local farm in Loudon, NH. The installed measures included 2 high efficiency boilers and 1 thermal insulation curtain. The project was determined to be new construction and therefore qualified for the higher incentives. Specifically, the incremental cost of the boilers was \$194,424 and the customer received an incentive of \$97,212 (50%) and the cost of the curtain was \$84,670 and the customer received an incentive of \$42,665 (50%). The total incentive therefore came to \$139,547.

Small Business Energy Solutions \$795,988

The first invoice reviewed by Audit was for energy efficiency measures completed at a new senior housing facility in Nashua, NH owned and operated by Southern NH Services. The documents indicated the facility had the following installed on existing buildings: high efficiency condensing boilers, indirect hot water tanks, exhaust heat recovery units and attic insulation. The total cost of the rebate was \$31,664.

Residential Home Performance with Energy Star (HPwES) \$478,819

The first invoice reviewed was issued from Horizon Residential Services, Inc. The invoice indicated HPwES Gas Program Prepay- \$15,000. Audit asked about the prepayment of funds and Liberty stated in the past that having HRS perform the duties of cutting checks is more expeditious and efficient than creating a process at Liberty to ensure contractors are paid within acceptable timeframes.

The second invoice reviewed was sent from Horizon Residential Energy Service, LLC for services performed at various addresses within the Liberty service area. Liberty forwarded a detailed invoice which totaled \$4,912. The invoice indicated Horizon contracted with various sub-contractors such as Shakes to Singles, Newell & Crathern, Mill City Energy, Building Efficiencies, LLC, Turn Cycle Solutions, LLC and Yankee Thermal Imaging, Inc. who completed the weatherization services. The highest cost was noted at \$2,496 and the lowest at \$675. Liberty also forwarded an OTTER printout with details on the types of measures installed and services performed. OTTER is the system which tracks the HPwES and HEA weatherization improvements and is also used to ensure uniform billing from all contractors for the qualifying measures.

Audit asked and Liberty responded that Horizon continued to be contracted to perform the following duties: plan, coordinate, oversee and collaborate on programs with the Liberty Program Analyst; customer intake and screening, assignment of qualifying customers to contractors, review and approve paperwork and applications, data management and tracking, approving invoices for payment, and complaint resolution. In addition, HRS ensures quality assurance inspections (audits of measures installed), uploading information into ETRACK for tracking purposes and issuing IRS Form 1099 for contractors at year's end.

Residential Energy Star Products \$970,998

The first invoice reviewed was issued by EFI for mail in rebates for the month of February 2016. The invoice indicated mail-in rebates were processed for Furnace/Boilers, Combination Units, Thermostats, and Water Heaters. The cost of the rebates was \$72,806, the fees totaled \$1,466 and a grand total of \$74,272.

The second invoice was sent from Horizon Residential Energy Services, LLC on 10/3/2016. Horizon billed Liberty for the replacement of approximately 6 FHW boilers under the early boiler replacement program. Under the program, each customer replacing a boiler is eligible to receive up to \$3,000 towards the cost to replace the boiler. The total cost was \$18,000. As discussed above, HRS bills in advance of the actual work performed in order to ensure the payments are processed in a more timely and efficient manner than Liberty is currently set up for.

Residential Home Energy Assistance \$1,003,642

The invoice reviewed by Audit was sent from Southern NH Services, the Community Action Program covering Hillsborough and Rockingham Counties. As per the Settlement Agreement, the CAPs are given first right for Low Income residents who are approved for weatherization updates. The CAPs conduct then facilitate and coordinate with contractors to perform the services. The invoice submitted by Liberty was printed from OTTER, discussed earlier, and broke the cost down between Admin, Rebate, Credit and total cost. All of the costs in the OTTER system are standardized therefore no matter the contractor performing the work, the Core Program is paying the same fee for the weatherization service provided. The total of this invoice was \$123,227.

Residential Energy Star Homes \$99,240

The first invoice reviewed was an Energy Star Home Certification Report prepared by GDS Associates, Inc. for newly constructed residential condos in Bedford, NH. The Report indicated the rebate consisted of 36 Energy Star Refrigerators for a total rebate of \$900, \$18,000 for meeting the minimum HERS index and another \$11,400 for each additional point below the target HERS index. The total rebate was therefore \$30,300.

The second invoice was paid to GDS Associates Inc. for their work in reviewing new construction projects. Specifically, GDS conducted Plans Analysis & Mid-Point Inspections on specific properties. As noted above, GDS also conducts the final testing and the Energy Star Home Certification Reports. The total cost for these services was \$11,700 for 72 hours of work at an average of \$16.25 per hour.

Residential Building Practices and Demonstrations \$245,049

Audit reviewed one invoice under this program for a total of \$64,500 for services provided by OPower, who is currently contracted to provide services for the Home Energy Reports Pilot Program. Liberty signed a multi-year extension agreement with OPower 8/30/2015 to continue providing services under the Home Energy Reports Pilot.

OEP/CDFA

For the 2015 and 2016 program years the OEP/CDFA through the Federal Better Buildings Program has made available up to \$150,000 for use in buying down the interest rates on unsecured consumer loans associated with the HPwES program. EnergyNorth indicated there were no funds used. In addition, since the money comes from the Federal Government it is not subject to the review standards of the other monies in this report.

Third Party Financing Program \$17,296

As found in the 4th Quarter Report filed by Eversource, EnergyNorth bought down the interest rate on 21 projects at a cost of \$17,296. Liberty started the year with \$36,920 and less the amount used had a remaining balance of \$19,624 available to buy down rates as of 1/1/2017 before any additional funding. EnergyNorth also indicated the interest rate was bought down from an average of 6.56% to the Agreed upon 2%.

Audit requested the results of the current program, details regarding the lenders with whom the interest rate buy downs (IRB) were negotiated, loan limits, the number of customers, the amount of the loans, and the total of the IRB included as an expense in 2016. The IRB is paid in full, up front, and buys the interest rate down to 2% for the customer.

The Company indicated that the lenders do not report loan defaults. The Company provided a summary of the terms of the loans with the various banks and credit unions. These terms included the following general repayment schedule:

Loan Amount	Maximum Repay	ment Term
\$1,000 up to \$2,000	for up to 2 years	(24 months)
\$2,001 up to \$4,000	for up to 3 years	(36 months)
\$4,001 up to \$6,000	for up to 4 years	(48 months)
\$6,001 up to \$9,000	for up to 5 years	(60 months)
\$9,001 up to \$12,000	for up to 6 years	(72 months)
\$12,001 up to \$15,000 for up	to 7 years (84 mo	onths)

The detailed spreadsheet provided by the company contained dates, location, loan amount and term, related 2% IRB, the total of any related HPwES, Boiler, or EBR rebate, any customer co-pay, the total investment, total rebate, project type, and contractor.

For 2016, there were a total of 21 customers who borrowed \$159,768. 13 of the loans originated through Merrimack County Savings Bank, 7 through Northeast Credit Union, and one through Granite State Credit Union. On average, each customer saved \$824 of interest charges over the life of their loan.

Liberty contracts with Horizon to ensure that the buy-down of the loan from the total present value to 2% interest rate was paid to the issuing bank within a five day window. Audit requested clarification of the verification process used by ENG to ensure the "subsidy disbursement (interest rate buy-down) is properly calculated. The Company indicated that an interest buy down spreadsheet is used (Microsoft Excel amortization and present value calculation). The buy down calculation is compared to the figure prepared by the bank, and the lower of the two amounts is paid.

Audit requested the IRB calculations and accompanying invoice for three customers. The calculations reviewed indicated the bank was paid the present value (PV) of the difference of the monthly payments calculated using the banks rate (5.99%, 6.49% or 6.99%) and the discounted rate of 2.00%. All calculations were reviewed and any variances were immaterial. The buy-down amounts were charged to the Residential Education and Demo expense account in 2016 according to the Settlement Agreement at the time. Liberty has indicated that starting in 2017 the buy-down expenses will be charged to the program for which the buy-down is associated, EnergyStar Products or Home Performance with EnergyStar (HPwES).

In the previous Audit, the Company detailed the process used to ensure that the payment made by Horizon to the participating bank is made within the contracted five day timeframe. The Company stated that the same process is still in place. That process was detailed in the following explanation: "Liberty Utilities' Program Administrator (PA) receives an email from the bank with the detailed invoice and required documents attached. Within two business days the PA reviews the documents and emails the documents to HorizonRES for payment to the specific bank. The email states the bank name and payment amount. HoizonRES then pays the bank and emails a confirmation to the PA when the payment was made." Horizon charges Liberty (in quarter hour installments) \$60 per hour to process the 2% buy-downs. Audit requested clarification of the use of Horizon vs. processing the checks internally, and was told that the internal processing for expedited checks is not cost effective.

Summary of 2016 Activity

Audit reviewed the Filing, reported revenues, expenses and incentive earned by the Company and found no material exceptions to the information filed. Any and all true-up entries will be included in the 2017 GL, Reconciliation and Filing totals. The current true-up is a total of \$99,996 calculated solely from the PI. The ending Filed over-collection of \$(328,868) was properly supported by all Filings and Audit requests.

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: November 9, 2017 **AT (OFFICE):** NHPUC

FROM: Karen Moran, Chief Auditor

SUBJECT: Northern Utilities, Inc.

DE 14-216-2016 CORE **FINAL** Audit Report

TO: Tom Frantz, Director Electric Division NHPUC

Steve Frink, Assistant Director, Gas/Water Division NHPUC Les Stachow, Assistant Director, Electric Division NHPUC Jim Cunningham, Analyst IV, Electric Division NHPUC

Introduction

The Public Utilities Commission Audit Staff (Audit) has conducted an audit of the books and records related to the CORE Energy Efficiency Program for the calendar year 2016. The four participating electric utilities, Unitil Energy Systems, Inc. (UES), Public Service of New Hampshire d/b/a Eversource (Eversource), New Hampshire Electric Cooperative (NHEC), and Granite State Electric (GSE) and two gas utilities, Northern Utilities, Inc. (Northern) and Energy North (Liberty) filed a joint petition for the program years 2015 through 2016. Each utility was audited individually.

In accordance with Commission Order #24,630 in Docket DG 06-036, Northern was directed to provide the Commission with monthly summaries of expenses and recoveries related to the energy efficiency programs in effect as well as a final report and to file those summaries in the most current docket; in this case DE 14-216. Audit thanks Karen Daniell and Travis Cilley for their timely assistance throughout the audit process.

Summary

The participating utilities submitted a joint energy proposal to the Commission on 9/12/2014 for the program years 2015 through 2016 and a joint Settlement Agreement on 12/11/2014, updated on 9/30/2015. The Commission then approved the 2016 programs by Order #25,856 on 12/24/2015. Northern Utilities' programs for 2016 were approved as follows:

Residential

Home Energy Assistance Program (weatherization program) NH Home Performance with Energy Star (HPwES) Energy Star Homes Energy Star Appliance Program (Gas Networks) Residential Education
Residential Loan Buydown / Third Party Financing

Commercial and Industrial
Large Business Energy Solutions Program
Small Business Energy Solutions Program

Codes, Audits & Educational Programs

Changes to the CORE for 2016

The Agreement, its attachments, and the Order also included the following changes for the 2016 program year, outlined initially in the testimony of J. Cunningham on 11/12/2015: Design changes

- EnergyStar refrigerator rebate reduced from \$30 to \$20
- Rebate for Advanced Power Strip eliminated
- Markdowns for Lighting rebates at retail stores will be made in advance for a 30 day period
- HPwES increased customer costs from 50% to 100% for certain measures that are no longer cost effective, such as certain types or applications of insulation
- Rebate for EnergyStar dishwashers was eliminated due to use of same in new homes has become standard practice
- Incorporated updates from the Avoided Energy Supply cost report prepared by Tabors Caramanis Rudkevich

<u>Savings assumptions</u> include updates to the HEA by the CAA; updates to EnergyStar products to incorporate new baselines reflecting federal guidelines; and updates to the Large and Small C&I programs based on actual projects from prior years, as well as the assumptions in the Evaluation Monitoring and Verification (EM&V) impact study performed by DNV-GL.

Funding changes

- 3rd party loan interest rate buy-downs (to 2% up to 7 years, up to \$15,000) have been enhanced by an agreement with the NH CDFA which is providing up to \$150,000, not considered part of the CORE. CORE funds may be used for the buy-downs if the CDFA funds are expended, and/or the project does not meet the federal Better Buildings Program guidelines (unspent budgeted funds will be used in the HPwES)
- Unitil Electric will transfer \$65,000 from unspent on-bill financing monies from the 2014 to HPwES
- Eversource will provide approximately \$463,000 in carryover funds to implement its Customer Engagement Platform (CEP)
- Quarterly reports will include a 2-page insert regarding information on the third party bydown financing option, (all Electric utilities and Gas utilities)
- Additional information on Eversource's Customer Engagement Platform must be provided in the quarterly report (Eversource only)
- Eversource will continue development efforts to ensure customers may download usage information for use in programs such as EPA's Portfolio Manager, to facilitate efforts to

manage usage and take advantage of efficiency programs and measures (Eversource only)

Mid-Year Adjustments

Northern Utilities did not report any budget transfers in calendar year 2016.

Beginning Balance 1/1/2016 (over)

Program Year 2016 Activity

Northern provided a reconciliation of the running fund balance as part of the Annual Report and Performance Incentive package on June 1, 2017. The beginning balance was verified to the revised 2015 shareholder incentive package, provided to the Commission on 10/24/2016 as a result of the 2015 audit. Below is a representation of the 2016 reconciliation.

\$ (176.315)

Beginning Buttinee 1/1/2010 (0 vol)	Ψ	(170,515)
Energy Efficiency Charge Revenue	\$	(1,230,230)
Interest	\$	(13,400)
Total Funding	\$	(1,243,630)
Program Expenses	\$	1,333,936
PI-Current Year Estimate	\$	107,812
PI-Prior Year(s) True-up	\$	3,969
Total Expenses	\$	1,445,717
Ending Balance 12/31/2016 (under)	\$	25,772
Actual Performance Incentive-2016	\$	94,809
Ending Balance w/Actual PI	\$	12,769

The program activity reported was verified to the accounting model used by the Unitil Accounting Department. Audit verified the rolling over / under calculations of balances, revenues, expenses, and interest at 3.25% for January through March, then 3.5% for the remainder of 2016.

The ending 2015 over-collection, and the ending 2016 under-collection were verified to the following general ledger accounts:

	<u>12/31/15</u>	<u>12/31/16</u>
30-40-00-00-173-41-02 Accrued Revenue EE-R-NH	\$ (90,233)	\$ 81,574
30-40-00-00-173-41-06 Accrued Revenue EE-CI-NH	\$ (86,081)	\$(43,303)
Net over/(under) collection	\$(176,314)	\$ 38,271

Audit requested clarification of the ending balances reported vs. the general ledger, as well as the reason for the total performance incentive shown on the Reconciliation page of the 2016 SHI filed on 6/1/17 \$94,809, and the incentive totals on pages 2 of 4 and 3 of 4 which sum to \$101,401 do not agree. The Company, on 10/31/2017, provided the following:

The Company has identified two errors in the Annual Report filing...the final revision will be filed after completion of this audit. The corrections to the Annual Report are:

1. Page 2: Line 14-Implementation Expense was overstated by \$490. This change flows through the performance incentive calculation on pages 2 and 3, and the reconciliation on page 4 as follows:

Page-Line and Title	Adj.	As Filed	Revised	Comments
2-14: Implementation Expenses	(\$ 490)	\$ 797,600	\$ 797,110	Expense reduction
2-17: Residential Performance Incentive	(35)	58,065	58,030	(\$490) * 7.28% 3.56% (line 15)
2-19: Total Performance Incentive	(35)	101,401	101,366	<u>3.72%</u> (line 16) 7.28%
3-8: Implementation Expenses	(490)	797,600	797,110	See above
3-10: Performance Incentive	(35)	58,065	58,030	See above
3-11: Total Costs (Including PI)	(526)	1,284,508	1,283,982	\$490 + \$35
4-5: Program Expenses	(490)	1,333,936	1,333,446	Lines 3-2 + 3-8

2. Page 4: Line 10-Actual Performance Incentive-2016. This value was incorrect due to a formula error...the value was filed as \$101,401 and has been revised to \$101,366.

The <u>proposed revised four page incentive</u> package does reflect the information described above, and reflects the following, resulting in an ending under-collection of \$18,836:

2016 Beginning over-collection	\$ (176,315)
EE Revenue	\$ (1,230,230)
Interest	\$ (13,400)
Total Funding	\$ (1,243,630)
Program Expenses	\$ 1,333,446
PI Current Year Estimate	\$ 107,812
PI-Prior Year true-up	\$ 3,969
Total Expenses	\$ 1,445,227
Ending under-collection	\$ 25,282
Actual Performance Incentive-2016	\$ 101,366
Ending Balance w/Actual PI	\$ 18,836

The reconciliation of the ending balance to the general ledger was noted to be:

Ending Balance with Actual PI	\$ 18,836
Removal of actual PI	\$ (101,366)
Add back of estimated PI	\$ 107,812
add back an overpayment	\$ 12,990
Adjusted Ending Balance	\$ 38,272
general ledger at 12/31/2016	\$ 38,271

Audit requested clarification of the overpayment and was informed that it is the result of double payment of a heating rebate in 2016. The funds were returned to the CORE program in January 2017.

Audit verified that the December 2016 quarterly report filed on 2/15/2017 in this CORE docket, as well as the 12/2016 ending balances filed in the 2017-2018 Cost of Gas DG17-144 Schedule 16-EEC pages 3 of 4 and 4 of 4, reflect the \$38,271 net 12/2016 ending balance.

Budget vs. Actual Revenue and Expenses

The CORE Gas Energy Efficiency Programs are funded by a portion of the Local Delivery Adjustment Charge (LDAC), which is applied to the gas bills of all customers receiving service through one of the NH Gas Utilities (excluding those customer with special contracts). The rates are set during the annual cost of gas dockets, and are in place from November through October of the following year. Similar to the electric programs, any unspent funds from prior program years are carried forward to future years, including interest earned at the prime rate. As noted within the Plan filed in DE 14-216 on 9/30/2015, the estimated revenues and expenses, and actuals as filed in the Performance Incentive (PI) documentation submitted to Audit on 10/31/2017 are:

		Actual per	
	Estimated	Proposed PI	Actual as % Budget
LDAC	\$1,321,604	\$1,230,230	93%
Carryforward and Interest	\$ 133,854	\$ 189,715	142%
Total Funding	\$1,455,459	\$1,243,630	
Residential-Low Income HEA	\$ 208,884	\$ 232,459	111%
Residential-All Others	\$ 568,733	\$ 564,651	99%
Commercial and Industrial	\$ 570,030	\$ 536,335	<u>94%</u>
Total Expenses	\$1,347,647	\$1,333,445	99%

The noted actual expenses per the PI do not include the shareholder incentive estimates or true-ups.

Audit also compared the budgeted and actual expenses as presented in the 4th Quarter Energy Efficiency Report in DE 14-216 filed on March 1, 2017.

			Actual	В	udgeted	% of
GL Name	Program Name	<u>E</u> :	xpenses	E	kpenses	Budget
Res New Construction	EnergyStar Homes	\$	90,657	\$	68,750	132%
Residential Retrofit	HPwES	\$	125,903	\$	147,740	85%
Residential Gas Equip	EnergyStar Products	\$	338,983	\$	335,243	101%
Low Income Retrofit	Home Energy Assist.	\$	232,459	\$	208,884	111%
Res Energy Code/Edu	Residential Education	\$	9,110	\$	17,000	54%
LC&I Gas Networks	Large Business Energy Solutions	\$	318,458	\$	325,308	98%
SC&I Gas Networks	Small Business Energy Solutions	\$	210,949	\$	231,722	91%
C&I Codes and Education	C&I Education	\$	6,928	\$	13,000	53%
		\$1	L,333,447	\$1	,347,647	99%

Revenue

A total of 66,770,595 therms were included within the Accounting Model. Audit verified the reported revenues to the PUC annual report pages 30-31. An audit was completed for the full year 2016 as part of a rate case docket DG 17-070. Revenue was reviewed in detail as part of that audit, with no exceptions identified. Additional audit work, therefore, was not completed for this specific CORE audit.

The DSM (demand side management/aka CORE) tariff rate per them for the calendar year 2016 was set as part of dockets DG 15-393, DG 16-309, and DG 16-819 as follows:

	<u>11/1/2015</u>	<u>11/1/2016</u>
Residential	\$0.0297	\$0.0331
Comm/Ind	\$0.0146	\$0.0142

The DSM rate is part of the larger local delivery adjustment charge, LDAC, which includes per therm surcharges for the DSM, low income, and environmental remediation.

Actual Revenue for the year, \$1,230,230 was verified to sixteen general ledger accounts, each beginning with 30-49-01-72-48X-0X-0X and to the Accounting Model used by the Company, without exception. The balance sheet Accrued Revenue accounts 173 reflect the ongoing over/under collection, including interest. Balances in other Accrued Revenue 495 accounts reflect the net activity of revenues and expenses, excluding interest.

30-49-01-72-495-01-02 Accrued Revenue LDAC-EEC Residential	\$175,156
30-49-01-72-495-01-06 Accrued Revenue LDAC-EEC Small C&I	\$ 52,831
Total credit to Revenue accounts 495	\$227,987

Interest

The Energy Efficiency Program Monthly Report shows that interest is calculated based on the average (over)/under recovery balance multiplied by the prime rate, divided by 366, then multiplied by the number of actual days in the respective month. The month-end (over)/under recovery balance including interest is used as the beginning balance for the following month.

Total interest for 2016 was reported as \$13,400. Audit verified the interest rates reported correspond to the quarterly prime rates provided to utilities by the PUC, 3.25% for January through March, then 3.5% for the remainder of 2016.

Interest included within the PI reconciliation (original and revised) in the amount of \$13,400 was a funding source, verified to:

30-40-01-72-431-10-05, Interest Expense \$13,913 30-40-01-72-419-10-05 Interest Income \$ (512)

Net interest funding CORE \$13,401 rounded

Expenses

There are 83 general ledger accounts numbered 30-49-02-72-908-XX-xx. 908 represents the FERC expense account to which the costs are booked. XX identifies the program, and xx identifies the type of expense. Audit verified the reported 4th Quarterly Expenses (as revised by the 10/31/2017 detail provided to Audit) by Activity to the 12/31/2016 general ledger.

]	nternal	E	kternal	Rebates/								
		<u>Admin</u>	1	Admin	Services	<u>Im</u>	elementation	M	arketing	I	EM&V	_	<u> TOTAL</u>
Home Energy Assistance	\$	14,857	\$	5,554	\$ 167,832	\$	41,125	\$	-	\$	3,090	\$	232,458
EnergyStar Homes	\$	4,643	\$	707	\$ 71,513	\$	9,036	\$	-	\$	4,758	\$	90,657
HPw/EnergyStar	\$	10,214	\$	5,037	\$ 76,474	\$	31,300	\$	753	\$	2,124	\$	125,902
EnergyStar Products	\$	23,215	\$	8,201	\$ 268,694	\$	28,396	\$	5,649	\$	4,828	\$	338,983
Residential Education	\$	3,194	\$	4,656	\$ -	\$	1,260	\$	-	\$	-	\$	9,110
Total Residential	\$	56,123	\$	24,155	\$ 584,513	\$	111,117	\$	6,402	\$	14,800	\$	797,110
Large Business Energy Solutions	\$	23,215	\$	3,536	\$ 269,404	\$	17,411	\$	65	\$	4,828	\$	318,459
Small Business Energy Solutions	\$	16,715	\$	5,999	\$ 164,013	\$	17,089	\$	3,656	\$	3,476	\$	210,948
C&I Education	\$	3,158	\$	3,771	\$ -	\$	-	\$	-	\$	-	\$	6,929
Total Commercial-Industrial	\$	43,088	\$	13,306	\$ 433,417	\$	34,500	\$	3,721	\$	8,304	\$	536,336
Total 2016	\$	99,211	\$	37,461	\$ 1,017,930	\$	145,617	\$	10,123	\$	23,104	\$ 1	,333,446

The specific general ledger expense activity codes reviewed are summarized below. The representation in the grid above, which reflects the 4th quarter report, sums several expense accounts together. Audit was able to verify each. Specific account types are summarized below:

Program Admininstration-10	\$ 144,358
Program Stat-11	\$ 46,668
Regulatory and General–13	\$ 92,859
Third Party Administration-14	\$ 32,228
C&I SW Marketing Internal Administration -16	\$ 3,158
3 rd Party Marketing-21	\$ 10,123
Residential 3 rd Party Marketing-22	\$ 1,066
C&I SW Marketing 3 rd Party-24	\$ 1,458
Residential Education 3 rd Party Administration-26	\$ 3,590
C&I Energy Code-27	\$ 2,313
Residential Energy Code-28	\$ 1,260

Monitoring and Evaluation-20	\$	12,946
3 rd Party Monitoring and Evaluation-31	\$	10,158
Residential Building Practices Rebate-35	\$	713
Rebates-40	\$	874,112
Energy Audits-41	\$	96,436
Total GL by account type	\$1	,333,446

USC performs shared utility services for the affiliates and issues monthly billings for labor, overhead and direct charges. The general overhead charge includes costs for indirect labor and Administrative and General Expenses. Administrative and General Expenses, including USC employee fringe benefits, are those expenses which cannot be directly charged to a specific entity. The expenses not charged to a specific NU-NH or NU-ME account are booked to NU-Common, then allocated to NH and ME based on the cost allocation manual. Allocations of the monthly USC Service Bills were verified to account type #10. Account types to which the monthly allocation of NU Common accounts were verified were #10, #11, #13, #14, #30, #31. Audit tested the payroll and USC Service Billings for the 2016 program year as part of the DG 17-070 rate case audit. There were no exceptions noted.

Audit requested clarification of expense code 11, Program Stat, and was told that the acronym represents Sales, Technical Assistance, and Training. Audit reviewed eight general ledger accounts and noted that the activity within each was the allocation of NU Common balances as described above. The account with the largest balance, 30-49-02-72-908-50-11 \$34,217 was the Large C&I, New Construction Equipment.

Gas General Evaluation

Audit reviewed the entries in account 30-49-02-72-908-00-71 and selected two specific items for review. The overall balance in the account \$6,365.72 was cleared monthly to specific program expense accounts, and ended the year with a zero balance.

One entry in the amount of \$1,218.70 for NEEP was supported with an invoice from NEEP for a quarterly EM&V forum, incremental cost study, loadshape data catalog, and ISO-NE M&V support. The total invoice of \$3,240 was split between UES and Northern, for 3rd Party Monitoring and Evaluation.

A second invoice paid to Tabors Caramanis Rudkevich, Inc. in the amount of \$673.50 was for professional services provided for an Update to the 2015 AESC. The total invoice, dated 11/7/2016 amounted to \$53,538 and was split among four states.

Maine	\$15,847
New Hampshire	\$15,579
Rhode Island	\$14,295
Vermont	\$ 7,817
	+ .,

New Hampshire's portion was paid by all participating utilities, both gas and electric:

LU-Electric (GSE)	\$1,064.83
NHEC	\$ 824.33
Eversource	\$8,739.08
Unitil (UES)	\$1,468.12
LU-Gas (ENG)	\$2,809.55
Northern Utilities	\$ 673.50

Gas General Planning and Administration-Legal

As above, this account activity was cleared monthly to specific program expense accounts. The activity within it was reviewed, and three invoices paid to Orr & Reno were selected for review. The account 30-49-02-72-908-00-95 reflected \$14,142 overall activity. The three invoices represent 52% of the activity. Each invoice identified docket DE 15-137, EERS, as the basis for the legal work conducted. Each invoice was also split 50%/50% NU and UES.

Home Energy Assistance \$232,458

As found in Commission Order #25,717 and the Agreement, 15.5% of the overall budget shall be apportioned to the HEA/LI weatherization program. At the end of 2016, 17% of the actual expenses were those associated with the HEA program.

Audit verified the total to eight specific general ledger accounts, each beginning with 30-49-02-72-908-01-XX.

A rebate of \$43,893.10, booked to the general ledger 30-49-02-72-908-01-40, Low Income Rebates on 7/20/2016, was paid to Southern NH Services. The total invoice for administrative costs \$6,104.58 and rebate costs \$43,893.10 for nine customers amounted to \$49,997.68. The \$6,104.58 was booked to the Low Income Energy Audits account 30-49-02-72-908-01-41. None of the nine exceeded the \$8,000 limit.

One additional entry in the Low Income Energy Audits account 30-49-02-72-908-01-41 was selected for review. \$1,250 was booked on 9/2/2016. The invoice supporting the entry was dated 4/21/2016 for a two day Northern New England Cap Conference held at Sunday River in Maine. The total sponsorship was split evenly between NU-NH and UES at \$1,250 each.

An explanation for eleven monthly entries of \$184.83 noted within accounts Retrofit 1-4 3rd Party Admin and Residential G Retrofit 1-4 3rd Party Admin was also requested. That activity was noted within accounts 908-01-14 and 908-25-14 respectively. The Company indicated that the entries were for Performance Systems Development (PSD) which maintains and supports the Treat-OTTER modeling invoicing software. The software is used by the participating CORE gas and electric utilities, as well as the CAA weatherization programs. Invoices are split monthly among the gas and electric Low Income (HEA) and HPwES programs.

EnergyStar Homes \$90,657

Audit verified the total to eight specific general ledger accounts, each beginning with 30-49-02-72-908-47-XX.

A rebate in the amount of \$2,900.00, booked on 8/22/2016 to account 30-49-02-72-908-47-40, Rebates, was selected for review. A copy of the 2016 EnergyStar Homes Program single family rebate form was provided which showed the calculations for the products purchased and the HERS index rebate calculations.

Residential New Construction Energy Audits account 30-49-02-72-908-47-41 reflected an entry in the amount of \$11,835 on 12/21/2016 paid to GDS Associates. The documentation provided reflected GDS billing period for the month of November 2016 for work in Bow, Concord, Dover, Exeter, Hampton, and Portsmouth. The total invoiced amount of \$27,967.10 was booked to:

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10-29-01-21-908-47-41 UES Energy Audits $12,240.00
10-29-01-21-908-47-40 UES Rebates $ 2,542.24
30-49-02-72-908-47-41 NU Energy Audits $11,835.00
30-49-02-72-908-47-40 NU Rebates $ 1,349.86
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Home Performance with EnergyStar \$125,902

Audit verified the total to ten specific general ledger accounts, nine beginning with 30-49-02-72-908-25-XX and the other 30-49-02-72-908-43-35. Audit requested support for four entries:

\$3,427.27 booked on 2/22/2016 was verified to an OTTER invoice from Yankee Thermal Imaging in the amount of \$4,000. There was one customer for whom the work was done, and the administrative cost \$572.73 and rebate \$3,427.27 were allocated:

30-49-02-72-908-25-14 3 rd Party Admin	\$ 342.73 representing 10% of total invoice
30-49-02-72-908-25-41 Energy Audits	\$ 230.00
30-49-02-72-908-25-40 Rebates	\$3,427.27

A payment to Newell & Crathern, LLC in the amount of \$3,427.27 booked on 6/3/2016, was also verified to an OTTER invoice for administrative costs \$572.73 and rebate costs of \$3,427.27 for a total of \$4,000. The invoice was booked to:

30-49-02-72-908-25-41 Energy Audits	\$ 572.73
30-49-02-72-908-25-40 Rebates	\$3,427.27

The third entry, paid to Quality Insulation in the amount of \$3,427.27 on 9/1/2016 was also verified to an OTTER invoice allocated in the same manner as above:

30-49-02-72-908-25-41 Energy Audits	\$ 572.73
30-49-02-72-908-25-40 Rebates	\$3,427.27

The fourth entry, paid to Incentive Refunds (Mill City Energy) was verified to an OTTER invoice for one customer with the total \$3,368.52 allocated:

30-49-02-72-908-25-41 Energy Audits	\$	515.32
30-49-02-72-908-25-40 Rebates	\$2	,853.20

An explanation for eleven monthly entries of \$184.83 noted within accounts Retrofit 1-4 3^{rd} Party Admin and Residential G Retrofit 1-4 3^{rd} Party Admin was also requested. As noted earlier in the HEA portion of this report, the payments to PSD were for maintaining and supporting the Treat-OTTER system.

EnergyStar Products \$351,973

Audit verified the total to nine specific general ledger accounts, each beginning with 30-49-02-72-908-29-XX.

One entry in the amount of \$1,087.76 was selected for review, from account 30-49-02-72-908-29-14, Residential Gas Equipment 3rd Party Administration. An invoice from Energy Federation, dated 12/31/2015 for the fourth quarter 2015 management fee, customer correspondence, and quarterly phone time was reviewed. The payment was booked on 3/2/2016. While the expense was incurred in the prior program year, the actual payment of the invoice took place in the current 2016 program year. There were no accruals for the expense noted in the prior year, ensuring that the cost was reflected in only one year.

One entry within the Residential Gas Equipment 3rd Party Marketing account 30-49-02-72-908-29-21, in the amount of \$3,553.09 paid to CLEAResult was selected for review. The invoice dated 5/9/2016 was for work done in the month of April 2016, noted as field rep labor, mileage, and a one time management fee. The invoice also indicated that the overall Unitil portion of the CLEAResult work was 21.04% of the total.

A payment in the amount of \$19,049.35 was made to Energy Federation on 11/18/2016 and booked to account 30-49-02-72-908-29-40. The invoice supporting the entry was dated 10/25/2016 and represented mail-in rebates, processing fees, and a 0.75% fee in the amount of \$190.49. The total invoice, \$19,407.34 was booked:

30-49-02-72-908-29-40 Rebates	\$19	,049.35
30-49-02-72-908-29-41 Energy Audits	\$	357.99

It appears that the \$357.99 should have been booked to a 3rd Party Administration account rather than the Energy Audits account. The overall expense total is not in question.

Account 30-49-02-72-908-29-41 Residential Gas Equipment Energy Audit, reflected an entry in the amount of \$1,291.11 booked on 8/8/2016. The documentation provided to Audit reflected an invoice from Energy Federation Inc., dated 6/30/2016 for the 2nd quarter 2016 management fee, customer correspondence, and quarterly phone time. As above, the total should have been posted to the 30-49-02-72-908-29-14 3rd Party Admin account.

Residential Education and Energy Code \$9,110

Audit verified the total to four specific general ledger accounts, three beginning with 30-49-02-72-908-48-XX, one specifically to 30-49-02-72-908-43-26.

Audit requested one invoice paid to Culver Company in the amount of \$2,675. The amount was actually part of a larger invoice totaling \$49,000. The invoice indicates Unitil purchased a Public Safety Outreach program, an Energy Efficiency Outreach Program, and the 2016 School Safety Outreach program for a 1 year license to the e-Smartkids website. The invoice was allocated as follows:

10-29-02-21-908-43-26	\$ 6,821.25 UES Electric flowthrough
20-29-02-06-908-48-11	\$ 2,541.25 FG&E Electric flowthrough
20-19-02-05-908-48-22	\$ 1,337.50 FG&E Gas flowthrough
20-10-02-40-930-52-00	\$ 7,552.50 FG&E base rate
30-40-24-00-930-52-00	\$12,397.50 NU-NH base rate
30-49-02-72-908-43-26	\$ 2,675.00 NU-NH EE flowthrough
30-50-24-00-930-52-00	\$13,181.25 NU-ME base
33-00-24-00-930-52-00	\$ 2,493.75 GSGT-Common
	\$49,000.00

Large Business Energy Solutions \$318,459

Audit verified the total to eighteen specific general ledger accounts, nine beginning with 30-49-02-72-908-34-XX, and nine beginning with 30-49-02-72-908-50-XX.

Audit reviewed each of the expense accounts which sum to the \$144,358 and selected for detailed testing a voucher in the amount of \$20,000 which was booked to account 30-49-02-72-908-34-10, LC&I GasNetworks Program Admin. The payment was made to UNH for two 2,000 MBH boilers for pool heaters. The overall cost of the measures was \$75,000 with \$20,000 incentive paid. The incentive was based on the 2016 High-efficiency natural gas equipment rebates for condensing boilers with a 90% thermal efficiency or greater. The documentation reflected thermal efficiency of 90%.

Large Business Rebates account 30-49-02-72-908-50-40 reflected an entry of \$67,005.00 on 12/28/2016. The support provided indicated that four condensing boilers, at an incremental cost of \$92,000, had been purchased by the Salem School District. The overall project cost, for phase 2 boilers, boiler pumps, hot water pumps, variable frequency drives, and air handling units was \$615,500. A rebate of \$67,005 was paid for the measures. The total rebate check was

\$73,055, with an additional \$6,050 included for six energy efficient Blodgett convection ovens and programmable thermostats. The installed cost for those was \$41,661.12.

Small Business Energy Solutions \$210,948

Audit verified the total to eighteen specific general ledger accounts, nine beginning with 30-49-02-72-908-49-XX, and nine beginning with 30-49-02-72-908-51-XX.

One entry within the Small Commercial and Industrial 3rd Party Marketing was selected for review from account 30-49-02-72-908-51-21 in the amount of \$1,846.00 paid to Burke Advertising. The invoice dated 12/12/2016 was for 3,910 direct mail printing and postage relating to the NH Small C&I gas program postcards.

A rebate in the amount of \$15,000 booked on 12/13/2016 to account 30-49-02-72-908-49-40 was reviewed. The 2016 New Hampshire Natural Gas Commercial application for a rebate documented the purchase of two condensing boilers, each with an efficiency rating of 96.2%, which qualified them for a rebate of \$7,500 per boiler. The total cost of the units and installation was \$50,265.97

A rebate for \$23,185 booked on 12/28/2016 in account 30-49-02-72-908-51-40, was for the phase 1 Salem Woodbury School's purchase of the heating system replacement. The rebate for the new equipment was supported with the custom worksheet, spreadsheet of the calculation, New Equipment and Construction 2016 Custom Incentive sheet, evidence of the incremental cost per boiler of \$23,000, or \$64,000 (same support provided for the \$92,000 incremental cost in the Large C&I test above). A purchase order from the district authorized \$176,000 for the heating system replacement. Actual costs were not provided.

Commercial and Industrial Education \$6,929

Audit verified the total to three specific general ledger accounts, two beginning with 30-49-02-72-908-48-XX, and one specifically to 30-49-02-72-908-43-27. Specific testing within this program was not conducted.

Third Party Financing Pilot Program

According to the 4th Quarter Report filed by Eversource on 3/1/2017 covering the 2016 Program Year, page 26, 3 projects were financed through the Third Party Financing Pilot program. The total cost of the projects completed was detailed as \$16,969, total amount of money lent \$12,250 and \$939 used to buy down the loans to the 2%. The \$939 was verified to the bank's calculations, which were under-stated by \$55.49.

Audit reviewed the buy down calculations submitted and verified the amount paid to the bank. Specifically, the amount is derived from the present value of the difference between the lender's rate offered to the customer and 2%.

Audit has included the three calculations showing the use of the present value and the resulting interest rate buydown paid to the lender. The first two calculations agree with the calculations done by the Northeast Credit Union.

Interest Rate Buy Down Calculation										
	Le	nders Rate	2%	% Rate	Difference					
Purchase Price	\$	8,840	\$	8,840						
Rebate	\$	1,000	\$	1,000						
Loan Amount	\$	7,840	\$	7,840						
Annual Rate		5.99%		2.00%	3.99%					
Term of Loan (Months)		60		60						
Monthly Payment		\$151.53	\$	137.42	\$14.12					
Total of payments		\$9,091.96	\$8,	245.06	\$846.90					
\$730.29 PV										
Difference between PV	and	"Simple" Me	thoc	ls:	\$116.62					

Interest R	ate	Buy Down	Cal	culation	
	Le	nders Rate	% Rate	Difference	
Purchase Price	\$	7,920	\$	7,920	
Rebate	\$	5,510	\$	5,510	
Loan Amount	\$	2,410	\$	2,410	
Annual Rate		5.99%		2.00%	3.99%
Term of Loan (Months)		48		48	
Monthly Payment		\$56.59		\$52.29	\$4.30
Total of payments		\$2,716.22	\$2	,509.69	\$206.53
	5183.24	PV			
Difference between PV	and	"Simple" Me	tho	ds:	\$23.28

The third calculation made by NECU reflected a present value payment of \$24.65. Audit calculated the payment should have been \$80.14, an under-payment from NU to NECU of \$55.49. An email string of communication (ending on 11/29/2016) was provided to Audit which reflected, among many other items, the inclusion of the \$55.49 under-payment for the specific customer noted. The amount was part of a refund made by NECU to Northern for two customers who had been over-charged, and two who had been under-charged. The \$98.06 was issued to Unitil on 1/20/2017. Audit requested clarification of the customer's monthly payment amount, as the calculated 2% rate used initially by the NECU was \$87.54 rather than the PUC Audit calculation of \$85.08. The Company informed Audit that once the buydown is completed, they have no additional information relative to the lender/borrower information.

As calculated by PUC Audit

Interest Rate Buy Down Calculation											
	Le	nders Rate	29	% Rate	Difference						
Purchase Price	\$	2,000	\$	2,000							
Rebate	\$	-	\$	-							
Loan Amount	\$	2,000	\$	2,000							
Annual Rate		5.99%		2.00%	3.99%						
Term of Loan (Months)		24		24							
Monthly Payment		\$88.63		\$85.08	\$3.55						
Total of payments		\$2,127.17	\$2	,041.93	\$85.24						
		\$80.14	PV								
Difference between PV	and	"Simple" Me	tho	ds:	\$5.10						

As appearing in the NECU invoice calculation

Interest Rate Buy Down Calculation											
	Len	ders Rate	2%	6 Rate	Difference						
Purchase Price	\$	2,000	\$	2,000							
Rebate	\$	-	\$	-							
Loan Amount	\$	2,000	\$	2,000							
Annual Rate		5.99%		2.00%	3.99%						
Term of Loan (Months)		24		24							
Monthly Payment		\$88.63		\$87.54	\$1.09						
Total of payments	\$2	2,127.17	\$2,	100.96	\$26.21						
		\$24.65	PV								
Difference between PV	and '	'Simple" M	leth	ods:	\$1.57						

Residential Third Party Financing Funded through the Better Buildings OEP/CDFA Collaboration

According to the 4th Quarter Report filed by Eversource on 3/1/2017 covering the 2016 Program Year, page 27, there were no projects funded in this manner. Audit verified with the Company that although the CDFA had an agreement with the Company to provide funds to assist homeowners with financing for Better Buildings Initiative compliant project, no funds were expended during 2016. The Company indicated that the agreement was terminated and the funds returned to the CDFA on 2/1/2017. Audit requested where on the general ledger the funds had been held, and in what amount, and was informed that the balance of \$(2,858.87) included in the Energy Efficiency – Better Building reconciliation mechanism was reflected in the NU common account 30-00-00-00-232-80-00, A/P-CDFA for EEBB Program.

Summary

Audit reviewed the revenues, expenses and incentive earned by the Company as reported on 6/1/2017. As a result of the audit work completed, the Company proposed a revised filing, subject to the conclusion of this audit. The originally filed under-collection was reported to be \$12,769. As a result of the review conducted by the Company, due to the PUC Audit work, the revised under-collection was reported to be \$18,836.

The Company has agreed to provide the revised performance incentive to the Commission within two weeks of the Final Northern Utilities, Inc. CORE Report.

Electric Utilities

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: December 15, 2017 **AT (OFFICE):** NHPUC

FROM: Anthony Leone, Examiner

SUBJECT: Liberty Utilities (Granite State Electric) Corp.

DE 14-216 - 2016 CORE Program

FINAL Audit Report

TO: Tom Frantz, Director NH PUC Electric Division

Les Stachow, Assistant Director, NH PUC Electric Division

James Cunningham, NH PUC Analyst IV

Introduction

The Public Utilities Commission Audit Staff (Audit) has conducted an audit of the books and records related to the CORE Energy Efficiency Program for the calendar year 2016. The four participating electric utilities, Unitil Energy Systems, Inc. (UES), Public Service of New Hampshire d/b/a Eversource, New Hampshire Electric Cooperative (NHEC), and Granite State Electric (GSE) and two gas utilities, Northern Utilities, Inc. (Northern) and Energy North (ENG) filed a joint petition for program years 2015 through 2016. Each utility was audited individually.

Audit appreciates the assistance of Eric Stanley, Tina Poirier, Sue-Ellen Billeci, Heather Tebbetts, Jim Bonner and Noreen Canney from Liberty Utilities.

Approved 2016 Programs

The participating utilities submitted a joint Energy Efficiency Plan to the Commission on 9/12/2014 for program years 2015 and 2016 and a Joint Settlement Agreement (JSA) on 12/11/2014. The Commission approved the 2015 programs by Order 25,747 and approved the 2016 programs by Order 25,856 on 12/24/2015. Granite State Electric's 2016 CORE programs include:

Residential Programs

Home Energy Assistance (HEA)

Home Performance with Energy Star (HPwES)

Energy Star Homes (weatherizing new homes)

Energy Star Products (appliances and lighting)

Commercial & Industrial Programs

Large Business Energy Solutions

Small Business Energy Solutions Municipal and Local Government

Educational Programs
Energy Code Training
Commercial Energy Auditing Class
C&I Customer Education
Energy Education for Students
Home Energy Ratings for New Homebuilders

Utility Specific Programs

GSE did not offer any utility specific programs in 2016.

Significant Program Updates

Attachment M of the Updated Settlement Agreement contains a summary of all material changes, however there were no significant updates warranting highlight in this Report.

Mid-Year Adjustments

Per the Joint Settlement Agreement, any transfer(s) consisting of 20% or more of a programs budget need to be reported to the Commission. GSE sent notification of the following transfers in 2016:

<u>Program</u>	<u>Budget</u>	20% Cap	<u>Amount</u>	<u>%</u>	<u>Date</u>
ES Products	\$218,882	\$ 44,740	\$ 18,000	8%	12/15/2016
ES Homes	\$114,653	\$ 21,967	\$(18,000)	-16%	
Large Business	\$648,101	\$129,620	\$ 54,000	8%	12/15/2016
Small Business	\$421,266	\$ 84,532	\$(54,000)	37%	

Program Activity

2016 Carry Forward Balance

The 2016 beginning balance in table 5 of the 2016 GSE Annual Report was \$120,816 which matched the 2015 ending balance. Additionally, as found on page 9 of the 2016 GSE Annual Report, the funding total of \$2,057,580, the expense total of \$2,155,736 and the actual Performance Incentive of \$195,976 all agree to the GL Reconciliation file for Account #8830-2-0000-20-2142-2423 and an Excel download of the GL Activity for the same account titled "Annual Report 2016 GSE electric Final". In addition, GSE also had to account for the 2015 Performance Incentive true-up of \$144,167 and an Interest true-up of \$3,178 resulting in a 2016 over-collected balance of \$22,657.

2015 Audited Ending Balance- Over Collection	\$	120,815
SBC Funding	\$	1,638,441
FCM Revenue	\$	213,930
RGGI Proceeds	\$	195,761
2016 Cumulative Interest	\$	9,446
Net Actual Collections	\$	2,057,578
2016 Program Expenses recorded in 2016	\$(1,959,760)
2016 Performance Incentive (PI)	\$	(195,976)
Net Actual Expenses	\$(2,155,736)
Carry-forward Balance- 2016 Over Collection	\$	22,657

Budget vs Actual

GSE reported in their annual Report they spent 92% of their projected total budget. Audit confirms the number and also breaks down the various programs. The following table reflects figures from the Shareholder Calculation and verified to the GL listing of expenses.

Electric	To	otal	Bu	dget (Rev.)	% of Budget		
C&I Education	\$	10,464	\$	11,000	95%		
C&I Large Business	\$	671,701	\$	702,000	96%		
C&I Small Business	\$	295,734	\$	367,000	81%		
C&I Municipal	\$	163,042	\$	164,000	99%		
Resi - Products	\$	228,647	\$	237,000	96%		
Resi - ES Homes	\$	85,987	\$	97,000	89%		
Resi - HEA - Low Income	\$	314,958	\$	331,000	95%		
Resi - HPwES	\$	155,978	\$	188,000	83%		
Grand Total	\$1	1,926,511	\$	2,097,000	92%		

System Benefits Charge (SBC)

The SBC is the primary funding method for the CORE programs. From the GL Reconciliation and GSE Revenue Reports submitted to Audit, GSE indicated total SBC funding of \$1,638,441. Audit tested the month of June 2016 and compared the Revenue reported in the CORE program to the Revenue submitted for the EAP Audit for the same time frame:

		2016 GSE		2016 EAP
	Rev	enue Report	Rev	venue Report
kWh Sold-June 2016- GSE Customers		76,995,713		76,999,291
SBC Rate	\$	0.0033		0.0033
Total SBC Funding	\$	254,086	\$	254,098
Core Portion-@ \$.0018/ 54.5%	\$	138,592	\$	138,599

The GL reconciliation which supported the \$1,638,441 total lists \$138,592 as the total funding for June 2016 compared to the EAP Report listing \$138,599, an immaterial difference of \$7. In the 2015 CORE Audit, there was also a variance in the kWh sales that resulted in another immaterial difference in the CORE revenue vs the EAP revenue. Audit inquired about the difference with GSE noting that the kWh total noted in the CORE Revenue Report is only a simple calculation and any adjustments or corrections are contained in subsequent months' totals.

ISO Forward Capacity Market

GSE reported total funding from the ISO of \$213,930 excluding ISO expenses. The expenses were verified to GL Recon for account 8830-2-0000-69-5010-9080 and then booked to GL account 8830-2-0000-20-2142-2423 without exception. As was found in previous years, the inclusion of the ISO Expenses in the Performance Incentive calculation is allowed.

RGGI Quarterly Auction Proceeds

The PUC Business Office records and the 2016 RGGI Audit Report indicate a total of \$224,467 was awarded to Liberty Utilities from Auctions held in 2016. However, due to the timing of when funds were actually received, the amount of RGGI funding GSE included in their 2016 CORE Program year included include the 4th Qtr 2015 Payment and only the first 3 payments of 2016 for a total of \$195,762. This exact amount was traced to the GL reconciliation of account 8830-2-0000-20-2142-2423 provided to Audit for this report.

Description	Amount
4th Quarter 2015	\$ 25,454
1st Quarter 2016	\$ 54,159
2nd Quarter 2016	\$ 61,990
3rd Quarter 2016	\$ 54,159
	\$195,762

Interest

The Reconciliation Filing, page 9, states Net Interest of \$9,447 and the GL Reconciliation states \$9,746 a \$299 difference. As was found in the prior audit, GSE gave the following explanation for the difference: The interest on the core filing is calculated on the spreadsheets in the filing for the activity per month. The GL calculates the interest the same way but timing issues will make them different. After the core has been audited an adjustment is usually made for the Incentive and the interest to True up the account, this will also affect the interest calculation in the GL due to timing. As with the PI, having an interest true-up after the fact is acceptable and necessary in this manner.

Performance Incentive Calculation

GSE's Annual Report for the 2016 Core indicates they earned a Performance Incentive (PI) of \$195,976. The specific amounts are broken down between C&I \$114,780 and Residential \$81,196. Using the ratios and amounts from the Filing Audit verified that the Filed PI was calculated correctly. As is standard, GSE booked the estimated PI of 7.5% (\$119,852) during the year leaving a true-up of \$76,124 for after this report has been finalized. Audit notes GSE has included this true-up amount in the 2016 over-collected figure of \$22,657 noted in the above reconciliation.

Low Income Weatherization Program

As stipulated in NH RSA 125-O: 23 and the Joint Settlement Agreement covering the NH CORE Programs, certain amounts of funding are required to be allocated to the HEA (Low-Income Weatherization) program. Those amounts are, at least 15% of the RGGI Auction Proceeds and at least 15.5% of the SBC funds in any one calendar year.

According to the 4th Quarter CORE Report filed by Eversource covering the 2016 CORE Program Year, GSE spent \$45,017 of RGGI funds on the HEA program. This amount is 20% of the total RGGI funds awarded (\$224,467) to GSE in 2016 and 23% of the total RGGI funds literally received and counted (\$195,762) in 2016. Audit notes the difference between Awarded and Received due to the timing of the Auctions, the receipt of the funds and the need to create budgets and properly allocate the funds among the various CORE programs.

Additionally, according to the same Report, GSE spent \$269,941 of SBC funds on the HEA Program which equals 16.5% of the SBC fund total of \$1,638,441 but only 14.5% if the ISO/ Forward Capacity Market funding is factored in.

Expense Test Summary

Expenses for the year ending December 31, 2016 as reported on 5/30/2017 in the shareholder incentive filing were reported to be \$1,926,510 and \$1,959,760 including ISO expenses. In Liberty's Annual Report/ Shareholder Incentive Calculation they submitted the breakdown of those expenses:

■ Electric	\$ 77,529	\$ 27,344	\$ 298,439	\$ 30,732	\$ 1,492,466	\$ 1,926,510
C&I Education				\$ 1,600	\$ 8,864	\$ 10,464
C&I Large Business	\$ 18,299	\$ 5,735	\$ 96,653	\$ 4,902	\$ 546,112	\$ 671,701
C&I Small Business	\$ 14,447	\$ 3,845	\$ 63,147	\$ 5,931	\$ 208,364	\$ 295,733
C&I Municipal	\$ 7,088	\$ 1,243	\$ 23,792	\$ 1,239	\$ 129,680	\$ 163,042
Resi - ES Homes	\$ 11,419	\$ 4,388	\$ 15,731	\$ 2,405	\$ 52,044	\$ 85,987
Resi - HEA - Low Income	\$ 9,251	\$ 3,529	\$ 40,534		\$ 261,644	\$ 314,958
Resi - HPwES	\$ 10,782	\$ 5,631	\$ 22,157	\$ 3,252	\$ 114,156	\$ 155,978
Resi - ES Products	\$ 6,242	\$ 2,972	\$ 36,425	\$ 11,405	\$ 171,603	\$ 228,648
Sub-Total	\$ 77,529	\$ 27,344	\$ 298,439	\$ 30,732	\$ 1,492,466	\$ 1,926,510
Residential ISO						\$ 6,863
Commercial & Industrial ISO						\$ 26,386
Grand Total						\$ 1,959,759

The total expenses of \$1,926,510 were verified to the detailed Excel pivot table provided to Audit. Expenses are debited to general ledger account #8830-2-0000-69-5390-**908**0 and credited to the balance sheet #8830-2-0000-20-2142-**242**3. Audit selected a sample of the expenses for detailed review, summarized in the following paragraphs:

C&I Education

The filing summarized the educational programs for residential and commercial customers as an integral part of raising awareness of energy efficiency. Specifically identified were Energy Code Training for all stakeholders; Commercial Energy Auditing classes which provide training to facility managers; C&I Customer Education includes training sessions for C&I customers and professionals;

Energy Education for Students provides support for programs available to students from kindergarten through high school.

During 2016, GSE reported \$10,464 of expenses associated with the C&I Education program. Audit reviewed one invoice that was for \$1,600 paid to Eversource covering a portion of Granite State Electric's share of energy education conferences held around the state during the 4th quarter 2016. GSE substantiated this invoice by a listing of the conferences including dates, locations, costs, and # of attendees. The tracking sheets also allocated the total cost per conference to all CORE Utilities (Electric & Gas) as the conferences were open to anyone who wished to attend. The percentages used to allocate the statewide conferences during the 4th quarter were as follows: Eversource 56.09%, Liberty Electric 6.83%, Liberty Gas 18.03%, NHEC 5.29%, Unitil Electric 9.42%, Unitil Gas 4.32%.

Audit discussed the conferences and their cost with Liberty who stated that there is generally no cost except for the Building Operator Certification (BOC) sessions. This fee is paid directly to the learning institution, in this case Lakes Region Community College. Liberty submitted an education tracking sheet with event dates from April 21, 2016 through December 8, 2016. The total cost incurred by all CORE utilities, less the BOC, on this sheet was \$86,538 with a total participant count of 1,490 which resulted in an average cost to the CORE C&I program of \$58.08. Audit notes some participant counts were estimated or left blank which would result in the average cost per participant to vary accordingly. Some of the locations for the workshops included on the worksheet were Unitil Corporate Offices, Mt. Sunapee, Wentworth by the Sea two times, The Grand at Bedford Village Inn two times, Energy Park Manchester, the Atkinson Resort and Country Club, Common Man Restaurants, Pease Golf Course, Grappone Conference Center and the McAuliffe Space Center. **Audit Issue #1**

Large Business Energy Solutions Program

The Large Business Energy Solutions Program, as noted in the Filing, targets electric customers with an average monthly maximum kilowatt (kW) demand of 200 kW or more over a twelve month period. Rebate amounts for retrofit projects are authorized to be the lesser of a one year payback or up to 35% of the equipment and installation costs. For new projects, the rebate can be the lesser of one year payback or up to 75% of incremental costs. Additional specifics regarding the rebates can be found in the Joint Settlement Agreement for 2015-2017.

The first invoice reviewed by Audit was sent by Franklin Energy Services, LLC (FES). The invoice charged for "Monthly Fixed Fees 53%" and "Lifetime MWh Savings Performance Incentive" at a rate of \$x per lifetime MWh for the month of February 2016. The invoice indicated four C&I customers received services but it did not list exactly what services were provided. Audit requested additional detail on this specific invoice and Liberty stated that, Liberty's agreement with Franklin Energy consists of both a fixed and variable pricing structure. In 2016, Liberty agreed to pay Franklin a total of \$x per month as a fixed fee for supporting the delivery of the Large Business, Small Business and Municipal electric programs, of which 53%, or \$x was allocated to the Large Business program. The monthly fixed fee helps cover costs related to staffing an office, answering customer phone and Web inquires, and providing Liberty's customers with assistance with the C&I Electric Programs. This assistance is provided to all customers requesting assistance. Not all customer requests result in a project, therefore the monthly fixed fee helps cover costs related to this assistance. Audit Issue #2

The second invoice reviewed was for the installation of a new compressed air system and dry cooler. The documents listed the total cost as \$114,264. However the incremental cost, the cost of installing a higher efficiency product over a standard product was listed as \$78,032. In this situation, the \$78,032 is the figure the on which the rebate should have and was based. Specifically, that rebate was 45% (\$35,183) due to the 1- year payback (\$35,183) being lower than the 75% (\$58,524).

Small Business Energy Solutions Program

Noted within the Filing, the Small Business program is designed for electric customers having an average monthly maximum kilowatt (kW) demand less than 200kW over a twelve month period. Similar to the Large Business Energy Solutions program, this program is intended for new or retrofit projects. The rebate amount for new projects is the lesser of 75% or a one year payback, and for retrofit projects is the lesser of 50% for gas customers and 35% for electric customers, or a one year payback.

The first invoice reviewed covered the cost of a lighting upgrade at a manufacturing facility in Salem, NH. The cover sheets, invoices, summary sheets and bills of labor indicated an electrical contractor replaced existing lighting with LED lamps and LED light fixtures at a total initial cost of \$82,253. The Company issued a rebate of \$19,602 (24%) bringing the final cost to \$62,651.

The second invoice reviewed was a retrofit of the lighting at the Rockingham Mall. Submitted material indicated the parking lots were upgraded from metal halide lamps to LED lamps and LED light fixtures. The initial cost of the upgrade was \$104,961. Liberty paid a rebate of \$24,408 (23%) bringing the final cost to \$80,555.

Municipal Program

The 2016 Joint Settlement Agreement continued the Municipal program from prior years. Specifically, the program was designed with the following: "In accordance with RSA 123-O:23, the Municipal and Local Government Program is available to all municipal and local government customers of the NH Electric Utilities and to the five communities in New Hampshire that have their own municipal utilities (collectively these customers and five communities are referred to through the remainder of this document as "municipal customers").

Municipal customers face barriers similar to other commercial and industrial customers, but they also have unique challenges. More frequent leadership changes, budgeting processes that require city/town representative approval and/or voter approval, and the level of local energy efficiency knowledge and project management expertise are all factors that can impact the ability of a municipality to cost-effectively implement energy efficiency projects. In addition, the technical assistance needs may vary widely from one city/town to another.

The program targets municipal customers with new construction projects, major renovation projects, failed equipment that needs replacement and those operating aging, inefficient equipment and systems. For new equipment and new construction projects, the program offers prescriptive and custom incentives designed to cover the lesser of a one year simple payback or up to 75% of the incremental cost (100% for public schools) of higher

efficiency products up to the customer's incentive cap. Incentives are also available for electric, oil and liquid propane heating, cooling and hot water systems.

The first invoice reviewed by Audit was for a lighting upgrade at the Richmond Middle School in Hanover, NH. The lighting upgrade consisted of installing LED lamps and LED lamp fixtures. From the documents submitted, the total cost of the upgrade was \$86,258. As part of the Municipal program, the school was offered a 50% rebate, bringing the final cost of the lighting upgrade to \$43,133.50

The second invoice reviewed was issued to the Pelham School District for new lighting installed in the addition to the Pelham High School. The initial cost of the lights and labor, which included the lights for the entire facility, including classrooms, cafeteria, gymnasium and exterior lights, was \$430,153. Liberty issued a rebate of \$35,000 (8%) to bring the final cost to \$395,153.

Residential Energy Star Homes Program

As noted on in the filing, this program is fuel neutral designed to encourage homeowners and builders to build homes that are at least 15% more efficient than homes built to the 2009 International Energy Conservation Code (IECC). The program provides home builders with technical assistance, financial incentives, and instruction relating to compliance with Energy Star standards. New single family and multi-family projects are eligible, as are complete rehabilitations of existing structures. Project rebates are based on a sliding scale of Home Energy Rating System (HERS) results. The electric and gas utilities will coordinate to provide rebates for high efficiency gas HVAC equipment.

The first invoice reviewed was for a 15 unit newly constructed building in Hanover, NH. The submitted material detailed the rebate was comprised of EnergyStar Refrigerators, meeting the Base HERS index and also exceeding the HERS index for an initial rebate of \$19,200. The program however caps the rebate at \$1,000 per unit therefore the rebate of \$15,000 was processed.

The second invoice was sent from GDS Associates. GDS Associates is one of the contractors who provide inspection services for a newly constructed home and the HERS rating it receives. As evidenced in prior audits, GDS has been seen charging for plans' inspection, and then continually throughout the construction process resulting in a GDS Report stating the HERS index and the appropriate rebate. This specific invoice covered the final inspection of several homes in NH.

Residential Home Performance with Energy Star (HPwES)

Noted in the filing, regarding the HPwES program, the electric utilities will continue to provide fuel neutral weatherization services, and "the gas utilities will continue to serve their customers. Gas customers participating in the HPwES program can receive an incentive of 50% up to \$4,000 from their electric company in addition to the \$4,000 incentive from their gas company. This would apply after they reach their \$4,000 maximum from their gas company. The goal is to provide gas customers with an opportunity for deeper savings and to allow gas customers to take advantage of their paying into the electric SBC fund. This would also allow the gas and electric utilities to determine customer interest in doing "deep retrofits".

The first invoice reviewed by Audit was sent from Horizon Residential Energy Services NH, LLC in the amount of \$15,000 on January 20, 2016. The invoice indicated it was for prepayment of efficiency rebates. In the prior audit, Liberty explained how the prepay process works in order to ensure timely payments to the contractors performing the work, "As done historically, Liberty Utilities will issue prepayment funds at the beginning of the program year to Horizon Residential for HPwES – Electric rebates. Horizon Residential will draw on this initial prepayment amount to pay the weatherization contractors in a timely manner when the HPwES projects have been approved and completed. Horizon Residential maintains an accounting spreadsheet of the completed weatherization jobs along with the payments from Liberty Utilities. As additional funding is needed, Horizon will issue an invoice to Liberty Utilities and Liberty Utilities will process the request accordingly."

The second invoice was sent from LighTec, Inc. for weatherization services performed at a multi-family complex in Hanover, NH. The installing vendor was noted as "Shakes to Shingles" who installed weatherization enhancements, thermostats, and energy efficient lighting measures at a total cost of \$115,798. This total cost was shared between the customers, \$76,033 (66%) and the utility, \$39,765 (34%). The invoice reviewed was for a rebate for the energy efficient measures installed. Additionally, GSE provided a list of homeowners to ensure the \$4,000 cap was enforced. Audit found no exceptions to the information provided.

Residential Energy Star Products Program

The focus of the ENERGY STAR Products program is to increase consumer awareness of the benefits of purchasing ENERGY STAR-qualified lighting, appliances, space/ water heating and cooling products and to expand their usage and availability. This program is the result of combining the formerly separate EnergyStar Lighting and EnergyStar Appliance programs.

The first invoice reviewed was issued to Energy Federation Inc. (EFI) for services related to LED Bulb Incentives. The invoice submitted indicated "Upstream Incentives" of \$14,761, "TechniArt Shipping of \$9,600, "TechniArt Fee" of \$1,000 and the usual EFI fees of Track and Report and COM (cost of money). The total invoice was \$25,795. Liberty described to Audit that they ran a special promotion targeted at Liberty customers in order to build awareness and drive energy efficiency. Specifically, the documents submitted indicated TechniArt created 1,200 packages of 6 LED bulbs and sold them for \$10.

The second invoice reviewed by Audit was for services performed by ARCA- Appliance Recycling Centers of America. The invoice totaled \$4,570 for services performed during the month of September 2016. The invoice indicated ARCA picked up refrigerators and freezers for recycling. The charge per first unit was \$92.50 and the second unit was \$50. ARCA picked up a total of 36 first units (refrigerators and freezers) at a cost of \$3,330 and 2 second units at a cost of \$100 for a sub-total of \$3,430. In addition, ARCA indicated they billed \$30 per each item picked up for an additional \$1,140. Together both components equal the \$4,570 total invoice.

Residential Home Energy Assistance Program

The original filing and Order stated that "income qualified customers are eligible to receive up to \$8,000 for insulation, weatherization, cost effective appliance and lighting upgrades, and appropriate health and safety measures."

Audit selected two invoices to review and GSE supplied OTTER printouts detailing basic customer information, cost of the improvements and the amount paid by the Utility. None of the customer projects noted on the invoices was above the \$8,000 threshold. OTTER is the system used by all Utilities in the State of NH to track the measures installed through the HPwES and Low Income Weatherization programs and generate payment invoices if the installing vendor chooses to do so. One of the invoices reviewed was remitted by Tri-County Community Action in the amount of \$37,264.41 and the other was sent from Southern NH Services in the amount of \$24,869.44. Both invoices were generated by OTTER and can be traced to the actual measures installed. Additionally, both invoices contained a list of customers who received the weatherization and related services. Audit noted no exceptions to the invoices reviewed.

RGGI Revolving Loan Fund (RLF)

On August 19, 2009, a \$7,646,020 grant, identified as Re-CORE, was approved by the Governor and Council. The grant, among other things, established the Revolving Loan Funds (RLF) administered by the Core Electric Utilities.

GSE received \$303,000 from the Re-CORE grant to establish a revolving loan fund. Audit reviewed the activity in the balance in the account, 8830-2-0000-10-1160-1438 at 12/31/2016 without exception. Summarized within the 4^{th} quarterly report and supplemental information is a recap by GSE of the RLF to date:

Original Re-CORE RLF funding \$ 303,000 Cumulative Loans issued as of 12/31/2016 \$ (465,037) Cumulative Repayments as of 12/31/2016 \$ 260,245 Available to lend 12/31/2016 \$ 98,208

Third Party Financing Program

As found in the 4th Quarter Report filed by Eversource, GSE used CORE funds to buy down the interest rate on one project. The total cost of the project was \$4,304 and the total of the interest rate buy downs was \$187. Audit reviewed the project and the buy-down amount without exception.

Audit requested the results of the current program, details regarding the lenders with whom the interest rate buy downs (IRB) were negotiated, loan limits, the number of customers, the amount of the loans, and the total of the IRB included as an expense in 2016. The IRB is paid in full, up front, and buys the interest rate down to 2% for the customer. The IRB payments themselves are charged to the appropriate Rebates / Services expense codes, primarily the HPwES program account of 8830-2-0000-69-5390-9080.

The Company indicated that the lenders do not report loan defaults. The Company provided a summary of the terms of the loans with the various banks and credit unions. These terms included the following general repayment schedule:

Loan Amount	Maximum Repayment Term							
\$1,000 up to \$2,000	for up to 2 years (24 months)							
\$2,001 up to \$4,000	for up to 3 years (36 months)							
\$4,001 up to \$6,000	for up to 4 years (48 months)							
\$6,001 up to \$9,000	for up to 5 years (60 months)							
\$9,001 up to \$12,000	for up to 6 years (72 months)							
\$12,001 up to \$15,000	for up to 7 years (84 months)							

Audit requested details on the process used to ensure the IRB is properly calculated. The Company indicated an interest buy down spreadsheet is used (Microsoft Excel amortization and present value calculation). The buy down is compared to the figure prepared by the bank, and the lower of the two amounts is paid. The calculations reviewed indicated the bank was paid the present value (PV) of the difference of the monthly payments calculated using the bank's rate (5.99% or 6.49%) and the discounted rate 2.00%). All calculations were reviewed and any variances were immaterial.

In the previous Audit, the Company detailed the process used to ensure that this payment was then made within the contracted five day timeframe. The Company stated that the same process is still in place. That process was detailed in the following explanation: "Liberty Utilities' Program Administrator (PA) receives an email from the bank with the detailed invoice and required documents attached. Within two business days the PA reviews the documents and emails the documents to HorizonRES (contracted to make the payments) for payment to the specific bank. The email states the bank name and payment amount. HoizonRES then pays the bank and emails a confirmation to the PA when the payment was made." Liberty has stated in the past that processing expedited checks internally is not cost effective and therefore the use of a third party is necessary.

Summary of 2016 Activity

Audit reviewed the Filing, reported revenues, expenses and incentive earned by the Company, and with the exception of the Audit Issues below, the ending over-collected balance of \$120,815 was properly supported. In addition, the Audit Issues are not anticipated to materially change that balance.

Audit Issue #1

Commercial and Industrial Education Program

Background

The NH CORE Electric Utilities receive most of their funding from the System Benefits Charge (SBC). The SBC is the non-bypassable surcharge mandated by NH State Law.

Issue

As seen in the worksheet of Commercial and Industrial Educational workshops and conferences, the location of some of the utility sponsored events calls into question the prudency of the use of the funds. Such locations include: The Wentworth by the Sea- New Castle, NH; and The Grand at Bedford Village Inn- Bedford, NH.

Audit Recommendation

Liberty and the NH CORE Utilities should work with Staff to ensure funds spent on NH CORE events continue to promote not only energy efficiency, but a prudent and positive use of the limited resources of the NH CORE Programs.

Company Response

Liberty and the NH CORE Utilities collaborated on performing over 60 residential, C&I, municipal and trade ally training seminars and events in 2016 to promote energy efficiency across New Hampshire. In performing these events, the Utilities leveraged various sites including our own office buildings, public libraries, local schools, hotels and conference centers and made every effort to ensure the CORE funds are utilized in the most prudent and reasonable manner and will continue to do so in the future.

The energy efficiency workshop events referenced at the Bedford and New Castle locations were selected for a variety of reasons including their central location, ability to draw attendees and that both sites were previous energy efficiency program participants that received assistance and incentives from the utilities, making them particularly fitting as hosts. Also, 87 customer and trade allies attended the events at these locations and several energy efficiency project leads materialized from the interactions that took place.

Audit Comment

Audit appreciates Liberty's comment and explanation of choosing sites.

Audit Issue #2

Commercial and Industrial Implementation

Background

As stipulated in the Joint Settlement Agreement, the NH CORE Utilities track and report their expenses on a quarterly basis using the following agreed upon Program Activity Expense Codes:

Administration-Internal Administration-External Customer Rebates and Services Internal Implementation Marketing Evaluation

Issue

As evidenced by the Contract with Franklin Energy Services, LLC (Franklin) covering the 2015 and 2016 Program years, Franklin is the first/ main point of contact for the Large and Small Business Solutions and Municipal CORE Programs. Franklin is also contracted to act as a consultant to participate in the design, oversight and verification of the installation of energy efficient measures and to properly calculate/ verify the energy savings (kWh/ MWh/ Lifetime MWh) per project completed.

- 1- Acting as the main point of contact for the Large, Small and Municipal Programs, Franklin charges a flat monthly fee. In 2016, this fee was booked to the Rebates/ Services Program Activity Expense Code.
- 2- Acting as a consultant, who participates in the design, oversight, installation of the measures and the calculation of the lifetime MWh savings, and assists in preparing and processing the rebate application, Franklin charges per lifetime MWh saved per project. Liberty described the contractual relationship with Franklin in the following manner: "Liberty structured the pricing of its contract with Franklin Energy to directly align Franklin's performance goals with Liberty's performance goals, which are program savings results. Rather than having an arrangement which compensated the vendor on hours of work completed, or number of audits performed, activities that do not necessarily ensure program results, and could actually result in incenting inefficient behavior on behalf of the vendor, we structured the agreement with a combination fixed and variable pricing arrangement. The variable pricing arrangement compensates Franklin based on the lifetime savings of completed projects at a rate of per MWh, regardless of the hours of work completed or number of audits performed. Liberty's C&I program performance results in 2015 and 2016 well exceeded goal, under which this pricing model was in effect, and we attribute that success to the pricing arrangement we implemented with the vendor."

Audit Recommendation

1a- According to the definitions of the Program Activity Tracking Codes as found in the 2015-2016 Joint Settlement Agreement, the monthly fee paid to Franklin Energy for the office

functions is best described as an "Implementation" expense. Currently there is no "External Implementation" Program Activity Expense Code, only "Internal Implementation". Therefore Audit recommends for the 2017 Program year, recording this expense as "Internal Implementation" to better align these costs with similar costs at the other NH CORE Utilities.

1b- Audit also recommends for the 2018 and beyond Program years (Energy Efficiency Resource Standard- EERS), if GSE or another utility chooses to contract implementation costs to a third party, The NH CORE Utilities and Staff would come to a permanent solution to properly reflect those costs.

2- Liberty and Staff should determine that if the NH CORE Utilities continue to, or wish to enter into compensation plans with a third party based upon lifetime MWh saved, then the NH CORE Utilities would conduct and present to the Commission a formal analysis (Cost-Benefit / Risks and Rewards Analysis) and discuss the necessary steps, if any, to mitigate those risks and costs and highlight any rewards that may be utilized in any other part of the NH CORE Program.

Company Response

Pertaining to item 1a, classifying fees paid to Franklin Energy for services performed to deliver the energy efficiency programs as Internal Implementation would be inconsistent with the categorization of similar services performed by other vendors where their respective costs have historically been classified as Rebates/Services by all of the NH CORE Utilities. For instance, all costs paid to Energy Federation Inc., whom is contracted by all of the NH CORE Utilities to provide customer rebate intake and fulfillment processing for the ENERGY STAR Products program, and all costs paid to the Community Action Agencies, whom perform customer intake, program qualification, fulfillment and delivery of weatherization services to income-eligible customers for all of the NH CORE Utilities for the Home Energy Assistance program, are categorized under the Rebates/Services expense tracking category.

Pertaining to item 1b, Liberty is willing to discuss with the NH CORE Utilities and Staff whether there should be adjustments to the existing expense tracking activities and definitions utilized for the energy efficiency programs.

Pertaining to item 2, Liberty and the NH CORE Utilities enter into numerous contracts with support vendors to help deliver services to customers in order to meet the energy efficiency program targets. In entering into any agreements, the utilities regularly perform request for proposals to secure the most cost effective service providers and look to optimize each agreement with pricing arrangements that can produce the most value and also minimize risk. Liberty believes the contract with Franklin Energy best demonstrates these attributes as it was secured via a competitive request for proposal process, and the pricing arrangement models their performance output, cost effective energy savings, as their compensation methodology, rather than compensating them primarily on energy audits completed or hours of work performed as previous vendor agreements were structured, which does not necessarily translate into energy savings.

Audit Comment

Item 1a- While Audit understands Liberty's point of view, both the EnergyStar Products program, implemented by EFI and the Income-eligible weatherization program, implemented by the Community Action Agencies, are contracted by all NH CORE Utilities, and therefore those costs are consistently reported by the NH CORE Utilities. In this instance, pertaining to the monthly fee charged by Franklin for tasks and duties related to the Commercial, Industrial and Municipal group of Programs (C&I), the majority, if not all of the tasks and duties are similarly completed by in-house personnel at the other NH CORE Utilities, and to report those costs as Rebates/ Services expenses while the other NH CORE Utilities report similar C&I costs as Implementation expenses would be inconsistently reporting those costs across the NH CORE Program.

Item 1b- Audit appreciates Liberty's comment and agrees that a discussion between Staff and all NH CORE Utilities should be scheduled to take place concerning adjustments to the expense activity tracking codes and their respective definitions.

Item 2- Audit again appreciates Liberty's comment, Audit reiterates though the issue as stated does not pertain to Liberty not performing due diligence, but that Liberty has not documented and submitted that due diligence/ formal analysis (Cost-Benefit/ Risk-Reward) to ensure that all reasonable risks and rewards were/ are documented and considered. In addition, due to the uniqueness of the contract resulting in Liberty (Granite State Electric) having the highest Cost/ Benefit Ratio on the Large Commercial and Municipal Programs (4.21/2.39) out of all the NH CORE Utilities, any rewards may be duplicated across the greater NH CORE Program.

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: March 28, 2018 **AT (OFFICE):** NHPUC

FROM: Karen Moran, Chief Auditor

SUBJECT: Unitil Energy Systems, Inc.

DE 14-216 – 2016 CORE **FINAL** Audit Report

TO: Tom Frantz, Director, Electric Division, NHPUC

Les Stachow, Assistant Director, Electric Division, NHPUC Jim Cunningham, Analyst IV, Electric Division, NHPUC

Introduction

The Public Utilities Commission Audit Staff (Audit) has conducted an audit of the books and records related to the CORE Energy Efficiency Program for the calendar year 2016. The four participating electric utilities, Unitil Energy Systems, Inc. (Unitil or UES), Eversource Energy (Eversource), New Hampshire Electric Cooperative (NHEC), and Granite State Electric (GSE) and two gas utilities, Northern Utilities, Inc. (Northern) and Energy North filed a joint petition for the program year 2016. Each utility was audited individually.

Audit thanks Karen Daniell, Travis Cilley, and Jacob Sylvain for their assistance with the audit.

Approved 2016 Programs

The participating utilities submitted a joint energy proposal to the Commission on 9/12/2014 for the program years 2015 through 2016 and a joint Settlement Agreement on 12/11/2014, updated on 9/30/2015. The Commission then approved the 2016 programs by Order #25,856 on 12/24/2015. The UES programs for calendar year 2016 were approved as follows:

Residential

Home Energy Assistance - weatherization program (HEA)

Home Performance with ENERGY STAR – weatherization program (HPwES)

3rd Party Financing

On-bill Financing

ENERGY STAR Homes – New Construction (ESH)

ENERGY STAR Products – Lighting and Appliances

Education

Commercial and Industrial

Large Business Energy Solutions Program

Small Business Energy Solutions Program

Combined Heat and Power (CHP) Pilot Measure for Electric Commercial, Municipal,

and Industrial Customers

Municipal Program

Education

Changes to the CORE for 2016

The Agreement, its attachments, and the Order also included the following changes for the 2016 program year, outlined initially in the testimony of J. Cunningham on 11/12/2015: Design changes

- EnergyStar refrigerator rebate reduced from \$30 to \$20
- Rebate for Advanced Power Strip eliminated
- Markdowns for Lighting rebates at retail stores will be made in advance for a 30 day period
- HPwES increased customer costs from 50% to 100% for certain measures that are no longer cost effective, such as certain types or applications of insulation
- Rebate for EnergyStar dishwashers was eliminated due to use of same in new homes has become standard practice
- Incorporated updates from the Avoided Energy Supply cost report prepared by Tabors Caramanis Rudkevich

<u>Savings assumptions</u> include updates to the HEA by the CAA; updates to EnergyStar products to incorporate new baselines reflecting federal guidelines; and updates to the Large and Small C&I programs based on actual projects from prior years, as well as the assumptions in the Evaluation Monitoring and Verification (EM&V) impact study performed by DNV-GL.

Funding changes

- 3rd party loan interest rate buy-downs (to 2% up to 7 years, up to \$15,000) have been enhanced by an agreement with the NH CDFA which is providing up to \$150,000, not considered part of the CORE. CORE funds may be used for the buy-downs if the CDFA funds are expended, and/or the project does not meet the federal Better Buildings Program guidelines (unspent budgeted funds will be used in the HPwES)
- Unitil Electric will transfer \$65,000 from unspent on-bill financing monies from the 2014 to HPwES
- Eversource will provide approximately \$463,000 in carryover funds to implement its Customer Engagement Platform (CEP)
- Quarterly reports will include a 2-page insert regarding information on the third party bydown financing option, (all Electric utilities and Gas utilities)
- Additional information on Eversource's Customer Engagement Platform must be provided in the quarterly report (Eversource only)
- Eversource will continue development efforts to ensure customers may download usage information for use in programs such as EPA's Portfolio Manager, to facilitate efforts to

manage usage and take advantage of efficiency programs and measures (Eversource only)

Mid-Year Adjustments

UES did not transfer any budgeted funds from one program to another, other than to include the \$65,000 carry-forward from 2014 for on-bill financing. The amount was recommended for transfer, as noted above, and was made part of the overall HPwES budget for 2016.

Program Activity

2016 Carry Forward Balance

The reconciliation of program year activity to the general ledger year end posting was noted in the 2016 Performance Incentive Filing (Filing). According to the Filing for program year 2016, the ending balance was an over-collection of \$868,374.

2015 Over-collection	\$ (993,937)
Revenues	
System Benefits Charge	\$(2,145,569)
FCM Revenue	\$ (273,101)
RGGI Auction Proceeds	\$ (255,588)
Interest	\$ (33,990)
Total Funding	\$(2,708,248)
Expenses	
Program Expenses	\$ 2,556,497
PI current year estimate	\$ 220,325
PI prior year true-up	\$ 33,141
Total Expenses	\$ 2,809,963
2016 Ending Over-collection	\$ (892,222)

The filed information also indicates the <u>actual performance incentive</u> for 2016 was \$244,173 rather than the estimated \$220,325. The true-up to be included within the 2017 reconciliation should be \$23,848 of additional expense. For "carry-over" purposes, the \$(892,222) would be net of the adjusted incentive, or \$(868,374).

The noted 2015 over-collection agreed with the filed 2015 Performance Incentive and audit report. Audit verified the 2015 ending balances and the 2016 ending balances to the following general ledger accounts:

	2015	2016
10-20-00-00-173-13-01 Accrued Revenue Sys Ben Res	\$(337,745)	\$(222,804)
10-20-00-00-173-13-02 Accrued Revenue Sys Ben Res LI	\$ (65,704)	\$(128,138)
10-20-00-00-173-13-03 Accrued Revenue Sys Ben C&I	\$(590,488)	\$(541,280)
	\$(993,937)	\$(892,222)

Account 10-20-00-00-173-13-04, Accrued Revenue Sys Ben LGE General did not reflect any activity for the year. Account 10-20-00-00-173-13-05, Accrued Revenue Sys Ben Outdoor Lighting reflected revenue of \$14,700 which was classified to C&I.

The Company indicated that the prior year true-up of \$33,141 represents the 2014 true-up which was collected in 2016. The 2015 true-up of \$3,206 noted within the prior year's audit report, was collected in 2017. Audit understands that the \$23,848 true-up for calendar year 2016 will be booked in 2018.

Quarterly Filings

Audit verified the rolling over/under calculations of balances, revenues, expenses, and interest at 3.25% for the first quarter to the monthly reports filed with the Commission. Interest at 3.5% was noted throughout the remainder of 2016, as indicated on the Commission's website for customer deposits. Audit verified each quarterly summary and identified immaterial rounding variances; there were no material exceptions noted.

Program Funding

The CORE program is comprised of funding from the Energy Efficiency portion of the System Benefits Charge (SBC), a portion of the Regional Greenhouse Gas Initiative (RGGI) Auction Proceeds (Proceeds), the net Forward Capacity Market (FCM) revenue and expenses, and interest on the CORE activity over/under collected balance.

SBC - \$2,145,569

For 2016, the SBC \$0.0033 per kWh was split between the CORE at \$0.0018 and the Electric Assistance Program at \$0.0015. The total kWh sales for the 2016, 1,191,932,154, reported by Unitil in their Accounting Model spreadsheet was verified to the Capital and Seacoast divisions' kWh sales reports. The total was also verified to the 2016 calendar months relating to the Electric Assistance Program audits of the years ending 9/30/2016 and 9/30/2017. The total kWh sales were verified to within 1,154 of the FERC Form 1 page 304, Sales of Electricity by Rate Schedule. The difference in the reported SBC revenue calculated, based on the 1,154 kWh variance, is an immaterial \$3.81.

Audit tested the revenue from the reported kWh sales and the corresponding CORE and EAP revenue reported by UES for the year. Monthly immaterial variances between reported and calculated figures were identified, principally due to rounding. The revenue for the CORE was verified to accounts the following general ledger accounts' rounded balances:

10-29-01-21-440-00-00 Elec Revenue-D-System Benefit Chg-EE	\$	740,378
10-29-01-21-440-30-00 Elec Revenue-D-System Benefit Chg-EE-Ext Sup	\$	131,476
10-29-01-21-442-01-00 Elec Revenue-G2-System Benefit Chg-EE	\$	282,179
10-29-01-21-442-02-00 Elec Revenue-G1-System Benefit Chg-EE	\$	67,283
10-29-01-21-442-31-00 Elec Revenue-G2-SBC-EE-Ext Sup	\$	272,145
10-29-01-21-442-32-00 Elec Revenue-G1-System Benefit Chg-EE-Ext Sup	\$	444,909
10-29-01-21-444-00-00 Elec Revenue-OL-Sys Ben Chrg EE	\$	3,511
10-29-01-21-444-01-00 Elec Rev Unmetered Sales-Sys Ben Chrg EE	\$	4,559
10-29-01-21-444-30-00 Elec Revenue-OL-Sys Ben Chrg EE-Ext Sup	\$	4,660
10-29-01-21-444-31-00 Elec Rev Unmetered Sales-Sys Ben Chrg EE-Ext Sup	\$	1,971
10-29-01-21-445-01-00 Elec Revenue-Pub Auth G2-Sys Ben Chg-EE	\$	7,075
10-29-01-21-445-02-00 Elec Revenue-Pub Auth-G1- Sys Ben Chrg EE	\$	157
10-29-01-21-445-31-00 Elec Revenue-Pub Auth G2-Sys Ben Chg-EE-Ext Sup	\$	59,574
10-29-01-21-445-32-00 Elec Revenue-Pub Auth G1-Sys Ben Chg-EE-Ext Sup	\$	125,692
Total SBC	\$2	2,145,569

RGGI Quarterly Auction Proceeds - \$255,588

NH RSA 125-O:23 specifies that the RGGI auction proceeds that are directed to the Core Energy Efficiency Programs were specifically directed over the following three programs in this order:

- 1- At least 15% to the Low Income weatherization program;
- 2- Up to \$2,000,000 Annually to Municipal and Local Government energy efficiency projects. Any unused amount will roll over and accumulate (during calendar years 2014, 2015, and 2016) until May of program year 2017 when, meeting certain requirements, the unused portion of the funds may be released to other C&I customers. Audit requested the monitoring method used by UES to track the municipal program, and was provided with the following information:

Target Funding (from RGGI Auctions)	<u>2014</u>	<u>2015</u>	<u>2016</u>	5/1/2017	<u>Total</u>
UES Allocation	11.42%	11.13%	10.99%	11.02%	
Statewide Municipality Funding	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	
UES Share of Funding	\$ 228,400	\$ 222,600	\$ 219,800	\$ 220,400	\$ 891,200
Anticipated Expenses	\$ (228,400)	\$ (222,600)	\$ (219,800)	\$ (220,400)	\$(891,200)
Anticipated net	\$ -	\$ -	\$ -	\$ -	\$ -
Actual Revenue Booked	\$ 279,026	\$ 224,702	\$ 208,815	\$ 237,937	\$ 950,480
Actual Municipal Expenses booked	\$ (121,364)	\$ (142,709)	\$ (134,369)	\$ (386,783)	\$(785,225)
Net Over/(Under) Collection	\$ 157,662	\$ 81,993	\$ 74,446	\$ (148,846)	\$ 165,255

3- The remainder to an All Fuels, comprehensive energy efficiency program administered by qualified parties which may include electric distribution companies as selected through a

competitive bid process. The Commission awarded a set grant amount of \$1,200,000, approved by the Governor and Council, for implementation of the statute. The grant was awarded to Eversource on behalf of Eversource, NH Electric Cooperative, UES, and Liberty. The approved budget for the grant was \$400,000 in state fiscal year ending June 30, 2016; \$400,000 in fiscal year 2017; and \$400,000 in fiscal year 2018 (each subject to adequate auction proceeds).

The total auction proceeds for 2016 were \$15,081,286 distributed as follows, in accordance with RSA 125-O:23:

2016 Auction Proceeds	\$ 15,081,286
Refunded to All Customers	\$(11,706,804)
Set Aside for Admin Costs	\$ (320,000)
Set Aside for All Fuels Grant	\$ (400,000)
Distributed to CORE at Electric Utilities	\$ (2,654,482)
Undistributed	\$ -0-

The proceeds are distributed to Eversource, NHEC, Liberty, UES, and municipalities with their own electric departments, Ashland, Littleton, New Hampton, Wolfeboro, and Woodsville. The breakdown by recipient, in accordance with RSA 125-O:23,III is as follows:

	Auction Proceeds		Rebates to Customers			RGGI to	Set Aside for RGGI Admin Costs	Set Aside for _All Fuels_
TOTAL for 2016 Auctions 31-34	\$	15,081,286	\$ ((11,706,804)	\$	(2,654,482)	\$ (320,000)	\$ (400,000)
Eversource	\$	10,349,058	\$	8,421,316	\$	1,927,742		
NHEC	\$	1,018,184	\$	808,411	\$	209,773		
Liberty	\$	1,214,405	\$	989,939	\$	224,466		
UES	\$	1,582,493	\$	1,289,991	\$	292,502		
Ashland	\$	19,558	\$	19,558				
Littleton	\$	77,030	\$	77,030				
New Hampton	\$	3,387	\$	3,387				
Wolfeboro	\$	72,740	\$	72,740				
Woodsville	\$	24,432	\$	24,432				
The 1 2016 DOCK And	Ф	15.001.206	Ф	11.706.004	ф	2 654 402	Ф 220.000	ф. 400 000

Total 2016 RGGI Auctions \$ 15,081,286 \$ 11,706,804 \$ 2,654,482 \$ 320,000 \$ 400,000

According to PUC Business Office information, and the RGGI audit report conducted for 2016, issued on 6/1/2017, Unitil was paid the following from the RGGI auctions noted:

		Customer	
	CORE	Rebates	Total
Auction #31 03/2016	\$ 70,574	\$ 384,237	\$ 454,812
Auction #32 06/2016	\$ 80,779	\$ 355,165	\$ 435,943
Auction #33 09/2016	\$ 70,574	\$ 320,047	\$ 390,621
Auction #34 12/2016	\$ 70,574	\$ 230,542	\$ 301,117
	\$292,501	\$1,289,991	\$1,582,493

UES reported \$255,588 as RGGI proceeds on the SHI and within the general ledger 10-29-02-21-456-00-00 Other Elec Revenue-Grant Funding-Total. The difference is the result of the timing of when the fourth quarterly auction checks for both 2015 and 2016 were received. The auction #30 check was received in January 2016, with \$33,661 dedicated to CORE. The auction #34 check was received in January 2017. As a result, the #34 \$70,574 is reflected as a January revenue source in program year 2017.

The UES CORE accounting model reflects 18.3% of the \$255,588 proceeds deposited in 2016 was allocated to Low Income, and 81.7% to the municipal programs. For 2016, that allocation was \$46,773 for Low Income and \$208,815 for municipal programs.

The All Fuels portion of the RGGI Auctions, as described earlier, was approved by the Commission and the Governor and Council to be administered as a \$1.2 million grant, spanning the state fiscal years 2016, 2017, and 2018. Audit requested of Eversource (the grantee on behalf of the participating electric utilities) and was provided with the distribution details. The state fiscal year runs from July through June.

Fiscal year ended 6/30/2016 \$ 400,000 2015 Fiscal year ended 6/30/2017 \$ 300,000 2016 Fiscal year ended 6/30/2018 \$ 500,000 2017 Complete Grant \$1,200,000

Eversouce distributed the grant proceeds across nine quarters to the utilities:

	Eversource	NHEC	Liberty	UES	TOTAL
Feb 2016 for Dec 2015	\$296,510	\$18,408	\$40,552	\$44,530	\$400,000
May 2016	\$ 74,127	\$ 4,602	\$10,138	\$11,133	
July 2016	\$ 74,127	\$ 4,602	\$10,138	\$11,133	
November 2016	\$ 74,127	\$ 4,602	\$10,138	<u>\$11,133</u>	
Total 2016	\$222,381	\$13,806	\$30,414	\$33,399	\$300,000
June for Jan 2017	\$ 74,127	\$ 4,602	\$10,138	\$11,133	
June 2017	\$ 74,650	\$ 3,887	\$ 9,313	\$12,150	
October 2017	\$ 74,650	\$ 3,887	\$ 9,313	\$12,150	
December 2017	\$ 74,650	\$ 3,887	\$ 9,313	\$12,150	
Total 2017	\$372,727	\$20,150	\$47,390	\$59,733	\$500,000

Because of the timing of the disbursements, UES reflected the \$44,530 plus \$33,399 combined for \$77,929 on the 2016 Accounting Model. The Model incorporates all RGGI sources of funding and all related expenses within one spreadsheet. Specifically, from 2009 through 2016, UES received RGGI funds from the Greenhouse Gas Emissions Reduction Fund (2009 – 2010), undesignated RGGI auction proceeds per Order 25,425 (2013 – 2014), the All Fuels grant above, and the Revolving Loan Fund. Audit reviewed the Model which is summarized as follows:

	Funding	Net	Net	
	Rollforward	Expenses	Incentives	2016 End
Greenhouse Gas Emissions Funding	\$ 957,808	\$ (938,361)	\$ (85,657)	\$(66,210)
Order 25,425 RGGI Funding	\$ 452,926	\$ (372,246)	\$ (14,470)	\$ 66,210
All Fuels	\$ 77,929	\$ (7,321)	\$ -0-	\$ 70,608
Subtotal	\$1,488,663	\$(1,317,928)	\$(100,127)	\$ 70,608
Revolving Loan Fund	\$ 840,000	\$ (573,294)	\$ -0-	\$266,706
Total RGGI funding	\$2,328,663	\$(1,891,222)	\$(100,127)	\$337,314

The year-end net funding of \$337,314 was verified to the balance sheet Accrued Revenue accounts

10-20-00-44-173-01-00 Accrued Rev on RGGI Res Non Low Inc	\$(196,418)
10-20-00-44-173-02-00 Accrued Rev on RGGI Res Low Inc	\$ 4,488
10-20-00-44-173-03-00 Accrued Rev on RGGI C&I	\$(145,384)
Total RGGI Funding not spent at 12/31/2016	\$(337,314)

Refer to the <u>Revolving Loan Fund</u> portion of this report for additional information.

Forward Capacity Market - \$273,101 Revenue

per 4th Quarterly Report filed in DE 14-216 on 3/1/2017 Actual Forward Capacity Market Proceeds and Expenses

]	<u>Liberty</u>	1	NHEC	Eversource			<u>Unitil</u>	Total	
<u>Proceeds</u>										
Quarter 1	\$	53,176	\$	12,784	\$	531,549	\$	70,991	\$	668,500
Quarter 2	\$	52,687	\$	20,996	\$	548,426	\$	72,917	\$	695,026
Quarter 3	\$	53,692	\$	8,063	\$	488,353	\$	61,440	\$	611,548
Quarter 4	\$	54,394	\$	10,468	\$	452,378	\$	67,753	\$	584,993
Total Proceeds	\$	213,949	\$	52,311	\$2	2,020,706	\$2	273,101	\$	2,560,067
Financial Assurance										
Quarter 1	\$	-	\$	-	\$	-	\$	-	\$	-
Quarter 2	\$	-	\$	-	\$	(1,000)	\$	-	\$	(1,000)
Quarter 3	\$	-	\$	-	\$	-	\$	-	\$	-
Quarter 4	\$	-	\$	-	\$	-	\$	-	\$	
Total Fncl Assurance	\$	-	\$	-	\$	(1,000)	\$	-	\$	(1,000)
Other Expenses										
Quarter 1	\$	(2,389)	\$	-	\$	(26,059)	\$	(5,355)	\$	(33,803)
Quarter 2	\$	(24,764)	\$	(3,796)	\$	(40,523)	\$	(20,213)	\$	(89,296)
Quarter 3	\$	(3,470)	\$	(6,921)	\$	(17,276)	\$	(8,912)	\$	(36,579)
Quarter 4	\$	(2,627)	\$	(1,760)	\$	(5,801)	\$	(15,352)	\$	(25,540)
Total Other Expenses	\$	(33,250)	\$	(12,477)	\$	(89,659)	\$	(49,832)	\$	(185,218)
Total Expenses	\$	(33,250)	\$	(12,477)	\$	(90,659)	\$	(49,832)	\$	(186,218)
NET FCM	\$	180,699	\$	39,834	\$1	,930,047	\$2	223,269	\$	2,373,849

UES reflected \$273,101 in revenue and \$49,832 in expenses related to ISO activities. The FCM revenue was verified to the general ledger account 10-29-02-21-456-80-00. The CORE accounting model reflected the revenue split between residential and commercial/industrial to be 30% and 70% respectively. Audit selected one month's revenue to review. \$19,600.03 was credited on 8/18/2016, and verified to the UES summary of the monthly ISO invoice. The specifics provided were:

Account Number Account Description		Cost	<u>kWh</u>
10-20-13-36-555-10-00 GIS	\$	1,208.23	0
10-29-02-21-456-80-00 Revenue-Actual (ISO)	\$	(19,600.03)	0
10-29-13-23-447-05-00 Concord Steam Payments	\$	(3,770.38)	23
10-29-13-32-555-88-00 St Purch Demand-Unmeterd-ED	C \$	2.41	0
10-29-13-32-555-89-00 St Purch Energy-Unmeterd-EDC	\$	(73.98)	(7)
10-29-13-32-561-04-00 Schd Sys Cntrl & Disp RTO bllr	ıg\$	39,578.26	0
10-29-13-32-561-08-00 Reliab Plnng& STD Dev RTO b	lg\$	0.43	0
10-29-13-32-565-01-00 Regional Trans & Oper Entity	\$1	,876,656.31	0
10-29-13-32-575-07-00 Mkt Admin, Monitrng, Comp RT	О <u>\$</u>	571.69	<u>0</u>
Total net monthly invoice	\$1	.894,572.94	16

Expenses reported in the fourth quarter report show total expenses of \$49,832. However, the expense summary reflected \$15,352 rather than the general ledger figure of \$771. Audit requested clarification of the variance, and was told that the fourth quarter report included a data entry error. The incentive filing and the general ledger accurately reflect the \$771 and total FCM expenses for 2016 of \$35,251.

10-29-02-21-908-80-01 Residential Internal Admin.	\$10,849
10-29-02-21-908-80-02 Residential External Admin.	\$ 3,000
10-29-02-21-908-80-03 Residential Non-admin.	<u>\$ 179</u>
Total Residential	\$14,028
10-29-02-21-908-80-04 C&I Internal Admin.	\$14,223
10-29-02-21-908-80-05 C&I External Admin.	\$ 7,000
10-29-02-21-908-80-06 C&I Non-admin.	\$ -0-
T . 1 C 0 I	Φ21 222

FCM expenses were verified to the following general ledger accounts:

Total C&I \$21,223 Total FCM Expenses \$35,251

<u>Interest - \$33,990</u>

The CORE interest rate used is the Federal Reserve's prime rate as of the first of the month for which interest is calculated. Audit verified the rate, as set by the Federal Reserve at 3.50% for all of 2016. The PUC website and letters to utilities regarding the interest rate to be used for customer deposits reflected 3.25% for the first quarter of 2016, then 3.50% for the remainder of the calendar year. The difference in the first quarter is the result of the customer deposit interest rate, noted in Puc1202.14 as "the rate reported in the Wall Street Journal *on the*

first business day of the month preceding the beginning of each calendar quarter..." The total interest reported for 2016 was net revenue of \$33,990, using the following interest formula:

((((Beg Bal + End Bal)/2)*.0325)/366)*Actual # of days in month) for the first quarter, and ((((Beg Bal + End Bal)/2)*.0350)/366)*Actual # of days in month) for the second through fourth quarter.

Program Expenses

Budgeted vs. Actual Expenses

According to the Order and found in the Filing, the Utilities shall not exceed 5% of their prescribed budget by sector without Commission approval. The following reflects the budget and the actual expenses for 2016. The budget figures were noted within the plan filed on 9/30/2015 in DE14-216.

<u>Program</u>	20	16 Budget	<u>20</u>	16 Actual	% Difference
Home Energy Assistance	\$	455,327	\$	369,328	-19%
Home Performance with EnergyStar	\$	436,631	\$	268,194	-39%
EnergyStar Homes	\$	170,000	\$	167,126	-2%
EnergyStar Products	\$	365,000	\$	358,237	-2%
Other (FCM/Education)	\$	67,776	\$	40,219	-41%
Total Residential	\$1,494,734		\$1,203,104		-20%
Large Business Energy Solutions	\$	708,104	\$	688,317	-3%
Small Business Energy Solutions	\$	455,001	\$	499,143	10%
Municipal	\$	219,876	\$	134,369	-39%
Other (FCM/Education)	\$	59,936	\$	31,564	-47%
Total Commercial/Industrial	\$1	,442,917	\$1	,353,393	-6%
Total 2016 Budget and Actual	\$2	2,937,651	\$2	2,556,497	-13%

Audit verified the reported actual balance to the general ledger. Each program is identified by a two digit code, noted on the line of the program in the table below. Each expense type is further identified by a two digit code. Rebates and services were verified to the sum of three specific codes. EM&V figures were verified to two specific codes. ISO and Education programs were also verified to multiple expense codes.

		#13		#14	#11	L+#40+#41		#10		#21	#30+#31	
	Ir	nternal	E	xternal	R	ebates/	In	nplmntn				
GL 10-29-02-21-908-	<u> </u>	<u>Admin</u>	<u> </u>	<u>Admin</u>	<u>s</u>	ervices	9	<u>Services</u>	Ma	rketing	EM&V	<u>Total</u>
HEA 41	\$	26,710	\$	6,042	\$	276,132	\$	54,706	\$	-	\$ 5,738	\$ 369,328
HPwES 26	\$	26,710	\$	7,128	\$	155,176	\$	72,689	\$	753	\$ 5,738	\$ 268,194
ESH 47	\$	10,016	\$	895	\$	130,908	\$	14,888	\$	-	\$10,419	\$ 167,126
ES Products 28 and 40	\$	21,702	\$	10,055	\$	278,438	\$	35,104	\$	8,276	\$ 4,662	\$ 358,237
Subtotal Residential	\$	85,138	\$	24,120	\$	840,654	\$	177,387	\$	9,029	\$26,557	\$ 1,162,885
			908	-80-02, 03	3		908	3-80-01				
ISO ODR 80			\$	3,179			\$	10,849				\$ 14,029
			908	-43-26			908	3-48-28	908	3-48-05,	11	
Residential Ed. 43 and 48			\$	14,157			\$	5,174	\$	6,860		\$ 26,191
Other Residential	\$	-	\$	17,336	\$	-	\$	16,023	\$	6,860	\$ -	\$ 40,219
Total Residential	\$	85,138	\$	41,456	\$	840,654	\$	193,410	\$	15,889	\$26,557	\$ 1,203,104

		#13		#14	#1	1+#40+#41		#10		#21	#3)+#31	
	Ir	nternal	E	kternal	F	Rebates/	In	nplmntn					
GL 10-29-02-21-908-	/	<u>Admin</u>	<u> </u>	Admin	:	Services	5	ervices	Ma	rketing	ΕN	/1&V	Total
Large Business 52	\$	41,735	\$	4,585	\$	580,319	\$	46,419	\$	319	\$1	4,939	\$ 688,316
Small Business 51	\$	26,710	\$	2,940	\$	430,654	\$	32,868	\$	234	\$	5,738	\$ 499,144
Municipal 54	\$	16,550	\$	4,124	\$	100,581	\$	10,158	\$	87	\$	2,869	\$ 134,369
Subtotal C&I	\$	84,995	\$	11,649	\$	1,111,554	\$	89,445	\$	640	\$2	3,546	\$ 1,321,829
	908	8-80-04	908	3-80-05									
C&I ISO ODR 80	\$	14,223	\$	7,000	\$	-	\$	-	\$	-	\$	-	\$ 21,223
			908	3-43-27					90	8-48-07	, 13		
C&I Education 43 and 48			\$	2,620					\$	7,721			\$ 10,341
Other C&I	\$	14,223	\$	9,620	\$	-	\$	-	\$	7,721	\$	-	\$ 31,564
Total C&I	\$	99,218	\$	21,269	\$	1,111,554	\$	89,445	\$	8,361	\$2	3,546	\$ 1,353,393
Combined Total	\$	99,361	\$	51,076	\$	840,654	\$	193,410	\$	23,610	\$2	6,557	\$ 2,556,497

Allocated Expenses \$347,067

Audit reviewed all of the general ledger accounts and identified allocation entries of target distributions posted to those accounts with code #11 Program Stat (Sales, Technical Assistance and Training), code #13 Regulatory and General, code #14 3rd Party Administration, code #30 M&E (Monitoring and Evaluation). Costs relating to the Unitil Service Company monthly service bills, and miscellaneous expenses such as cellular phones used by the Energy Efficiency group were booked to the accounts below then cleared to the various CORE accounts. Expenses such as NEEP and Tabors Caramanis costs are also spread among all programs.

GL#	GL Name	Debits	Credits	Ba	lance
10-29-02-21-908-00-00	Elec General-Plan/Admin-All Int	\$ 166,940	\$(166,940)	\$	-
10-29-02-21-908-00-04	Elec General Evaluation-All Int	\$ 20,125	\$ (20,125)	\$	-
10-29-02-21-908-00-05	Elec General Evaluation-All Ext	\$ 15,738	\$ (15,738)	\$	-
10-29-02-21-908-00-22	All Electric Internal Admin	\$ 34,829	\$ (34,829)	\$	-
10-29-02-21-908-00-23	Elec General Planning&Admin/Legal-All Ext	\$ 14,917	\$ (14,917)	\$	-
10-29-02-21-908-00-24	Elec General Plant/Admin-Res Int	\$ 46,616	\$ (46,616)	\$	-
10-29-02-21-908-00-25	Elec General Plant/Admin-C&I Int	\$ 35,107	\$ (35,107)	\$	-
10-29-02-21-908-00-29	Elec General Implsvs/stat-All Int	\$ 12,795	\$ (12,795)	\$	
		\$ 347,067	\$(347,067)	\$	-

Audit requested the August 2016 Service Company billing and allocation. The total USC invoice in the amount of \$1,122,856.60 represented labor and overhead of employees from Corporate and Administration, Customer Services, Energy Services, Engineering and Operations, Regulatory, Finance and Accounting, and Information Technology. The invoiced service bill was spread among 32 general ledger accounts. 20 of the accounts are associated with the CORE and represent \$53,924.30, or 4.8% of the total. Employee time which could be identified specifically with a CORE program was booked to the appropriate general ledger account directly.

Home Energy Assistance Budget code#41 - \$369,328

The Home Energy Assistance (HEA) Core program is designed to provide weatherization services to qualifying customers in New Hampshire at no charge to the customer. This is accomplished by reducing and managing the customers' energy usage through the weatherization services and providing specific energy efficient appliances where necessary and appropriate. The HEA budget is set at a minimum percentage from at least two different funding sources. The first is set within the Settlement Agreement at a percentage of the estimated total CORE expenses for the calendar year, and the second is at least 15% of the RGGI Auction Proceeds per NH RSA 125-O:23. In order to meet these funding requirements, the Joint Settlement Agreement stipulates 15.5% of the CORE budgets are reserved for the HEA programs, inclusive of the estimated RGGI Proceeds. For 2016, the \$455,327 was recalculated:

\$2,937,651 * 15.5% = \$455,327

The total reported expenses relating to the HEA program were \$369,328 or 13% of the total budget of \$2,937,651. The total was verified to the following general ledger accounts:

```
10-29-02-21-908-41-10 LI E Retrofit 1-4-Prog Admin
                                                       $
                                                            54,706.44
10-29-02-21-908-41-11 LIE Retrofit 1-4- Prog Stat
                                                       $
                                                             2,047.19
10-29-02-21-908-41-13 LI E Retrofit 1-4- Reg & General
                                                            26,710.37
10-29-02-21-908-41-14 LI E Retrofit 1-4-3rd Pty Admin
                                                       $
                                                             6.042.29
10-29-02-21-908-41-21 LI E Retrofit 1-4-3rd Pty Mkting
                                                       $
10-29-02-21-908-41-30 LI E Retrofit 1-4-M&E
                                                       $
                                                             3,220.07
10-29-02-21-908-41-31 LI E Retrofit 1-4-3rd Pty M&E
                                                       $
                                                             2,518.13
                                                       $
10-29-02-21-908-41-40 LI E Retrofit 1-4-Rebates
                                                          241,020.53
10-29-02-21-908-41-41 LI E Retrofit 1-4-Energy Audits
                                                       $
                                                            33,064.13
                                                           369,329,15
```

Audit selected two Low Income Rebates to review in detail. Specifically, one Rebate in the amount of \$65,777, booked on 6/1/2016. The OTTER invoice from Southern NH Services reflected fourteen specific customers for whom administrative costs, rebates, and credits were noted. None of the fourteen exceeded the \$8,000 threshold. \$10,154.15 in administrative costs were booked to account 908-41-41.

The second Rebate reviewed was booked on 7/18/2016 in the amount of \$24,899. As above, the OTTER invoice from Southern NH Services reflected eleven specific customers for whom administrative costs, rebates, and credits were noted. None of the eleven exceeded the \$8,000 threshold. \$5,268.32 in administrative costs were booked to account 908-41-41.

Home Performance with EnergyStar code #26 - \$268,193

10-29-02-21-908-26-10 Res E Retrofit	1-4 Prog Admin	\$ 72,688.60
10-29-02-21-908-26-11 Res E Retrofit	1-4 Prog Stat	\$ 2,047.19
10-29-02-21-908-26-13 Res E Retrofit	1-4 Reg & General	\$ 26,710.37
10-29-02-21-908-26-14 Res E Retrofit	1-4 3rd Party Admi	\$ 7,128.37
10-29-02-21-908-26-21 Res E Retrofit	1-4 3rd Pty Mktng	\$ 752.99
10-29-02-21-908-26-22 Res E Retrofit	1-4 Interest Buydov	\$ -
10-29-02-21-908-26-30 Res E Retrofit	1-4 M&E	\$ 3,220.07
10-29-02-21-908-26-31 Res E Retrofit	1-4 3rd PTY M&E	\$ 2,518.13
10-29-02-21-908-26-40 Res E Retrofit	1-4 Rebates	\$ 127,981.94
10-29-02-21-908-26-41 Res E Retrofit	1-4 Energy Audits	\$ 25,145.72
		\$ 268,193.38

One Rebate in the amount of \$11,642, booked on 5/27/2016 was selected for review. An OTTER invoice from Quality Insulation-Nashua was provided which reflected six customers for whom administrative costs of \$2,507.06 and net rebate costs of \$11,642.47 were incurred.

One entry in the Energy Audits account was chosen for review. \$1,255 booked on 3/15/2016 was verified to An OTTER invoice from Quality Insulation-Nashua which reflected

insulation services for three specific customers. Administrative costs of \$1,255.25 were noted along with rebate costs of \$5,652.52.

EnergyStar Homes code #47 - \$167,126

10-29-02-21-908-47-10	Res NC Equip-Prog Admin	\$ 14,888.32
10-29-02-21-908-47-11	Res NC Equip-Prog Stat	\$ 767.69
10-29-02-21-908-47-13	Res NC Equip-Reg & General	\$ 10,016.40
10-29-02-21-908-47-14	Res NC Equip-3rd Pty Admin	\$ 895.05
10-29-02-21-908-47-30	Res NC Equip-M&E	\$ 1,207.53
10-29-02-21-908-47-31	Res NC Equip-3rd Pty M&E	\$ 9,211.12
10-29-02-21-908-47-40	Res NC Equip-Rebates	\$ 74,267.24
10-29-02-21-908-47-41	Res NC Equip-Energy Audits	\$ 55,872.93
		\$ 167,126.28

Audit selected two Rebates and one Energy Audit entry to review in detail. Specifically, one Rebate in the amount of \$24,000 booked on 11/2/2016 for a multi-family complex. Another was booked on 12/8/2016 in the amount of \$24,000. Supporting documentation for both indicated that the new construction related to two buildings, each of which has forty eight units. EnergyStar refrigerators were installed, and calculated additional rebates for achieving HERS ratings below the target were noted. The total incentives, however, represented the base rebate for meeting the minimum HERS index, as verified by GDS Associates.

The Energy Audit entry, booked on 9/12/2016 in the amount of \$24,795 represented an invoice from GDS Associates for review of projects in Concord, Bow, and Exeter. The invoice reflected the dates of the plans review, the site visit, and the total due. The portion of the invoice relating to the final was incomplete, indicating that GDS will conduct a final inspection of the units being built by the four different contractors listed.

EnergyStar Products code	es #28 and #40 - \$358,236	
10-29-02-21-908-28-10	Res E Lighting-Prog Admin	\$ 19,391.57
10-29-02-21-908-28-11	Res E Lighting-Prog Stat	\$ 895.64
10-29-02-21-908-28-13	Res E Lighting-Reg & General	\$ 11,685.78
10-29-02-21-908-28-14	Res E Lighting-3rd Pty Admin	\$ 6,233.62
10-29-02-21-908-28-21	Res E Lighting-3rd Pty Mkting	\$ 4,998.19
10-29-02-21-908-28-30	Res E Lighting-M&E	\$ 1,408.78
10-29-02-21-908-28-31	Res E Lighting-3rd M&E	\$ 1,101.67
10-29-02-21-908-28-40	Res E Lighting-Rebates	\$ 130,858.60
10-29-02-21-908-28-41	Res E Lighting-Energy Audits	\$ 26,604.78
	subtotal lighting	\$ 203,178.63
10-29-02-21-908-40-10	Res E Products-Prog Admin	\$ 15,712.20
10-29-02-21-908-40-11	Res E Products-Prog Stat	\$ 767.69
10-29-02-21-908-40-13	Res E Products-Reg & General	\$ 10,016.40
10-29-02-21-908-40-14	Res E Products-3rd Pty Admin	\$ 3,821.47
10-29-02-21-908-40-21	Res E Products-3rd Pty Mkting	\$ 3,277.54
10-29-02-21-908-40-30	Res E Products-M&E	\$ 1,207.53
10-29-02-21-908-40-31	Res E Products-3rd Pty M&E	\$ 944.30
10-29-02-21-908-40-40	Res E Products-Rebates	\$ 97,480.22
10-29-02-21-908-40-41	Res E Products-Energy Audits	\$ 21,830.28
	subtotal products	\$ 155,057.63
	Total EnergyStar Products	\$ 358,236.26

One entry booked to the Lighting 3rd Party Administration account 908-28-14, in the amount of \$2,643 was selected for review. The invoice from CLEAResult, dated 1/13/2016 for field representative labor, mileage and administration expenses for 11/28/2015 – 12/31/2016 was provided. While the timing of the services was in the prior year, the invoice was received and paid during the 2016 program year. Audit requested clarification of the services provided by CLEAResult, and was told that the company "assists the NH electric utilities implement the residential lighting program. Their responsibilities include marketing as well as program services." UES further provided an assignment (letter dated 5/5/2015) of the Applied Proactive Technologies, LLC (APT) agreement (dated 10/21/2013) to CLEAResult, which was acquired by APT as of 7/31/2014. The original APT scope of service included, but was not limited to, delivering cost effective results to deliver lighting and appliance efficiency programs such as store visits and building customer awareness programs, and integration of software packages which collect and report on field activity. The agreement was made among APT and the four participating CORE electric utilities.

An entry booked on 10/21/2016 to 908-28-41, Lighting Energy Audits, in the amount of \$2,144.22 was verified to an invoice from CLEAResult. As described above, the invoice reflected field representative labor, mileage, and a portion of the program management and administration fee. Based on a review of the invoice, it appears that the invoice should have

been posted to 908-28-14, 3rd Party Administration. Overall, the invoice total is reasonable for the program year, simply booked to the incorrect general ledger account.

One lighting rebate in the amount of \$16,850 was selected for review. The amount was verified to an invoice from EFI, Energy Federation Inc. for "upstream invoices". The invoice was dated 11/21/2016 and also reflected fees totaling \$446.53 which were posted to the Energy Audits and Services account.

One Rebate, booked to account 10-29-02-21-908-40-40 on 8/5/2016 in the amount of \$12,050 was also verified to an invoice from EFI. The detail indicated that it was for the processing of mail-in rebates. Further support indicated that the rebates related to ductless heat pumps and water heaters. An administrative fee of \$128.70 was also noted on the invoice, and posted to 908-40-41.

Other – Residential \$40,219

10-29-02-21-908-80-01	Res E - ISO ODR Internal Admin	\$ 10,849.17	
10-29-02-21-908-80-02	Res E - ISO ODR External Admin	\$ 3,000.00	
10-29-02-21-908-80-03	Res E -ISO ODR Non-admin	\$ 179.49	\$ 14,028.66
10-29-02-21-908-48-05	Res E SW Marketing-Int Admin	\$ 4,536.72	
10-29-02-21-908-48-11	Res E SW Marketing-3rd Pty Expenses	\$ 2,323.55	
10-29-02-21-908-48-28	Res E&G Energy Code Training	\$ 5,173.85	\$ 12,034.12
10-29-02-21-908-43-26	Residential Education-3rd Pty Admin	\$ 14,156.50	\$ 14,156.50
			\$ 40,219.28

Other expenses represented costs associated with the Forward Capacity Market ISO Other Demand Response (ODR), Marketing, and Educational expenses. Specific individual testing was not performed.

Large Business Energy Solutions code #52 - \$688,316

10-29-02-21-908-52-10 LC&I E Lg Business-Prog Admin	\$ 46,419.22
10-29-02-21-908-52-11 LC&I E Lg Business-Prog Stat	\$ 76,082.31
10-29-02-21-908-52-13 LC&I E Lg Business-Reg & General	\$ 41,734.99
10-29-02-21-908-52-14 LC&I E Lg Business-3rd Pty Admin	\$ 4,584.73
10-29-02-21-908-52-21 LC&I E Lg Business-3rd Pty Mkting	\$ 319.00
10-29-02-21-908-52-30 LC&I E Lg Business-M&E	\$ 5,031.34
10-29-02-21-908-52-31 LC&I E Lg Business-3rd Pty M&E	\$ 9,907.56
10-29-02-21-908-52-40 LC&I E Lg Business-Cust/Contr Rebate	\$ 487,380.26
10-29-02-21-908-52-41 LC&I E Lg Business-Energy Audits	\$ 16,856.63
	\$ 688,316.04

One entry in the amount of \$140,000, which was booked on 12/29/2016, was selected for review. The documentation provided indicated that the total state owned campus-wide project cost was the sum of three specific projects, \$670,393. The retrofit projects included replacement of VFDs across the Hazen Drive campus, replacement of pneumatic controls and air compressors, and HVAC incentives.

Small Business Energy Solutions code #51 - \$499,143

10-29-02-21-908-51-10	SC&I E/G Sm Biz-Prog Admin	\$ 32,868.28
10-29-02-21-908-51-11	SC&I Business-Prog Stat	\$ 29,689.58
10-29-02-21-908-51-13	SC&I E/G Sm Biz-Reg & General	\$ 26,710.37
10-29-02-21-908-51-14	SC&I E/G Sm Biz-3rd Pty Admin	\$ 2,940.28
10-29-02-21-908-51-21	SC&I E/G Sm Biz-3rd Pty Mkting	\$ 233.87
10-29-02-21-908-51-30	SC&I E/G Sm Biz-M&E	\$ 3,220.07
10-29-02-21-908-51-31	SC&I Business-3rd Pty M&E	\$ 2,518.13
10-29-02-21-908-51-40	SC&I E/G Sm Biz-Rebates	\$ 399,975.87
10-29-02-21-908-51-41	SC&I E/G Sm Biz-Energy Audits	\$ 988.00
		\$ 499,144.45

Audit selected three specific entries which were booked to the Rebates general ledger account. The first, in the amount of \$35,028.90 was posted on 3/21/2016 representing 50% of the total cost \$70,057.80 to install LED lights at an elementary school. The total invoices were received from Prism Consulting.

The second entry was booked on 5/10/2016 in the amount of \$26,150. The documentation provided indicated that the rebate was for lighting at a wholesale facility. Further documentation provided the detailed pricing from Indoff Incorporated. The quote for LED retrofit kits for warehouse and parking lot, as well as wall packs, shipping and installation totaled \$52,300. The rebate reflected 50%.

The third entry, in the amount of \$49,597 was booked on 9/19/2016. The supporting documentation provided by the Company reflected 48% of the total project cost of \$103,051.46. The contractor hired to install the lighting at a sports club was Affinity LED Lighting. The fixtures installed included LED, wall packs, dimming/on/off controls, radio and switches, parking lot retrofit, etc. and labor.

Municipal code #54 - \$134,368

10-29-02-21-908-54-10 C&I E	NH Muni-Prog Admin	\$ 10,157.37
10-29-02-21-908-54-11 C&I E	NH Muni-Prog Stat	\$ 1,023.59
10-29-02-21-908-54-13 C&I E	NH Muni-Reg & General	\$ 16,550.02
10-29-02-21-908-54-14 C&I E	NH Muni-3rd Pty Admin	\$ 4,124.25
10-29-02-21-908-54-21 C&I E	NH Muni-3rd Pty Mkting	\$ 86.66
10-29-02-21-908-54-30 C&I E	NH Muni-M&E	\$ 1,610.05
10-29-02-21-908-54-31 C&I E	NH Muni-3rd Pty M&E	\$ 1,259.06
10-29-02-21-908-54-40 C&I E	NH Muni-Rebates	\$ 99,350.80
10-29-02-21-908-54-41 C&I E	NH Muni-Energy Audits	\$ 206.79
		\$ 134,368.59

One entry in the amount of \$46,220 which was booked on 2/29/2016 was selected for review. The supporting documentation provided reflected a retrofit of an elementary school. The rebate forms used were 2015 custom rebates, completed in 12/2015, but the incentive was not processed until all of the invoices were received in January 2016. The work completed was to improve the ventilation system, boiler replacement, lighting, and weatherization of the building. The overall retrofit cost was \$146,940 of which 31% or \$46,220 was rebated to the school.

C&I Other - \$31,564

10-29-02-21-908-80-04	C&I E - ISO ODR Internal Admin	\$	14,222.72	
10-29-02-21-908-80-05	C&I E - ISO ODR External Admin	\$	7,000.00	
10-29-02-21-908-80-06	C&I E - ISO ODR Non-admin	\$	-	\$ 21,222.72
10-29-02-21-908-48-07	C&I E SW Marketing-Int Admin	\$	4,536.72	
10-29-02-21-908-48-13	C&I E SW Marketing-3rd Pty Expenses	\$	3,183.83	\$ 7,720.55
10-29-02-21-908-43-27	C&I Codes- Edu-3rd Pty Admin	\$	2,620.35	\$ 2,620.35
		•		\$ 31,563.62

Other expenses represented costs associated with the Forward Capacity Market ISO Other Demand Response (ODR), Marketing, and Educational expenses. Specific individual testing was not performed.

RGGI Revolving Loan Fund (RLF)

On August 19, 2009, a \$7,646,020 grant identified as Re-CORE was approved by the Governor and Council which, among other things, established the Revolving Loan Funds administered by the Core Electric Utilities. Specifically, each utility initially received the following amount to be used to establish the RLF:

<u>Utility</u>	Original Gran	nt Additional	Total RLF
Liberty GSE	\$ 302,077	\$	
NHEC	\$ 300,000	\$ (3,004)	
Eversource (PSNH)	\$ 500,000	\$190,000	\$690,000
UES	\$ 725,000	\$115,000	\$840,000
Total	\$1,727,077	\$	

Approved in the settlement Agreement covering the 2013/2014 CORE Programs, Unitil added \$115,000 to the original loan balance of \$725,000, bringing the total to \$840,000.

Eversource received Commission approval on 10/25/2013 to move \$190,000 from the 2012 carryover to the RLF. The transfer increased Eversource's original \$500,000 to \$690,000.

NHEC was authorized to add \$100,000 in 2013 to its original \$200,000 loan fund, resulting in an overall balance of \$300,000. In 2015, a loan was written off as uncollectible, decreasing the RLF beginning balance in the 4th quarterly report (in the 2016 filing received in 3/2017) to \$296,996.

	Original	Additional	Total	Beg Bal	Beg Bal	Beg Bal	Beg Bal
	Grant to RLF	\$ to RLF	<u>RLF</u>	RLF 2013	RLF 2014	RLF 2015	RLF 2016
Liberty	\$ 303,000	\$ -	\$ 303,000	\$303,000	\$303,000	\$303,000	\$303,000
NHEC	\$ 300,000	\$ -	\$ 300,000	\$300,000	\$300,000	\$300,000	\$296,996
PSNH	\$ 500,000	\$ 190,000	\$ 690,000	\$690,000	\$690,000	\$690,000	\$690,000
UES	\$ 725,000	\$ 115,000	\$ 840,000	\$792,716	\$855,707	\$855,707	\$800,250
	\$1,828,000	\$ 305,000	\$ 2,133,000				

As found in the 4th Quarter Report page 24, sent to the Commission on 3/1/2017 UES reports that as of 12/31/2016, the RLF available to lend was \$198,051. The General Ledger reflected \$266,706 available to lend. Below is the reconciliation of the two, provided to Audit:

		4th Qtr	 GL	_]	Recon
Revolving Loan Fund	\$	(800,250)	\$ (840,000)	\$	39,750
Less: Loans Issued	\$	1,212,639	\$ 1,212,640	\$	(1)
Plus: Customer Repayments	\$	(661,537)	\$ (654,003)	\$	(7,534)
Less: Consumer Loan Admin Costs 2009-2012	2		\$ 14,656	\$ ((14,656)
Current Balance	\$	(249,148)	\$ (266,706)	\$	17,558
Less: Loans in Process	\$	51,097	\$ -	\$	51,097
Less: Potential Loans	\$	-	\$ -	\$	
Available to Loan 12/31/2016	\$	(198,051)	\$ (266,706)	\$	68,655

Audit requested clarification of the difference between the \$840,000 and reported \$800,250, or \$39,750. The Company indicated that the \$39,750 represents the allocated administrative expenses associated with the revolving loan fund. The \$39,750 has not yet been used by UES, rather is being "reserved" for use in the future.

The (7,534) was identified by the Company as a default, and the Administrative Costs were those incurred from the years 2009 - 2012. The general ledger does not reflect pending or potential loans.

The <u>Accounting model</u> for RGGI reflected:

	C&I	Residential	Low Income	TOTAL
Beginning Balance 2010	6\$ (75,466)	\$(120,256)	\$4,488	\$(191,234)
Loans Issued	\$ 61,211	\$ 11,212	\$ -0-	\$ 72,423
Customer Repayments	\$ (60,522)	\$ (87,373)	\$ -0-	\$(147,895)
Administrative Costs	\$ -0-	\$ -0-	\$ -0-	<u>\$ -0-</u>
Subtotal RLF	\$ (74,777)	\$(196,417)	\$4,488	\$(266,706)

Activity during the 2016 program year was verified to the following:

10-29-02-44-908-43-14 C&I RGGI RLF Loan Buydown	\$ 61,211 (loans issued)
10-29-02-44-904-43-22 RES RGGI RLF Loan Buydown	\$ 11,212 (loans issued)
	\$
10-29-02-44-456-00-01 Loan Payback RGGI-RES	\$(87,373) (loan payments)
10-29-02-44-456-02-01 Loan Payback RGGI-C&I	\$(60,522) (loan payments)

Third Party Financing Program

As found in the 4th Quarter Report filed by Eversource, UES did not buy down the interest rate on any projects in 2016.

CONCLUSION

Based on a review of the detailed information provided, the UES 2016 CORE, as filed with the 2016 Shareholder Incentive, is accurately stated and appears to comply with the Commission Orders and applicable state statutes.

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: January 31, 2018 **AT (OFFICE):** NHPUC

FROM: Anthony Leone, Examiner

SUBJECT: Public Service Company of New Hampshire d/b/a Eversource Energy

DE 14-216 - 2016 CORE **FINAL** Audit Report

TO: Tom Frantz, Director NH PUC Electric Division

Les Stachow, Assistant Director, NH PUC Electric Division

James Cunningham, NH PUC Analyst IV

Introduction

The Public Utilities Commission Audit Staff (Audit) has conducted an audit of the books and records related to the CORE Energy Efficiency Program for the calendar year 2016. The four participating electric utilities, Unitil Energy Systems, Inc. (UES), Public Service Company of New Hampshire d/b/a/ Eversource Energy (Eversource), New Hampshire Electric Cooperative (NHEC), and Granite State Electric (GSE) and two gas utilities, Northern Utilities, Inc. (Northern) and EnergyNorth (ENG) filed a joint petition for the program years 2015 through 2016. Each utility was audited individually.

Audit appreciates the assistance of the entire Eversource Energy Efficiency team especially Tom Belair, Kate Peters, Tracey Lengyel-Krechko, Harold Altobello and the rest of the Energy Efficiency team.

Approved 2016 Programs

The participating utilities submitted a joint Energy Efficiency Plan to the Commission on 9/12/2014 for program years 2015 and 2016 and a Joint Settlement Agreement (JSA) on 12/11/2014. The Commission approved the 2015 programs by Order 25,747 and approved the 2016 programs by Order 25,856 on 12/24/2015. Eversource's 2016 CORE programs include:

Residential Programs

Home Energy Assistance (HEA)

Home Performance with Energy Star (HPwES)

Energy Star Homes (includes Geothermal)

Energy Star Products

Home Energy Reports

Customer Engagement Platform (Residential)

Commercial and Industrial Programs

Large Business Energy Solutions

Small Business Energy Solutions

Municipal and Local Government

Educational

C&I RFP Energy Rewards

C&I Partnerships

Customer Engagement Platform (Micro, Small, Medium & Large)

Smart Start

Significant Program Updates

Attachment M of the Updated Settlement Agreement contains a summary of all material changes however there were no significant updates to note in this Report.

Mid-Year Adjustments

According to the Settlement Agreement, the Commission shall be notified of any transfer into or out of any one program of 20% or more. On 12/7/2016 Eversource notified the Commission of the following transfer:

Program	Budget	To/ From	%	Revised Budget
HPwES	\$1,860,400	(\$312,000)	-17%	\$1,548,400
Energy Star Homes	\$957,269	\$312,000	+33%	\$1,269,269

Utility Specific Programs

Home Energy Reports

According to the Joint Settlement Agreement, The Home Energy Reports Pilot Program was approved by the Commission with the purpose of evaluating the effectiveness of using a behavioral-based energy efficiency program in NH before expanding the program to a larger audience of residential customers. The primary objectives of the pilot program include: a) measuring the program's effectiveness on electric energy savings, enrollment in other energy-efficiency programs and customer satisfaction, and b) measuring the effect messaging has on electric energy savings using two separate engagement methods:

- 1) Normative customers are compared to and ranked against similar customers to stimulate electric energy savings; and
- 2) Rewards customers receive reward points for saving electric energy that can be redeemed at local merchants.

According to the 4th Quarter 2016 Report, Eversource spent \$231,662 on the HER Program. The majority of those funds, \$212,920, were invoiced by OPower, Inc. Within the Shareholder Incentive Calculation, Eversource indicated the 2016 Annual MWh savings as 4,142.1 and in the 2015 Shareholder calculation indicated Annual MWh savings of 2,013.9. Audit inquired about the difference in the savings and Eversource indicated that when they renegotiated the contract with OPower for the 2016-2018 term, they acquired a better price. Those savings were then

redirected back into the HER Program resulting in 47,922 Reports being generated and sent rather than the expected 25,000.

Customer Engagement Platform

As found on page 105 of the 2015-2016 Joint Settlement Agreement, the energy efficiency customer engagement platform (CEP) is a product of Northeast Utilities'(NU) commitment to increasing participation in energy efficiency across its service areas... by providing a personalized experience for each of its customers. The CEP will provide customers with greater control and immediacy, which is required to keep pace with customers' service expectations and industry norms. A broader range of customers will be empowered to take actions that save energy and reduce their utility expenses, putting NU in a position to scale up energy efficiency programs in a cost-effective manner and allowing energy efficiency programs to realize their full potential. The CEP is an interactive [on-line] tool that will allow PSNH to effectively reach all of its customers with energy usage information that is tailored to the customer and their situation and can be accessed through the Eversource website.

The CEP first began to accrue expenses in NH in the 2015 Program year, and according to the 2015 and 2016 4th Quarter NH CORE Reports filed by Eversource, they have spent a total of \$638,377 (107,221 and \$531,156) respectively. Further details on the program can be found beginning with the 2015 Joint Settlement Agreement and continuing through the Updated Agreement for Program year 2016.

As found in the testimony by Eversource to when initially requesting approval to have the CORE programs pay for the CEP, certain measures were to be tracked. Specifically, PSNH Response to Staff Request 2-007 in DE 14-216, dated 10/24/2014, Eversource indicated the following measures would be tracked: **Audit Issue #1**

Tracked Number of registered CEP customers by segment

Tracked Number of repeat visits to the CEP by the registered users segment

Tracked Average length of time spent on the CEP by the registered users by segment

Tracked Number of self-service assessments (audits) completed by segment

Partial Number of e-commerce transactions completed

Not-Tracked Number of program leads generated through the CEP by customer segment, with a main focus on

qualified candidates for the HPwES and the Small Business Solutions Programs

Not-Tracked Incorporation and implementation on on-line application and incentive forms for the CORE

programs over time

Not-Tracked On-line surveys measuring customers' satisfaction with the services provided by the CEP

C&I RFP

The Commercial and Industrial Request for Proposal Program was designed to promote competitive market development in the energy efficiency industry by encouraging third parties to bid for energy efficiency projects on a competitive basis. The RFP Program is aimed at energy efficiency potential from large C&I customers that are not participating in the other C&I CORE programs.

C&I Customer Partnerships

The Commercial and Industrial Customer Partnership Program was designed to provide focused education to members on energy efficiency technologies and opportunities available in New Hampshire. Format is intentionally left open to be able to react to a wide range of opportunities.

Smart Start Program

See the **Smart Start** section later in this Report for further information

CORE Programs- Funding

The Core programs are funded through various sources, specifically, the SBC, a portion of the Quarterly RGGI Auction Proceeds, a portion of the Forward Capacity Payments to the Utility net of administrative expenses, and, depending on the balance of the Fund itself, Interest.

(SBC) System Benefits Charge

The System Benefits Charge is the primary means of funding the CORE Programs. In 2016, the rate was set at \$.0033 for every kWh sold where \$.0015 is appropriated to the Electric Assistance Program (EAP) and the remaining \$.0018 is directed to the CORE Electric Programs. Audit compared the gross kWh sales as found in the EAP Audit for first 9 months of 2016 and compared them to the annual kWh sales provided by Eversource in their summary detail of Large Power Billings (LPB) Report "Current Monthly Summary of Delivery Service by Rate and Class" plus the C2 "Delivery Sales and Revenue by Class, Rate and Component" for reasonableness. Audit also tested the same for the month of December as found in the C2 and LPB Reports to the same information submitted separately for the annual EAP audit as evidenced below.

December Eversource SBC Funding				
December EAP kWh Sales	638,785,997			
CORE Funding Rate @ \$.0018/ kWh	\$ 0.0018			
Calculated December CORE Funding	\$ 1,149,815			
Submitted December kWh Sales	638,785,997			
Submitted December CORE Funding	\$ 1,149,815			
Reported Annual Funding	\$ 14,157,448			

Forward Capacity Market

Audit reviewed the Eversource work order activity NHISO which reflected labor and overhead associated with the FCM, as well as annual certification as recorded to Eversource account 254P90.

2016 ISO Information				
ISO Revenue	\$2,020,706			
ISO Expenses	\$ (90,659)			
Net Revenue	\$1,930,047			

2016 RGGI Auction Proceeds

The PUC Business Office records and the 2016 RGGI Audit Report indicate a total of \$1,927,741 was awarded to Eversource from RGGI Auctions held in 2016. This amount was traced directly to the Eversource GL Accounts 242RG0.

2016 RGGI Auction Proceeds					
1st Quarter	\$ 465,122				
2nd Quarter	\$ 532,375				
3rd Quarter	\$ 465,122				
4th Quarter	\$ 465,122				
Total RGGI Proceeds	\$1,927,741				

Interest

Interest of \$39,549 represents both the CORE and the 2% RSA 125-O: 25 amounts. The interest is calculated monthly and is factored into the next months starting balance. Audit verified the interest rate used was the Federal Reserve's prime rate as of the first of the month for which interest is calculated which is also sent to all utilities by the Director of the Gas/Water Division of the NHPUC. The last interest rate change was effective 12/15/2015 at 3.50%. This would have impacted the calculation starting on 1/1/2016. There were no other changes in 2016. Specifically, Eversource uses the interest formula described below:

Monthly Charge =
$$(((Beg Bal + End Bal/2)*.0350)/12)$$

2% Set-aside 125-O:5

NH RSA 125-O: 25 sets forth the parameters allowing PSNH to utilize some of the SBC funds collected for the CORE Program for energy efficiency improvements at PSNH owned facilities. As outlined in NH RSA, PSNH filed their Report on the use of NH RSA 125-O: 25 Funds on June 1, 2017. That Report noted the method by which funds are set aside and added to the RSA 125-O: 25 Fund Balance. Specifically, those requirements were not met in 2016. As such, \$ -0- was added or used in 2016.

\$43,973	2015 Ending Balance
\$-	2% Set Aside Funds added
\$-	Cost of Projects at PSNH Facilities
\$43,973	2016 Ending Balance

The funding is part of the net over collection, with a reconciling memo indicating what the reserve balance is. The general ledger reconciliation represents all net activity in the Conservation and Load Management programs, maintained in balance sheet account 254P90. Audit understands that any plant in service, funded through the RSA 125-O: 5 monies, would be considered as a Contribution in Aid of Construction.

CORE Programs- Expenses

Budget vs Actual

The following information compares the budgeted figures vs the actual expenses as found in the 4th Quarter 2016 Energy Efficiency CORE Report. Audit notes that Eversource submitted

one request to transfer funds between programs. This transfer request was detailed above and is reflected in the following figures. However, in the 4th Quarter Report, specifically page 13 of 35, the budgets of the HPwES and EnergyStar Homes incorrectly reflect two transfers of \$312,000 when there was only one. Audit has included only 1x transfer in the tables and figures in this Report.

		4th Qtr			
Program	E	Budgeted Actual			% of Goal
EnergyStar Homes	\$	1,269,269	\$	1,309,689	103%
EnergyStar Products	\$	1,853,018	\$	1,799,458	97%
HPwES	\$	1,548,400	\$	1,599,053	103%
HEA	\$	2,751,286	\$	2,630,799	96%
Customer Engagement	\$	235,000	\$	215,000	91%
Home Energy Reports	\$	251,006	\$	231,662	92%
ISO Residential	\$	48,000	\$	27,200	57%
Sub Total	\$	7,955,979	\$	7,812,861	98%
Large Business	\$	4,704,790	\$	4,476,682	95%
Small Business	\$	2,205,962	\$	2,401,442	109%
Municipal	\$	1,453,464	\$	1,447,065	100%
Education	\$	206,596	\$	175,525	85%
C&I RFP	\$	431,355	\$	422,600	98%
C&I Partnerships	\$	18,919	\$	-	0%
Customer Engagement	\$	345,500	\$	316,100	91%
Smart Start	\$	52,000	\$	28,724	55%
ISO Expenses	\$	112,000	\$	63,500	57%
Sub Total	\$	9,530,586	\$	9,331,638	98%
Grand Total	S	17,486,565	Ś	17,144,499	98%

Performance Incentive

Eversource submitted their Annual Report and Performance Incentive (PI) calculation on June 1, 2017. That report was followed by two revised reports, first on 6/8/2017 and again on June 16, 2017. The June 16, 2017 Report included a PI calculation resulting in Eversource earning \$1,429,673, of which \$1,465,566 was booked during 2016 with the difference as a true-up entry after this report has been finalized. Audit notes Eversource correctly deducted the Smart Start expenses of \$28,724 to arrive at the amount of expenses to include in the PI calculation. The Smart Start Program earns a flat 6% return on loan payments made. Specifically, \$17,144,499 - \$28,724 = 17,115,775. This figure matches the total of Residential, \$7,812,871 and Commercial/ Industrial \$9,302,906 expenses in the PI calculation.

Audit recalculated the PI using the numbers as presented in the Annual Report Filing and resulted in substantially the same figure as Eversource submitted. In the past Audit explored a

variance between the figure in the Filing and the results of using the formula from the Joint Settlement Agreement. It was concluded the variance was due to rounding. Specifically, the figures as presented in the Filing use a Benefit/Cost Ratio rounded to two places past the decimal. However, due to determinations by Commission Staff that the PI should be as precise as possible, the Excel spreadsheet used by Eversource contains a Benefit/Cost Ratio that is more than 2 decimal places resulting in the variance documented by Audit.

Low Income Weatherization Program

As stipulated in NH RSA 125-O: 23 and the Joint Settlement Agreement covering the NH CORE Programs, certain amounts of funding are required to be allocated to the HEA (Low-Income Weatherization) program. Covering the 2016, those amounts were set at the following: at least 15% of the RGGI Auction Proceeds and at least 15.5% of the total budget.

According to the 4th Quarter CORE Report filed by Eversource covering the 2016 CORE Program Year, Eversource spent \$339,785 of RGGI funds on the HEA program. This amount is 17.6% of the total RGGI funds awarded (\$1,927,741) to Eversource in 2016.

Additionally, according to the same Report, Eversource spent \$2,291,014 of SBC funds on the HEA Program which equals 16% of the 2016 SBC fund total of \$14,157,448 but only 14.2% if the 2016 Net ISO/ Forward Capacity Market funding is factored in.

Allocated and Direct Expenses

Eversource submitted documents indicating \$638,328 of expenses classified as Allocated Charges that were spread among the various Core programs. Eversource further indicated the Allocation Charges consist of group wide costs that are shared among all programs that cannot be easily tracked to any specific program such as management, supervision, membership, and information technology fees. All Allocated Charges were booked to the Internal Administration category of the Core Expense listing and allocated using a table representative of each programs percentage of the overall budget.

Eversource also indicated they incurred \$16,506,171 of Direct Charges excluding the Net Smart Start loan payments and repayments. These charges were spread across all program activity expense listings according to the definitions included in the 2015/2016 Energy Efficiency Plan approved by the NH PUC.

Eversource has indicated that the Energy Efficiency "Core" Program is classified as a "General Service Company" for overhead (OH) purposes. As such the 2015 and 2016 OH Rates are shown below:

	2015	2016		
	Jan-Dec.	Jan.	FebDec.	
Non-Productive	15.76%	14.69%	17.21%	
Eversource Service Company FTEs	16.62%	14.81%	17.39%	
Payroll Benefits	38.76%	31.46%	31.46%	
General Service Company	69.34%	61.97%	61.97%	

Eversource indicated there was an error in the rate for January 2016 which was corrected beginning with February 2016. Eversource also stated that they did not make any adjustments to quantify or capture the difference between the rate charged and the correct rate.

Residential Programs

EnergyStar Products - \$1,799,458

As noted in the Filing this program will continue to increase the use and availability of energy efficient lighting products, appliances (white goods) and electric heating, cooling and water heating equipment in New Hampshire. The program is open to all residential customers and will offer rebates in stores, online, and through the NH Utilities.

Audit reviewed an invoice from Energy Federation, Inc. (EFI) for the processing of Mail-In Rebates. The invoice detailed the appliance with which the rebate was associated, in this case, mostly Ductless Heat Pumps and Heat Pumps, the quantity, rebate amount and the processing fee for each line item. The overall invoice also contained the .4% C.O.M. Fee, \$351.88, and the total Processing Fees of \$736, for a total due of \$8,769.80. EFI also handles mail in rebates for the EnergyStar Appliance program and similar programs for at least one other NH Electric Utility. This allows the NH Electric Utilities to share and therefore lower the overall cost of the program.

The second invoice reviewed was from ARCA Recycling, Inc. ARCA was contracted to pick up older eligible appliances/ white goods, and begin the rebate process for the customer. The invoice submitted covered the November 2016 timeframe and indicated ARCA picked up 143 refrigerators and freezers in NH totaling \$17,135. In addition to that ARCA billed the Utility for the rebate check that is eventually sent to the customer.

Audit also reviewed an invoice from CLEAResult for services performed relating to the "Lighting" program. The invoice was descriptive, including hours worked, the various rates for the different personnel, and any miscellaneous fees if applicable. The invoice did not include any information about what services were performed however. Audit requested further information on this and Eversource indicated CLEAResult was contracted to provide the EnergyStar Products program with support including but not limited to "...outreach and marketing support services for the programs including staff visits to participating retailers to place rebate signage and materials and educate store employees. The [specific] invoice referenced includes their administration and field staff time for the lighting program for March 2016." The invoice

reviewed was part of the contract with CLEAResult covering the 2014, 2015 and 2016 CORE Program years.

EnergyStar Homes - \$1,309,689

As noted in the Filing, this program is fuel neutral and designed to encourage homeowners and builders to build homes that are at least 15% more efficient than homes built to the 2009 International Energy Conservation Code (IECC). The program provides home builders with technical assistance, financial incentives, and instruction relating to compliance with the Energy Star standards. New single family and multi-family projects are eligible, as are complete rehabilitations of existing structures. Project rebates are based on a sliding scale of Home Energy Rating System (HERS) results and a combination of energy efficient lighting and appliances. The electric and gas utilities also coordinate to provide rebates for high efficiency gas HVAC equipment.

The first invoice reviewed indicated a 30-unit housing complex was rehabilitated in Manchester, NH. The supporting documents provided by Eversource indicated GDS Associates, Inc. conducted the final rating report (Report) using the Residential Energy Analysis and Rating Software. The Report indicated the housing complex satisfied the requirements to be labeled as an EnergyStar home. The rebate calculation sheet indicated the following:

Base rebate for meeting minimum HERS Index	\$15,000
Additional rebate of \$50 per point below base HERS Index (per unit)	\$34,000
Total Performance Rebate	\$49,000

Audit notes that the current maximum possible rebate per unit is \$1,000, and therefore the developer, 2DC, LLC received a rebate check of the maximum possible amount of \$30,000. Eversource did not include documents on the actual construction cost of the project.

The second invoice reviewed was for a rebate on a new energy efficient multi-family unit built in Bedford, NH. Eversource again provided the GDS Final Rating Report indicating a final HERS Index of 58 with a target of 63. The worksheet detailing the rebate indicated 36 Energy Star refrigerators and dishwashers @ \$25 each for a total of \$1,800 and another \$750 for each unit meeting and exceeding the target HERS Index resulted in a total Rebate of \$28,800.

This project was unique being located in the service territory of both EnergyNorth Natural Gas and Eversource Energy. Audit requested information on how incentives are accounted for when projects involve two NH Utilities and Eversource responded with the following:

All four electric and two gas utilities work closely on all projects based on service territories. When a project is in both an electric and a gas companies' service territory, then the ENERGY STAR Home will typically be certified and incented based on the predominant fuel heating source (gas companies if gas, and electric companies if Electric, Oil, LP, Wood, etc.).

These Bedford Hills/Fields MF units completed in 2016 were initially intended to be built with <u>electric</u> Ductless Heat Pump Mini Splits, and funding was committed by Eversource as part of the ENERGY STAR Homes Program. Near the end of the project, the builder decided to convert to and install <u>natural gas</u> heating while leaving the <u>electric</u> hot water and air conditioning. When Eversource learned of this change, Eversource worked with Liberty Utilities to determine how to best transfer this project to the gas company. Liberty gas (Energy North) only had enough funding to certify and incent one of the buildings (10 Cooper Lane, 36 units), so Eversource used its funds already committed to this project to certify and incent the other building (12 Cooper Lane, 36 units).

Because we had been working with this builder throughout the project, and offered and committed incentives to make the home meet the strict ENERGY STAR guidelines, Eversource funded and certified the units that Liberty gas was unable to due to their program budget constraints.

Home Performance with EnergyStar (HPwES) - \$1,599,053

Noted in the Filing, regarding the HPwES program, the electric utilities will continue to provide fuel neutral weatherization services similar to those found in the HEA program. Customers who qualify can receive up to approximately 50% of the cost of weatherizing up to a cap of \$4,000. The HPwES program uses the same OTTER system as the HEA Program, and therefore the same contractor billing rates in order to ensure adherence to the statewide rates.

Audit reviewed one invoice from Mill City Energy and a second invoice from Tri-County Community Action. Both of the invoices were direct print outs from the OTTER system detailing the customer, and the costs associated with the measures installed. As per the HPwES guidelines, no costs covered by the NH CORE Program to any one customer was over the \$4,000 limit; and because the invoices were printed directly from the OTTER system, it is ensured that the costs paid by the NH CORE Program for the measures installed adhere to the statewide established rates.

Residential Home Energy Assistance Program - \$2,630,799

Income qualified customers are eligible to receive up to \$8,000 for insulation, weatherization, cost effective appliance and lighting upgrades, appropriate health and safety measures and in addition to that amount, possible heating system replacement. Coordination between the Community Action Agencies and the participation of eligible customers enrolled in the SBC funded Electric Assistance Program helps to enroll the most vulnerable population.

As found on page 36 of the Settlement Agreement for the 2015 and 2016 program years approved by Order 25,747 on 12/31/2014, in order to maintain consistent pricing of the improvements for both the HPwES and the HEA programs, any vendor or energy service provider who performs work must do so at established statewide rates. These rates are established in a joint informal bidding process conducted every fall and Audit was informed that the result is an "all in" price the vendor would charge for the service being performed.

Concerning the availability of heating system replacements for HEA customers, Audit requested and Eversource provided this explanation about the tracking of those costs in the 2013 program year report which is still the policy today: "We do track the cost and energy savings in OTTER. A heating system replacement is modelled in TREAT like any other measure and included in the OTTER measure package. Because the cost for the system is not supposed to fall under the rebate cap, the system gets listed as an "other funding measure" and invoiced separately outside of OTTER. There is no fixed price list for heating systems; each system is priced individually on a case by case basis based on the specific needs of the home."

Audit reviewed several invoices from various Community Action Agencies for compliance. Each invoice contained the standard Administration and Rebate fees and due to the fixed pricing of the measures found in the OTTER system, as long as the vendor uses the OTTER print-out as the invoice, the fees will be uniform across throughout the state. There were no exceptions noted.

Audit also reviewed an invoice from Performance Systems Development of New York, LLC (PSD). PSD is contracted to provide the TREAT software for the HEA/ HPwES Programs. Specifically, the Targeted Retrofit Energy Analysis Tool (TREAT) is approved by the Department of Energy (DOE) for use in Weatherization Assistance Programs. The general ledger file submitted by Eversource indicates a monthly recurring charge of \$2,406. No exceptions noted.

Commercial, Industrial, and Municipal Programs

<u>Large and Small Business Programs - \$4,476,682 & 2,401,442</u>

Noted in the Filing, the Small Business program is designed for business customers using less than a twelve month average of 200kW, whereas the Large Business program is designed for electric customers with an average monthly maximum kilowatt (kW) demand of 200 kW or more. Program customers will receive rebates for new construction, major renovations, failed equipment replacement, and replacement of inefficient equipment. The program offers prescriptive and custom incentives for new construction and retrofit projects. Custom incentive amounts for new construction are the lesser of 75% of incremental costs or a one year payback; and for retrofit projects, the lesser of 35% or a one year payback. A third option, referred to as "turn-key", allows for up to a 50% rebate. The NH CORE Program generally defines incremental costs as the difference in cost between standard equipment and energy efficient equipment.

The first invoice reviewed was awarded to the City of Manchester, NH. This specific project was started in 2015 and completed in 2016. Specifically, Eversource worked with the City and a contractor to upgrade existing and replace failed or failing outdoor lighting around the City. Over the course of 2015 and 2016, Eversource documented that 8,863 lights were replaced with a combined anticipated savings of approximately 2.3 million kWh annually. According to Eversource, the project incentives were split between 2015 and 2016. The incremental cost for the 2016 portion of the project was noted as being \$133,333 and the City received the maximum rebate available, 75% or \$100,000.

The second invoice reviewed was for a new 300 ton process chiller at the Craft Brew Alliance facility in Portsmouth, NH. The 1x 300 ton chiller replaced 2x 150 ton chillers installed when the facility originally opened in 1996. The material submitted by Eversource indicated the customer received a rebate of \$71,995 based upon the 1 year simple payback vs the upper threshold of 75% of incremental costs.

The third invoice reviewed covered a new dorm at Keene State College. Due to the complexity of the project, the files submitted indicated it was classified as custom rebate. The total base cost was noted as \$1,580,698 and the cost of building to a higher energy efficiency standard was an additional \$451,527 for a total cost of \$2,032,225. As stated in the Settlement Agreement, the rebate is based upon the incremental cost, which is the cost to make a building more energy efficient over a base case or standard construction model. In this case that cost is \$451,527 and 75% of that is \$338,645. According to the Joint Settlement Agreement, in order to ensure the benefits derived from the NH CORE funds are not too concentrated, the incentive for a project this size is capped at \$150,000. In addition to the custom rebate form calculation, Eversource submitted a final post construction report, conducted by a third party, verifying the measures installed.

The last invoice reviewed by Audit was for lighting and lighting controls upgrades at the Saint Gobain facility in Merrimack, NH. The project cost was indicated as \$599,999 and Eversource rebated \$100,000, 16%, of that according to the limits on the rebate amounts set forth in the Settlement Agreement. In addition to the rebate calculation and other documents, Eversource included a report detailing electric usage tied to the upgraded lighting. The one month observed usage of the new interior lighting was 246,635kWh and the estimated usage was calculated at 228,743 kWh, a 7% variance.

Municipal Program - \$1,447,065

As found on page 32 of the Filing, a Municipal program was offered to municipal and local government energy projects. The program targets municipal customers with new construction projects, major renovation projects, failed equipment that needs replacement and those operating aging, inefficient equipment and systems. Rebates vary depending on the type of project from 35% to 100% for schools.

The funding for the Municipal Program is legislated in NH RSA 125-O:23-III-B, coming from the Quarterly RGGI Auction Proceeds where up to \$2 million of these proceeds shall be set aside for municipal and local government energy efficiency projects, including projects by local governments that have their own municipal utilities.

As found on Page 54 of the 2015/16 Energy Efficiency Plan, The CORE Utilities outlined the funding, and the expected amount each utility will receive. In addition to the \$2,000,000, an estimated Performance Incentive of \$.15 million, or 7.5% of \$2 million, was set aside to mirror the estimated PI found with the SBC Funds. The SBC PI adjusts to an actual amount through what is called a True-up entry after the calendar year. However, due to the remaining RGGI Funding being directed towards the All-fuels Program, it does not appear possible to utilize the true-up method in conjunction with the RGGI Funds and therefore any PI

earned above and beyond the estimated 7.5% is supported by the SBC and accounted for in the overall PI calculation.

As stated earlier, and found within the Joint Settlement Agreement, the Quarterly RGGI Auction Proceeds are divided between the four electric utilities and municipalities that have their own electric utilities based upon the gross kWh sales figures as filed with the PUC. Specifically, the 2016 Budgets were based on gross 2014 kWh sales figures. Supported by the 2016 RGGI Audit and the PUC Business Office Records, Eversource's 2016 allocation of the \$2,000,000 limit for the Municipal Program was \$1,452,443. Eversource indicated they spent \$1,447,065; a difference of \$5,378. According to Audit's calculations, as of the end of 2015, inclusive of rollover amounts from the 2014 Municipal Program, Eversource had overspent their allocation of Municipal Program by \$8,895. Any variance in the spending would ultimately be incorporated into the earned PI and the overall earned PI for the 2016 Program year.

Commercial & Industrial Education - \$175,525

According to the Joint Settlement Agreement, the Education component of the NH Core Programs includes energy code Training, Commercial Energy Auditing Classes, C&I Customer Education, Energy Education for Students, Home Energy Ratings for New Homebuilders, and more.

The first invoice reviewed by Audit was for a Commercial and Industrial seminar titled, Energy Master Planning held on November 2, 2016. The advertisement indicated this seminar was part of a series of seminars being held on November 2, 16 and December 7, 2016. All of these particular seminars were held at the Eversource offices in downtown Manchester, NH (Energy Park) and included breakfast and lunch catered by a local delicatessen for which Eversource was charged \$347.35 for breakfast and \$431.90 for lunch for a total of \$779.25

The second invoice reviewed by Audit was paid to CLEAResult for conducting four "Lighten UP!" Presentations at 3 NH Schools: Belmont Elementary, Wheelock School and Rindge Memorial School. The cost per presentation was \$1,605 for a total invoice of \$6,420.

RGGI Revolving Loan Fund (RLF)

The following information was submitted by Eversource on page 27 of 35 in their 4th Qtr 2016 Energy Efficiency CORE Report and verified to the RGGI RLF Reconciliation provided by Eversource during the audit and the activity within GL Account 242RG0 for both expenses and revenues. All activity was verified to the work order RLFRGGI and 06RRLF00 as appropriate. It should be noted that the "Loans in Process" were described by Eversource as customers who have been through the application process and have signed a contract to have work completed; but the work is not complete, not initiated, or not scheduled.

2016 Cumulative Loan Activity					
Description Amount					
Grant Money received-RLF	\$ 690,000				
Consumer Loans (all years)	\$(1,430,258)				
Loan Repayment (all years)	\$ 1,038,463				
Current Balance	\$ 298,205				
Loans in Process	\$ (12,000)				
Available to Lend	\$ 286,205				

The RLF was part of a sustainable energy grant approved by the Governor and Council in August 2009. The original term of the grant was through June 30, 2010, with an approved extension to December 31, 2010. Specifically, of the \$7,016,982 grant received by the Utilities, \$1,728,000 was used to establish Revolving Loan Funds. Eversource was named as the general grantee, and as such, issued invoices for services to the PUC Sustainable Energy Division and distributed allocated amounts to GSE, NHEC, and UES. Refer to the Final PUC Audit Report of the RE-CORE issued on June 24, 2011 for additional information. Eversource was initially granted \$500,000 and by Secretarial Letter another \$190,000 during the 2013 program year bringing it to \$690,000 total.

Customers are able to use the loan funds to pay for the customer portion of an energy efficiency measure completed in connection with the HPwES program. Loan amounts range from \$500 to \$7,500 (not to exceed the actual customer cost), with terms up to seven years. There is no interest or administrative fee charged, and the customer may repay the loan early without penalty. The repayment occurs through an additional charge on the customer's monthly electric bill.

Any implementation expenses associated with the RGGI RLF are minimal and post to the implementation activity within the Home Performance with Energy Star program. While the RLF is an ongoing funding source for customers, Eversource considers the RGGI grant and thus the RGGI (RE-CORE) work order closed. Audit concurs with this accounting treatment.

Smart Start for Municipalities

NHEC and Eversource were authorized by Order #23,851 (issued 11/29/2001) to offer on-bill financing, presently referenced as Smart Start. Establishment of this \$2 million fund was originally through the SBC. NHEC currently offers the funding option to all commercial customers, while Eversource offers it to municipalities only. Audit notes that Eversource also has a different on-bill financing program for residential customers, the RGGI Revolving Loan Fund (RLF). Under both programs, the cost of the improvements are paid entirely by the Utility and the customer repays the Utility through on-bill financing payments calculated at no more than the monthly savings obtained. Details regarding the balances can be found on page 25 of the 4th Quarter report filed in docket DE 14-216. Eversource indicated they spent \$28,724 between Labor and Labor Overhead for the Smart Start Program and set aside \$44,939 as a bad debt reserve. Additionally, Audit verified the 6% PI to the amount of loan repayments received as seen in the table below.

Smart Start Loans 2016 Only					
Loan Repayments-2016	\$	898,774			
6% of Repayments	\$	53,926			
PSNH Filed smart Start PI	\$	53,926			
	\$	0			

Carry-Forward Balance

The carry-forward balance represents the availability of funds at each utility and in addition to posted and measureable expenses already on the books, includes anticipated expenses that have not yet posted to the general ledger but which have already been "reserved" for future use, and are thus considered not available. Specifically, Eversource tracks and identifies the majority of these expenses as UVL's (unvouchered liabilities). The reconciliation of program year activity to the GL year end was submitted by Eversource and included in the Performance Incentive filing.

Ending balance 2015 Audit report	\$	-0-
2016 Funding:		
System Benefits Charge funding	\$14	1,157,448
Forward Capacity revenue	\$ 2	2,020,706
Forward Capacity expenses	\$	(90,659)
RGGI quarterly auction proceeds	\$ 1	1,927,741
CORE and NH RSA 125:O5 Interest	\$	39,549
Total funding for program year 2016	\$18	3,054,785
2016 Expenses:		
CORE expenses January – December 2016	\$(1	7,107,769)
2016 estimated incentive	\$ (1,429,673)
Sub-total 2016 expenses	\$(1	8,537,442)
2016 use of 2% RSA 125-O set aside	\$	-0-
Total expenses for program year 2016	<u>\$(1</u>	8,537,442)
Net 2016 carry-forward balance	\$	(482,656)

Audit Issue #1 CEP

Background

Eversource was first authorized to begin implementing the Customer Engagement Platform (CEP) with the 2015 Program Year and during 2015 and 2016 has spent a total \$638,377. As stated in the CEP summary on page 105 of the 2015/2016 Joint Settlement Agreement, a main goal was to "provide customers with greater control and immediacy, which is required to keep pace with customers' service expectations and industry norms. Additionally, the CEP will allow PSNH to reach all customer segments more efficiently, especially micro and small businesses, which will lead to greater adoption of energy efficiency measures in the long term. A broader range of customers will be empowered to take actions that save energy and reduce their utility expenses, putting NU in a position to scale up energy efficiency programs in a cost-effective manner and allowing energy efficiency programs to realize their full potential."

As indicated in the PSNH Response to Staff Request 2-007 dated 10/24/2014, Eversource specifically indicated that even though there were no immediate plans to show savings directly pertaining to the CEP, they would utilize and track the following types of metrics to measure the CEP's effectiveness during the July 2015 – December 2016 phase.

When requested Eversource provided a list of the metrics and the results of tracking them during the phase indicated. Audit has abbreviated the response to Tracked, Partial or Not-Tracked. In addition, Eversource provided a chart with further information on the system.

Res	<u>sponse</u>	<u>Metric</u>
Trac	cked	Number of registered CEP customers by segment
Trac	cked	Number of repeat visits to the CEP by the registered users segment
Trac	cked	Average length of time spent on the CEP by the registered users by segment
Trac	cked	Number of self-service assessments (audits) completed by segment
Part	ial	Number of e-commerce transactions completed
Not	-Tracked	Number of program leads generated through the CEP by customer segment, with a main focus on qualified candidates for the HPwES and the Small Business Solutions Programs
Not	-Tracked	Incorporation and implementation on on-line application and incentive forms for the CORE programs over time
Not	-Tracked	On-line surveys measuring customers' satisfaction with the services provided by the CEP

	20	016	2017		
	Residential	Commercial	Residential	Commercial	
Registered Customers	3,836	138	5,401	150	
Repeat Customers	730	28	755	34	
Ave Duration (in mins)	5:19	4:56	8:17	4:57	
Self-Service					
Assessments					
completed (completed over 20% of profile					
questions	1,510	22	2.564	26	

Issue

As indicated in their response detailed above and earlier in this Report, Eversource was not able to produce results on all of the metrics which were to be tracked for the time period indicated. It is paramount that in order to understand if a particular NH CORE Energy Efficiency program is providing electric savings or another quantifiable benefit to NH rate payers, the program must be tracked, measured and the results of the program quantified as a Cost/Benefit Ratio or another measurable figure.

Audit Recommendation

Commission Staff and Eversource should discuss the continuation of any NH CORE Program where the metrics are not fully tracked and the benefits not fully quantifiable.

Company Response

The list of metrics described in "PSNH Response to Staff Request 2-007 dated 10/24/2014" were drawn from estimates for product functionality that were available at the time. Based on the design and features that were actually available in 2016, all measures that could be tracked were tracked. Some of those previously listed metrics were only partially or not-tracked due to changes in the previously anticipated design or features.

For example,

- E-commerce: In 2016 the CEP included a link to the NHSaves online catalog, rather than providing e-commerce functionality within CEP itself.
- Home Performance with Energy Star (HPwES) leads: The functionality to qualify a customer for HPwES was not in place within CEP in 2016.
- Small Business Solutions Programs: In 2016 the Small Business program was fully subscribed early in the year. Therefore, the recommendation to enroll in this program was not turned on within CEP.
- On-line application and incentive forms: Links to existing application and incentive forms were used instead of creating an additional set of on-line forms within CEP.
- On-Line Survey This functionality was not in place in 2016.

The Customer Engagement Platform is included in the recently approved 2018-2020 Statewide Energy Efficiency Plan. As noted in the Settlement Agreement, Eversource has begun marketing campaigns to promote the use of the CEP and will provide updates at Quarterly meetings as appropriate. Eversource looks forward to continued conversation with Commission Staff at these meetings.

Audit Comment

Audit appreciates Eversource's comments and looks forward to the updates as provided to the Commission.

Audit Issue #2

CORE Program Expenses

Background

One of the goals of the NH CORE Program is to highlight energy efficiency and in doing so the Program incurs expenses such as advertising.

Issue

Eversource inadvertently charged an invoice to the NH CORE Program rather than the Electric Assistance Program (EAP). The invoice in question was for printing brochures. Eversource indicated the cause of the error as a shared purchase order used for CORE and EAP but failed to split an invoice from the order. Eversource has indicated they already closed the purchase order in addition to several other steps to ensure this error would not happen in the future.

Recommendation

Eversource has already indicated they would be transferring the expense from the CORE Program to the EAP reflected in the 2017 program year reconciliation.

Company Response

Eversource acknowledges this error and is taking steps to address it and prevent it from occurring again in the future.

Audit comment

Audit appreciates Eversource's comments and commitment to financial accuracy of the NH CORE Programs.

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: January 31, 2018 **AT (OFFICE):** NHPUC

FROM: Karen Moran, Chief Auditor

SUBJECT: New Hampshire Electric Cooperative

DE 14-216 - 2016 CORE **FINAL** Audit Report

TO: Tom Frantz, Director NH PUC Electric Division

Les Stachow, Assistant Director, NH PUC Electric Division

James Cunningham, NH PUC Analyst IV

Introduction

The Public Utilities Commission Audit Staff (Audit) has conducted an audit of the books and records related to the CORE Energy Efficiency Program for the calendar year 2016. The four participating electric utilities, Unitil Energy Systems, Inc. (UES), Public Service of New Hampshire (PSNH), New Hampshire Electric Cooperative (NHEC), and Granite State Electric (GSE) and two gas utilities, Northern Utilities, Inc. (Northern) and Energy North (ENG) filed a joint petition for the program years 2015 through 2016. Each utility was audited individually.

Audit appreciates the assistance of Carol Woods, Energy Solutions Executive.

Approved 2016 Programs

The participating utilities submitted a joint energy proposal to the Commission on 9/12/2014 for the program years 2015 through 2016 and a joint Settlement Agreement on 12/11/2014, with the plan updated on 9/30/2015. The Commission then approved the 2016 programs by Order #25,856 on 12/24/2015. NHEC programs for calendar year 2016 were approved as follows:

Residential

Home Energy Assistance Program (HEA)

Energy Star Homes Program-fuel neutral

NH Home Performance with Energy Star Program (HPwES)

Energy Star Products Program (Appliances & Lighting)

Energy Efficiency Loan Program - Revolving Loan Fund

Commercial, Industrial and Municipal

Large Business Energy Solutions Program

Small Business Energy Solutions Program

Municipal Program

Educational Programs

Smart Start

Changes to the CORE for 2016

The Agreement, its attachments, and the Order also included the following changes for the 2016 program year, outlined initially in the testimony of J. Cunningham on 11/12/2015: <u>Design changes</u>

- EnergyStar refrigerator rebate reduced from \$30 to \$20
- Rebate for Advanced Power Strip eliminated
- Markdowns for Lighting rebates at retail stores will be made in advance for a 30 day period
- HPwES increased customer costs from 50% to 100% for certain measures that are no longer cost effective, such as certain types or applications of insulation
- Rebate for EnergyStar dishwashers was eliminated due to use of same in new homes has become standard practice
- Incorporated updates from the Avoided Energy Supply cost report prepared by Tabors Caramanis Rudkevich

<u>Savings assumptions</u> include updates to the HEA by the CAA; updates to EnergyStar products to incorporate new baselines reflecting federal guidelines; and updates to the Large and Small C&I programs based on actual projects from prior years, as well as the assumptions in the Evaluation Monitoring and Verification (EM&V) impact study performed by DNV-GL.

Funding changes

- 3rd party loan interest rate buy-downs (to 2% up to 7 years, up to \$15,000) have been enhanced by an agreement with the NH CDFA which is providing up to \$150,000, not considered part of the CORE. CORE funds may be used for the buy-downs if the CDFA funds are expended, and/or the project does not meet the federal Better Buildings Program guidelines (unspent budgeted funds will be used in the HPwES)
- Unitil Electric will transfer \$65,000 from unspent on-bill financing monies from the 2014 to HPwES
- Eversource will provide approximately \$463,000 in carryover funds to implement its Customer Engagement Platform (CEP)
- Quarterly reports will include a 2-page insert regarding information on the third party bydown financing option, (all Electric utilities and Gas utilities)
- Additional information on Eversource's Customer Engagement Platform must be provided in the quarterly report (Eversource only)
- Eversource will continue development efforts to ensure customers may download usage information for use in programs such as EPA's Portfolio Manager, to facilitate efforts to manage usage and take advantage of efficiency programs and measures (Eversource only)

Mid-Year Adjustments

The utilities are authorized to transfer 20% or less of an individual program budget, without Commission approval, although notification to Staff and interested parties is required.

Transfers in excess of 20% require review by the Commission. There were no mid-year adjustments or budget transfers made or requested by NHEC during 2016.

SBC CORE Filing Summary

NHEC filed their 2016 Performance Incentive report on December 28, 2017. As noted in docket DE 10-188, Order 25,189, the utilities agreed to strive to complete their prior year performance incentive filings by June 1 of the subsequent calendar year.

The filed 2016 beginning balance matches the filed 2015 ending balance of \$5,656 plus the 2015 member incentive of \$150,418 which was expensed during 2016.

Carryforward Balance over collection	\$ 156,074
System Benefit Charge	\$ 1,346,211
RGGI Funding	\$ 209,773
FCM Funding	\$ 52,311
Interest	\$ 10,411
Energy Efficiency Expenses	\$(1,495,203)
2015 Member Incentive	\$ (150,418)
2016 Member Incentive	\$ (118,029)
Carryforward Balance over collection	\$ 11,129

The filed and calculated ending over collected balance for the NHEC 2016 Core Programs was \$11,129. The amount reflected in the general ledger account 254.40, was \$129,158. The difference from the account ending balance and the filed balance is \$118,029 due to NHEC not booking the 2016 performance incentive until this report is finalized.

Budget vs. Actual

According to the Order and found in the Filing, the Utilities shall not exceed 5% of their prescribed budget without Commission approval. The tables below detail the budgeted and actual expenses for 2016. Overall, NHEC was at 91% of their budget.

	2016 Budget per Plan filed 9/30/2015 in DE 14-216						
	Int Admin	Ext Admin	Rebate/Service	<u>Implmntn</u>	Marketing	EM&V	<u>Total</u>
Home Energy Assistance	\$ 14,583	\$ 4,732	\$ 198,345	\$ 26,835	\$ 1,332	\$ 9,876	\$ 255,703
Home Performance with EnergyStar	\$ 27,083	\$ 8,789	\$ 132,289	\$ 49,836	\$ 1,332	\$ 9,876	\$ 229,205
EnergyStar Homes	\$ 21,396	\$ 6,943	\$ 71,508	\$ 39,371	\$ 1,332	\$ 9,876	\$ 150,426
EnergyStar Products	\$ 47,644	\$ 15,460	\$ 153,742	\$ 87,672	\$ 25,000	\$ 19,752	\$ 349,270
FDM Reporting	\$ -	\$ 3,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000
Total Residential	\$110,706	\$ 38,924	\$ 555,884	\$203,714	\$ 28,996	\$ 49,380	\$ 987,604
Large Business Energy Solutions	\$ 15,790	\$ 5,789	\$ 139,406	\$ 29,055	\$ 1,332	\$ 11,031	\$ 202,403
Small Business Energy solutions	\$ 31,580	\$ 11,578	\$ 139,406	\$ 58,111	\$ 1,332	\$ 11,031	\$ 253,038
Municipal Program per SB123	\$ 15,790	\$ 5,789	\$ 97,396	\$ 29,055	\$ 1,332	\$ 11,031	\$ 160,393
Education and FCM Reporting	\$ 2,508	\$ 7,919	\$ 30,979	\$ 4,614	\$ -	\$ -	\$ 46,020
Total C&I	\$ 65,668	\$ 31,075	\$ 407,187	\$120,835	\$ 3,996	\$ 33,093	\$ 661,854
SmartStart							\$ -
TOTAL	\$176,374	\$ 69,999	\$ 963.071	\$324.549	\$ 32,992	\$ 82,473	\$1.649.458

		Actuals per 4th Quarterly Report of Expenses by Activity													
	In	t Admin	Ex	t Admin	Re	bate/Service	Iı	<u>nplmntn</u>	M	arketing	I	EM&V		<u>Total</u>	Actual
Home Energy Assistance	\$	17,500	\$	18,733	\$	218,191	\$	29,430	\$	1,686	\$	6,836	\$	292,376	114%
Home Performance with EnergyStar	\$	11,531	\$	13,135	\$	122,976	\$	50,305	\$	1,111	\$	5,422	\$	204,480	89%
EnergyStar Homes	\$	6,889	\$	6,902	\$	59,943	\$	48,367	\$	664	\$	6,274	\$	129,039	86%
EnergyStar Products	\$	14,366	\$	14,392	\$	137,262	\$	88,744	\$	6,567	\$	3,403	\$	264,734	76%
FCM Reporting	\$	1,472									\$	2,271	\$	3,743	125%
Total Residential	\$	51,758	\$	53,162	\$	538,372	\$ 2	216,846	\$	10,028	\$	24,206	\$	894,372	91%
Large Business Energy Solutions	\$	5,788	\$	5,798	\$	56,815	\$	38,979	\$	558	\$	1,371	\$	109,309	54%
Small Business Energy solutions	\$	14,857	\$	14,884	\$	170,350	\$	60,070	\$	1,432	\$	3,520	\$	265,113	105%
Municipal Program per SB123	\$	11,172	\$	11,192	\$	131,278	\$	39,453	\$	1,339	\$	2,647	\$	197,081	123%
Education and FCM Reporting	\$	4,579	\$	1,147	\$	14,807	\$	1,862	\$	110	\$	5,571	\$	28,076	61%
Total C&I	\$	36,396	\$	33,021	\$	373,250	\$	140,364	\$	3,439	\$	13,109	\$	599,579	91%
SmartStart	\$	50	\$	50	\$	-	\$	1,137	\$	5	\$	12	\$	1,254	0%
TOTAL	\$	88,204	\$	86,233	\$	911,622	\$:	358,348	\$	13,472	\$	37,327	\$1	,495,206	91%

As required by the Settlement, 15.5% of the overall Core expenses in any one year must be used for the Low Income Weatherization Program (HEA). Audit verified that the HEA expenses of \$292,376 represent 19.6% of the total actual expenses of \$1,493,952 excluding the Smart Start expenses of \$1,254.

Revenue

The total of the funding sources for the 2016 calendar year, found in the Performance Incentive report were reported to be:

System Benefit Charge	\$1	,346,211
RGGI Funding	\$	209,773
FCM Payments	\$	52,311
Interest	\$	10,411
Total Funding	\$1	,618,705

System Benefits Charge

Audit requested and was provided with the kWh sales data for the calendar year. A comparison of the sales reported to the Commission monthly as part of the Electric Assistance Program (EAP) demonstrated that for April 2016 through November 2016, the total kWh less the group net metering resulted in the same reported kWh as that provided to Audit as part of this CORE review. Verification was not done for the other 2016 months. Total kWh sales for 2016 were 747,859,128. Straight calculation of the sales multiplied by the \$.0018 portion of the SBC equates to \$1,346,146, or an immaterial \$65 less than the reported sales.

SBC revenues were also verified to the EE Reconciliation Report provided by NHEC and to the general ledger accounts associated with the Demand Side Management (DSM) below:

440.40 DSM Recovery Residential	\$	813,938
442.40 DSM Commercial	\$	218,598
442.41 DSM Recovery PG <1000KVA	\$	53,846
442.43 DSM Recovery PG >1000KVA	\$	46,521
442.44 DSM Ski Area Revenue	\$	56,099
442.45 DSM Industrial	\$	155,310
444.15 DSM Lighting	\$	1,898
Total SBC Revenue	\$1	,346,211

2016 RGGI Auction Proceeds

According to the 2016 End of Year Reconciliation provided in the incentive package, the filed amount of 2016 Quarterly RGGI Auction Proceeds \$209,773 includes all four quarters' payments of 2016. The proceeds were verified to general ledger account 254.40, Miscellaneous Deferred Credit-DSM Over Recovery, as well as to the Audit work performed for the RGGI 2016 year, with a report issued on 6/1/2017. The statute required, after administrative costs, a portion of the quarterly proceeds be refunded to all retail electric ratepayers, and a portion be combined with the SBC Funded Energy Efficiency programs administered by the Core Electric Utilities. Further, according to RSA 125-O:23, the RGGI auction proceeds that are directed to the Core Energy Efficiency Programs were specifically directed over the following three programs in this order:

- 1- At least 15% to the Low Income weatherization program;
- 2- Up to \$2,000,000 Annually to Municipal and Local Government energy efficiency projects, this amount will roll over and accumulate until May of program year 2017 when, meeting certain requirements, the unused portions (if available) of the funds may be released to other C&I customers.
- 3- The remainder to an All Fuels, comprehensive energy efficiency program administered by qualified parties which may include electric distribution companies as selected through a competitive bid process.

The total auction proceeds for the year were \$15,081,286 distributed as follows, in accordance with RSA 125-O:23:

2016 Auction Proceeds	\$ 15,081,286
	. , ,
Refunded to All Customers	\$(11,706,804)
Set Aside for Admin Costs	\$ (320,000)
Set Aside for All Fuels Grant	\$ (400,000)
Distributed to CORE at Electric Utilities	\$ (2,654,482)
Undistributed	\$ -0-

The proceeds are distributed to Eversource, NHEC, Liberty, UES, and municipalities with their own electric departments, Ashland, Littleton, New Hampton, Wolfeboro, and Woodsville. The breakdown by recipient is as follows:

					5	Set Aside	
	Auction		Rebates to	RGGI to	f	or RGGI	Set Aside for
	Proceeds	_	Customers	 CORE	A	dmin Costs	All Fuels
TOTAL for 2016 Auctions 31-34	\$ 15,081,286	\$	(11,706,804)	\$ (2,654,482)	\$	(320,000)	\$ (400,000)
Eversource	\$ 10,349,058	\$	8,421,316	\$ 1,927,742			
NHEC	\$ 1,018,184	\$	808,411	\$ 209,773			
Liberty	\$ 1,214,405	\$	989,939	\$ 224,466			
UES	\$ 1,582,493	\$	1,289,991	\$ 292,502			
Ashland	\$ 19,558	\$	19,558				
Littleton	\$ 77,030	\$	77,030				
New Hampton	\$ 3,387	\$	3,387				
Wolfeboro	\$ 72,740	\$	72,740				
Woodsville	\$ 24,432	\$	24,432				
Total 2016 RGGI Auctions	\$ 15.081.286	\$	11.706.804	\$ 2,654,482	\$	320.000	\$ 400,000

According to PUC Business Office information, and the RGGI audit report conducted for 2016, issued on 6/1/2017, NHEC was paid the following from the RGGI auctions noted:

		Customer	
	CORE	Rebates	<u>Total</u>
Auction #31 03/2016	\$ 50,614	\$240,793	\$ 291,407
Auction #32 06/2016	\$ 57,932	\$222,574	\$ 280,506
Auction #33 09/2016	\$ 50,614	\$200,567	\$ 251,181
Auction #34 12/2016	\$ 50,614	\$144,476	\$ 195,090
	\$209,774	\$808,410	\$1,018,184

Audit verified the CORE revenue postings to account 254.40 without exception. NHEC spent \$197,080 of the total \$209,774 on Municipal Programs, identified within their general ledger tracking system as activity code 120. The amount was verified to the 4th quarterly report on page 30. Page 30 also shows \$34,745 or 16.5% of the RGGI funding was identified as spent on the low income program, activity code 117 resulting in the total RGGI funded expenses for 2016 to be \$231,825, \$22,051 higher than the \$209,774. Audit requested clarification of how NHEC tracks unspent RGGI funding from year to year and was told that the system tracks budget and actuals. For 2016 the municipal portion of the RGGI was overspent, but rather than moving the spending to another CORE project category, NHEC maintained the municipal spending within activity code 120. The legislation allows for municipal customers to be served from other C&I programs if the legislated \$2,000,000 is exceeded. The net effect was that the SBC was used to fund the extra municipal projects. There is no exception.

The grid below was included in the June 2017 RGGI audit:

	Ac	tual 2016	Ac	Actual 2016		Available		7.5% PI		Estimate of Funds	
	RGGI Funds		RGGI Funds		to spend		Based on		Available to		
	Di	stributed	Sp	Spent on LI		on Municipals		Actual Spent		All Fuels Program	
Eversource	\$	1,927,741	\$	(339,785)	\$	(1,452,443)	\$	(134,417)	\$	1,096	
Liberty	\$	224,467	\$	(45,017)	\$	(169,120)	\$	(16,060)	\$	(5,730)	
NHEC	\$	209,774	\$	(34,745)	\$	(158,060)	\$	(14,460)	\$	2,509	
UES	\$	292,501	\$	(52,218)	\$	(220,380)	\$	(20,445)	\$	(542)	
Total	\$	2,654,483	\$	(471,765)	\$	(2,000,003)	\$	(185,383)	\$	(2,668)	

FCM Revenue and Expenses

Audit verified that the FCM/ISO capacity revenue of \$52,311 was credited to account 415.26, Revenue-ODR, activity code 134. The revenue was also verified to the fourth quarterly filing for the CORE for 2016.

FCM expenses of \$12,477 were noted within the fourth quarterly filing and traced to accounts:

416.45 Administrative Salaries CP&S	\$ 3,006
416.48 P&B Benefit Allocation	\$ 1,900
416.50 Evaluation Miscellaneous Expense	\$ 7,571
	\$12,477

Refer to the <u>Payroll</u> portion of this report for discussion regarding the Salaries and Benefit Allocation.

<u>Interest \$10,411</u>

Interest was calculated at 3.50% on the average monthly balance, including interest from the previous month, throughout the calendar year 2016. Specifically, NHEC uses the formula:

Monthly Charge = (((Beg Bal + End Bal/2)*.rate)/366)*Actual # of days in month

Expenses

Member Incentive

NHEC indicated they earned a Performance Incentive of \$118,029. This figure was based on total expenses of \$1,493,950. Audit verified the expenses included in the calculation on page 6 of 8 of the incentive filing to the general ledger. The Smart Start expenses of \$1,254 were properly excluded from the calculation. The \$118,029 was not booked to the general ledger during the program year 2016. The prior 2015 incentive of \$150,418 was booked to the 254.40 account in December 2016. Audit recalculated the incentive, and the result was \$117,938, or an immaterial \$91 variance.

Payroll

Payroll related expenses were verified to the following general ledger accounts for 2016. Indirect payroll is spread among employees' assigned activity codes, and as the weekly timesheet database is updated, the indirect allocation is calculated using the hourly payroll rate divided by 2,080 hours, with the result applied to the number of hours input by the employee. Sick time is tied to activity codes and general ledger accounts and spread only as time is reported as used within the week. Audit noted no exceptions to the allocation methods and figures.

24.416.35 CP&S Salaries	\$213,009
24.416.45 Administrative Salaries CP&S	\$ 53,189
24.416.47 P&B Sick Leave	\$ 5,411
Subtotal Payroll	\$271,609
24.416.48 P&B Benefit Allocation	<u>\$166,729</u>
Total Payroll and Benefits	\$438,338

The P&B Benefit allocation was recalculated by Audit at 61.39% for 2016, which was the overhead percentage reported to be in place during the calendar year.

Audit reviewed the payroll activity for six employees. The Payroll/Labor Distribution History report for August 2016 reflected redacted employee names, the department 24 which is the Energy Efficiency group, the activity code to which the labor hours were spread, the general ledger account to which the payroll was posted, hours, and the employees' payroll total for the period. The report totaled 364.47 hours and \$14,071.94 for the six employees. The total was verified to account 416.35 CP&S Salaries without exception.

Transportation

Transportation charged to account 24.416.52 Transportation Expense-Administration, represents Internal Administrative transportation mileage and tolls to such things as PUC meetings and hearings. The total in the account, \$1,392.84 was booked to activity code 162 and allocated among all CORE programs. Account 24.416.54, Cost-Job Work Sales-Transportation Indirect represents Internal Implementation activities such as site visits, and transportation costs which follow the specific employee's labor charges. The total for 2016 was \$4,404.32, booked to the following activity codes:

116 Energy Star Lighting	\$	633.49
117 Home Energy Assistance	\$	280.26
140 Energy Star Appliances	\$	272.66
141 Energy Star Homes	\$	210.60
143 Home Energy Solutions	\$	265.68
162 Allocate to All Programs	\$	160.05
164 Allocate to Business Programs	\$2	,581.58
_	\$4	,404.32

Company car usage includes an aggregated monthly cost for the vehicle (maintenance, registration, gas, depreciation, overhead for garage, etc.) which is then allocated based on miles driven. Personal vehicle use includes only mileage reimbursed at the IRS rate and tolls incurred.

Expense Summary

NHEC tracks all SBC Core related expenses in the 24.416.xx general ledger account numbers and by Activity Codes. Audit verified that the codes agreed with the expense type identified in the fourth quarterly report.

Residential Home Energy Assistance Program activity code 117 \$292,376

Income qualified customers are eligible to receive up to \$8,000 for insulation, weatherization, cost effective appliance and lighting upgrades, and appropriate health and safety measures. Approved by Secretarial Letter on July 26, 2013, HEA funds became eligible to replace hot water/space heating systems at a cost above and beyond the \$8,000 total.

The Low Income Weatherization program uses the OTTER system to track the measures installed and generate invoices if the vendor chooses to utilize that system.

One invoice reviewed indicated projects were completed for two residences, at a total cost of \$14,498. The invoice from OTTER indicated Administrative Costs of \$983 and \$800, and Rebates of \$7,061 and \$5,701 respectively for measures such as lighting, hot water pipe insulation, low flow water devices, air sealing, belly insulation, and attic insulation.

Municipal and Local Government Energy Program activity code 120 \$197,081

According to the updated Filing, this program is available to all municipal and local government customers of the NH Electric Utilities and to the five communities in New Hampshire that have their own municipal utilities. The program targets municipal customers with new construction projects, major renovation projects, failed equipment that needs replacement and those operating aging, inefficient equipment and systems with varying levels of rebates available depending on different factors.

An invoice from Mike Harrington Electric LLC, dated 7/14/2016 in the amount of \$16,192.24 supported LED lighting fixtures and labor, and was booked to account 416.19 Rebates and Services. The lighting fixtures were installed at a municipal building. The rebate amount was 50% or \$8,096.12. The town financed the out-of-pocket \$8,096.12 through the NHEC Smart Start program. The detailed paperwork reflected the estimated monthly saving would be \$184 while the seventy monthly payments would be \$137. The Smart Start credit to account 416.19 was posted on 7/31/2016, resulting in the net expense to the CORE of \$8,096.12, the 50% rebated amount.

Residential ENERGY STAR Products Program \$264,733

This program is the combination of the ENERGY STAR Lighting program activity code 116 and the ENERGY STAR Appliances program activity code 140 as described in the 2015 – 2016 Plan. NHEC tracks the programs separately due to the set-up of their financial tracking and accounting systems. For Lighting, the program design is centered on offering in-store and mail-in rebate incentives aimed to encourage consumers to make purchases of qualifying, ENERGY STAR rated products. For Appliances, the program is designed to offer mail-in rebate incentives on certain ENERGY STAR rated appliances. The program also includes second refrigerator and freezer pickup and recycling.

The expenses associated with these programs were verified to the company's general ledger without exception, and were traced to the presentation breakdown by expense category:

Category	Lighting	Appliances	Total
Internal Admin.	\$ 5,935	\$ 8,431	\$ 14,366
External Admin.	\$ 5,945	\$ 8,446	\$ 14,391
Rebates/Services	\$ 52,809	\$ 84,454	\$137,263
Int. Implementation	\$ 41,979	\$ 46,764	\$ 88,743
Marketing	\$ 3,456	\$ 3,111	\$ 6,567
Evaluation	<u>\$ 1,406</u>	\$ 1,997	\$ 3,403
Total	\$111,530	\$153,203	\$264,733

Specific testing of rebates and services was not done. However the payroll, benefits, and transportation costs were reviewed and determined to have been properly allocated.

Residential Energy Star Homes Program activity code 141 \$129,039

As noted in the filing, The ENERGY STAR Homes Program is designed to be a market driven program, encouraging both builders and homebuyers to build new homes with energy efficiency in mind. It is aligned with a national effort developed by the U.S. Environmental Protection Agency (EPA). Incentives are provided in the form of rebates and services to partially offset the increased cost of building a home to higher energy efficiency standards using the Home Energy Rating System (HERS) and the energy efficient lighting, appliances and HVAC equipment installed.

Internal Administration	\$	6,889
External Administration	\$	6,902
Rebates/Services	\$	59,943
Internal Implementation	\$	48,367
Marketing	\$	664
Evaluation	\$	6,274
Total	\$1	129,039

Specific testing of rebates and services was not done. However the payroll, benefits, and transportation costs were reviewed and determined to have been properly allocated.

Residential Home Performance with ENERGY STAR (HPwES) activity code 143 \$204,480

Noted in the filing, The Home Performance with ENERGY STAR Program is designed to encourage customers to improve the efficiency of their homes. Customers who qualify can receive an incentive of approximately 50% of the cost of weatherization services up to a \$4,000 cap. Natural gas customers who qualify can receive an incentive from both the electric company and the gas company, provided the customer first reaches the \$4,000 cap from the gas company. This provides natural gas customers with an opportunity to achieve deeper energy savings. It also recognizes that natural gas customers contribute to both the System Benefits Charge on their electric bill and the Local Distribution Adjustment Charge on their natural gas bill, providing access to both the electric and gas programs.

Internal Administration	\$ 11,531
External Administration	\$ 13,135
Rebates/Services	\$122,976
Internal Implementation	\$ 50,305
Marketing	\$ 1,111
Evaluation	\$ 5,422
Total	\$204,480

Specific testing of rebates and services was not done. However the payroll, benefits, and transportation costs were reviewed and determined to have been properly allocated.

Third Party Financing

The third party financing option, which was approved for loans up to \$15,000 with the institution's interest rate to be bought down to 2%, allows for external lending institutions to fund energy efficiency project. For 2016, NHEC bought down the interest rate on four customers' loans. The sum of the loans, \$16,425 and the interest rate buy down, \$1,048 were verified to the 4th quarterly report. The detail was verified to the general ledger 416.19, activity code 143. Audit recalculated the buy downs without exception.

Small Business Energy Solutions Program activity codes 127 Retrofit and 148 New Construction \$256,112

Noted within the filing this program is designed for electric customers having an average monthly maximum kilowatt (kW) demand less than 200 kW over a twelve-month period. This program is intended for new or retrofit projects, with the activity code identifying the internal NHEC category. The rebate amount for new projects is the lesser of 75% of incremental costs or a one year payback and for retrofit projects is the lesser of 35% for electric customers or a one year payback. The program also has a "Turnkey Solution" as described in the Settlement Agreement that still must adhere to the percentage caps.

Internal Administration	\$ 14,857
External Administration	\$ 14,884
Rebates/Services	\$170,350

Internal Implementation	\$ 60,070		
Marketing	\$ 1,431		
Evaluation	\$ 3,520		
Total	\$265,112		

Audit reviewed an invoice from Tim Christian Electric for a lighting retrofit project at a small commercial member. The total invoice was \$41,421 and was approved for payment in May 2016. NHEC paid the entire invoice, and the customer signed onto a Smart Start purchase agreement for \$33,921. The credit was noted in account 24.416.19 within the same month as the vendor payment. The net expense, therefore, to the CORE was \$7,500. The repayment of the Smart Start loan would be done over 83 months. The estimated monthly savings was documented to be \$618, while the Smart Start repayment, at 3.25% was calculated to be \$459 monthly.

The payroll, benefits, and transportation costs were reviewed and determined to have been properly allocated.

Large Business Energy Solutions Program activity codes 128 and 149 \$109,309

Noted in the filing this program is designed for electric customers having an average monthly maximum kilowatt (kW) demand of 200 kW or more over a twelve month period. Program customers will receive rebates for new construction, major renovations, failed equipment replacement, replacement of inefficient equipment. Rebate amounts for new construction are the lesser of 75% of incremental costs or a one year payback, and for retrofit projects, the lesser of 35% or a one year payback.

Internal Administration	\$	5,788
External Administration	\$	5,798
Rebates/Services	\$	56,815
Internal Implementation	\$	38,979
Marketing	\$	558
Evaluation	\$	1,371
Total	\$1	109,309

Specific testing of rebates and services was not done. However the payroll, benefits, and transportation costs were reviewed and determined to have been properly allocated.

Other Expenses Reviewed

Audit reviewed several other expense items which were posted to the accounts 416.50 Evaluation Miscellaneous Expenses, 416.65 Marketing, and 416.77 Office Supplies and Expenses. Generally entries which are posted to those accounts are allocated among CORE programs.

One 2016 annual membership to the Consortium for Energy Efficiency Inc. was reviewed to the invoice from the CEE, dated 3/2016 in the amount of \$2,500. The total was posted 5/31/2016 to account 416.50, activity code 162 to be allocated.

An invoice from Millennium Integrated Marketing, dated 1/1/2016 in the amount of \$2,584.73 was posted to account 416.65 Marketing, and to activity code 162 on 3/25/2016. The invoice described the 2016 social media and advertising plan.

An invoice from the Mount Washington Valley Chamber of Commerce in the amount of \$1,000 was posted to account 416.65 Marketing, again to activity code 162. The documentation indicating the money represented a "supporting sponsor" of the 2016 Business Expo Sponsorship Opportunities.

Audit noted entries in account 416.77 with references to the Residential Energy Performance Association (REPA) for \$200 relating to the 2016 membership of a specific NHEC employee. The entry was booked 1/1/2016 with the activity code 141 which relates to Energy Star Homes. Entries posted to the 416.77 account on 12/4/2016 indicated REPA membership dues for 2017 for two employees. The \$400 was allocated \$100 to activity code 117 HEA, \$200 to 141 ESH, and \$100 to 143 Home Energy Solutions. The overstatement of \$400 relating to the 2017 membership should have been excluded from the member incentive calculation. However, the adjustment to the incentive would be an immaterial \$32, so the overstatement and recalculation of the incentive is not recommended.

RGGI Revolving Loan Fund

The RGGI Revolving Loan Fund (RLF) was established on August 19, 2009, by the Governor and Council. Known as the Re-CORE, \$1,728,000 was dedicated to establish the RLF. NHEC initially received \$200,000 and added \$100,000 for the 2013 program year, bringing the total funding of the RLF to \$300,000. During 2015 NHEC made the decision to write off one loan, lowering the overall balance of available funds to \$296,997. In 2016, payments to a collection agency in the amount of \$364.38 were deducted from the available loan balance resulting in a total loan fund adjusted to \$296,632. Audit verified the \$296,997 to the 2016 4th quarterly report filed in 3/2017. The \$364.38 is not material and was booked to the general ledger as a year-end closing entry. The reconciliation of the RLF demonstrated:

(2013) RLF Fund	\$ 300,000
2015 loan write-off	\$ (3,003)
Adjusted Loan Fund	\$ 296,997
2016 collection fee through 10/16	\$ (347)
2016 collection fee 11/16	<u>\$ (18)</u>
2016 RLF Fund	\$ 296,632
Principal Outstanding 12/16	\$(140,819)
2016 loans disbursed 2017	\$ (6,000)
Available to Lend	\$\$149,813 rounded

Audit reviewed the NHEC activity within general ledger account #242.86 for both expenses and revenues.

Available to Lend 12/31/2015 \$ (82,201)

Loans made during 2016 \$ 20,454

Payments received during 2016 \$ (88,049)

net GL 12/31/2016 \$ (149,795)

NHCS collection fee \$ (18) booked in 2017

Adjusted GL Balance 12/31/2016 \$ (149,814)

The adjusted GL balance represents the (rounded) funds available to lend at the end of 12/31/2016. The balance noted on the 4th quarter report, page 24 reflects \$(147,813) available to lend, based on \$8,000 loans disbursed in 2017. The reconciliation provided to audit reflected \$6,000 specific customers' 2016 loans that were booked in 2017.

NHEC Specific Program

Smart Start Program Activity Code 185 \$1,254

According to the Joint Settlement Agreement this program provides C&I and municipal members with an opportunity to install energy efficient measures with no up-front costs, and pay for them over time with the savings obtained from the lower energy costs. NHEC has indicated the source of the funds is NHEC company funds and SBC funds are only used to pay for the implementation and administration of the program. For the 2016 program year, NHEC spent \$1,254. The costs were noted as:

Internal Administration	\$	49.98
External Administration	\$	50.07
Internal Implementation	\$1,	137.26
Marketing	\$	4.82
Evaluation	\$	11.84
	\$1.	253.97

According to the 4th Quarter Energy Efficiency Report filed March 1, 2017 NHEC financed six projects at a cost of \$112,071. Because NHEC uses their own funds to finance the Smart Start loans, the NH PUC does not review the specific loan files. There was a total of \$112,071 loans granted and \$87,707 of loan repayments which were verified to debit and credit postings respectively to general ledger account 143.18, Miscellaneous Accounts Receivables-PAYS (Pay as You Save). Further testing was not done.

Conclusion

Based on a review of the information and documentation provided to Audit, the revenue and expenses associated with the 2016 NHEC CORE appear to be in compliance with Commission Orders and properly reflected in the 2016 Member Incentive filing received by the Commission on 12/28/2017.

Service List

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