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NHPUC 1JUN'18am11:15

May 31, 2018

Via Electronic and US Mail

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

RE:

DE 14-216; Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

Core Energy Efficiency Programs – YE 2017

Dear Ms. Howland:

On behalf of Liberty Utilities, I enclose for filing in the above-captioned docket an original and three copies of the calculation of the shareholder incentive report relating to the Company's energy efficiency programs for program year 2017. The Commission approved the 2017 programs in its Order No. 25,976 issued on December 23, 2016.

Thank you for your attention to this matter. Please do not hesitate to call if you have any questions.

Sincerely,

Stephen R. Hall

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Enclosures

cc: Service List

NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP.

d/b/a

LIBERTY UTILITIES

CORE PROGRAMS - 2017 YEAR-END REPORT N.H.P.U.C. Docket No. DE 14-216

May 31, 2018



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Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities SUMMARY OF 2017 PROGRAM ACTIVITY

The following report presents the results of Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities ("Liberty Utilities" or "Company") residential and commercial & industrial energy efficiency programs for calendar year 2017.

Table 1 shows a summary of overall program savings results. In total, the Company served 44,745 participants and saved 1,568,358 Lifetime MMBTUs. Annual MMBTU savings were 101,645 with an average savings per participant per year of 2.27. Of the 44,745 participants, 492 also had electric savings which totaled 4,193,724 Lifetime kWh's. Annual kWh savings were 226,338 with an average savings per participant per year of 460.04.

Table 2 documents the quantified benefits and costs achieved by program for the residential market. In total, the residential programs generated \$4,594,777 in customer benefits and incurred costs of \$3,978,740, for an overall program benefit cost ratio of 1.12.

Table 3 documents the quantified benefits and costs achieved by program for the commercial & industrial market. In total, the commercial & industrial programs generated \$9,435,393 in customer benefits and incurred costs of \$4,345,415 for an overall program benefit cost ratio of 2.17.

Table 4 documents the MMBTU savings achieved by program for the individual residential and commercial and industrial programs. In summary, the residential program activities resulted in 464,267 in total lifetime MMBTU savings and 1,501,061 lifetime kWh savings. The commercial and industrial program activities resulted in 1,104,091 in total lifetime MMBTU savings and 2,692,663 lifetime kWh savings.

Table 5 documents footnotes for the residential and commercial & industrial program benefit cost ratios and the rate of savings per MMBTU based on the Avoided Energy Supply Costs in New England 2015 Update report.

Table 6 documents the Company's earned 2017 year-end performance incentive of \$237,145. As specified by the Commission, the performance incentive for 2017 has been documented using assumptions that are consistent with assumptions used to develop program-year goals. Table 6 summarizes the performance incentive calculation by component (commercial & industrial and residential). As specified by the Commission, results for all programs have been included in the performance incentive calculation.

Table 7 documents the planned versus actual benefit cost ratio by sector (residential and commercial & industrial), and for the entire portfolio of energy efficiency programs implemented in 2017.

Table 8 documents the Company's expenses by Program and budget category. Overall, the Company incurred a total of \$4,501,788 of expenses in 2017.

Table 9 documents the forecast of annualized therm savings by month and the total lost base revenue calculation.

Table 10 documents the actual annualized therm savings by month and the associated lost base revenue calculation. There was a total program actual annualized savings by month of 1,017,420 therms and a total lost base revenue of \$183,758 for 2017.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities CORE Energy Efficiency Programs 2017 Year End Report NHPUC Docket No. DE 14-216

Table 1. Program Savings Summary

Number of Participants served in the annual program year time period	44,74
MMBTU Savings per Participant Per Year	2.2
Total MMBTU Savings Per Year	101,64
Measure Life of Measures Installed in the annual program year time period	15.4
Grand Total MMBTU Savings Benchmark for Performance Incentive	1,568,35
ctric Savings in kWh's resulting from Energy Efficiency Measures Installed in the Progra	am Year
Number of Participants served in the annual program year time period	49
Number of Participants served in the annual program year time period kWh Savings per Participant Per Year	49 460.0
Number of Participants served in the annual program year time period kWh Savings per Participant Per Year Total kWh Savings Per Year	49 460.0 226,33
Number of Participants served in the annual program year time period kWh Savings per Participant Per Year	49 460.0

 $Table\ 2.\ Benefit\ Cost\ (B/C)\ Benchmark\ for\ Computing\ Performance\ Incentive\ -\ Residential\ Programs$

Residential Programs		ne Energy ssistance			Home Performance w/ENERGY STAR		ENERGY AR Homes	me Energy Reports	Total
Benefits:									
Avoided Generation, Transmission & Distribution Costs for:									
Program Participants	\$	945,103	\$ 2,002,832	\$	727,184	\$	488,748	\$ 430,910	\$ 4,594,777
Market effects (e.g., spillover, post-program adoptions)	\$	-	\$ -	\$	-	\$	-	\$ -	\$ -
Customer Benefits (including O&M)	\$	-	\$ -	\$	-	\$	-	\$ -	\$ -
Quantifiable avoided resource costs (e.g., water, electricity)	\$	-	\$ -	\$	-	\$	-	\$ -	\$ -
Adder for other non-quantifiable benefits (e.g., environmental and other)	\$	-	\$ -	\$	-	\$	-	\$ -	\$ -
Total Benefits	\$	945,103	\$ 2,002,832	\$	727,184	\$	488,748	\$ 430,910	\$ 4,594,777
Costs:	_								
Program costs (e.g. incentives, admin, monitoring, evaluation for:									
Utility Costs (e.g., for admin, monitoring, evaluation, markeing)	\$	826,371	\$ 989,619	\$	354,067	\$	111,025	\$ 224,350	\$ 2,505,433
Program participants (e.g., incremental costs not reimbursed)	\$	-	\$ 1,230,895	\$	187,029	\$	55,384	\$ -	\$ 1,473,307
Market effects (e.g., spillover, post-program adoptions)	\$	-	\$ -	\$	-	\$	-	\$ -	
Customer Costs (including O&M)	\$	-	\$ -	\$	-	\$	-	\$ -	
Quantifiable additional resource costs (e.g. water, electricity)	\$	-	\$ -	\$	-	\$	-	\$ -	
Total Costs	\$	826,371	\$ 2,220,514	\$	541,096	\$	166,409	\$ 224,350	\$ 3,978,740
Utility Performance Incentive at the Sector Level	-	n/a	n/a		n/a		n/a	n/a	\$ 126,052
Total Costs Including Utility Performance Incentives at Sector Level									\$ 4,104,792
Benefit Cost Ratio by Sector (i.e., B/C Benchmark for PI Calc.)		1.14	0.90		1.34		2.94	1.92	1.12

Table 3. Benefit Cost (B/C) Benchmark for Computing Performance Incentive - Commercial & Industrial Programs

Commercial & Industrial Programs	Sm	all Business	La	rge Business	С&	zI Education	Total
Benefits:							
Avoided Generation, Transmission & Distribution Costs for:							
Program Participants	\$	3,435,202	\$	6,000,191	\$	-	\$ 9,435,393
Market effects (e.g., spillover, post-program adoptions)	\$	-	\$	-	\$	-	\$ -
Customer Benefits (including O&M)	\$	-	\$	-	\$	-	\$ -
Quantifiable avoided resource costs (e.g., water, electricity)	\$	-	\$	-	\$	-	\$ -
Adder for other non-quantifiable benefits (e.g., environmental and other)	\$	-	\$	-	\$	-	\$ -
Total Benefits	\$	3,435,202	\$	6,000,191	\$	-	\$ 9,435,393
Costs:							
Program costs (e.g. incentives, admin, monitoring, evaluation for:							
Utility Costs (e.g., for admin, monitoring, evaluation, markeing)		852,560	\$	1,118,670	\$	25,125	\$ 1,996,355
Program participants (e.g., incremental costs not reimbursed)	\$	356,217	\$	1,881,750	\$	-	\$ 2,237,967
Market effects (e.g., spillover, post-program adoptions)	\$	-	\$	-	\$	-	
Customer Costs (including O&M)	\$	-	\$	-	\$	-	
Quantifiable additional resource costs (e.g. water, electricity)	\$	-	\$	-	\$	-	
Total Costs	\$	1,208,777	\$	3,000,420	\$	25,125	\$ 4,234,322
Utility Performance Incentive at the Sector Level		n/a		n/a		n/a	\$ 111,093
Total Costs Including Utility Performance Incentives at Sector Level							\$ 4,345,415
Benefit Cost Ratio by Sector (i.e., B/C Benchmark for PI Calc.)		2.84		2.00			2 17
Deficit Cost National Section (i.e., D/C Deficilitiate 101 11 Care.)		4.84		2.00		-	2.17

Table 4. MMBTU Savings Benchmark for Computing Performance Incentive

Residential Programs	Home Energy Assistance	ENERGY STAR Products	Home Performance w/ENERGY STAR	ENERGY STAR Homes	Home Energy Reports	Total
Gas Savings in MMBTU's from Measures Installed in the Program Year						
Number of Participants	227	1,398	93	44	38,000	39,762
MMBTU Savings per Participant Per Year	20	8	38	48	0	1
Total MMBTU Savings Per Year	4,476	11,846	3,508	2,103	9,708	31,642
Measure Life of Measures Installed During the Program Year	21	18	22	25	3	15
Grand Total MMBTU Savings Benchmark for Performance Incentive	93,955	207,528	76,319	52,587	33,878	464,267
Electric Savings in kWh's from Measures Installed in the Program Year						
Number of Participants	196	165	53	44	-	458
kWh Savings per Participant	213	166	91	47	-	166
Total kWh Savings Per Participant Per Year	41,806	27,419	4,817	2,051	-	76,093
7. 7.10 07.6 7. 11.11.1	21.16	16.99	20.63	25.00	-	19.73
Measure Life of Measures Installed in the annual program year time period	21.10	10.77	20.03			
Measure Life of Measures Installed in the annual program year time period Grand Total kWh Savings Benchmark for Performance Incentive	884,712	465,724	99,360	51,266	-	1,501,061
					-	1,501,061
Grand Total kWh Savings Benchmark for Performance Incentive	884,712 Small	465,724 Large	99,360	51,266	-	1,501,061
Grand Total kWh Savings Benchmark for Performance Incentive Commercial & Industrial Programs Number of Participants	Small Business	465,724 Large Business	99,360	51,266 Total	-	1,501,061
Grand Total kWh Savings Benchmark for Performance Incentive Commercial & Industrial Programs	884,712 Small Business 4,811	Large Business	99,360	51,266 Total 4,983	-	1,501,061
Grand Total kWh Savings Benchmark for Performance Incentive Commercial & Industrial Programs Number of Participants MMBTU Savings per Participant Per Year Total MMBTU Savings Per Year	884,712 Small Business 4,811 5	465,724 Large Business 172 257	99,360	51,266 Total 4,983 14	-	1,501,061
Grand Total kWh Savings Benchmark for Performance Incentive Commercial & Industrial Programs Number of Participants MMBTU Savings per Participant Per Year	884,712 Small Business 4,811 5 25,815	Large Business 172 257 44,189	99,360	51,266 Total 4,983 14 70,004	-	1,501,061
Grand Total kWh Savings Benchmark for Performance Incentive Commercial & Industrial Programs Number of Participants MMBTU Savings per Participant Per Year Total MMBTU Savings Per Year Measure Life of Measures Installed During the Program Year	884,712 Small Business 4,811 5 25,815 15	Large Business 172 257 44,189 16	99,360 C&I Education	51,266 Total 4,983 14 70,004 16	-	1,501,061
Grand Total kWh Savings Benchmark for Performance Incentive Commercial & Industrial Programs Number of Participants MMBTU Savings per Participant Per Year Total MMBTU Savings Per Year Measure Life of Measures Installed During the Program Year Grand Total MMBTU Savings Benchmark for Performance Incentive	884,712 Small Business 4,811 5 25,815 15	Large Business 172 257 44,189 16	99,360 C&I Education	51,266 Total 4,983 14 70,004 16	-	1,501,061
Grand Total kWh Savings Benchmark for Performance Incentive Commercial & Industrial Programs Number of Participants MMBTU Savings per Participant Per Year Total MMBTU Savings Per Year Measure Life of Measures Installed During the Program Year Grand Total MMBTU Savings Benchmark for Performance Incentive Electric Savings in kWh's from Measures Installed in the Program Year	884,712 Small Business 4,811 5 25,815 15 396,122	Large Business 172 257 44,189 16 707,968	99,360 C&I Education	51,266 Total 4,983 14 70,004 16 1,104,091	-	1,501,061
Grand Total kWh Savings Benchmark for Performance Incentive Commercial & Industrial Programs Number of Participants MMBTU Savings per Participant Per Year Total MMBTU Savings Per Year Measure Life of Measures Installed During the Program Year Grand Total MMBTU Savings Benchmark for Performance Incentive Electric Savings in kWh's from Measures Installed in the Program Year Number of Participants	884,712 Small Business 4,811 5 25,815 15 396,122	Large Business 172 257 44,189 16 707,968	99,360 C&I Education	51,266 Total 4,983 14 70,004 16 1,104,091		1,501,061
Grand Total kWh Savings Benchmark for Performance Incentive Commercial & Industrial Programs Number of Participants MMBTU Savings per Participant Per Year Total MMBTU Savings Per Year Measure Life of Measures Installed During the Program Year Grand Total MMBTU Savings Benchmark for Performance Incentive Electric Savings in kWh's from Measures Installed in the Program Year Number of Participants kWh Savings per Participant	884,712 Small Business 4,811 5 25,815 15 396,122	Large Business 172 257 44,189 16 707,968	99,360 C&I Education	51,266 Total 4,983 14 70,004 16 1,104,091 34 4,419		1,501,061

Table 5. Footnotes for Benefit Cost Ratio

Residential Programs	me Energy ssistance	ENERGY STAR Products	Home erformance /ENERGY STAR	ENERG STAR Ho		Home Energy Reports	Total
Number of Participants*	227	1,398	93		44	38,000	39,762
MMBTU Savings per Participant Per Year**	20	8	38		48	0	1
Total MMBTU Savings Per Year	4,476	11,846	3,508	2	,103	9,708	31,642
Number of Years in the Measure Life**	 21	18	22		25	3	15
Grand Total MMBTU Savings Benchmark for Performance Incentive	93,955	207,528	76,319	52	,587	33,878	464,267
Lifetime Therm Savings	939,547	2,075,281	763,185	525	,874	338,783	4,642,670
Rate of Savings per MMBTU ***	\$ 8.67	\$ 8.67	\$ 8.67	\$	8.67	\$ 8.67	\$ 8.67
Grand Total Dollar Savings	\$ 814,587	\$ 1,799,269	\$ 661,681	\$ 455	,933	\$ 293,725	\$ 4,025,195

Commercial & Industrial Programs	Sm	all Business	Laı	rge Business	С8	&I Education	Total
Number of Participants*		4,811		172		-	4,983
MMBTU Savings per Participant Per Year**		5		257		-	14
Total MMBTU Savings Per Year		25,815		44,189		-	70,004
Number of Years in the Measure Life**		15		16		-	16
Grand Total MMBTU Savings Benchmark for Performance Incentive		396,122		707,968		-	1,104,091
Lifetime Therm Savings		3,961,224		7,079,684		-	11,040,908
Rate of Savings per MMBTU ***	\$	7.47	\$	7.47	\$	-	\$ 7.47
Grand Total Dollar Savings	\$	2,959,034	\$	5,288,524	\$	-	\$ 8,247,558

^{*} eTrack (Liberty Utilities Energy Efficiency Program Tracking System)

^{***} Source: Avoided Energy Supply Costs in New England: 2015 Update Report, Tabors Caramanis Rudkevich, (December 13, 2016). Pg.11, Table 8

Residential Programs		Home Energy Assistance			Home erformance /ENERGY STAR	ENERGY STAR Homes	desidential Building ractices & Demo	Total
Number of Participants*		227		1,398	93	44	38,000	39,762
Participant Incremental Cost	\$	-	\$	1,230,895	\$ 187,029	\$ 55,384	\$ -	\$ 1,473,307
Program Participant Cost	\$	-	\$	880	\$ 2,011	\$ 1,259	\$ -	\$ 37

Commercial & Industrial Programs	Smal	ll Business	La	rge Business	C&:	I Education	Total
Number of Participants*		4,811		172		-	4,983
Participant Incremental Cost	\$	356,217	\$	1,881,750	\$	-	\$ 2,237,967
Program Participant Cost	\$	74	\$	10,940	\$	-	\$ 449

^{**} The values are variable for program year measurement purposes and based upon the B/C model assumptions.

Table 6. Performance Incentive Calculation - 2017

Commercial & Industrial Incentive	<u>Planned</u>	<u>Actual</u>
1 D	2.01	2.17
1. Benefit/Cost Ratio		2.17
2. Threshold Benefit / Cost Ratio ¹	1.00	
3. Lifetime MMBTU Savings	1,172,123	1,104,091
4. Threshold Lifetime MMBTU Savings (65%) ²	761,880	
5. Budget / Actual Spend	\$3,000,600	\$1,996,355
6. Benefit / Cost Percentage of Budget	2.75%	
7. Lifetime MMBTU Percentage of Budget	2.75%	
8. Commercial & Industrial Incentive	\$165,033	\$111,093
9. Cap	\$206,291	\$206,291
Residential Incentive		
10. Benefit / Cost Ratio	1.20	1.12
11. Threshold Benefit / Cost Ratio ¹	1.00	
12. Lifetime MMBTU Savings	519,505	464,267
13. Threshold Lifetime MMBTU Savings (65%) ²	337,678	ŕ
14. Budget / Actual Spend	\$2,913,120	\$2,505,433
15. Benefit / Cost Percentage of Budget	2.75%	\$2,000,100
16. Lifetime MMBTU Percentage of Budget	2.75%	
17. Residential Incentive	\$160,222	\$126,052
18. Cap	\$200,277	\$200,277
19. TOTAL INCENTIVE	\$325,255	\$237,145

Notes

- $1. \ \ Actual \ Benefit \ / \ Cost \ Ratio \ for each sector \ must be \ greater \ than \ or \ equal \ to \ 1.0.$
- 2. Actual Lifetime MMBTU Savings for each sector must be greater than or equal to 65% of projected savings.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities CORE Energy Efficiency Programs 2017 Year End Report NHPUC Docket No. DE 14-216

Table 7. Planned Versus Actual Benefit / Cost Ratio by Sector - 2017

Commercial & Industrial:	Planned	Actual
1. Benefits (Value) From Eligible Programs	\$10,312,524	\$9,435,393
2. Implementation Expenses	\$3,000,600	\$1,996,355
3. Customer Contribution	\$1,971,268	\$2,237,967
4. Performance Incentive	\$165,033	\$111,093
5. Total Costs Including Performance Incentive	\$5,136,901	\$4,345,415
6. Benefit/Cost Ratio - C&I Sector	2.07	2.23
7. Benefit/Cost Ratio including PI in cost	2.01	2.17
Residential:		
8. Benefits (Value) From Eligible Programs	\$5,427,042	\$4,594,777
9. Implementation Expenses	\$2,913,120	\$2,505,433
10. Customer Contribution	\$1,463,879	\$1,473,307
11. Performance Incentive	\$160,222	\$126,052
12. Total Costs Including Performance Incentive	\$4,537,221	\$4,104,792
13. Benefit/Cost Ratio - Residential Sector	1.24	1.15
14. Benefit/Cost Ratio including PI in cost	1.20	1.12

Table 8. Program Expenditures by Category - 2017 Actual

Program		Evaluation		External Administration		Internal Administration		Internal Implementation		Marketing	Rebates- Services		Total
Residential Programs													
ENERGY STAR Products	\$	28,008	\$	1,486	\$	10,846	\$	70,177	\$	22,526	\$	856,577	\$ 989,619
ENERGY STAR Homes	\$	14,517	\$	248	\$	3,721	\$	10,373	\$	3,935	\$	78,233	\$ 111,025
Home Energy Assistance	\$	32,793	\$	1,833	\$	12,990	\$	77,907	\$	27,789	\$	673,059	\$ 826,371
Home Performance with ENERGY STAR	\$	24,461	\$	1,329	\$	7,275	\$	49,311	\$	24,830	\$	246,861	\$ 354,067
Home Energy Reports	\$	8,812	\$	414	\$	5,720	\$	20,856	\$	6,272	\$	182,276	\$ 224,350
Subtotal - Residential	\$	108,591	\$	5,310	\$	40,551	\$	228,624	\$	85,352	\$	2,037,006	\$ 2,505,433
Commercial & Industrial Programs													
C&I Education	\$	-			\$	493	\$	-	\$	-	\$	24,633	\$ 25,125
Large Business Energy Solutions	\$	52,468	\$	2,849	\$	18,930	\$	126,941	\$	36,700	\$	880,781	\$ 1,118,670
Small Business Energy Solutions	\$	46,528	\$	2,502	\$	18,422	\$	111,889	\$	42,625	\$	630,593	\$ 852,560
Subtotal - C&I	\$	98,996	\$	5,351	\$	37,845	\$	238,830	\$	79,325	\$	1,536,008	\$ 1,996,355
Total - All	\$	207,587	\$	10,661	\$	78,396	\$	467,454	\$	164,677	\$	3,573,013	\$ 4,501,788

NHPUC Docket No. DE 14-216

Table 9. Lost Base Revenue and Savings - 2017 Forecast

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. d/b/a LIBERTY UTILITIES Estimated Monthly and Cumulative Savings (therm) and Lost Base Revenue January 1, 2017 to December 31, 2017

Line	Description	12/31/2016	Forecast Jan 2017	Forecast Feb 2017	Forecast Mar 2017	Forecast Apr 2017	Forecast May 2017	Forecast June 2017	Forecast Jul 2017	Forecast Aug 2017	Forecast Sep 2017	Forecast Oct 2017	Forecast Nov 2017	Forecast Dec 2017	2017 Annual Savings
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	Residential Annualized Savings		17,905	17,905	17,905	23,874	23,874	23,874	27,455	27,455	27,455	50,134	50,134	50,134	358,104
2	C&I Annualized Savings		43,837	43,837	43,837	58,449	58,449	58,449	67,216	67,216	67,216	122,743	122,743	122,743	876,735
3	Total		61,742	61,742	61,742	82,323	82,323	82,323	94,671	94,671	94,671	172,877	172,877	172,877	1,234,839
															Cumulative
			Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	June 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	LBR Savings
4	Monthly Residential Savings		1,492	1,492	1,492	1,990	1,990	1,990	2,288	2,288	2,288	4,178	4,178	4,178	
5	Cumulative Residential Savings	-	1,492	2,984	4,476	6,466	8,455	10,445	12,733	15,021	17,309	21,486	25,664	29,842	156,373
6	Average Residential Distribution Rate		0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	
7	Lost Residential Revenue		\$ 861	\$ 1,722	\$ 2,584	\$ 3,732	\$ 4,880	\$ 6,029	\$ 7,349	\$ 8,670	\$ 9,990	\$ 12,402	\$ 14,813	\$ 17,225	\$ 90,258
8	Monthly C&I Savings		3,653	3,653	3,653	4,871	4,871	4,871	5,601	5,601	5,601	10,229	10,229	10,229	
9	Cumulative C&I Savings	-	3,653	7,306	10,959	15,830	20,701	25,572	31,173	36,774	42,376	52,604	62,833	73,061	382,841
10	Average C&I Distribution Rate		0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	
11	Lost C&I Revenue		\$ 908	\$ 1,816	\$ 2,723	\$ 3,934	\$ 5,144	\$ 6,355	\$ 7,746	\$ 9,138	\$ 10,530	\$ 13,072	\$ 15,614	\$ 18,156	\$ 95,136
12	Total Lost Revenue		\$ 1,769	\$ 3,538	\$ 5,307	\$ 7,666	\$ 10,025	\$ 12,383	\$ 15,096	\$ 17,808	\$ 20,521	\$ 25,474	\$ 30,427	\$ 35,381	185,394

Line 1: Estimated Savings per 2017 Core Filing Line 2: Estimated Savings per 2017 Core Filing

Line 3: Line 1 + Line 2 Line 4: Line 1 / 12

Line 5: Pior Month Line 5 + Current Month Line 4
Line 6: Page addition to NHPUC Docket No. DE 14-216 Attachment OG-1 Proposed Distribution Rate
Line 7: Line 5 x Line 6

Line 8: Line 2 / 12

Line 9: Prior Month Line 9 + Current Month Line 8
Line 10: Page addition to NHPUC Docket No. DE 14-216 Attachment OG-1 Proposed Distribution Rate
Line 11: Line 9 x Line 10

Line 12: Line 7 + Line 11

Table 10. Lost Base Revenue and Savings - 2017 Actual

LIBERTY UTILITIES (ENNERGYNORTH NATURAL GAS) CORP. d/b/a LIBERTY UTILITIES Actual Monthly and Cumulative Savings (therm) and Lost Base Revenue January 1, 2017 to December 31, 2017

Line	Description	12/31/2016	Actual Jan 2017	Actual Feb 2017	Actual Mar 2017	Actual Apr 2017	Actual May 2017	Actual June 2017	Actual Jul 2017	Actual Aug 2017	Actual Sep 2017	Actual Oct 2017	Actual Nov 2017	Actual Dec 2017	Cumulative LBR Savings
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	Residential Annualized Savings		17,842	27,158	46,156	21,842	15,642	32,042	14,089	16,291	20,687	20,172	34,692	50,612	317,225
2	C&I Annualized Savings		54,517	25,317	55,872	68,661	19,562	90,472	65,717	36,950	129,884	78,010	38,065	37,169	700,195
3	Total		72,358	52,475	102,028	90,503	35,204	122,514	79,806	53,240	150,571	98,182	72,757	87,782	1,017,420
4	Monthly Residential Savings		1,487	2,263	3,846	1,820	1,304	2,670	1,174	1,358	1,724	1,681	2,891	4,218	
5	Cumulative Residential Savings	-	1,487	3,750	7,596	9,416	10,720	13,390	14,564	15,922	17,646	19,327	22,218	26,435	162,471
6	Average Residential Distribution Rate		0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	0.57720	
7	Lost Residential Revenue		\$ 858	\$ 2,164	\$ 4,385	\$ 5,435	\$ 6,188	\$ 7,729	\$ 8,406	\$ 9,190	\$ 10,185	\$ 11,155	\$ 12,824	\$ 15,259	\$ 93,779
8	Monthly C&I Savings		4,543	2,110	4,656	5,722	1,630	7,539	5,476	3,079	10,824	6,501	3,172	3,097	
9	Cumulative C&I Savings	-	4,543	6,653	11,309	17,030	18,661	26,200	31,676	34,756	45,579	52,080	55,252	58,350	362,088
10	Average C&I Distribution Rate		0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	0.24850	
11	Lost C&I Revenue		\$ 1,129	\$ 1,653	\$ 2,810	\$ 4,232	\$ 4,637	\$ 6,511	\$ 7,872	\$ 8,637	\$ 11,326	\$ 12,942	\$ 13,730	\$ 14,500	\$ 89,979
12	Total Lost Revenue		\$ 1.987	\$ 3.818	\$ 7.195	\$ 9.667	\$ 10.825	\$ 14.239	\$ 16.278	\$ 17.827	\$ 21.512	\$ 24.097	\$ 26.554	\$ 29.758	\$ 183.758

Line 1: Actual Annualized Residential Savings

Line 2: Actual Annualized Commercial Savings

Line 3: Line 1 + Line 2 Line 4: Line 1 / 12

Line 5: Prior Month Line 5 + Current Month Line 4 Line 6: Page addition to NHPUC Docket No. DE 14-216 Attachment OG-1 Proposed Distribution Rate Line 7: Line 5 x Line 6

Line 9: Line 2 / 12
Line 9: Prior Month Line 9 + Current Month Line 8
Line 10: Page addition to NHPUC Docket No. DE 14-216 Attachment OG-1 Proposed Distribution Rate
Line 11: Line 9 x Line 10
Line 12: Line 7 + Line 11