

NORTHERN UTILITIES, INC.
NEW HAMPSHIRE DIVISION
Calculation of the Projected Over or Under Collection of the
Winter 2017-2018 Period Cost of Gas
DG 17-144
December 2017 Estimated

1	Under/(Over) collection as of 11/01/17	\$ 352,624	Table 2, PG. 3, Line 99
2			
3	Forecasted firm therm sales 11/01/17 - 4/30/18		
4	Residential Heat & Non Heat	14,263,151	Table 2, PG. 2, Line 2
5	HLF Classes	2,151,277	Table 2, PG. 2, Line 3
6	LLF Classes	14,217,622	Table 2, PG. 2, Line 4
7			
8	Current recovery rate per therm		
9	Residential heat & non heat	\$0.7103	Table 2, PG. 1, Line 7
10	HLF classes	\$0.6224	Table 2, PG. 1, Line 8
11	LLF classes	\$0.7236	Table 2, PG. 1, Line 9
12			
13	Total	\$ (21,757,942)	(LN 4 * Ln 9) + (LN 5 * LN 10) + (LN 6 * LN 11)
14			
15	Forecasted recovered costs at current rates 12/01/2017 - 04/30/2018	\$ (21,757,942)	LN 13
16	Actual Recovered Costss 11/01/2017 - 11/30/2017	\$ (1,965,771)	
17	Estimated total recovered costs 11/01/17 - 04/30/18	\$ (23,723,713)	LN 15 + LN 16
18			
19	Revised projected direct gas costs 11/01/17 - 04/30/18 [1]	\$ 20,184,242	Table 2, PG. 2, Line 71
20	Revised projected indirect gas costs 11/01/17 - 04/30/18 [2]	\$ 848,446	Table 2, PG. 4, Line 101
21			
22	Projected April 30, 2018 End of Winter Period Balance	\$ (2,338,402)	LN 1 + Ln 17 + LN 19 + LN 20
23			
24			
25	April 30, 2018 Target Balance	(\$2,708,745)	Table 2, PG. 3, Line 107
26			
27	Variance from Projected Target Balance	\$ 370,343	LN 25 - LN 22
28			
29	Total Projected Gas Costs	\$ 21,032,687	LN 19 + LN 20
30			
31			
32	Under/(over) collection as percent of total gas costs	1.76%	LN 27 / LN 29

NOTES

[1] Reflects futures prices as of December 18, 2017

[2] Includes: Working Capital Allowance, Bad Debt Allowance, Production and Storage Capacity, Miscellaneous Overhead, and Interest

December 20, 2017 Updated Projected End of Period Balance

Northern Utilities

NEW HAMPSHIRE (Over) / Undercollection Analysis, Balances and Interest Calculation

		Winter						Summer					
Sales Revenues			(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
Volumes	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18
Residential Heat & Non Heat			3,003,415	3,715,334	3,261,260	2,797,567	1,485,575	702,997	482,427	419,957	422,211	443,199	927,645
Sales HLF Classes			452,998	560,375	491,888	421,950	224,066	363,643	249,548	217,233	218,399	229,256	479,847
Sales LLF Classes			2,993,828	3,703,475	3,250,850	2,788,637	1,480,833	561,252	385,156	335,281	337,080	353,837	740,604
Total			6,450,240	7,979,184	7,003,998	6,008,154	3,190,474	1,627,891	1,117,130	972,471	977,690	1,026,291	2,148,096
Rates													
Residential Heat & Non Heat CGA			\$0.7103	\$0.7103	\$0.7103	\$0.7103	\$0.7103	\$0.3975	\$0.3975	\$0.3975	\$0.3975	\$0.3975	\$0.3975
Sales HLF Classes CGA			\$0.6224	\$0.6224	\$0.6224	\$0.6224	\$0.6224	\$0.3543	\$0.3543	\$0.3543	\$0.3543	\$0.3543	\$0.3543
Sales LLF Classes CGA			\$0.7236	\$0.7236	\$0.7236	\$0.7236	\$0.7236	\$0.4254	\$0.4254	\$0.4254	\$0.4254	\$0.4254	\$0.4254
Revenues													
Residential Heat & Non Heat			\$ (2,133,326)	\$ (2,639,002)	\$ (2,316,473)	\$ (1,987,112)	\$ (1,055,204)	\$ (279,441)	\$ (191,765)	\$ (166,933)	\$ (167,829)	\$ (176,172)	\$ (368,739)
Sales HLF Classes			\$ (281,946)	\$ (348,777)	\$ (306,151)	\$ (262,622)	\$ (139,458)	\$ (128,839)	\$ (88,415)	\$ (76,966)	\$ (77,379)	\$ (81,225)	\$ (170,010)
Sales LLF Classes			\$ (2,166,334)	\$ (2,679,834)	\$ (2,352,315)	\$ (2,017,858)	\$ (1,071,531)	\$ (238,756)	\$ (163,845)	\$ (142,629)	\$ (143,394)	\$ (150,522)	\$ (315,053)
Total Sales		\$ (1,965,771)	\$ (4,581,605)	\$ (5,667,613)	\$ (4,974,939)	\$ (4,267,591)	\$ (2,266,193)	\$ (647,036)	\$ (444,025)	\$ (386,527)	\$ (388,601)	\$ (407,919)	\$ (853,802)
		Winter						Summer					
Gas Costs and Credits		Oct-17	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
		Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18
Net Demand Costs (Net of Injection Fees & Cap. Assign.)													
Pipeline		\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,020	\$ 278,020
Storage		\$ 1,118,336	\$ 1,118,336	\$ 1,118,336	\$ 1,118,336	\$ 1,118,336	\$ 1,118,336	\$ 443,264	\$ 410,369	\$ 410,369	\$ 410,369	\$ 410,369	\$ 410,369
Peaking		\$ 237,920	\$ 241,213	\$ 241,213	\$ 241,213	\$ 237,920	\$ 90,295	\$ 42,108	\$ 42,108	\$ 42,108	\$ 42,108	\$ 42,108	\$ 42,108
Total Demand Costs		\$ 1,635,221	\$ 1,638,514	\$ 1,638,514	\$ 1,638,514	\$ 1,635,221	\$ 812,524	\$ 764,337	\$ 731,442	\$ 731,442	\$ 731,442	\$ 730,497	\$ 730,497
NUI Commodity Costs													
NUI Total Pipeline Volumes			916,964	898,057	943,605	1,070,055	883,856	474,732	321,807	282,899	284,126	306,404	614,624
Pipeline Costs Modeled in Sendout™			\$ 4,381,350	\$ 4,904,060	\$ 4,856,523	\$ 3,669,966	\$ 2,538,352	\$ 1,273,432	\$ 862,289	\$ 761,921	\$ 763,018	\$ 800,369	\$ 1,648,370
NYMEX Price Used for Forecast			\$ 3.2000	\$ 3.3000	\$ 3.3000	\$ 3.2600	\$ 2.9300	\$ 2.8900	\$ 2.9200	\$ 2.9400	\$ 2.9500	\$ 2.9200	\$ 2.9400
NYMEX Price Used for Update			\$ 3.1080	\$ 2.7450	\$ 2.7550	\$ 2.7200	\$ 2.6340	\$ 2.8900	\$ 2.9200	\$ 2.9400	\$ 2.9500	\$ 2.9200	\$ 2.9400
Increase/(Decrease) NYMEX Price			\$ (0.09)	\$ (0.56)	\$ (0.55)	\$ (0.54)	\$ (0.30)						
Increase/(Decrease) in Pipeline Costs			\$ (84,361)	\$ (498,422)	\$ (514,265)	\$ (577,830)	\$ (261,621)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Updated Pipeline Costs			\$ 4,296,989	\$ 4,405,639	\$ 4,342,258	\$ 3,092,136	\$ 2,276,730	\$ 1,273,432	\$ 862,289	\$ 761,921	\$ 763,018	\$ 800,369	\$ 1,648,370
Interruptible Volumes - NH			0	0	0	0	0	0	0	0	0	0	0
Average Supply Cost (\$/MMBtu)			\$ 4.69	\$ 4.91	\$ 4.60	\$ 2.89	\$ 2.58	\$ 2.68	\$ 2.68	\$ 2.69	\$ 2.69	\$ 2.61	\$ 2.68
Interruptible Cost - NH			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Updated Pipeline Costs			\$ 4,296,989	\$ 4,405,639	\$ 4,342,258	\$ 3,092,136	\$ 2,276,730	\$ 1,273,432	\$ 862,289	\$ 761,921	\$ 763,018	\$ 800,369	\$ 1,648,370
New Hampshire Allocated Percentage			40.09%	40.28%	39.88%	39.23%	36.46%	34.92%	34.56%	34.54%	34.57%	33.68%	35.26%
NH Updated Pipeline Costs			\$ 1,722,554	\$ 1,774,537	\$ 1,731,612	\$ 1,213,051	\$ 830,176	\$ 440,118	\$ 301,101	\$ 263,150	\$ 263,809	\$ 269,572	\$ 581,265
Hedging (Gain)/Loss Estimate													
NYMEX Options Contracts													
Hedging Expenses			\$ 47,400	\$ 71,775	\$ 74,100	\$ 60,000							
NYMEX Option Strike Price			\$ 5.25	\$ 6.00	\$ 6.25	\$ 6.30							
NYMEX Price Used for Forecast			\$ 3.11	\$ 2.75	\$ 2.76	\$ 2.72							
Strike Price Hit			No	No	No	No							
Option Hedging Gain (Credit)													
Tota Northern Hedgingf Net Cost			\$ 47,400	\$ 71,775	\$ 74,100	\$ 60,000							
New Hampshire Allocated Percentage			40.09%	40.28%	39.88%	39.23%							
NH Futures Hedging Net Cost			\$ 19,001	\$ 28,910	\$ 29,550	\$ 23,538		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NH Commodity Costs													
Pipeline Excl Hedging			\$ 1,722,554	\$ 1,774,537	\$ 1,731,612	\$ 1,213,051	\$ 830,176	\$ 440,118	\$ 301,101	\$ 263,150	\$ 263,809	\$ 269,572	\$ 581,265
Hedging (Gain)/Loss Estimate			\$ 19,001	\$ 28,910	\$ 29,550	\$ 23,538	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Storage			\$ 819,627	\$ 932,166	\$ 878,800	\$ 496,601	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Peaking			\$ 151,941	\$ 1,560,278	\$ 441,289	\$ 160,847	\$ 5,328	\$ 5,039	\$ 4,917	\$ 5,026	\$ 5,031	\$ 4,719	\$ 5,105
Total Commodity Costs			\$ 1,131,186	\$ 2,713,124	\$ 4,295,891	\$ 3,081,251	\$ 1,894,037	\$ 835,504	\$ 445,157	\$ 306,019	\$ 268,176	\$ 268,840	\$ 586,370
Inventory Finance Charge			\$ 648	\$ 829	\$ 725	\$ 596	\$ 267	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Anticipated Direct Cost of Gas			\$ 1,944,126	\$ 3,963,077	\$ 5,546,025	\$ 4,331,281	\$ 3,140,646	\$ 1,259,086	\$ 1,051,615	\$ 879,581	\$ 841,738	\$ 842,402	\$ 1,158,987

December 20, 2017 Updated Projected End of Period Balance

Northern Utilities

NEW HAMPSHIRE (Over) / Undercollection Analysis, Balances & Interest Calculation

Sales Revenues				
	Winter	Summer	Prior Period	Total
Volumes				
Residential Heat & Non Heat	14,263,151	3,398,435		17,661,586
Sales HLF Classes	2,151,277	1,757,926		3,909,202
Sales LLF Classes	14,217,622	2,713,210		16,930,832
Total	30,632,050	7,869,571		38,501,621
Rates				
Residential Heat & Non Heat CGA				
Sales HLF Classes CGA				
Sales LLF Classes CGA				
Revenues				
Residential Heat & Non Heat	(10,131,116)	(1,350,878)		(11,481,994)
Sales HLF Classes	(1,338,954)	(622,833)		(1,961,788)
Sales LLF Classes	(10,287,871)	(1,154,199)		(11,442,071)
Total Sales	(23,723,713)	(3,127,910)		(26,851,624)
Gas Costs and Credits				
	Winter	Summer		Total
Net Demand Costs (Net of Injection Fees & Cap. As				
Pipeline	1,673,790	1,671,899		3,345,689
Storage	6,034,946	2,495,109		8,530,055
Peaking	1,289,773	252,650		1,542,423
Total Demand Costs	8,998,508	4,419,659		13,418,166
NUI Commodity Costs				
NUI Total Pipeline Volumes				6,997,130
Pipeline Costs Modeled in Sendout™				\$ 26,459,650
NYMEX Price Used for Forecast				
NYMEX Price Used for Update				
Increase/(Decrease) NYMEX Price				
Increase/(Decrease) in Pipeline Costs				
Updated Pipeline Costs				
Interruptible Volumes - NH				
Average Supply Cost (\$/MMBtu)				
Interruptible Cost - NH				
Total Updated Pipeline Costs				
New Hampshire Allocated Percentage				
NH Updated Pipeline Costs				\$ 9,390,947
Hedging (Gain)/Loss Estimate				
NYMEX Options Contracts				
Hedging Expenses				
NYMEX Option Strike Price				
NYMEX Price Used for Forecast				
Strike Price Hit				
Option Hedging Gain (Credit)				
Total Northern Hedging Net Cost				\$ 253,275
New Hampshire Allocated Percentage				
NH Futures Hedging Net Cost	\$ 100,999	\$ -		\$ 100,999
NH Commodity Costs				
Pipeline Excl Hedging	\$ 7,271,931	\$ 2,119,016		\$ 9,390,947
Hedging (Gain)/Loss Estimate	\$ 100,999	\$ -		\$ 100,999
Storage	\$ 3,127,193	\$ -		\$ 3,127,193
Peaking	\$ 2,319,683	\$ 29,837		\$ 2,349,521
Total Commodity Costs	\$ 13,950,992	\$ 2,148,854		\$ 16,099,846
Inventory Finance Charge	\$ 3,065	\$ 3,065		\$ 3,065
Total Anticipated Direct Cost of Gas	\$ 20,184,242	\$ 5,621,232		\$ 25,805,473

December 20, 2017 Updated Projected End of Period Balance

Northern Utilities

NEW HAMPSHIRE (Over) / Undercollection Analysis, Balances and Interest Calculation

	Oct-17	Winter						Summer					
		Nov-17	(Forecast) Dec-17	(Forecast) Jan-18	(Forecast) Feb-18	(Forecast) Mar-18	(Forecast) Apr-18	(Forecast) May-18	(Forecast) Jun-18	(Forecast) Jul-18	(Forecast) Aug-18	(Forecast) Sep-18	(Forecast) Oct-18
Working Capital													
Total Anticipated Direct Cost of Gas		\$ 2,083,946	\$ 3,963,077	\$ 5,546,025	\$ 4,331,281	\$ 3,140,646	\$ 1,259,086	\$ 1,051,615	\$ 879,581	\$ 841,738	\$ 842,402	\$ 846,909	\$ 1,158,987
Working Capital Percentage		0.1077%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%
Working Capital Allowance		\$ 2,245	\$ 4,268	\$ 5,973	\$ 4,665	\$ 3,383	\$ 1,356	\$ 1,133	\$ 947	\$ 907	\$ 907	\$ 912	\$ 1,248
Beginning Period Working Capital Balance		\$ 3,411	\$ 5,671	\$ 9,968	\$ 15,987	\$ 20,717	\$ 24,179	\$ 25,623	\$ 26,848	\$ 27,892	\$ 28,899	\$ 29,911	\$ 30,930
End of Period Working Capital Allowance		\$ 5,655	\$ 9,940	\$ 15,941	\$ 20,652	\$ 24,099	\$ 25,535	\$ 26,756	\$ 27,796	\$ 28,799	\$ 29,807	\$ 30,823	\$ 32,179
Interest		\$ 16	\$ 28	\$ 46	\$ 65	\$ 79	\$ 88	\$ 93	\$ 97	\$ 100	\$ 104	\$ 108	\$ 112
End of period with Interest	\$ 3,411	\$ 5,671	\$ 9,968	\$ 15,987	\$ 20,717	\$ 24,179	\$ 25,623	\$ 26,848	\$ 27,892	\$ 28,899	\$ 29,911	\$ 30,930	\$ 32,290
Bad Debt													
Projected Bad Debt	\$ -	\$ (12,901.55)	\$ 1,857.72	\$ 1,857.72	\$ 1,857.72	\$ 1,857.72	\$ 1,857.72	\$ 30,733.90	\$ 30,733.90	\$ 30,733.90	\$ 30,733.90	\$ 30,733.90	\$ 30,733.90
Beginning Period Bad Debt Balance		\$ 13,172	\$ 294	\$ 2,156	\$ 4,025	\$ 5,900	\$ 7,782	\$ 9,670	\$ 40,493	\$ 71,425	\$ 102,466	\$ 133,617	\$ 164,879
End of Period Bad Debt Balance		\$ 270	\$ 2,152	\$ 4,014	\$ 5,882	\$ 7,758	\$ 9,640	\$ 40,404	\$ 71,227	\$ 102,159	\$ 133,200	\$ 164,351	\$ 195,613
Interest		\$ 24	\$ 4	\$ 11	\$ 18	\$ 24	\$ 31	\$ 89	\$ 198	\$ 307	\$ 417	\$ 528	\$ 638
End of Period Bad Debt Balance with Interest	\$ 13,172	\$ 294	\$ 2,156	\$ 4,025	\$ 5,900	\$ 7,782	\$ 9,670	\$ 40,493	\$ 71,425	\$ 102,466	\$ 133,617	\$ 164,879	\$ 196,251
Local Production and Storage Capacity		\$ 70,110	\$ 70,110	\$ 70,110	\$ 70,110	\$ 70,110	\$ 70,110	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Miscellaneous Overhead		\$ 69,710	\$ 69,710	\$ 69,710	\$ 69,710	\$ 69,710	\$ 69,710	\$ 15,734	\$ 15,734	\$ 15,734	\$ 15,734	\$ 15,734	\$ 15,734
Gas Cost Other than Bad Debt and Working Capital Over/Under Collection													
Beginning Balance Over/Under Collection		\$ 336,042	\$ 455,616	\$ (22,325)	\$ (4,140)	\$ (508,886)	\$ (1,499,561)	\$ (2,373,695)	\$ (1,961,045)	\$ (1,515,901)	\$ (1,049,490)	\$ (582,841)	\$ (129,376)
Net Costs - Revenues		\$ 118,176	\$ (478,708)	\$ 18,232	\$ (503,839)	\$ (987,125)	\$ (867,287)	\$ 420,313	\$ 451,290	\$ 470,945	\$ 469,535	\$ 454,724	\$ 320,919
Ending Balance before Interest		\$ 454,217	\$ (23,091)	\$ (4,093)	\$ (507,979)	\$ (1,496,011)	\$ (2,366,848)	\$ (1,953,382)	\$ (1,509,754)	\$ (1,044,956)	\$ (579,955)	\$ (128,117)	\$ 191,544
Average Balance		\$ 395,129	\$ 216,263	\$ (13,209)	\$ (256,059)	\$ (1,002,448)	\$ (1,933,205)	\$ (2,163,539)	\$ (1,735,400)	\$ (1,280,428)	\$ (814,723)	\$ (355,479)	\$ 31,084
Interest Rate		4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%
Interest Expense		\$ 1,399	\$ 766	\$ (47)	\$ (907)	\$ (3,550)	\$ (6,847)	\$ (7,663)	\$ (6,146)	\$ (4,535)	\$ (2,885)	\$ (1,259)	\$ 110
Ending Balance Incl Interest Expense	\$ 336,042	\$ 455,616	\$ (22,325)	\$ (4,140)	\$ (508,886)	\$ (1,499,561)	\$ (2,373,695)	\$ (1,961,045)	\$ (1,515,901)	\$ (1,049,490)	\$ (582,841)	\$ (129,376)	\$ 191,654
Total Over/Under Collection Ending Balance	\$ 352,624	\$ 461,582	\$ (10,202)	\$ 15,871	\$ (482,269)	\$ (1,467,601)	\$ (2,338,402)	\$ (1,893,704)	\$ (1,416,583)	\$ (918,125)	\$ (419,313)	\$ 66,434	\$ 420,195
Total Indirect Cost of Gas	\$ 352,624	\$ 130,602	\$ 146,744	\$ 147,661	\$ 145,518	\$ 141,614	\$ 136,306	\$ 40,120	\$ 41,564	\$ 43,248	\$ 45,011	\$ 46,757	\$ 48,577
Total Cost of Gas	\$ 352,624	\$ 2,074,729	\$ 4,109,822	\$ 5,693,686	\$ 4,476,799	\$ 3,282,260	\$ 1,395,392	\$ 1,091,734	\$ 921,145	\$ 884,986	\$ 887,414	\$ 893,665	\$ 1,207,563
Total Interest	\$ -	\$ 1,439	\$ 798	\$ 10	\$ (824)	\$ (3,447)	\$ (6,728)	\$ (7,481)	\$ (5,852)	\$ (4,127)	\$ (2,364)	\$ (624)	\$ 860

April 30, 2018 Target Balance	(\$2,708,745)
April 30, 2018 Projected Balance	\$ (2,338,402)
Variance	(\$370,343)

December 20, 2017 Updated Projected End of Period Balance

Northern Utilities

NEW HAMPSHIRE (Over) / Undercollection Analysis, Balances & Interest Calculation

	Winter	Summer	Prior Period	Total
Working Capital				
Total Anticipated Direct Cost of Gas				\$ 25,945,293
Working Capital Percentage				
Working Capital Allowance	\$ 21,890	\$ 6,054	\$ 3,411	\$ 31,355
Beginning Period Working Capital Balance				
End of Period Working Capital Allowance				
Interest				\$ 935
End of period with Interest				
Bad Debt				
Projected Bad Debt	\$ 184,403	\$ 11,146	\$ 13,172	\$ 208,721
Beginning Period Bad Debt Balance				
End of Period Bad Debt Balance				
Interest				\$ 2,289
End of Period Bad Debt Balance with Interest				
Local Production and Storage Capacity	\$ 420,658	\$ -		\$ 420,658
Miscellaneous Overhead	\$ 418,262	\$ 94,406	\$ -	\$ 512,668
Gas Cost Other than Bad Debt and Working Capital				
Beginning Balance Over/Under Collection				\$ (8,855,601)
Net Costs - Revenues				\$ (112,824)
Ending Balance before Interest				\$ (8,968,426)
Average Balance				\$ (8,912,014)
Interest Rate				
Interest Expense				\$ (31,563)
Ending Balance Incl Interest Expense				
Total Over/Under Collection Ending Balance				
Total Indirect Cost of Gas	\$ 848,446	\$ 265,276	\$ 352,624	\$ 1,466,346
Total Cost of Gas	\$ 21,032,687	\$ 5,886,507	\$ 352,624	\$ 27,271,819
Total Interest	\$ (8,752)	\$ (19,588)		\$ (28,339)

September 18, 2017 Initial Projected End of Period Balance ("Target Balance")

Northern Utilities

NEW HAMPSHIRE (Over) / Undercollection Analysis, Balances and Interest Calculation

		Winter						Summer				
Sales Revenues		(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
Volumes	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18
Residential Heat & Non Heat		1,971,438	3,003,415	3,715,334	3,261,260	2,797,567	1,485,575	702,997	482,427	419,957	422,211	443,199
Sales HLF Classes		297,347	452,998	560,375	491,888	421,950	224,066	363,643	249,548	217,233	218,399	229,256
Sales LLF Classes		1,965,145	2,993,828	3,703,475	3,250,850	2,788,637	1,480,833	561,252	385,156	335,281	337,080	353,837
Total		4,233,929	6,450,240	7,979,184	7,003,998	6,008,154	3,190,474	1,627,891	1,117,130	972,471	977,690	1,026,291
Rates												
Residential Heat & Non Heat CGA		\$0.7103	\$0.7103	\$0.7103	\$0.7103	\$0.7103	\$0.7103	\$0.3985	\$0.3985	\$0.3985	\$0.3985	\$0.3985
Sales HLF Classes CGA		\$0.6224	\$0.6224	\$0.6224	\$0.6224	\$0.6224	\$0.6224	\$0.3553	\$0.3553	\$0.3553	\$0.3553	\$0.3553
Sales LLF Classes CGA		\$0.7236	\$0.7236	\$0.7236	\$0.7236	\$0.7236	\$0.7236	\$0.4264	\$0.4264	\$0.4264	\$0.4264	\$0.4264
Revenues												
Residential Heat & Non Heat		\$ (1,400,312)	\$ (2,133,326)	\$ (2,639,002)	\$ (2,316,473)	\$ (1,987,112)	\$ (1,055,204)	\$ (280,144)	\$ (192,247)	\$ (167,353)	\$ (168,251)	\$ (176,615)
Sales HLF Classes		\$ (185,069)	\$ (281,946)	\$ (348,777)	\$ (306,151)	\$ (262,622)	\$ (139,458)	\$ (129,202)	\$ (88,664)	\$ (77,183)	\$ (77,597)	\$ (81,455)
Sales LLF Classes		\$ (1,421,979)	\$ (2,166,334)	\$ (2,679,834)	\$ (2,352,315)	\$ (2,017,858)	\$ (1,071,531)	\$ (239,318)	\$ (164,230)	\$ (142,964)	\$ (143,731)	\$ (150,876)
Total Sales		\$ (3,007,360)	\$ (4,581,605)	\$ (5,667,613)	\$ (4,974,939)	\$ (4,267,591)	\$ (2,266,193)	\$ (648,664)	\$ (445,142)	\$ (387,500)	\$ (389,579)	\$ (408,945)
		Winter						Summer				
Gas Costs and Credits		(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18
Net Demand Costs (Net of Injection Fees & Cap. Assign.)												
Pipeline		\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,965	\$ 278,020
Storage		\$ 1,118,336	\$ 1,118,336	\$ 1,118,336	\$ 1,118,336	\$ 1,118,336	\$ 443,264	\$ 443,264	\$ 410,369	\$ 410,369	\$ 410,369	\$ 410,369
Peaking		\$ 237,920	\$ 241,213	\$ 241,213	\$ 241,213	\$ 237,920	\$ 90,295	\$ 42,108	\$ 42,108	\$ 42,108	\$ 42,108	\$ 42,108
Total Demand Costs		\$ 1,635,221	\$ 1,638,514	\$ 1,638,514	\$ 1,638,514	\$ 1,635,221	\$ 812,524	\$ 764,337	\$ 731,442	\$ 731,442	\$ 731,442	\$ 730,497
NUI Commodity Costs												
NUI Total Pipeline Volumes		648,293	916,964	898,057	943,605	1,070,055	883,856	474,732	321,807	282,899	284,126	306,404
Pipeline Costs Modeled in Sendout™		\$ 1,971,953	\$ 4,381,350	\$ 4,904,060	\$ 4,856,523	\$ 3,669,966	\$ 2,538,352	\$ 1,273,432	\$ 862,289	\$ 761,921	\$ 763,018	\$ 800,369
NYMEX Price Used for Forecast		\$ 3.0500	\$ 3.2000	\$ 3.3000	\$ 3.3000	\$ 3.2600	\$ 2.9300	\$ 2.8900	\$ 2.9200	\$ 2.9400	\$ 2.9500	\$ 2.9200
NYMEX Price Used for Update		\$ 3.0740	\$ 3.1080	\$ 2.7450	\$ 2.7550	\$ 2.7200	\$ 2.6340	\$ 2.8900	\$ 2.9200	\$ 2.9400	\$ 2.9500	\$ 2.9200
Increase/(Decrease) NYMEX Price		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Increase/(Decrease) in Pipeline Costs		\$ 1,971,953	\$ 4,381,350	\$ 4,904,060	\$ 4,856,523	\$ 3,669,966	\$ 2,538,352	\$ 1,273,432	\$ 862,289	\$ 761,921	\$ 763,018	\$ 800,369
Updated Pipeline Costs		\$ 1,971,953	\$ 4,381,350	\$ 4,904,060	\$ 4,856,523	\$ 3,669,966	\$ 2,538,352	\$ 1,273,432	\$ 862,289	\$ 761,921	\$ 763,018	\$ 800,369
Interruptible Volumes - NH		0	0	0	0	0	0	0	0	0	0	0
Average Supply Cost (\$/MMBtu)		\$ 3.07	\$ 4.69	\$ 4.91	\$ 4.60	\$ 2.89	\$ 2.58	\$ 2.68	\$ 2.68	\$ 2.69	\$ 2.69	\$ 2.61
Interruptible Cost - NH		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Updated Pipeline Costs		\$ 1,971,953	\$ 4,381,350	\$ 4,904,060	\$ 4,856,523	\$ 3,669,966	\$ 2,538,352	\$ 1,273,432	\$ 862,289	\$ 761,921	\$ 763,018	\$ 800,369
New Hampshire Allocated Percentage		39.96%	40.09%	40.28%	39.88%	39.23%	36.46%	34.56%	34.92%	34.54%	34.57%	33.68%
NH Updated Pipeline Costs		\$ 787,987	\$ 1,756,372	\$ 1,975,295	\$ 1,936,691	\$ 1,439,735	\$ 925,573	\$ 440,118	\$ 301,101	\$ 263,150	\$ 263,809	\$ 269,572
Hedging (Gain)/Loss Estimate												
NYMEX Options Contracts												
Hedging Expenses		\$ 27,600	\$ 47,400	\$ 71,775	\$ 74,100	\$ 60,000						
NYMEX Option Strike Price		\$ 4.80	\$ 5.25	\$ 6.00	\$ 6.25	\$ 6.30						
NYMEX Price Used for Forecast		\$ 3.07	\$ 3.11	\$ 2.75	\$ 2.76	\$ 2.72						
Strike Price Hit		No	No	No	No	No						
Option Hedging Gain (Credit)		\$ -	\$ -	\$ -	\$ -	\$ -						
Total Northern Hedging Net Cost		\$ 27,600	\$ 47,400	\$ 71,775	\$ 74,100	\$ 60,000						
New Hampshire Allocated Percentage		39.96%	40.09%	40.28%	39.88%	39.23%						
NH Futures Hedging Net Cost		\$ 11,029	\$ 19,001	\$ 28,910	\$ 29,550	\$ 23,538		\$ -	\$ -	\$ -	\$ -	\$ -
NH Commodity Costs												
Pipeline Excl Hedging		\$ 787,987	\$ 1,756,372	\$ 1,975,295	\$ 1,936,691	\$ 1,439,735	\$ 925,573	\$ 440,118	\$ 301,101	\$ 263,150	\$ 263,809	\$ 269,572
Hedging (Gain)/Loss Estimate		\$ 11,029	\$ 19,001	\$ 28,910	\$ 29,550	\$ 23,538	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Storage		\$ 514,698	\$ 819,627	\$ 932,166	\$ 878,800	\$ 496,601	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Peaking		\$ 5,476	\$ 151,941	\$ 1,560,278	\$ 441,289	\$ 160,847	\$ 5,328	\$ 5,039	\$ 4,917	\$ 5,026	\$ 5,031	\$ 4,719
Total Commodity Costs		\$ 1,319,189	\$ 2,746,942	\$ 4,496,649	\$ 3,286,330	\$ 2,120,721	\$ 930,901	\$ 445,157	\$ 306,019	\$ 268,176	\$ 268,840	\$ 274,292
Inventory Finance Charge		\$ 389	\$ 648	\$ 829	\$ 725	\$ 596	\$ 267	\$ -	\$ -	\$ -	\$ -	\$ -
Total Anticipated Direct Cost of Gas		\$ 2,565,591	\$ 3,996,896	\$ 5,746,783	\$ 4,536,360	\$ 3,367,330	\$ 1,354,483	\$ 1,051,615	\$ 879,581	\$ 841,738	\$ 842,402	\$ 846,909

September 18, 2017 Initial Projected End of Period Balance ("Target Balance")

Northern Utilities

NEW HAMPSHIRE (Over) / Undercollection Analysis, Balances & Interest Calculation

Sales Revenues					
	(Forecast)			Prior	
Volumes	Oct-18	Winter	Summer	Period	Total
Residential Heat & Non Heat	927,645	16,234,589	3,398,435		19,633,024
Sales HLF Classes	479,847	2,448,624	1,757,926		4,206,549
Sales LLF Classes	740,604	16,182,767	2,713,210		18,895,976
Total	2,148,096	34,865,979	7,869,571		42,735,550
Rates					
Residential Heat & Non Heat CGA	\$0.3985				
Sales HLF Classes CGA	\$0.3553				
Sales LLF Classes CGA	\$0.4264				
Revenues					
Residential Heat & Non Heat	\$ (369,666)	(11,531,429)	(1,354,276)		(12,885,705)
Sales HLF Classes	\$ (170,490)	(1,524,023)	(624,591)		(2,148,614)
Sales LLF Classes	\$ (315,794)	(11,709,850)	(1,156,913)		(12,866,763)
Total Sales	\$ (855,950)	(24,765,302)	(3,135,780)		(27,901,082)
Gas Costs and Credits					
	(Forecast)				
	Oct-18	Winter	Summer		Total
Net Demand Costs (Net of Injection Fees & Cap. As					
Pipeline	\$ 278,020	1,673,790	1,671,899		3,345,689
Storage	\$ 410,369	6,034,946	2,495,109		8,530,055
Peaking	\$ 42,108	1,289,773	252,650		1,542,423
Total Demand Costs	\$ 730,497	8,998,508	4,419,659		13,418,166
NUI Commodity Costs					
NUI Total Pipeline Volumes	614,624				7,645,423
Pipeline Costs Modeled in Sendout™	\$ 1,648,370				\$ 28,431,602
NYMEX Price Used for Forecast	\$ 2,9400				
NYMEX Price Used for Update	\$ 2,9400				
Increase/(Decrease) NYMEX Price					
Increase/(Decrease) in Pipeline Costs	\$ -				
Updated Pipeline Costs	\$ 1,648,370				
Interruptible Volumes - NH	0				
Average Supply Cost (\$/MMBtu)	\$ 2.68				
Interruptible Cost - NH	\$ -				
Total Updated Pipeline Costs	\$ 1,648,370				
New Hampshire Allocated Percentage	35.26%				
NH Updated Pipeline Costs	\$ 581,265				\$ 10,940,669
Hedging (Gain)/Loss Estimate					
NYMEX Options Contracts					
Hedging Expenses					
NYMEX Option Strike Price					
NYMEX Price Used for Forecast					
Strike Price Hit					
Option Hedging Gain (Credit)					
Total Northern Hedging Net Cost					\$ 280,875
New Hampshire Allocated Percentage					
NH Futures Hedging Net Cost	\$ -	\$ 112,028	\$ -		\$ 112,028
NH Commodity Costs					
Pipeline Excl Hedging	\$ 581,265	\$ 8,821,653	\$ 2,119,016		\$ 10,940,669
Hedging (Gain)/Loss Estimate	\$ -	\$ 112,028	\$ -		\$ 112,028
Storage	\$ -	\$ 3,641,891	\$ -		\$ 3,641,891
Peaking	\$ 5,105	\$ 2,325,159	\$ 29,837		\$ 2,354,996
Total Commodity Costs	\$ 586,370	\$ 14,900,731	\$ 2,148,854		\$ 17,049,585
Inventory Finance Charge	\$ -	\$ 3,454	\$ 3,065		\$ 3,454
Total Anticipated Direct Cost of Gas	\$ 1,158,987	\$ 21,567,442	\$ 5,621,232		\$ 27,188,674

September 18, 2017 Initial Projected End of Period Balance ("Target Balance")

Northern Utilities

NEW HAMPSHIRE (Over) / Undercollection Analysis, Balances and Interest Calculation

		Winter						Summer					
		(Forecast) Nov-17	(Forecast) Dec-17	(Forecast) Jan-18	(Forecast) Feb-18	(Forecast) Mar-18	(Forecast) Apr-18	(Forecast) May-18	(Forecast) Jun-18	(Forecast) Jul-18	(Forecast) Aug-18	(Forecast) Sep-18	
76													
77		Oct-17											
78	Working Capital												
79	Total Anticipated Direct Cost of Gas		\$ 2,565,591	\$ 3,996,896	\$ 5,746,783	\$ 4,536,360	\$ 3,367,330	\$ 1,354,483	\$ 1,051,615	\$ 879,581	\$ 841,738	\$ 842,402	\$ 846,909
80	Working Capital Percentage		0.1077%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%
81	Working Capital Allowance		\$ 2,763	\$ 4,305	\$ 6,190	\$ 4,886	\$ 3,627	\$ 1,459	\$ 1,133	\$ 947	\$ 907	\$ 907	\$ 912
82	Beginning Period Working Capital Balance		\$ 3,397	\$ 6,177	\$ 10,512	\$ 16,749	\$ 21,703	\$ 25,413	\$ 26,965	\$ 28,195	\$ 29,244	\$ 30,256	\$ 31,272
83	End of Period Working Capital Allowance		\$ 6,160	\$ 10,482	\$ 16,701	\$ 21,635	\$ 25,330	\$ 26,872	\$ 28,097	\$ 29,142	\$ 30,150	\$ 31,163	\$ 32,184
84	Interest		\$ 17	\$ 30	\$ 48	\$ 68	\$ 83	\$ 93	\$ 98	\$ 102	\$ 105	\$ 109	\$ 112
85	End of period with Interest	\$ 3.397	\$ 6,177	\$ 10,512	\$ 16,749	\$ 21,703	\$ 25,413	\$ 26,965	\$ 28,195	\$ 29,244	\$ 30,256	\$ 31,272	\$ 32,296
86	Bad Debt												
92	Projected Bad Debt	\$ -	\$ 1,857.72	\$ 1,857.72	\$ 1,857.72	\$ 1,857.72	\$ 1,857.72	\$ 1,857.72	\$ 30,733.90	\$ 30,733.90	\$ 30,733.90	\$ 30,733.90	\$ 30,733.90
93	Beginning Period Bad Debt Balance		\$ (3,874)	\$ (2,027)	\$ (173)	\$ 1,688	\$ 3,555	\$ 5,428	\$ 7,308	\$ 38,123	\$ 69,046	\$ 100,079	\$ 131,222
94	End of Period Bad Debt Balance		\$ (2,016)	\$ (169)	\$ 1,685	\$ 3,545	\$ 5,412	\$ 7,286	\$ 38,042	\$ 68,856	\$ 99,780	\$ 130,813	\$ 161,955
95	Interest		\$ (10)	\$ (4)	\$ 3	\$ 9	\$ 16	\$ 23	\$ 80	\$ 189	\$ 299	\$ 409	\$ 519
96	End of Period Bad Debt Balance with Interest	\$ (3.874)	\$ (2,027)	\$ (173)	\$ 1,688	\$ 3,555	\$ 5,428	\$ 7,308	\$ 38,123	\$ 69,046	\$ 100,079	\$ 131,222	\$ 162,475
97	Local Production and Storage Capacity		\$ 70,110	\$ 70,110	\$ 70,110	\$ 70,110	\$ 70,110	\$ 70,110	\$ -	\$ -	\$ -	\$ -	\$ -
99	Miscellaneous Overhead		\$ 69,710	\$ 69,710	\$ 69,710	\$ 69,710	\$ 69,710	\$ 69,710	\$ 15,734	\$ 15,734	\$ 15,734	\$ 15,734	\$ 15,734
100	Gas Cost Other than Bad Debt and Working Capital Over/Under Collection												
101	Beginning Balance Over/Under Collection		\$ (358,002)	\$ (661,753)	\$ (1,109,774)	\$ (894,327)	\$ (1,196,783)	\$ (1,962,809)	\$ (2,743,018)	\$ (2,333,307)	\$ (1,890,600)	\$ (1,426,491)	\$ (962,156)
102	Net Costs - Revenues		\$ (301,948)	\$ (444,889)	\$ 218,990	\$ (298,759)	\$ (760,442)	\$ (771,891)	\$ 418,685	\$ 450,173	\$ 469,973	\$ 468,558	\$ 453,698
103	Ending Balance before Interest		\$ (659,950)	\$ (1,106,642)	\$ (890,784)	\$ (1,193,086)	\$ (1,957,224)	\$ (2,734,700)	\$ (2,324,333)	\$ (1,883,134)	\$ (1,420,628)	\$ (957,934)	\$ (508,458)
104	Average Balance		\$ (508,976)	\$ (884,198)	\$ (1,000,279)	\$ (1,043,706)	\$ (1,577,003)	\$ (2,348,755)	\$ (2,533,676)	\$ (2,108,220)	\$ (1,655,614)	\$ (1,192,212)	\$ (735,307)
105	Interest Rate		4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%
106	Interest Expense		\$ (1,803)	\$ (3,132)	\$ (3,543)	\$ (3,696)	\$ (5,585)	\$ (8,319)	\$ (8,973)	\$ (7,467)	\$ (5,864)	\$ (4,222)	\$ (2,604)
108	Ending Balance Incl Interest Expense	\$ (358.002)	\$ (661.753)	\$ (1,109.774)	\$ (894.327)	\$ (1,196.783)	\$ (1,962.809)	\$ (2,743.018)	\$ (2,333.307)	\$ (1,890.600)	\$ (1,426.491)	\$ (962.156)	\$ (511.063)
109	Total Over/Under Collection Ending Balance	\$ (358.479)	\$ (657.602)	\$ (1,099.435)	\$ (875.890)	\$ (1,171.525)	\$ (1,931.968)	\$ (2,708.745)	\$ (2,266.989)	\$ (1,792.310)	\$ (1,296.157)	\$ (799.663)	\$ (316.292)
110													
111	Total Indirect Cost of Gas	\$ (358.479)	\$ 142.645	\$ 142.877	\$ 144.376	\$ 142.944	\$ 139.819	\$ 134.933	\$ 38.805	\$ 40.240	\$ 41.915	\$ 43.671	\$ 45.408
112													
113	Total Cost of Gas	\$ (358.479)	\$ 2,708.236	\$ 4,139.772	\$ 5,891.159	\$ 4,679.305	\$ 3,507.148	\$ 1,489.416	\$ 1,090.420	\$ 919.821	\$ 883.653	\$ 886.073	\$ 892.316
114													
115	Total Interest	\$ -	\$ (1,796)	\$ (3,106)	\$ (3,492)	\$ (3,619)	\$ (5,486)	\$ (8,203)	\$ (8,796)	\$ (7,176)	\$ (5,459)	\$ (3,705)	\$ (1,973)

September 18, 2017 Initial Projected End of Period Balance ("Target Balance")

Northern Utilities

NEW HAMPSHIRE (Over) / Undercollection Analysis, Balances & Interest Calculation

	(Forecast) Oct-18	Winter	Summer	Prior Period	Total
Working Capital					
Total Anticipated Direct Cost of Gas	\$ 1,158,987				\$ 27,188,674
Working Capital Percentage	0.11%				
Working Capital Allowance	\$ 1,248	\$ 23,229	\$ 6,054	\$ 2,771	\$ 32,055
Beginning Period Working Capital Balance	\$ 32,296				
End of Period Working Capital Allowance	\$ 33,545				
Interest	\$ 117				\$ 980
End of period with Interest	\$ 33,661				
Bad Debt					
Projected Bad Debt	\$ 30,733.90	\$ 11,146	\$ 184,403	\$ (3,874)	\$ 191,676
Beginning Period Bad Debt Balance	\$ 162,475				
End of Period Bad Debt Balance	\$ 193,208				
Interest	\$ 630				\$ 2,163
End of Period Bad Debt Balance with Interest	\$ 193,838				
Local Production and Storage Capacity	\$ -	\$ 420,658	\$ -		\$ 420,658
Miscellaneous Overhead	\$ 15,734	\$ 418,262	\$ 94,406		\$ 512,668
Gas Cost Other than Bad Debt and Working Capital					
Beginning Balance Over/Under Collection	\$ (511,063)				\$ (16,050,083)
Net Costs - Revenues	\$ 318,771				\$ 220,918
Ending Balance before Interest	\$ (192,291)				\$ (15,829,165)
Average Balance	\$ (351,677)				\$ (15,939,624)
Interest Rate	4.25%				
Interest Expense	\$ (1,246)				\$ (56,453)
Ending Balance Incl Interest Expense	\$ (193,537)				
Total Over/Under Collection Ending Balance	\$ 33,963				
Total Indirect Cost of Gas	\$ 47,217	\$ 489,114	\$ 257,256	\$ (358,479)	\$ 746,371
Total Cost of Gas	\$ 1,206,204	\$ 22,415,036	\$ 5,878,488	\$ (358,479)	\$ 27,935,044
Total Interest	\$ (499)	\$ (25,703)	\$ (27,607)		\$ (53,310)

Northern Utilities, Inc.
Price Risk Management
Profit and Loss Statement
November 2017

Account # 53325

Current

ACB	\$0.00
TE	\$13,873.00
LV	\$13,873.00

ACTIVITY - Purchase Cost and Profit and Loss	Expense	Profit and Loss
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Date	Description	State	Contracts	Option Premium	Strike Price	Option Purchase Cost
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Net P&L

\$0.00

TRANSACTION COSTS

Subtotal

Total

Transaction Cost-Enter Options

Both

0

\$7.36

\$0.00

Transaction Cost-Exit Options

0

\$0.00

Total New Transaction Costs

\$0.00

OPEN CALL OPTION POSITIONS-Expense and Open Trade Equity

Total

Total

		State	QTY	Actual Option Premium	Option Purchase Cost	Strike Price	11/30/17 Futures Price	Current Open Trade Equity
06/28/16	Jan18 Options	Both	29	0.2475	\$71,775.00	\$4.300	\$3.025	\$0.00
07/27/16	Feb18 Options	Both	30	0.2470	\$74,100.00	\$4.500	\$3.032	\$0.00
08/29/16	Mar18 Options	Both	25	0.2400	\$60,000.00	\$4.650	\$2.999	\$0.00

Total Expense, Open Trade Equity

\$205,875.00

\$0.00

OPEN CALL OPTION POSITIONS- Long Option Value

Total

		State	QTY	Current Option Premium	Current Option Value	Strike Price
06/28/16	Jan18 Options	Both	29	0.0022	\$638.00	\$4.300
07/27/16	Feb18 Options	Both	30	0.0177	\$5,310.00	\$4.500
08/29/16	Mar18 Options	Both	25	0.0317	\$7,925.00	\$4.650

11/30/17

Total Long Option Value

\$13,873.00

MARGIN CASH BALANCE

Subtotal

Total

11/01/17

Beginning Balance-carried forward from last month

\$0.00

Interest Credit

\$0.00

Net Deposit to Margin Account

\$0.00

Option Premiums of new activity

\$0.00

Monthly Transaction Costs

\$0.00

Total Monthly Cash Adjustment

\$0.00

11/30/17

Ending Balance (ACB)

\$0.00

NORTHERN UTILITIES, INC.
DETERMINATION OF INVENTORY FINANCING FROM MONEY POOL
November 2017

	Total Inventory	Average bal beg + end / 2	Internally Financed	Money Pool Interest Rate	Interest to Defer	NH	ME
January 2016	\$8,349,188.69	\$9,797,354.69	\$9,797,354.69	1.70%	\$13,879.59	\$5,887.72	\$7,991.87
February	\$6,881,382.39	\$7,615,285.54	\$7,615,285.54	1.71%	\$10,851.78	\$4,603.33	\$6,248.46
March	\$6,466,038.05	\$6,673,710.22	\$6,673,710.22	1.71%	\$9,510.04	\$4,034.16	\$5,475.88
April	\$6,932,113.54	\$6,699,075.80	\$6,699,075.80	1.71%	\$9,546.18	\$4,049.49	\$5,496.69
May	\$7,347,477.88	\$7,139,795.71	\$7,139,795.71	1.72%	\$10,233.71	\$4,341.14	\$5,892.57
June	\$7,775,720.99	\$7,561,599.44	\$7,561,599.44	1.73%	\$10,901.31	\$4,624.33	\$6,276.97
July	\$8,390,100.35	\$8,082,910.67	\$8,082,910.67	1.76%	\$11,852.12	\$5,027.67	\$6,824.45
August	\$9,003,112.57	\$8,696,606.46	\$8,696,606.46	1.79%	\$12,953.71	\$5,494.96	\$7,458.74
September	\$9,643,843.60	\$9,323,478.09	\$9,323,478.09	1.81%	\$14,040.27	\$5,955.88	\$8,084.39
October	\$10,336,838.18	\$9,990,340.89	\$9,990,340.89	1.81%	\$15,044.50	\$6,381.88	\$8,662.62
November	\$10,177,266.05	\$10,257,052.11	\$10,257,052.11	1.84%	\$15,692.96	\$6,656.95	\$9,036.01
December	\$8,176,192.96	\$9,176,729.50	\$9,176,729.50	1.98%	\$15,151.98	\$6,427.47	\$8,724.51
January 2017	\$8,906,849.26	\$8,541,521.11	\$8,541,521.11	2.05%	\$14,584.35	\$6,186.68	\$8,397.67
February	\$3,991,804.55	\$6,449,326.91	\$6,449,326.91	2.05%	\$11,012.00	\$4,671.29	\$6,340.71
March	\$1,988,672.70	\$2,990,238.62	\$2,990,238.62	2.19%	\$5,445.13	\$2,309.82	\$3,135.31
April	\$3,252,033.76	\$2,620,353.23	\$2,620,353.23	2.27%	\$4,956.51	\$2,102.55	\$2,853.96
May	\$4,492,308.93	\$3,872,171.35	\$3,872,171.35	2.29%	\$7,389.39	\$3,134.58	\$4,254.81
June	\$5,803,856.23	\$5,148,082.58	\$5,148,082.58	2.44%	\$10,467.77	\$4,440.43	\$6,027.34
July	\$7,018,391.76	\$6,411,123.99	\$6,411,123.99	2.51%	\$13,409.93	\$5,688.49	\$7,721.44
August	\$8,211,399.49	\$7,614,895.62	\$7,614,895.62	2.52%	\$15,991.28	\$6,783.50	\$9,207.78
September	\$9,381,190.83	\$8,796,295.16	\$8,796,295.16	2.52%	\$18,472.22	\$7,835.92	\$10,636.30
October	\$10,586,052.58	\$9,983,621.71	\$9,983,621.71	2.52%	\$20,965.61	\$8,893.61	\$12,072.00
November	\$8,906,849.26	\$9,746,450.92	\$9,746,450.92	2.56%	\$20,805.30	\$8,825.61	\$11,979.69

Inventory			
ACCT #		MMBTU	AMOUNT
	LNG		
515152	Inventory - Liquefied Natural Gas		
	NATURAL GAS	10,216	\$68,287.89
515114&115	Natural Gas Underground - SS-1 and FSS-1		
515116	Natural Gas Underground - SSNE	208,377	\$460,662.34
515113	Natural Gas Underground - MCN	2,832,285	\$8,377,899.03
516525	Washington 10 prepaid	-	
Total Inventory			\$8,906,849.26