NORTHERN UTILITIES, INC.
NEW HAMPSHIRE DIVISION
Calculation of the Projected Over or Under Collection of the
Winter 2016-2017 Period Cost of Gas
DG 16-819
December 2016 Estimated

Under/(Over) collection as of 11/01/16			$	1,347,389
Forecasted firm therm sales 12/01/2016 - 04/30/2017				
Residential Heat & Non Heat		12,950,865		
HLF Classes		2,253,197		
LLF Classes		12,449,537		
Current recovery rate per therm				
Residential heat & non heat		$0.7315		
HLF classes		$0.6558		
LLF classes		$0.7453		
Total	$	(20,229,844)		
Forecasted recovered costs at current rates 12/01/2016 - 04/30/2017			$	(20,229,844)
Actual recovered costs 11/01/2016 - 11/30/2016			$	(2,703,468)
Estimated total recovered costs 11/01/2016 - 04/30/2017			$	(22,933,312)
Revised projected direct gas costs 11/01/16 - 04/30/17 [1]			$	19,362,204
Revised projected indirect gas costs 11/01/16 - 04/30/17 [2]			$	1,007,730
Projected under/(over) collection as of 04/30/17[3]			$	(1,215,988)
April 30, 2017 Target Balance [4]			$	(2,086,122)
Variance from Projected Target Balance			$	870,133
Total Projected Gas Costs			$	20,369,934
Under/(over) collection as percent of total gas costs				4.27%

NOTES
[1] Reflects futures prices as of December 13, 2016
[2] Includes: Working Capital Allowance, Bad Debt Allowance, Production and Storage Capacity, Miscellaneous Overhead, Refunds and Interest
[3] Detailed calculations provided on December 16, 2016 Projected End of Period Balance schedule
[4] Detailed calculations provided on September 16, 2016 Projected End of Period Balance schedule

September 16, 2016 - 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)	(Forecast)
1	Volumes	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17
2	Residential Heat & Non Heat		1,824,424	2,608,882	3,468,651	3,057,780	2,451,306	1,364,245	682,782	481,557	420,333	431,131	476,265	934,704
3	Sales HLF Classes		317,414	453,894	603,477	531,994	426,479	237,352	426,503	300,806	262,563	269,308	297,501	583,867
4	Sales LLF Classes		1,753,800	2,507,893	3,334,380	2,939,413	2,356,416	1,311,435	485,826	342,646	299,083	306,767	338,881	665,079
5	Total		3,895,638	5,570,670	7,406,509	6,529,187	5,234,201	2,913,032	1,595,111	1,125,009	981,979	1,007,206	1,112,647	2,183,650
6	Rates													
7	Residential Heat & Non Heat CGA		$0.7558	$0.7558	$0.7558	$0.7558	$0.7558	$0.7558	$0.4055	$0.4055	$0.4055	$0.4055	$0.4055	$0.4055
8	Sales HLF Classes CGA		$0.6801	$0.6801	$0.6801	$0.6801	$0.6801	$0.6801	$0.3589	$0.3589	$0.3589	$0.3589	$0.3589	$0.3589
9	Sales LLF Classes CGA		$0.7696	$0.7696	$0.7696	$0.7696	$0.7696	$0.7696	$0.4465	$0.4465	$0.4465	$0.4465	$0.4465	$0.4465
10	Revenues													
11	Residential Heat & Non Heat		$ (1,378,899)	$ (1,971,793)	$ (2,621,607)	$ (2,311,070)	$ (1,852,697)	$ (1,031,096)	$ (276,868)	$ (195,271)	$ (170,445)	$ (174,824)	$ (193,125)	$ (379,023)
12	Sales HLF Classes		$ (215,873)	$ (308,694)	$ (410,425)	$ (361,809)	$ (290,048)	$ (161,423)	$ (153,072)	$ (107,959)	$ (94,234)	$ (96,655)	$ (106,773)	$ (209,550)
13	Sales LLF Classes		$ (1,349,725)	$ (1,930,074)	$ (2,566,139)	$ (2,262,173)	$ (1,813,498)	$ (1,009,280)	$ (216,921)	$ (152,992)	$ (133,541)	$ (136,971)	$ (151,310)	$ (296,958)
14	Total Sales		$ (2,944,498)	$ (4,210,561)	$ (5,598,171)	$ (4,935,051)	$ (3,956,243)	$ (2,201,800)	$ (646,861)	$ (456,222)	$ (398,220)	$ (408,450)	$ (451,209)	$ (885,530)
15														
16			Winter						Summer					
17	**Gas Costs and Credits**		(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
18		Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17
19	Net Demand Costs (Net of Injection Fees & Cap. Assign.)													
20	Pipeline		$ 271,333	$ 271,333	$ 271,333	$ 271,333	$ 271,333	$ 271,333	$ 271,333	$ 271,333	$ 271,333	$ 274,823	$ 274,823	$ 274,823
21	Storage		$ 1,193,141	$ 1,193,141	$ 1,193,141	$ 1,193,141	$ 1,193,141	$ 550,631	$ 550,631	$ 550,631	$ 550,631	$ 554,066	$ 554,066	$ 554,066
22	Peaking		$ 321,648	$ 330,376	$ 330,376	$ 330,376	$ 321,648	$ 69,585	$ 20,807	$ 20,807	$ 20,807	$ 22,055	$ 22,055	$ 22,055
23	Total Demand Costs		$ 1,786,121	$ 1,794,850	$ 1,794,850	$ 1,794,850	$ 1,786,121	$ 891,548	$ 842,770	$ 842,770	$ 842,770	$ 850,944	$ 850,944	$ 850,944
24														
25	Asset Management and Capacity Release													
26	NUI AMA Revenue		$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)
27	NUI Capacity Release		$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)
28	NUI AMA Rev & Cap. Release Subtotal		$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)
29	NH AMA Revenue		$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)
30	NH Capacity Release		$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)
31	NH Total Asset Management and Capacity Release		$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)
32														
33	PNGTS Refund		$ (331,800.99)	$ (331,800.99)	$ (331,800.99)	$ (331,800.99)	$ (331,800.99)	$ (331,800.99)	$ (16,566.71)	$ (16,566.71)	$ (16,566.71)	$ (16,566.71)	$ (16,566.71)	$ (16,566.71)
34														
35	Net Demand Costs		$ 1,148,249	$ 1,156,977	$ 1,156,977	$ 1,156,977	$ 1,148,249	$ 253,676	$ 520,132	$ 520,132	$ 520,132	$ 528,306	$ 528,306	$ 528,306
36														
37	NUI Commodity Costs													
38	NUI Total Pipeline Volumes		938,069	1,062,632	997,144	904,653	989,654	788,877	461,983	321,009	282,542	285,644	313,975	623,892
39	Pipeline Costs Modeled in Sendout™		$ 4,028,690	$ 4,760,125	$ 4,852,452	$ 4,396,837	$ 4,623,752	$ 2,406,334	$ 1,228,221	$ 775,044	$ 693,427	$ 678,497	$ 720,034	$ 1,679,577
40	NYMEX Price Used for Forecast		$ 3.0300	$ 3.2280	$ 3.3440	$ 3.3420	$ 3.2960	$ 3.0150	$ 2.9820	$ 3.0080	$ 3.0360	$ 3.0440	$ 3.0280	$ 3.0510
41	NYMEX Price Used for Update		$ 3.0300	$ 3.2280	$ 3.3440	$ 3.3420	$ 3.2960	$ 3.0150	$ 2.9820	$ 3.0080	$ 3.0360	$ 3.0440	$ 3.0280	$ 3.0510
42	Increase/(Decrease) NYMEX Price													
43	Increase/(Decrease) in Pipeline Costs		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
44	Updated Pipeline Costs		$ 4,028,690	$ 4,760,125	$ 4,852,452	$ 4,396,837	$ 4,623,752	$ 2,406,334	$ 1,228,221	$ 775,044	$ 693,427	$ 678,497	$ 720,034	$ 1,679,577
45	Interruptible Volumes - NH		0	0	0	0	0	0	0	0	0	0	0	0
46	Average Supply Cost ($/MMBtu)		$ 4.29	$ 4.48	$ 4.87	$ 4.86	$ 4.67	$ 3.05	$ 2.66	$ 2.41	$ 2.45	$ 2.38	$ 2.29	$ 2.69
47	Interruptible Cost - NH		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
48	Total Updated Pipeline Costs		$ 4,028,690	$ 4,760,125	$ 4,852,452	$ 4,396,837	$ 4,623,752	$ 2,406,334	$ 1,228,221	$ 775,044	$ 693,427	$ 678,497	$ 720,034	$ 1,679,577
49	New Hampshire Allocated Percentage		40.59%	40.04%	40.38%	40.06%	39.43%	36.54%	34.78%	35.24%	34.91%	35.42%	35.63%	35.30%
50	NH Updated Pipeline Costs		$ 1,635,371	$ 1,905,896	$ 1,959,472	$ 1,761,522	$ 1,823,063	$ 879,241	$ 427,199	$ 273,112	$ 242,042	$ 240,299	$ 256,522	$ 592,926
51	Hedging (Gain)/Loss Estimate													
52	NYMEX Options Contracts													
53	Number of Contracts		18	31	45	46	37							
54	Option Contract Price		$ 0.08	$ 0.09	$ 0.10	$ 0.10	$ 0.08							
55	Hedging Expenses		$ 13,860	$ 26,350	$ 46,350	$ 45,540	$ 29,600							
56	NYMEX Option Strike Price		$ 4.80	$ 5.25	$ 6.00	$ 6.25	$ 6.30							
57	NYMEX Price Used for Forecast		$ 3.03	$ 3.23	$ 3.34	$ 3.34	$ 3.30							
58	Strike Price Hit		No	No	No	No	No							
59	Option Hedging Gain (Credit)		$ -											
60	Tota Northern Hedginf Net Cost		$ 13,860	$ 26,350	$ 46,350	$ 45,540	$ 29,600							
61	New Hampshire Allocated Percentage		40.59%	40.04%	40.38%	40.06%	39.43%							
62	NH Futures Hedging Net Cost		$ 5,626	$ 10,550	$ 18,717	$ 18,245	$ 11,671		$ -	$ -	$ -	$ -	$ -	$ -
63	NH Commodity Costs													
64	Pipeline Excl Hedging		$ 1,635,371	$ 1,905,896	$ 1,959,472	$ 1,761,522	$ 1,823,063	$ 879,241	$ 427,199	$ 273,112	$ 242,042	$ 240,299	$ 256,522	$ 592,926
65	Hedging (Gain)/Loss Estimate		$ 5,626	$ 10,550	$ 18,717	$ 18,245	$ 11,671	$ -	$ -	$ -	$ -	$ -	$ -	$ -
66	Storage		$ 37,773	$ 403,167	$ 649,328	$ 794,920	$ 385,114	$ 13,422	$ -	$ -	$ -	$ -	$ -	$ -
67	Peaking		$ 8,498	$ 27,010	$ 1,104,694	$ 61,499	$ 5,693	$ 5,089	$ 4,958	$ 4,838	$ 4,938	$ 5,005	$ 4,859	$ 4,967
68	Total Commodity Costs		$ 1,687,268	$ 2,346,624	$ 3,732,211	$ 2,636,186	$ 2,225,540	$ 897,752	$ 432,157	$ 277,950	$ 246,980	$ 245,304	$ 261,381	$ 597,894

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

		Winter	Summer	Total
	Sales Revenues	`		
1	Volumes	Winter	Summer	Total
2	Residential Heat & Non Heat	14,775,288	3,426,772	18,202,060
3	Sales HLF Classes	2,570,611	2,140,549	4,711,159
4	Sales LLF Classes	14,203,338	2,438,282	16,641,620
5	Total	31,549,237	8,005,603	39,554,839
6	Rates	-	-	-
7	Residential Heat & Non Heat CGA			
8	Sales HLF Classes CGA			
9	Sales LLF Classes CGA			
10	Revenues			
11	Residential Heat & Non Heat	(11,167,163)	(1,389,556)	(12,556,719)
12	Sales HLF Classes	(1,748,272)	(768,243)	(2,516,515)
13	Sales LLF Classes	(10,930,889)	(1,088,693)	(12,019,582)
14	Total Sales	(23,846,324)	(3,246,492)	(27,092,816)
15				
16				
17	**Gas Costs and Credits**	`		
18		Winter	Summer	Total
19	Net Demand Costs (Net of Injection Fees & Cap. Ass			
20	Pipeline	1,627,996	1,638,468	3,266,464
21	Storage	6,516,334	3,314,090	9,830,424
22	Peaking	1,704,009	128,585	1,832,594
23	Total Demand Costs	9,848,339	5,081,142	14,929,481
24				
25	Asset Management and Capacity Release			
26	NUI AMA Revenue	(4,983,737)	(4,983,737)	$ (9,967,475)
27	NUI Capacity Release	(32,360)	(32,360)	$ (64,721)
28	NUI AMA Rev & Cap. Release Subtotal	(5,016,098)	(5,016,098)	$ (10,032,196)
29	NH AMA Revenue	(1,822,368)	(1,822,368)	$ (3,644,736)
30	NH Capacity Release	(14,060)	(14,060)	$ (28,121)
31	NH Total Asset Management and Capacity Release	$ (1,836,428)	$ (1,836,428)	$ (3,672,857)
32				
33	PNGTS Refund	$ (1,990,806)	$ (99,400)	$ (2,090,206)
34				
35	Net Demand Costs	$ 6,021,105	$ 3,145,314	$ 9,166,419
36				
37	NUI Commodity Costs			
38	NUI Total Pipeline Volumes			7,970,074
39	Pipeline Costs Modeled in Sendout™			$ 30,842,990
40	NYMEX Price Used for Forecast			
41	NYMEX Price Used for Update			
42	Increase/(Decrease) NYMEX Price			
43	Increase/(Decrease) in Pipeline Costs			
44	Updated Pipeline Costs			
45	Interruptible Volumes - NH			
46	Average Supply Cost ($/MMBtu)			
47	Interruptible Cost - NH			
48	Total Updated Pipeline Costs			
49	New Hampshire Allocated Percentage			
50	NH Updated Pipeline Costs			$ 11,996,665
51	Hedging (Gain)/Loss Estimate			
52	NYMEX Options Contracts			
53	Number of Contracts			
54	Option Contract Price			
55	Hedging Expenses			
56	NYMEX Option Strike Price			
57	NYMEX Price Used for Forecast			
58	Strike Price Hit			
59	Option Hedging Gain (Credit)			
60	Tota Northern Hedginf Net Cost			$ 161,700
61	New Hampshire Allocated Percentage			
62	NH Futures Hedging Net Cost	$ 64,809	$ -	$ 64,809
63	NH Commodity Costs			
64	Pipeline Excl Hedging	$ 9,964,565	$ 2,032,100	$ 11,996,665
65	Hedging (Gain)/Loss Estimate	$ 64,809	$ -	$ 64,809
66	Storage	$ 2,283,724	$ -	$ 2,283,724
67	Peaking	$ 1,212,483	$ 29,565	$ 1,242,048
68	Total Commodity Costs	$ 13,525,581	$ 2,061,665	$ 15,587,246

September 16, 2016 - Projected End of Period Balance ("Target Balance")

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

69	Inventory Finance Charge		$ 232	$ 362	$ 507	$ 445	$ 335	$ 156	$ -	$ -	$ -	$ -	$ -	$ -
70														
71	**Total Anticipated Direct Cost of Gas**		$ 2,835,749	$ 3,503,963	$ 4,889,695	$ 3,793,608	$ 3,374,124	$ 1,151,584	$ 952,289	$ 798,082	$ 767,112	$ 773,609	$ 789,686	$ 1,126,199
72			Winter						Summer					
73			(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	**(Forecast)**	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
74		Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	**Apr-17**	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17
75	Working Capital													
76	Total Anticipated Direct Cost of Gas		$ 2,835,749	$ 3,503,963	$ 4,889,695	$ 3,793,608	$ 3,374,124	$ 1,151,584	$ 952,289	$ 798,082	$ 767,112	$ 773,609	$ 789,686	$ 1,126,199
77	Working Capital Percentage		0.0887%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%
78	Working Capital Allowance		$ 2,515	$ 3,108	$ 4,337	$ 3,365	$ 2,993	$ 1,021	$ 845	$ 708	$ 680	$ 686	$ 700	$ 999
79	Beginning Period Working Capital Balance		$ 816	$ 3,337	$ 6,460	$ 10,822	$ 14,223	$ 17,262	$ 18,335	$ 19,235	$ 20,000	$ 20,739	$ 21,487	$ 22,251
80	End of Period Working Capital Allowance		$ 3,331	$ 6,445	$ 10,797	$ 14,187	$ 17,216	$ 18,283	$ 19,180	$ 19,942	$ 20,680	$ 21,426	$ 22,187	$ 23,250
81	Interest		$ 6	$ 14	$ 25	$ 36	$ 46	$ 52	$ 55	$ 57	$ 59	$ 61	$ 64	$ 66
82	End of period with Interest	$ 816	$ 3,337	$ 6,460	$ 10,822	$ 14,223	$ 17,262	$ 18,335	$ 19,235	$ 20,000	$ 20,739	$ 21,487	$ 22,251	$ 23,316
83	Bad Debt													
84	Projected Bad Debt	$ -	$ 31,200	$ 31,200	$ 31,200	$ 31,200	$ 31,200	$ 31,200	$ 3,141	$ 3,141	$ 3,141	$ 3,141	$ 3,141	$ 3,141
85	Beginning Period Bad Debt Balance		$ 103,655	$ 135,203	$ 166,842	$ 198,574	$ 230,399	$ 262,316	$ 294,326	$ 298,330	$ 302,346	$ 306,373	$ 310,413	$ 314,464
86	End of Period Bad Debt Balance		*$ 134,855*	*$ 166,402*	*$ 198,042*	*$ 229,774*	*$ 261,598*	*$ 293,516*	*$ 297,467*	*$ 301,471*	*$ 305,487*	*$ 309,514*	*$ 313,554*	*$ 317,605*
87	Interest		$ 348	$ 440	$ 532	$ 625	$ 717	$ 811	$ 863	$ 875	$ 886	$ 898	$ 910	$ 922
88	End of Period Bad Debt Balance with Interest	$ 103,655	$ 135,203	$ 166,842	$ 198,574	$ 230,399	$ 262,316	$ 294,326	$ 298,330	$ 302,346	$ 306,373	$ 310,413	$ 314,464	$ 318,526
89	Local Production and Storage Capacity		$ 70,110	$ 70,110	$ 70,110	$ 70,110	$ 70,110	$ 70,110	$ -	$ -	$ -	$ -	$ -	$ -
90	NH PUC Consulting Costs		$ 7,976	$ -	$ -			$ -	$ 2,024					
91	Miscellaneous Overhead		$ 68,151	$ 68,151	$ 68,151	$ 68,151	$ 68,151	$ 68,151	$ 17,293	$ 17,293	$ 17,293	$ 17,293	$ 17,293	$ 17,293
94	Gas Cost Other than Bad Debt and Working Capital Over/Under Collection													
95	Beginning Balance Over/Under Collection		$ 1,065,828	$ 1,106,480	$ 540,541	$ (28,929)	$ (1,033,658)	$ (1,481,179)	$ (2,398,783)	$ (2,080,561)	$ (1,726,952)	$ (1,345,240)	$ (966,153)	$ (612,681)
96	Net Costs - Revenues		$ 37,488	$ (568,337)	$ (570,215)	$ (1,003,182)	$ (443,858)	$ (911,955)	$ 324,745	$ 359,153	$ 386,186	$ 382,453	$ 355,771	$ 257,963
97	Ending Balance before Interest		$ 1,103,316	$ 538,142	$ (29,674)	$ (1,032,111)	$ (1,477,516)	$ (2,393,133)	$ (2,074,038)	$ (1,721,407)	$ (1,340,766)	$ (962,787)	$ (610,382)	$ (354,719)
98	Average Balance		$ 1,084,572	$ 822,311	$ 255,434	$ (530,520)	$ (1,255,587)	$ (1,937,156)	$ (2,236,411)	$ (1,900,984)	$ (1,533,859)	$ (1,154,014)	$ (788,268)	$ (483,700)
99	Interest Rate		3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
100	Interest Expense		$ 3,163	$ 2,398	$ 745	$ (1,547)	$ (3,662)	$ (5,650)	$ (6,523)	$ (5,545)	$ (4,474)	$ (3,366)	$ (2,299)	$ (1,411)
101	Ending Balance Incl Interest Expense	$ 1,065,828	$ 1,106,480	$ 540,541	$ (28,929)	$ (1,033,658)	$ (1,481,179)	$ (2,398,783)	$ (2,080,561)	$ (1,726,952)	$ (1,345,240)	$ (966,153)	$ (612,681)	$ (356,129)
102	**Total Over/Under Collection Ending Balance**	**$ 1,170,299**	$ 1,245,020	$ 713,843	$ 180,467	$ (789,037)	$ (1,201,601)	**$ (2,086,122)**	$ (1,762,996)	$ (1,404,606)	$ (1,018,127)	$ (634,253)	$ (275,966)	$ (14,286)
103														
104	**Total Indirect Cost of Gas**	$ 1,170,299	$ 183,469	$ 175,421	$ 175,100	$ 171,939	$ 169,555	$ 165,695	$ 17,698	$ 16,530	$ 17,587	$ 18,714	$ 19,809	$ 21,011
105														
106	**Total Cost of Gas**	$ 1,170,299	$ 3,019,218	$ 3,679,384	$ 5,064,795	$ 3,965,548	$ 3,543,679	$ 1,317,279	$ 969,987	$ 814,612	$ 784,699	$ 792,324	$ 809,496	$ 1,147,210
107														
108	**Total Interest**	$ -	$ 3,517	$ 2,853	$ 1,302	$ (886)	$ (2,899)	$ (4,788)	$ (5,605)	$ (4,613)	$ (3,528)	$ (2,406)	$ (1,325)	$ (423)

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

69	Inventory Finance Charge	$ 2,038	$ 1,806	$ 2,038
70				
71	**Total Anticipated Direct Cost of Gas**	$ 19,548,724	$ 5,206,979	$ 24,755,702
72				
73				
74		Winter	Summer	Total
75	Working Capital			
76	Total Anticipated Direct Cost of Gas			$ 24,755,702
77	Working Capital Percentage			
78	Working Capital Allowance			$ 21,958
79	Beginning Period Working Capital Balance			
80	End of Period Working Capital Allowance			
81	Interest			$ 542
82	End of period with Interest			
83	Bad Debt			
84	Projected Bad Debt	$ 187,199	$ 18,846	$ 206,045
85	Beginning Period Bad Debt Balance			
86	End of Period Bad Debt Balance			
87	Interest			$ 8,827
88	End of Period Bad Debt Balance with Interest			
89	Local Production and Storage Capacity	$ 420,658	$ -	$ 420,658
90	NH PUC Consulting Costs	$ 7,976	$ 2,024	$ 10,000
91	Miscellaneous Overhead	$ 408,908	$ 103,760	$ 512,668
94	Gas Cost Other than Bad Debt and Working Capital (			
95	Beginning Balance Over/Under Collection			$ (8,961,287)
96	Net Costs - Revenues			$ (1,393,788)
97	Ending Balance before Interest			$ (10,355,075)
98	Average Balance			$ (9,658,181)
99	Interest Rate			
100	Interest Expense			$ (28,170)
101	Ending Balance Incl Interest Expense			
102	**Total Over/Under Collection Ending Balance**			
103				
104	**Total Indirect Cost of Gas**	$ 2,211,478	$ 111,349	$ 2,322,827
105				
106	**Total Cost of Gas**	$ 20,589,903	$ 5,318,327	$ 27,078,529
107				
108	**Total Interest**	$ (901)	$ (17,900)	$ (18,801)

December 16, 2016 - 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)
1	Volumes	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17
2	Residential Heat & Non Heat			2,608,882	3,468,651	3,057,780	2,451,306	1,364,245	682,782	481,557	420,333	431,131	476,265	934,704
3	Sales HLF Classes			453,894	603,477	531,994	426,479	237,352	426,503	300,806	262,563	269,308	297,501	583,867
4	Sales LLF Classes			2,507,893	3,334,380	2,939,413	2,356,416	1,311,435	485,826	342,646	299,083	306,767	338,881	665,079
5	Total			5,570,670	7,406,509	6,529,187	5,234,201	2,913,032	1,595,111	1,125,009	981,979	1,007,206	1,112,647	2,183,650
6	Rates													
7	Residential Heat & Non Heat CGA			$0.7315	$0.7315	$0.7315	$0.7315	$0.7315	$0.4040	$0.4040	$0.4040	$0.4040	$0.4040	$0.4040
8	Sales HLF Classes CGA			$0.6558	$0.6558	$0.6558	$0.6558	$0.6558	$0.3574	$0.3574	$0.3574	$0.3574	$0.3574	$0.3574
9	Sales LLF Classes CGA			$0.7453	$0.7453	$0.7453	$0.7453	$0.7453	$0.4450	$0.4450	$0.4450	$0.4450	$0.4450	$0.4450
10	Revenues													
11	Residential Heat & Non Heat			$ (1,908,397)	$ (2,537,319)	$ (2,236,766)	$ (1,793,130)	$ (997,945)	$ (275,844)	$ (194,549)	$ (169,815)	$ (174,177)	$ (192,411)	$ (377,621)
12	Sales HLF Classes			$ (297,664)	$ (395,760)	$ (348,882)	$ (279,685)	$ (155,655)	$ (152,432)	$ (107,508)	$ (93,840)	$ (96,251)	$ (106,327)	$ (208,674)
13	Sales LLF Classes			$ (1,869,132)	$ (2,485,114)	$ (2,190,745)	$ (1,756,237)	$ (977,413)	$ (216,193)	$ (152,478)	$ (133,092)	$ (136,511)	$ (150,802)	$ (295,960)
14	Total Sales		$ (2,703,468)	$ (4,075,194)	$ (5,418,193)	$ (4,776,392)	$ (3,829,052)	$ (2,131,013)	$ (644,469)	$ (454,535)	$ (396,747)	$ (406,939)	$ (449,540)	$ (882,255)
15														

			Winter						Summer					
16														
17	**Gas Costs and Credits**			(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
18		Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17
19	Net Demand Costs (Net of Injection Fees & Cap. Assign.)													
20	Pipeline			$ 271,333	$ 271,333	$ 271,333	$ 271,333	$ 271,333	$ 271,333	$ 271,333	$ 271,333	$ 274,823	$ 274,823	$ 274,823
21	Storage			$ 1,193,141	$ 1,193,141	$ 1,193,141	$ 1,193,141	$ 550,631	$ 550,631	$ 550,631	$ 550,631	$ 554,066	$ 554,066	$ 554,066
22	Peaking			$ 330,376	$ 330,376	$ 330,376	$ 321,648	$ 69,585	$ 20,807	$ 20,807	$ 20,807	$ 22,055	$ 22,055	$ 22,055
23	Total Demand Costs			$ 1,794,850	$ 1,794,850	$ 1,794,850	$ 1,786,121	$ 891,548	$ 842,770	$ 842,770	$ 842,770	$ 850,944	$ 850,944	$ 850,944
24														
25	Asset Management and Capacity Release													
26	NUI AMA Revenue			$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)	$ (830,623)
27	NUI Capacity Release			$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)	$ (5,393)
28	NUI AMA Rev & Cap. Release Subtotal			$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)	$ (836,016)
29	NH AMA Revenue			$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)	$ (303,728)
30	NH Capacity Release			$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)	$ (2,343)
31	NH Total Asset Management and Capacity Release			$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)	$ (306,071)
32														
33	PNGTS Refund			$ (331,800.99)	$ (331,800.99)	$ (331,800.99)	$ (331,800.99)	$ (331,800.99)	$ (16,566.71)	$ (16,566.71)	$ (16,566.71)	$ (16,566.71)	$ (16,566.71)	$ (16,566.71)
34														
35	Net Demand Costs		$ 1,105,488	$ 1,156,977	$ 1,156,977	$ 1,156,977	$ 1,148,249	$ 253,676	$ 520,132	$ 520,132	$ 520,132	$ 528,306	$ 528,306	$ 528,306
36														
37	NUI Commodity Costs													
38	NUI Total Pipeline Volumes			1,062,632	997,144	904,653	989,654	788,877	461,983	321,009	282,542	285,644	313,975	623,892
39	Pipeline Costs Modeled in Sendout™			$ 4,760,125	$ 4,852,452	$ 4,396,837	$ 4,623,752	$ 2,406,334	$ 1,228,221	$ 775,044	$ 693,427	$ 678,497	$ 720,034	$ 1,679,577
40	NYMEX Price Used for Forecast			$ 3.2280	$ 3.3440	$ 3.3420	$ 3.2960	$ 3.0150	$ 2.9820	$ 3.0080	$ 3.0360	$ 3.0440	$ 3.0280	$ 3.0510
41	NYMEX Price Used for Update			$ 3.2320	$ 3.4740	$ 3.4750	$ 3.4560	$ 3.3510	$ 2.9820	$ 3.0080	$ 3.0360	$ 3.0440	$ 3.0280	$ 3.0510
42	Increase/(Decrease) NYMEX Price			$ 0.0040	$ 0.1300	$ 0.1330	$ 0.1600	$ 0.3360						
43	Increase/(Decrease) in Pipeline Costs			$ 4,251	$ 129,629	$ 120,319	$ 158,345	$ 265,063	$ -	$ -	$ -	$ -	$ -	$ -
44	Updated Pipeline Costs			$ 4,764,376	$ 4,982,081	$ 4,517,155	$ 4,782,096	$ 2,671,397	$ 1,228,221	$ 775,044	$ 693,427	$ 678,497	$ 720,034	$ 1,679,577
45	Interruptible Volumes - NH			0	0	0	0	0	0	0	0	0	0	0
46	Average Supply Cost ($/MMBtu)			$ 4.48	$ 5.00	$ 4.99	$ 4.83	$ 3.39	$ 2.66	$ 2.41	$ 2.45	$ 2.38	$ 2.29	$ 2.69
47	Interruptible Cost - NH			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
48	Total Updated Pipeline Costs			$ 4,764,376	$ 4,982,081	$ 4,517,155	$ 4,782,096	$ 2,671,397	$ 1,228,221	$ 775,044	$ 693,427	$ 678,497	$ 720,034	$ 1,679,577
49	New Hampshire Allocated Percentage			40.04%	40.38%	40.06%	39.43%	36.54%	34.78%	35.24%	34.91%	35.42%	35.63%	35.30%
50	NH Updated Pipeline Costs			$ 1,907,598	$ 2,011,817	$ 1,809,726	$ 1,885,496	$ 976,091	$ 427,199	$ 273,112	$ 242,042	$ 240,299	$ 256,522	$ 592,926
51	Hedging (Gain)/Loss Estimate													
52	NYMEX Options Contracts													
55	Hedging Expenses			$ 26,350	$ 46,350	$ 45,540	$ 29,600							
56	NYMEX Option Strike Price			$ 5.25	$ 6.00	$ 6.25	$ 6.30							
57	NYMEX Price Used for Forecast			$ 3.23	$ 3.47	$ 3.48	$ 3.46							
58	Strike Price Hit			No	No	No	No							
59	Option Hedging Gain (Credit)													
60	Tota Northern Hedginf Net Cost			$ 26,350	$ 46,350	$ 45,540	$ 29,600							
61	New Hampshire Allocated Percentage			40.04%	40.38%	40.06%	39.43%							
62	NH Futures Hedging Net Cost			$ 10,550	$ 18,717	$ 18,245	$ 11,671		$ -	$ -	$ -	$ -	$ -	$ -
63	NH Commodity Costs													
64	Pipeline Excl Hedging			$ 1,907,598	$ 2,011,817	$ 1,809,726	$ 1,885,496	$ 976,091	$ 427,199	$ 273,112	$ 242,042	$ 240,299	$ 256,522	$ 592,926
65	Hedging (Gain)/Loss Estimate			$ 10,550	$ 18,717	$ 18,245	$ 11,671	$ -	$ -	$ -	$ -	$ -	$ -	$ -
66	Storage			$ 403,167	$ 649,328	$ 794,920	$ 385,114	$ 13,422	$ -	$ -	$ -	$ -	$ -	$ -
67	Peaking			$ 27,010	$ 1,104,694	$ 61,499	$ 5,693	$ 5,089	$ 4,958	$ 4,838	$ 4,938	$ 5,005	$ 4,859	$ 4,967
68	Total Commodity Costs		$ 1,282,208	$ 2,348,326	$ 3,784,556	$ 2,684,390	$ 2,287,973	$ 994,602	$ 432,157	$ 277,950	$ 246,980	$ 245,304	$ 261,381	$ 597,894

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

	Sales Revenues			
1	Volumes	Winter	Summer	Total
2	Residential Heat & Non Heat	12,950,865	3,426,772	16,377,636
3	Sales HLF Classes	2,253,197	2,140,549	4,393,745
4	Sales LLF Classes	12,449,537	2,438,282	14,887,820
5	Total	27,653,599	8,005,603	35,659,201
6	Rates	-	-	-
7	Residential Heat & Non Heat CGA			
8	Sales HLF Classes CGA			
9	Sales LLF Classes CGA			
10	Revenues			
11	Residential Heat & Non Heat	(9,473,557)	(1,384,416)	(10,857,973)
12	Sales HLF Classes	(1,477,646)	(765,032)	(2,242,678)
13	Sales LLF Classes	(9,278,640)	(1,085,036)	(10,363,676)
14	Total Sales	(22,933,312)	(3,234,484)	(26,167,795)
15				
16				
17	**Gas Costs and Credits**			
18		Winter	Summer	Total
19	Net Demand Costs (Net of Injection Fees & Cap. Ass			
20	Pipeline	1,356,663	1,638,468	2,995,132
21	Storage	5,323,193	3,314,090	8,637,283
22	Peaking	1,382,361	128,585	1,510,946
23	Total Demand Costs	8,062,218	5,081,142	13,143,360
24				
25	Asset Management and Capacity Release			
26	NUI AMA Revenue	(4,153,115)	(4,983,737)	$ (9,136,852)
27	NUI Capacity Release	(26,967)	(32,360)	$ (59,327)
28	NUI AMA Rev & Cap. Release Subtotal	(4,180,081)	(5,016,098)	$ (9,196,179)
29	NH AMA Revenue	(1,518,640)	(1,822,368)	$ (3,341,008)
30	NH Capacity Release	(11,717)	(14,060)	$ (25,777)
31	NH Total Asset Management and Capacity Release	$ (1,530,357)	$ (1,836,428)	$ (3,366,785)
32				
33	PNGTS Refund	$ (1,990,806)	$ (99,400)	$ (1,758,405)
34				
35	Net Demand Costs	$ 4,541,055	$ 3,145,314	$ 8,018,170
36				
37	NUI Commodity Costs			
38	NUI Total Pipeline Volumes			7,032,004
39	Pipeline Costs Modeled in Sendout™			$ 26,814,299
40	NYMEX Price Used for Forecast			
41	NYMEX Price Used for Update			
42	Increase/(Decrease) NYMEX Price			
43	Increase/(Decrease) in Pipeline Costs			
44	Updated Pipeline Costs			
45	Interruptible Volumes - NH			
46	Average Supply Cost ($/MMBtu)			
47	Interruptible Cost - NH			
48	Total Updated Pipeline Costs			
49	New Hampshire Allocated Percentage			
50	NH Updated Pipeline Costs			$ 10,622,828
51	Hedging (Gain)/Loss Estimate			
52	NYMEX Options Contracts			
55	Hedging Expenses			
56	NYMEX Option Strike Price			
57	NYMEX Price Used for Forecast			
58	Strike Price Hit			
59	Option Hedging Gain (Credit)			
60	Tota Northern Hedginf Net Cost			$ 147,840
61	New Hampshire Allocated Percentage			
62	NH Futures Hedging Net Cost	$ 59,182	$ -	$ 59,182
63	NH Commodity Costs			
64	Pipeline Excl Hedging	$ 8,590,728	$ 2,032,100	$ 10,622,828
65	Hedging (Gain)/Loss Estimate	$ 59,182	$ -	$ 59,182
66	Storage	$ 2,245,951	$ -	$ 2,245,951
67	Peaking	$ 1,203,985	$ 29,565	$ 1,233,550
68	Total Commodity Costs	$ 13,382,054	$ 2,061,665	$ 15,443,719

December 16, 2016 - Updated Projected End of Period Balance

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

69	Inventory Finance Charge			$ 362	$ 507	$ 445	$ 335	$ 156	$ -	$ -	$ -	$ -	$ -	$ -
70														
71	**Total Anticipated Direct Cost of Gas**		$ 2,387,695	$ 3,505,665	$ 4,942,041	$ 3,841,812	$ 3,436,557	$ 1,248,434	$ 952,289	$ 798,082	$ 767,112	$ 773,609	$ 789,686	$ 1,126,199
72			Winter						Summer					
73				(Forecast)	(Forecast)	(Forecast)	(Forecast)	**(Forecast)**	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
74		Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	**Apr-17**	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17
75	Working Capital													
76	Total Anticipated Direct Cost of Gas		$ 2,525,956	$ 3,505,665	$ 4,942,041	$ 3,841,812	$ 3,436,557	$ 1,248,434	$ 952,289	$ 798,082	$ 767,112	$ 773,609	$ 789,686	$ 1,126,199
77	Working Capital Percentage		0.0887%	0.0887%	0.0887%	0.0887%	0.0887%	0.0887%	0.0887%	0.0887%	0.0887%	0.0887%	0.0887%	0.0887%
78	Working Capital Allowance		$ 2,240	$ 3,109	$ 4,384	$ 3,408	$ 3,048	$ 1,107	$ 845	$ 708	$ 680	$ 686	$ 700	$ 999
79	Beginning Period Working Capital Balance		$ 1,079	$ 3,326	$ 6,449	$ 10,858	$ 14,302	$ 17,397	$ 18,556	$ 19,456	$ 20,222	$ 20,962	$ 21,711	$ 22,476
80	End of Period Working Capital Allowance		$ 3,319	$ 6,435	$ 10,833	$ 14,266	$ 17,351	$ 18,504	$ 19,401	$ 20,164	$ 20,902	$ 21,649	$ 22,411	$ 23,475
81	Interest		$ 6	$ 14	$ 25	$ 37	$ 46	$ 52	$ 55	$ 58	$ 60	$ 62	$ 64	$ 67
82	End of period with Interest	$ 1,079	$ 3,326	$ 6,449	$ 10,858	$ 14,302	$ 17,397	$ 18,556	$ 19,456	$ 20,222	$ 20,962	$ 21,711	$ 22,476	$ 23,542
83	Bad Debt													
84	Projected Bad Debt	$ -	$ (147)	$ 31,200	$ 31,200	$ 31,200	$ 31,200	$ 31,200	$ 3,141	$ 3,141	$ 3,141	$ 3,141	$ 3,141	$ 3,141
85	Beginning Period Bad Debt Balance		$ 135,847	$ 136,096	$ 167,738	$ 199,473	$ 231,300	$ 263,220	$ 295,233	$ 299,239	$ 303,258	$ 307,288	$ 311,330	$ 315,383
86	End of Period Bad Debt Balance		*$ 135,700*	*$ 167,296*	*$ 198,938*	*$ 230,672*	*$ 262,499*	*$ 294,419*	*$ 298,374*	*$ 302,380*	*$ 306,399*	*$ 310,429*	*$ 314,471*	*$ 318,524*
87	Interest		$ 396	$ 442	$ 535	$ 627	$ 720	$ 813	$ 866	$ 877	$ 889	$ 901	$ 913	$ 924
88	End of Period Bad Debt Balance with Interest	$ 135,847	$ 136,096	$ 167,738	$ 199,473	$ 231,300	$ 263,220	$ 295,233	$ 299,239	$ 303,258	$ 307,288	$ 311,330	$ 315,383	$ 319,449
89	Local Production and Storage Capacity		$ 70,110	$ 70,110	$ 70,110	$ 70,110	$ 70,110	$ 70,110	$ -	$ -	$ -	$ -	$ -	$ -
90	NH PUC Consulting Costs			$ -	$ -			$ -	$ 2,024					
91	Miscellaneous Overhead		$ 68,151	$ 68,151	$ 68,151	$ 68,151	$ 68,151	$ 68,151	$ 17,293	$ 17,293	$ 17,293	$ 17,293	$ 17,293	$ 17,293
94	Gas Cost Other than Bad Debt and Working Capital Over/Under Collection													
95	Beginning Balance Over/Under Collection		$ 1,210,464	$ 1,036,224	$ 607,349	$ 270,737	$ (525,954)	$ (782,093)	$ (1,529,777)	$ (1,206,624)	$ (848,776)	$ (463,028)	$ (79,855)	$ 277,873
96	Net Costs - Revenues		$ (177,511)	$ (431,268)	$ (337,891)	$ (796,319)	$ (254,235)	$ (744,318)	$ 327,138	$ 360,841	$ 387,659	$ 383,964	$ 357,440	$ 261,238
97	Ending Balance before Interest		$ 1,032,953	$ 604,956	$ 269,459	$ (525,582)	$ (780,188)	$ (1,526,411)	$ (1,202,639)	$ (845,783)	$ (461,118)	$ (79,064)	$ 277,585	$ 539,112
98	Average Balance		$ 1,121,708	$ 820,590	$ 438,404	$ (127,422)	$ (653,071)	$ (1,154,252)	$ (1,366,208)	$ (1,026,204)	$ (654,947)	$ (271,046)	$ 98,865	$ 408,493
99	Interest Rate		3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
100	Interest Expense		$ 3,272	$ 2,393	$ 1,279	$ (372)	$ (1,905)	$ (3,367)	$ (3,985)	$ (2,993)	$ (1,910)	$ (791)	$ 288	$ 1,191
101	Ending Balance Incl Interest Expense	$ 1,210,464	$ 1,036,224	$ 607,349	$ 270,737	$ (525,954)	$ (782,093)	$ (1,529,777)	$ (1,206,624)	$ (848,776)	$ (463,028)	$ (79,855)	$ 277,873	$ 540,303
102	**Total Over/Under Collection Ending Balance**	**$ 1,347,389**	$ 1,175,646	$ 781,537	$ 481,068	$ (280,352)	$ (501,477)	**$ (1,215,988)**	$ (887,928)	$ (525,297)	$ (134,778)	$ 253,186	$ 615,732	$ 883,293
103														
104	**Total Indirect Cost of Gas**	$ 1,347,389	$ 144,029	$ 175,420	$ 175,683	$ 173,161	$ 171,370	$ 168,067	$ 20,239	$ 19,084	$ 20,154	$ 21,293	$ 22,400	$ 23,616
105														
106	**Total Cost of Gas**	$ 1,347,389	$ 2,531,724	$ 3,681,085	$ 5,117,724	$ 4,014,973	$ 3,607,927	$ 1,416,502	$ 972,529	$ 817,167	$ 787,265	$ 794,902	$ 812,087	$ 1,149,816
107														
108	**Total Interest**	$ -	$ 3,674	$ 2,850	$ 1,839	$ 292	$ (1,139)	$ (2,501)	$ (3,064)	$ (2,058)	$ (961)	$ 172	$ 1,265	$ 2,183

110 End of Period Balance, All Accounts **$ (1,215,988)**

113 Winter Period
114 Target ending Balance **$ (2,086,122)**

Northern Utilities
NEW HAMPSHIRE (Over) / Undercollectior Analysis, Balances & Interest Calculation

	Winter	Summer	Total
Inventory Finance Charge	$ 1,806	$ 1,806	$ 1,806
Total Anticipated Direct Cost of Gas	$ 19,362,204	$ 5,206,979	$ 24,569,183

	Winter	Summer	Total
Working Capital			
Total Anticipated Direct Cost of Gas			$ 24,707,444
Working Capital Percentage			
Working Capital Allowance			$ 21,915
Beginning Period Working Capital Balance			
End of Period Working Capital Allowance			
Interest			$ 548
End of period with Interest			
Bad Debt			
Projected Bad Debt	$ 187,199	$ 18,846	$ 174,698
Beginning Period Bad Debt Balance			
End of Period Bad Debt Balance			
Interest			$ 8,904
End of Period Bad Debt Balance with Interest			
Local Production and Storage Capacity	$ 420,658	$ -	$ 420,658
NH PUC Consulting Costs	$ -	$ 2,024	$ 2,024
Miscellaneous Overhead	$ 408,908	$ 103,760	$ 512,668
Gas Cost Other than Bad Debt and Working Capital (			
Beginning Balance Over/Under Collection			$ (2,033,459)
Net Costs - Revenues			$ (663,263)
Ending Balance before Interest			$ (2,696,722)
Average Balance			$ (2,365,090)
Interest Rate			
Interest Expense			$ (6,898)
Ending Balance Incl Interest Expense			
Total Over/Under Collection Ending Balance			
Total Indirect Cost of Gas	$ 2,355,119	$ 126,787	$ 2,481,906
Total Cost of Gas	$ 20,369,934	$ 5,333,765	$ 27,051,089
Total Interest	$ 5,016	$ (2,462)	$ 2,553

Northern Utilities, Inc.
Price Risk Management
Profit and Loss Statement
November 2016

Account # 53325

Current

ACB	($144,708.38)
TE	$307,000.00
LV	$162,291.62

ACTIVITY - Purchase Cost and Profit and Loss						Expense	Profit and Loss
Date	Description	State	Contracts	Option Premuim	Strike Price	Option Purchase Cost	
	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	11/30/16 Futures Price	Current Open Trade Equity
06/26/15	Jan17 Options	Both	45	0.1030	$46,350.00	$6.000	$3.352	$0.00
07/29/15	Feb17 Options	Both	46	0.0990	$45,540.00	$6.250	$3.359	$0.00
08/27/15	Mar17 Options	Both	37	0.0800	$29,600.00	$6.300	$3.328	$0.00
05/02/16	Nov17 Options	Both	12	0.2300	$27,600.00	$3.500	$3.308	$0.00
05/26/16	Dec17 Options	Both	20	0.2370	$47,400.00	$4.000	$3.436	$0.00
06/28/16	Jan18 Options	Both	29	0.2475	$71,775.00	$4.300	$3.527	$0.00
07/27/16	Feb18 Options	Both	30	0.2470	$74,100.00	$4.500	$3.481	$0.00
08/29/16	Mar18 Options	Both	25	0.2400	$60,000.00	$4.650	$3.384	$0.00
	Total Expense, Open Trade Equity				**$402,365.00**			**$0.00**

OPEN CALL OPTION POSITIONS- Long Option Value					Total	
		State	QTY	Current Option Premium	Current Option Value	Strike Price
06/26/15	Jan17 Options	Both	45	0.0002	$90.00	$6.000
07/29/15	Feb17 Options	Both	46	0.0029	$1,334.00	$6.250
08/27/15	Mar17 Options	Both	37	0.0071	$2,627.00	$6.300
05/02/16	Nov17 Options	Both	12	0.3335	$40,020.00	$3.500
05/26/16	Dec17 Options	Both	20	0.2567	$51,340.00	$4.000
06/28/16	Jan18 Options	Both	29	0.2676	$77,604.00	$4.300
07/27/16	Feb18 Options	Both	30	0.2537	$76,110.00	$4.500
08/29/16	Mar18 Options	Both	25	0.2315	$57,875.00	$4.650
11/30/16	***Total Long Option Value***				**$307,000.00**	

MARGIN CASH BALANCE		Subtotal	Total
11/01/16	**Beginning Balance-carried forward from last month**		**($144,708.38)**
	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
11/30/16	***Ending Balance (ACB)***		**($144,708.38)**

NORTHERN UTILITIES, INC.

DETERMINATION OF INVENTORY FINANCING FROM MONEY POOL

November 2016

	Total Inventory	Average bal beg + end / 2	Internally Financed	Money Pool Interest Rate	Interest to Defer	NH	ME
January 2015	$10,398,644.45	$12,704,155.00	$12,704,155.00	1.56%	$16,515.40	$7,872.89	$8,642.51
February	$5,906,333.53	$8,152,488.99	$8,152,488.99	1.57%	$10,666.17	$5,084.56	$5,581.61
March	$3,816,219.24	$4,861,276.38	$4,861,276.38	1.57%	$6,360.17	$3,031.89	$3,328.28
April	$4,853,845.91	$4,335,032.58	$4,335,032.58	1.58%	$5,707.79	$2,720.90	$2,986.89
May	$5,845,033.55	$5,349,439.73	$5,349,439.73	1.58%	$7,043.43	$3,357.60	$3,685.83
June	$6,981,986.40	$6,413,509.97	$6,413,509.97	1.58%	$8,444.45	$4,025.47	$4,418.98
July	$8,083,382.82	$7,532,684.61	$7,532,684.61	1.58%	$9,918.03	$4,727.93	$5,190.11
August	$9,191,271.89	$8,637,327.36	$8,637,327.36	1.58%	$11,372.48	$5,421.26	$5,951.22
September	$10,272,808.68	$9,732,040.28	$9,732,040.28	1.48%	$12,002.85	$5,721.76	$6,281.09
October	$11,382,175.37	$10,827,492.03	$10,827,492.03	1.46%	$13,173.45	$6,279.78	$6,893.67
November	$11,243,809.57	$11,312,992.47	$11,312,992.47	1.48%	$13,952.69	$5,918.73	$8,033.96
December	$11,245,520.69	$11,244,665.13	$11,244,665.13	1.63%	$15,274.00	$6,479.23	$8,794.77
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	$9,990,340.89	$9,990,340.89	1.84%	$15,044.50	$6,381.88	$8,662.62

Inventory ACCT #		MMBTU	AMOUNT
	LNG		
515152	Inventory - Liquified Natural Gas		
	NATURAL GAS	8,266	$83,841.04
515114&115	Natural Gas Underground - SS-1 and FSS-1		
515116	Natural Gas Underground - SSNE	199,512	$333,462.92
515113	Natural Gas Underground - MCN	3,352,039	$9,759,962.09
516525	Washington 10 prepaid	-	
Total Inventory			$10,177,266.05