

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
November 2016 Estimated

Under/(Over) collection as of 11/01/16		\$ 1,347,389
Forecasted firm therm sales 11/01/2016 - 04/30/2017		
Residential Heat & Non Heat	14,775,288	
HLF Classes	2,570,611	
LLF Classes	14,203,338	
Current recovery rate per therm		
Residential heat & non heat	\$0.7558	
HLF classes	\$0.6801	
LLF classes	\$0.7696	
Total	\$ (23,846,324)	
Forecasted recovered costs at current rates 11/01/2016 - 04/30/2017		\$ (23,846,324)
Actual recovered costs 11/01/2016 - 11/30/2016		\$ -
Estimated total recovered costs 05/01/2016 - 10/31/2016		\$ (23,846,324)
Revised projected direct gas costs 11/01/16 - 04/30/17 [1]		\$ 18,704,737
Revised projected indirect gas costs 11/01/16 - 04/30/17 [2]		\$ 1,035,233
Projected under/(over) collection as of 04/30/17[3]		\$ (2,758,964)
April 30, 2017 Target Balance [4]		\$ (2,086,122)
Variance from Projected Target Balance		\$ (672,842)
Total Projected Gas Costs		\$ 19,739,970
Under/(over) collection as percent of total gas costs		-3.41%

NOTES

[1] Reflects futures prices as of November 17, 2016

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

[3] Detailed calculations provided on November 21, 2016 Projected End of Period Balance schedule

[4] Detailed calculations provided on September 16, 2016 Projected End of Period Balance schedule

November 21, 2016 - Updated Projected End of Period Balance

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

		Winter						Summer					
		(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
Sales Revenues	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
Volumes													
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
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
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
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
Rates													
Residential Heat & Non Heat CGA		\$0.7558	\$0.7558	\$0.7558	\$0.7558	\$0.7558	\$0.7558	\$0.4040	\$0.4040	\$0.4040	\$0.4040	\$0.4040	\$0.4040
Sales HLF Classes CGA		\$0.6801	\$0.6801	\$0.6801	\$0.6801	\$0.6801	\$0.6801	\$0.3574	\$0.3574	\$0.3574	\$0.3574	\$0.3574	\$0.3574
Sales LLF Classes CGA		\$0.7696	\$0.7696	\$0.7696	\$0.7696	\$0.7696	\$0.7696	\$0.4450	\$0.4450	\$0.4450	\$0.4450	\$0.4450	\$0.4450
Revenues													
Residential Heat & Non Heat		\$ (1,378,899)	\$ (1,971,793)	\$ (2,621,607)	\$ (2,311,070)	\$ (1,852,697)	\$ (1,031,096)	\$ (275,844)	\$ (194,549)	\$ (169,815)	\$ (174,177)	\$ (192,411)	\$ (377,621)
Sales HLF Classes		\$ (215,873)	\$ (308,694)	\$ (410,425)	\$ (361,809)	\$ (290,048)	\$ (161,423)	\$ (152,432)	\$ (107,508)	\$ (93,840)	\$ (96,251)	\$ (106,327)	\$ (208,674)
Sales LLF Classes		\$ (1,349,725)	\$ (1,930,074)	\$ (2,566,139)	\$ (2,262,173)	\$ (1,813,498)	\$ (1,009,280)	\$ (216,193)	\$ (152,478)	\$ (133,092)	\$ (136,511)	\$ (150,802)	\$ (295,960)
Total Sales		\$ (2,944,498)	\$ (4,210,561)	\$ (5,598,171)	\$ (4,935,051)	\$ (3,956,243)	\$ (2,201,800)	\$ (644,469)	\$ (454,535)	\$ (396,747)	\$ (406,939)	\$ (449,540)	\$ (882,255)
Gas Costs and Credits	Oct-16	Winter						Summer					
		(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
Net Demand Costs (Net of Injection Fees & Cap. Assign.)													
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
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
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
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
NUI Commodity Costs													
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
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
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
NYMEX Price Used for Update		\$ 2.7640	\$ 2.7030	\$ 2.8750	\$ 2.9210	\$ 2.9280	\$ 2.8960	\$ 2.9820	\$ 3.0080	\$ 3.0360	\$ 3.0440	\$ 3.0280	\$ 3.0510
Increase/(Decrease) NYMEX Price		\$ (0.2660)	\$ (0.5250)	\$ (0.4690)	\$ (0.4210)	\$ (0.3680)	\$ (0.1190)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Increase/(Decrease) in Pipeline Costs		\$ (249,526)	\$ (557,882)	\$ (467,661)	\$ (380,859)	\$ (364,193)	\$ (93,876)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Updated Pipeline Costs		\$ 3,779,164	\$ 4,202,243	\$ 4,384,792	\$ 4,015,978	\$ 4,259,559	\$ 2,312,458	\$ 1,228,221	\$ 775,044	\$ 693,427	\$ 678,497	\$ 720,034	\$ 1,679,577
Interruptible Volumes - NH		\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Average Supply Cost (\$/MMBtu)		\$ 4.03	\$ 3.95	\$ 4.40	\$ 4.44	\$ 4.30	\$ 2.93	\$ 2.66	\$ 2.41	\$ 2.45	\$ 2.38	\$ 2.29	\$ 2.69
Interruptible Cost - NH		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Updated Pipeline Costs		\$ 3,779,164	\$ 4,202,243	\$ 4,384,792	\$ 4,015,978	\$ 4,259,559	\$ 2,312,458	\$ 1,228,221	\$ 775,044	\$ 693,427	\$ 678,497	\$ 720,034	\$ 1,679,577
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%
NH Updated Pipeline Costs		\$ 1,534,080	\$ 1,682,527	\$ 1,770,626	\$ 1,608,937	\$ 1,679,469	\$ 844,940	\$ 427,199	\$ 273,112	\$ 242,042	\$ 240,299	\$ 256,522	\$ 592,926
Hedging (Gain)/Loss Estimate													
NYMEX Options Contracts													
Hedging Expenses		\$ 13,860	\$ 26,350	\$ 46,350	\$ 45,540	\$ 29,600							
NYMEX Option Strike Price		\$ 4.80	\$ 5.25	\$ 6.00	\$ 6.25	\$ 6.30							
NYMEX Price Used for Forecast		\$ 2.76	\$ 2.70	\$ 2.88	\$ 2.92	\$ 2.93							
Strike Price Hit		No	No	No	No	No							
Option Hedging Gain (Credit)		\$ -	\$ -	\$ -	\$ -	\$ -							
Tota Northern Hedging Net Cost		\$ 13,860	\$ 26,350	\$ 46,350	\$ 45,540	\$ 29,600							
New Hampshire Allocated Percentage		40.59%	40.04%	40.38%	40.06%	39.43%							
NH Futures Hedging Net Cost		\$ 5,626	\$ 10,550	\$ 18,717	\$ 18,245	\$ 11,671		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NH Commodity Costs													
Pipeline Excl Hedging		\$ 1,534,080	\$ 1,682,527	\$ 1,770,626	\$ 1,608,937	\$ 1,679,469	\$ 844,940	\$ 427,199	\$ 273,112	\$ 242,042	\$ 240,299	\$ 256,522	\$ 592,926
Hedging (Gain)/Loss Estimate		\$ 5,626	\$ 10,550	\$ 18,717	\$ 18,245	\$ 11,671	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Storage		\$ 37,773	\$ 403,167	\$ 649,328	\$ 794,920	\$ 385,114	\$ 13,422	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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
Total Commodity Costs		\$ 1,585,978	\$ 2,123,255	\$ 3,543,365	\$ 2,483,601	\$ 2,081,946	\$ 863,451	\$ 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	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)	(1,384,416)	(12,551,579)
12	Sales HLF Classes	(1,748,272)	(765,032)	(2,513,304)
13	Sales LLF Classes	(10,930,889)	(1,085,036)	(12,015,924)
14	Total Sales	(23,846,324)	(3,234,484)	(27,080,807)
15				
16	Gas Costs and Credits			
17		Winter	Summer	Total
18				
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
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			\$ 11,152,679
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 Hedging 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	\$ 9,120,579	\$ 2,032,100	\$ 11,152,679
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	\$ 12,681,594	\$ 2,061,665	\$ 14,743,259

November 21, 2016 - Updated Projected End of Period Balance

Northern Utilities

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

Inventory Finance Charge		\$ 232	\$ 362	\$ 507	\$ 445	\$ 335	\$ 156	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Anticipated Direct Cost of Gas		\$ 2,734,458	\$ 3,280,594	\$ 4,700,849	\$ 3,641,023	\$ 3,230,530	\$ 1,117,283	\$ 952,289	\$ 798,082	\$ 767,112	\$ 773,609	\$ 789,686	\$ 1,126,199
		Winter						Summer					
	Oct-16	(Forecast) Nov-16	(Forecast) Dec-16	(Forecast) Jan-17	(Forecast) Feb-17	(Forecast) Mar-17	(Forecast) Apr-17	(Forecast) May-17	(Forecast) Jun-17	(Forecast) Jul-17	(Forecast) Aug-17	(Forecast) Sep-17	(Forecast) Oct-17
Working Capital													
Total Anticipated Direct Cost of Gas		\$ 2,734,458	\$ 3,280,594	\$ 4,700,849	\$ 3,641,023	\$ 3,230,530	\$ 1,117,283	\$ 952,289	\$ 798,082	\$ 767,112	\$ 773,609	\$ 789,686	\$ 1,126,199
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%
Working Capital Allowance		\$ 2,425	\$ 2,910	\$ 4,170	\$ 3,230	\$ 2,865	\$ 991	\$ 845	\$ 708	\$ 680	\$ 686	\$ 700	\$ 999
Beginning Period Working Capital Balance		\$ 1,079	\$ 3,511	\$ 6,435	\$ 10,630	\$ 13,895	\$ 16,805	\$ 17,846	\$ 18,744	\$ 19,508	\$ 20,246	\$ 20,993	\$ 21,755
End of Period Working Capital Allowance		\$ 3,504	\$ 6,421	\$ 10,605	\$ 13,859	\$ 16,760	\$ 17,796	\$ 18,691	\$ 19,452	\$ 20,188	\$ 20,933	\$ 21,693	\$ 22,754
Interest		\$ 7	\$ 14	\$ 25	\$ 36	\$ 45	\$ 50	\$ 53	\$ 56	\$ 58	\$ 60	\$ 62	\$ 65
End of period with Interest	\$ 1,079	\$ 3,511	\$ 6,435	\$ 10,630	\$ 13,895	\$ 16,805	\$ 17,846	\$ 18,744	\$ 19,508	\$ 20,246	\$ 20,993	\$ 21,755	\$ 22,819
Bad Debt													
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
Beginning Period Bad Debt Balance		\$ 135,847	\$ 167,488	\$ 199,222	\$ 231,048	\$ 262,968	\$ 294,980	\$ 327,085	\$ 331,185	\$ 335,297	\$ 339,420	\$ 343,556	\$ 347,704
End of Period Bad Debt Balance		\$ 167,047	\$ 198,688	\$ 230,422	\$ 262,248	\$ 294,167	\$ 326,180	\$ 330,227	\$ 334,326	\$ 338,438	\$ 342,561	\$ 346,697	\$ 350,845
Interest		\$ 442	\$ 534	\$ 627	\$ 719	\$ 812	\$ 906	\$ 959	\$ 971	\$ 983	\$ 995	\$ 1,007	\$ 1,019
End of Period Bad Debt Balance with Interest	\$ 135,847	\$ 167,488	\$ 199,222	\$ 231,048	\$ 262,968	\$ 294,980	\$ 327,085	\$ 331,185	\$ 335,297	\$ 339,420	\$ 343,556	\$ 347,704	\$ 351,863
Local Production and Storage Capacity		\$ 70,110	\$ 70,110	\$ 70,110	\$ 70,110	\$ 70,110	\$ 70,110	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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
Gas Cost Other than Bad Debt and Working Capital Over/Under Collection													
Beginning Balance Over/Under Collection		\$ 1,210,464	\$ 1,150,099	\$ 360,593	\$ (398,524)	\$ (1,557,139)	\$ (2,149,990)	\$ (3,103,896)	\$ (2,785,334)	\$ (2,432,091)	\$ (2,050,961)	\$ (1,672,419)	\$ (1,319,336)
Net Costs - Revenues		\$ (63,802)	\$ (791,706)	\$ (759,061)	\$ (1,155,767)	\$ (587,453)	\$ (946,256)	\$ 327,138	\$ 360,841	\$ 387,659	\$ 383,964	\$ 357,440	\$ 261,238
Ending Balance before Interest		\$ 1,146,662	\$ 358,393	\$ (398,468)	\$ (1,554,291)	\$ (2,144,591)	\$ (3,096,245)	\$ (2,776,758)	\$ (2,424,493)	\$ (2,044,432)	\$ (1,666,997)	\$ (1,314,979)	\$ (1,058,098)
Average Balance		\$ 1,178,563	\$ 754,246	\$ (18,938)	\$ (976,407)	\$ (1,850,865)	\$ (2,623,118)	\$ (2,940,327)	\$ (2,604,914)	\$ (2,238,262)	\$ (1,858,979)	\$ (1,493,699)	\$ (1,188,717)
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%
Interest Expense		\$ 3,437	\$ 2,200	\$ (55)	\$ (2,848)	\$ (5,398)	\$ (7,651)	\$ (8,576)	\$ (7,598)	\$ (6,528)	\$ (5,422)	\$ (4,357)	\$ (3,467)
Ending Balance Incl Interest Expense	\$ 1,210,464	\$ 1,150,099	\$ 360,593	\$ (398,524)	\$ (1,557,139)	\$ (2,149,990)	\$ (3,103,896)	\$ (2,785,334)	\$ (2,432,091)	\$ (2,050,961)	\$ (1,672,419)	\$ (1,319,336)	\$ (1,061,565)
Total Over/Under Collection Ending Balance	\$ 1,347,389	\$ 1,321,098	\$ 566,250	\$ (156,845)	\$ (1,280,276)	\$ (1,838,205)	\$ (2,758,964)	\$ (2,435,405)	\$ (2,077,286)	\$ (1,691,294)	\$ (1,307,871)	\$ (949,877)	\$ (686,882)
Total Indirect Cost of Gas	\$ 1,347,389	\$ 183,748	\$ 175,119	\$ 174,227	\$ 170,598	\$ 167,785	\$ 163,757	\$ 15,739	\$ 14,571	\$ 15,627	\$ 16,753	\$ 17,847	\$ 19,050
Total Cost of Gas	\$ 1,347,389	\$ 2,918,206	\$ 3,455,713	\$ 4,875,075	\$ 3,811,621	\$ 3,398,315	\$ 1,281,040	\$ 968,028	\$ 812,653	\$ 782,739	\$ 790,363	\$ 807,533	\$ 1,145,249
Total Interest	\$ -	\$ 3,886	\$ 2,748	\$ 596	\$ (2,093)	\$ (4,541)	\$ (6,694)	\$ (7,564)	\$ (6,571)	\$ (5,488)	\$ (4,367)	\$ (3,288)	\$ (2,383)

End of Period Balance, All Accounts \$ (2,758,964)

Winter Period Target ending Balance	\$ (2,086,122)
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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	\$ 18,704,737	\$ 5,206,979	\$ 23,911,715
72				
73				
74		Winter	Summer	Total
75	Working Capital			
76	Total Anticipated Direct Cost of Gas			\$ 23,911,715
77	Working Capital Percentage			
78	Working Capital Allowance			\$ 21,209
79	Beginning Period Working Capital Balance			
80	End of Period Working Capital Allowance			
81	Interest			\$ 531
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			\$ 9,972
88	End of Period Bad Debt Balance with Interest			
89	Local Production and Storage Capacity	\$ 420,658	\$ -	\$ 420,658
90	Miscellaneous Overhead	\$ 408,908	\$ 103,760	\$ 512,668
91	Gas Cost Other than Bad Debt and Working Capital			
92	Beginning Balance Over/Under Collection			\$ (14,748,533)
93	Net Costs - Revenues			\$ (2,225,766)
94	Ending Balance before Interest			\$ (16,974,299)
95	Average Balance			\$ (15,861,416)
96	Interest Rate			
97	Interest Expense			\$ (46,262)
98	Ending Balance Incl Interest Expense			
99	Total Over/Under Collection Ending Balance			
100				
101	Total Indirect Cost of Gas	\$ 2,382,623	\$ 99,587	\$ 2,482,210
102				
103	Total Cost of Gas	\$ 19,739,970	\$ 5,306,565	\$ 26,393,925
104				
105	Total Interest	\$ (6,098)	\$ (29,662)	\$ (35,760)
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September 16, 2016 - Projected End of Period Balance ("Target Balance")

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

		Winter						Summer					
		(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
Sales Revenues	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
Volumes													
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
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
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
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
Rates													
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
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
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
Revenues													
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)
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)
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)
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)
Gas Costs and Credits	Oct-16	Winter						Summer					
		(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
Net Demand Costs (Net of Injection Fees & Cap. Assign.)													
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
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
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
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
Asset Management and Capacity Release													
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)
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)
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)
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)
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)
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)
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)
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
NUI Commodity Costs													
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
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
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
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
Increase/(Decrease) NYMEX Price		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Increase/(Decrease) in 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
Updated Pipeline Costs		\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Interruptible Volumes - NH		\$ 4.29	\$ 4.48	\$ 4.87	\$ 4.86	\$ 4.67	\$ 3.05	\$ 2.66	\$ 2.41	\$ 2.45	\$ 2.38	\$ 2.29	\$ 2.69
Average Supply Cost (\$/MMBtu)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interruptible Cost - NH		\$ 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
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
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%
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
Hedging (Gain)/Loss Estimate													
NYMEX Options Contracts													
Number of Contracts		18	31	45	46	37							
Option Contract Price		\$ 0.08	\$ 0.09	\$ 0.10	\$ 0.10	\$ 0.08							
Hedging Expenses		\$ 13,860	\$ 26,350	\$ 46,350	\$ 45,540	\$ 29,600							
NYMEX Option Strike Price		\$ 4.80	\$ 5.25	\$ 6.00	\$ 6.25	\$ 6.30							
NYMEX Price Used for Forecast		\$ 3.03	\$ 3.23	\$ 3.34	\$ 3.34	\$ 3.30							
Strike Price Hit		No	No	No	No	No							
Option Hedging Gain (Credit)		\$ -	\$ -	\$ -	\$ -	\$ -							
Tota Northern Hedging Net Cost		\$ 13,860	\$ 26,350	\$ 46,350	\$ 45,540	\$ 29,600							
New Hampshire Allocated Percentage		40.59%	40.04%	40.38%	40.06%	39.43%							
NH Futures Hedging Net Cost		\$ 5,626	\$ 10,550	\$ 18,717	\$ 18,245	\$ 11,671							
NH Commodity Costs													
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
Hedging (Gain)/Loss Estimate		\$ 5,626	\$ 10,550	\$ 18,717	\$ 18,245	\$ 11,671	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Storage		\$ 37,773	\$ 403,167	\$ 649,328	\$ 794,920	\$ 385,114	\$ 13,422	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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
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

	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 Hedging 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

Inventory Finance Charge		\$ 232	\$ 362	\$ 507	\$ 445	\$ 335	\$ 156	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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
		Winter						Summer					
	Oct-16	(Forecast) Nov-16	(Forecast) Dec-16	(Forecast) Jan-17	(Forecast) Feb-17	(Forecast) Mar-17	(Forecast) Apr-17	(Forecast) May-17	(Forecast) Jun-17	(Forecast) Jul-17	(Forecast) Aug-17	(Forecast) Sep-17	(Forecast) Oct-17
Working Capital													
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
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%
Working Capital Allowance		\$ 2,515	\$ 3,108	\$ 4,337	\$ 3,365	\$ 2,993	\$ 1,021	\$ 845	\$ 708	\$ 680	\$ 686	\$ 700	\$ 999
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
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
Interest		\$ 6	\$ 14	\$ 25	\$ 36	\$ 46	\$ 52	\$ 55	\$ 57	\$ 59	\$ 61	\$ 64	\$ 66
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
Bad Debt													
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
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
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
Interest		\$ 348	\$ 440	\$ 532	\$ 625	\$ 717	\$ 811	\$ 863	\$ 875	\$ 886	\$ 898	\$ 910	\$ 922
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
Local Production and Storage Capacity		\$ 70,110	\$ 70,110	\$ 70,110	\$ 70,110	\$ 70,110	\$ 70,110	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NH PUC Consulting Costs		\$ 7,976	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,024	\$ -	\$ -	\$ -	\$ -	\$ -
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
Gas Cost Other than Bad Debt and Working Capital Over/Under Collection													
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)
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
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)
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)
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%
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)
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)
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)
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
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
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)

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

Account # 53325

Current

ACB	(\$144,708.38)
TE	\$286,310.00
LV	\$141,601.62

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	10/31/16 Futures Price	Current Open Trade Equity
05/27/15	Dec16 Options	Both	31	0.0850	\$26,350.00	\$5.250	\$3.026	\$0.00
06/26/15	Jan17 Options	Both	45	0.1030	\$46,350.00	\$6.000	\$3.195	\$0.00
07/29/15	Feb17 Options	Both	46	0.0990	\$45,540.00	\$6.250	\$3.223	\$0.00
08/27/15	Mar17 Options	Both	37	0.0800	\$29,600.00	\$6.300	\$3.199	\$0.00
05/02/16	Nov17 Options	Both	12	0.2300	\$27,600.00	\$3.500	\$3.172	\$0.00
05/26/16	Dec17 Options	Both	20	0.2370	\$47,400.00	\$4.000	\$3.319	\$0.00
06/28/16	Jan18 Options	Both	29	0.2475	\$71,775.00	\$4.300	\$3.410	\$0.00
07/27/16	Feb18 Options	Both	30	0.2470	\$74,100.00	\$4.500	\$3.377	\$0.00
08/29/16	Mar18 Options	Both	25	0.2400	\$60,000.00	\$4.650	\$3.306	\$0.00

Total Expense, Open Trade Equity

\$428,715.00

\$0.00

OPEN CALL OPTION POSITIONS- Long Option Value

Total

		State	QTY	Current Option Premium	Current Option Value	Strike Price
05/27/15	Dec16 Options	Both	31	0.0002	\$62.00	\$5.250
06/26/15	Jan17 Options	Both	45	0.0031	\$1,395.00	\$6.000
07/29/15	Feb17 Options	Both	46	0.0110	\$5,060.00	\$6.250
08/27/15	Mar17 Options	Both	37	0.0197	\$7,289.00	\$6.300
05/02/16	Nov17 Options	Both	12	0.2729	\$32,748.00	\$3.500
05/26/16	Dec17 Options	Both	20	0.2052	\$41,040.00	\$4.000
06/28/16	Jan18 Options	Both	29	0.2449	\$71,021.00	\$4.300
07/27/16	Feb18 Options	Both	30	0.2374	\$71,220.00	\$4.500
08/29/16	Mar18 Options	Both	25	0.2259	\$56,475.00	\$4.650

10/31/16 Total Long Option Value

\$286,310.00

MARGIN CASH BALANCE

Subtotal

Total

10/01/16 Beginning Balance-carried forward from last month

(\$164,708.38)

Interest Credit

\$0.00

Net Deposit to Margin Account

\$20,000.00

Option Premiums of new activity

\$0.00

Monthly Transaction Costs

\$0.00

Total Monthly Cash Adjustment

\$20,000.00

10/31/16 Ending Balance (ACB)

(\$144,708.38)

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

Inventory
ACCT #

MMBTU

AMOUNT

	LNG		
515152	Inventory - Liquefied Natural Gas		
	NATURAL GAS	9,851	\$99,917.86
515114&115	Natural Gas Underground - SS-1 and FSS-1		
515116	Natural Gas Underground - SSNE	202,060	\$337,295.80
515113	Natural Gas Underground - MCN	3,400,000	\$9,899,624.52
516525	Washington 10 prepaid	-	

Total Inventory

\$10,336,838.18