



August 23, 2017

Debra Howland  
Executive Director and Secretary  
New Hampshire Public Utilities Commission  
21 S. Fruit St., Suite 10  
Concord, NH 03301-2429

Re: Northern Utilities, Inc., New Hampshire Division - Docket DG 16-819  
August 2017 Monthly Cost of Gas Report

Dear Director Howland:

Pursuant to the Commission's Order No. 25,959 in Docket DG 16-819, enclosed is Northern Utilities - New Hampshire Division's ("Northern" or the "Company") current calculation of its projected over or under collection of gas costs for the 2016 / 2017 summer season as well as for the 2016 /2017 annual period. The Company is also providing a summary of its hedging transactions and monthly inventory interest calculation, both updated through July 2017.

Northern's current calculation of costs has been updated to reflect the actual May 1, 2017 balance, actual costs and revenues for May through July 2017, and NYMEX futures prices as of August 18, 2017. The updated calculations indicate that a rate change is not required at this time. Support for this decision is provided in the attached summary and tables.

If you have any questions regarding this filing, please do not hesitate to contact me or Chris Kahl at (603)773-6425.

Very truly yours,

A handwritten signature in black ink, appearing to read "George H. Simmons Jr.", written over a horizontal line.

George H. Simmons Jr.

Enclosures

cc: Alex Speidel, Staff Counsel  
D Maurice Kreis, Consumer Advocate

George H. Simmons  
Manager Regulatory Services

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Hampton, NH 03842

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## New Hampshire Monthly Cost of Gas Report

### August 2017 Summary

The objective of the Summer Period Monthly Cost of Gas ("COG") analysis is to determine if COG rates need to be adjusted in order to minimize the October 31, 2017 end of year balance. This is done by determining the October 31, 2017 Summer Season balance and comparing it to the corresponding end of year balance.

As shown on Table 1, Line 27, the projected Summer Season end of period balance is an under-collection of \$975,319. When combined with the Winter Season's projected end of period over-collection, Line 29, of \$(1,551,257), the projected end of year balance, Line 31, is an over-collection of \$(575,938). Although the projected summer season under-collection is greater the 4% of the total projected gas costs, any adjustment / increase in rates will increase the end of year balance. Therefore, no rate change is proposed at this time.

An increase in COG rates will only occur when the projected under-collection exceeds the 4% threshold and offsets the Winter Season over-collection balance. This amount, \$1,776,052, is shown on Line 36 of Table 1.

Line	Description	Amount
27	Projected Summer Season end of period balance	\$975,319
29	Projected Winter Season end of period over-collection	\$(1,551,257)
31	Projected end of year balance	\$(575,938)
36	Threshold amount for rate increase	\$1,776,052

Table 1

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

1	Under/(Over) collection as of 05/01/17 [1]	\$ (2,086,122)	Table 2, PG 3, APRIL, LN 114
2			
3	Forecasted firm therm sales 08/01/2017 - 10/31/2017 (Summer)		
4	Residential Heat & Non Heat	1,842,100	Table 2, PG. 2 Line 2
5	HLF Classes	1,150,676	Table 2, PG. 2 Line 3
6	LLF Classes	1,310,727	Table 2, PG. 2 Line 4
7			
8	Current recovery rate per therm		
9	Residential heat & non heat	\$0.4055	Table 2, PG. 1 Line 7
10	HLF classes	\$0.3589	Table 2, PG. 1 Line 8
11	LLF classes	\$0.4465	Table 2, PG. 1 Line 9
12			
13	Total	\$ (1,745,189)	(Ln4*Ln 9) + (Ln5*Ln10) +(LN6*Ln 11)
14			
15	Forecasted recovered costs at current rates 08/01/2017 - 10/31/2017	\$ (1,745,189)	LN 13
16	Actual recovered costs	\$ (813,244)	
17	Estimated total recovered costs 05/01/2017 - 10/31/2017	\$ (2,558,433)	Ln 15 + Ln 16
18			
19	Revised projected direct gas costs 05/01/17 - 10/31/17 [2] (Summer)	\$ 5,434,626	Table 2, PG 4, LN 71
20	Revised projected indirect gas costs 05/01/17 - 10/31/17 [3] (Summer)	\$ 185,247	Table 2, PG 4, LN 104
21			
22	Total Projected Summer Gas Costs	\$ 5,619,874	LN 19 + LN 20
23			
26			
27	Projected Summer Season under/(over) collection as of 10/31/17	\$ 975,319	LN 1 + LN 17+LN 22
28			
29	Winter Season Variance (Over-collection)	\$ (1,551,257)	Table 2, PG 3, APRIL, LN 110 - LN 114
30			
31	Projected October 31, 2017 End of Year Balance (over-collection)	\$ (575,938)	LN 27 + LN 29
32			
34	Summer Season Under-collection Threshold (4% of Projected Summer Cost)	\$ 224,795	LN 22 * 4%
35			
36	Total Under-Collection Threshold	\$ 1,776,052	(LN 29*-1)+LN 34
37			
38	Over-collection Threshold (4% of Projected Summer Cost)	\$ (224,795)	LN 22 * 4% *-1
39			
40	Projected Summer Period Variance	\$ 975,319	Ln 27
41			
42	Type of Variance	Under-collection	
43			
44	Rate Adjustment Required	No	If Ln 40 < Ln 36, No, else Yes

## NOTES

[1] Target balance used for determining Summer Period COG rates

[2] Reflects futures prices as of August 18, 2017

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

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

Winter															Summer				
Sales Revenues		Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	(Forecast) Aug-17	(Forecast) Sep-17	(Forecast) Oct-17					
1	Volumes																		
2	Residential Heat & Non Heat											431,131	476,265	934,704					
3	Sales HLF Classes											269,308	297,501	583,867					
4	Sales LLF Classes											306,767	338,881	665,079					
5	Total											1,007,206	1,112,647	2,183,650					
6	Rates																		
7	Residential Heat & Non Heat CGA											\$ 0.4055	\$ 0.4055	\$ 0.4055					
8	Sales HLF Classes CGA											\$ 0.3589	\$ 0.3589	\$ 0.3589					
9	Sales LLF Classes CGA											\$ 0.4465	\$ 0.4465	\$ 0.4465					
10	Revenues																		
11	Residential Heat & Non Heat											\$ (174,824)	\$ (193,125)	\$ (379,023)					
12	Sales HLF Classes											\$ (96,655)	\$ (106,773)	\$ (209,550)					
13	Sales LLF Classes											\$ (136,971)	\$ (151,310)	\$ (296,958)					
14	Total Sales		\$ (2,703,468)	\$ (4,232,010)	\$ (5,049,884)	\$ (4,110,321)	\$ (4,109,899)	\$ (3,327,640)	\$ (160,478)	\$ (395,071)	\$ (257,695)	\$ (408,450)	\$ (451,209)	\$ (885,530)					
15																			
16																			
17	Gas Costs and Credits	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	(Forecast) Aug-17	(Forecast) Sep-17	(Forecast) Oct-17					
18	Net Demand Costs (Net of Injection Fees & Cap. Assign.)																		
19	Pipeline											\$ 274,823	\$ 274,823	\$ 274,823					
20	Storage											\$ 554,066	\$ 554,066	\$ 554,066					
21	Peaking											\$ 22,055	\$ 22,055	\$ 22,055					
22	Total Demand Costs											\$ 850,944	\$ 850,944	\$ 850,944					
23																			
24	Asset Management and Capacity Release																		
25	NUI AMA Revenue											\$ (830,623)	\$ (830,623)	\$ (830,623)					
26	NUI Capacity Release											\$ (5,393)	\$ (5,393)	\$ (5,393)					
27	NUI AMA Rev & Cap. Release Subtotal											\$ (836,016)	\$ (836,016)	\$ (836,016)					
28	NH AMA Revenue											\$ (303,728)	\$ (303,728)	\$ (303,728)					
29	NH Capacity Release											\$ (2,343)	\$ (2,343)	\$ (2,343)					
30	NH Total Asset Management and Capacity Release											\$ (306,071)	\$ (306,071)	\$ (306,071)					
31																			
32																			
33	PNGTS Refund											\$ (16,566.71)	\$ (16,566.71)	\$ (16,566.71)					
34																			
35	Net Demand Costs		\$ 1,105,488	\$ 835,704	\$ 1,012,794	\$ 993,820	\$ 997,079	\$ 275,747	\$ 587,761	\$ 595,692	\$ 576,198	\$ 528,306	\$ 528,306	\$ 528,306					
36																			
37	NUI Commodity Costs																		
38	NUI Total Pipeline Volumes											285,644	313,975	623,892					
39	Pipeline Costs Modeled in Sendout™											\$ 678,497	\$ 720,034	\$ 1,679,577					
40	NYMEX Price Used for Forecast											\$ 3.0440	\$ 3.0280	\$ 3.0510					
41	NYMEX Price Used for Update											\$ 2.9690	\$ 2.8930	\$ 2.9690					
42	Increase/(Decrease) NYMEX Price											\$ (0.0750)	\$ (0.1350)	\$ (0.0820)					
43	Increase/(Decrease) in Pipeline Costs											\$ (21,423)	\$ (42,387)	\$ (51,159)					
44	Updated Pipeline Costs											\$ 657,074	\$ 677,647	\$ 1,628,418					
45	Interruptible Volumes - NH											0	0	0					
46	Average Supply Cost (\$/MMBtu)											\$ 2.30	\$ 2.16	\$ 2.61					
47	Interruptible Cost - NH											\$ -	\$ -	\$ -					
48	Total Updated Pipeline Costs											\$ 657,074	\$ 677,647	\$ 1,628,418					
49	New Hampshire Allocated Percentage											35.42%	35.63%	35.30%					
50	NH Updated Pipeline Costs											\$ 232,712	\$ 241,421	\$ 574,866					
51	Hedging (Gain)/Loss Estimate																		
52	NYMEX Options Contracts																		
53	Hedging Expenses																		
54	NYMEX Option Strike Price																		
55	NYMEX Price Used for Forecast																		
56	Strike Price Hit																		
57	Option Hedging Gain (Credit)																		
58	Total Northern Hedging Net Cost																		
59	New Hampshire Allocated Percentage																		
60	NH Futures Hedging Net Cost								\$ -		\$ -	\$ -	\$ -	\$ -					
61																			
62	NH Commodity Costs																		
63	Pipeline Excl Hedging											\$ -	\$ 232,712	\$ 241,421					
64	Hedging (Gain)/Loss Estimate											\$ -	\$ -	\$ -					
65	Storage											\$ -	\$ -	\$ -					
66	Peaking											\$ 5,005	\$ 4,859	\$ 4,967					
67	Total Commodity Costs		\$ 1,291,866	\$ 2,744,212	\$ 2,876,678	\$ 2,435,261	\$ 1,972,703	\$ 1,129,523	\$ 459,407	\$ 305,519	\$ 261,302	\$ 237,716	\$ 246,280	\$ 579,834					

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

Sales Revenues				
Volumes		Winter	Summer	Total
1	Residential Heat & Non Heat	-	1,842,100	1,842,100
2	Sales HLF Classes	-	1,150,676	1,150,676
3	Sales LLF Classes	-	1,310,727	1,310,727
4	Total	-	4,303,503	4,303,503
5	Rates	-	-	-
6	Residential Heat & Non Heat CGA	-	-	-
7	Sales HLF Classes CGA	-	-	-
8	Sales LLF Classes CGA	-	-	-
9	Revenues	-	-	-
10	Residential Heat & Non Heat	-	(746,972)	(746,972)
11	Sales HLF Classes	-	(412,978)	(412,978)
12	Sales LLF Classes	-	(585,239)	(585,239)
13	Total Sales	(23,533,223)	(2,558,433)	(26,091,656)
14				
15				
Gas Costs and Credits				
		Winter	Summer	Total
16	Net Demand Costs (Net of Injection Fees & Cap. Ass)	-	-	-
17	Pipeline	-	824,470	824,470
18	Storage	-	1,662,198	1,662,198
19	Peaking	-	66,164	66,164
20	Total Demand Costs	-	2,552,831	2,552,831
21				
22	Asset Management and Capacity Release	-	-	-
23	NUI AMA Revenue	-	(2,491,869)	(2,491,869)
24	NUI Capacity Release	-	(16,180)	(16,180)
25	NUI AMA Rev & Cap. Release Subtotal	-	(2,508,049)	(2,508,049)
26	NH AMA Revenue	-	(911,184)	(911,184)
27	NH Capacity Release	-	(7,030)	(7,030)
28	NH Total Asset Management and Capacity Release	\$ -	\$ (918,214)	\$ (918,214)
29				
30	PNGTS Refund	\$ (1,990,806)	\$ (99,400)	\$ (49,700)
31				
32	Net Demand Costs	\$ (1,990,806)	\$ 1,535,217	\$ 1,584,917
33				
34	NUI Commodity Costs	-	-	-
35	NUI Total Pipeline Volumes	-	-	1,223,510
36	Pipeline Costs Modeled in Sendout™	-	-	\$ 3,078,108
37	NYMEX Price Used for Forecast	-	-	-
38	NYMEX Price Used for Update	-	-	-
39	Increase/(Decrease) NYMEX Price	-	-	-
40	Increase/(Decrease) in Pipeline Costs	-	-	-
41	Updated Pipeline Costs	-	-	-
42	Interruptible Volumes - NH	-	-	-
43	Average Supply Cost (\$/MMBtu)	-	-	-
44	Interruptible Cost - NH	-	-	-
45	Total Updated Pipeline Costs	-	-	-
46	New Hampshire Allocated Percentage	-	-	-
47	NH Updated Pipeline Costs	-	-	\$ 1,048,999
48	Hedging (Gain)/Loss Estimate	-	-	-
49	NYMEX Options Contracts	-	-	-
50	Hedging Expenses	-	-	-
51	NYMEX Option Strike Price	-	-	-
52	NYMEX Price Used for Forecast	-	-	-
53	Strike Price Hit	-	-	-
54	Option Hedging Gain (Credit)	-	-	\$ -
55	Total Northern Hedging Net Cost	-	-	\$ -
56	New Hampshire Allocated Percentage	-	-	-
57	NH Futures Hedging Net Cost	\$ -	\$ -	\$ -
58	NH Commodity Costs	-	-	-
59	Pipeline Excl Hedging	\$ -	\$ 1,048,999	\$ 1,048,999
60	Hedging (Gain)/Loss Estimate	\$ -	\$ -	\$ -
61	Storage	\$ -	\$ -	\$ -
62	Peaking	\$ -	\$ 14,831	\$ 14,831
63	Total Commodity Costs	\$ 12,450,244	\$ 2,090,059	\$ 14,540,302

End of Period Balance, All Accounts	\$	(3,637,379)
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\* See Annual COG filing, Schedule 3, Page 3 of 4, APR-17, LN 109

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

69	Inventory Finance Charge	\$	-	\$	-	\$	-
70							
71	Total Anticipated Direct Cost of Gas	\$	17,670,876	\$	5,434,626	\$	23,105,502
72							
73							
74		Winter	Summer		Total		
75	Working Capital						
76	Total Anticipated Direct Cost of Gas			\$	23,986,948		
77	Working Capital Percentage						
78	Working Capital Allowance			\$	22,002		
79	Beginning Period Working Capital Balance						
80	End of Period Working Capital Allowance						
81	Interest			\$	582		
82	End of period with Interest						
83	Bad Debt						
84	Projected Bad Debt	\$	33,544	\$	109,993	\$	143,537
85	Beginning Period Bad Debt Balance						
86	End of Period Bad Debt Balance						
87	Interest					\$	7,236
88	End of Period Bad Debt Balance with Interest						
89	Local Production and Storage Capacity	\$	420,658	\$	-	\$	420,658
90	NH PUC Consulting Costs	\$	-	\$	-	\$	-
91	Miscellaneous Overhead	\$	408,908	\$	103,760	\$	512,668
92							
93	Gas Cost Other than Bad Debt and Working Capital						
94	Beginning Balance Over/Under Collection					\$	(14,326,909)
95	Net Costs - Revenues					\$	(2,052,828)
96	Ending Balance before Interest					\$	(16,379,737)
97	Average Balance					\$	(15,353,323)
98	Interest Rate						
99	Interest Expense					\$	(49,172)
100	Ending Balance Incl Interest Expense						
101	Total Over/Under Collection Ending Balance						
102							
103	Total Indirect Cost of Gas	\$	2,224,969	\$	185,247	\$	2,410,216
104							
105	Total Cost of Gas	\$	18,543,140	\$	5,619,874	\$	25,515,718
106							
107	Total Interest	\$	(7,352)	\$	(34,002)	\$	(41,354)
108							
109							
110							
111							
112							
113							
114							
115							
116							



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

Account # 53325

Current

ACB	(\$24,708.38)
TE	\$92,079.00
LV	\$67,370.62

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	
Net P&L							\$0.00

TRANSACTION COSTS	Subtotal	Total
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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
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	State	QTY	Actual Option Premium	Option Purchase Cost	Strike Price	07/31/17 Futures Price	Current Open Trade Equity
05/02/16 Nov17 Options	Both	12	0.2300	\$27,600.00	\$3.500	\$2.920	\$0.00
05/26/16 Dec17 Options	Both	20	0.2370	\$47,400.00	\$4.000	\$3.079	\$0.00
06/28/16 Jan18 Options	Both	29	0.2475	\$71,775.00	\$4.300	\$3.173	\$0.00
07/27/16 Feb18 Options	Both	30	0.2470	\$74,100.00	\$4.500	\$3.164	\$0.00
08/29/16 Mar18 Options	Both	25	0.2400	\$60,000.00	\$4.650	\$3.119	\$0.00
Total Expense, Open Trade Equity				\$280,875.00			\$0.00

OPEN CALL OPTION POSITIONS- Long Option Value	Total
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	State	QTY	Current Option Premium	Current Option Value	Strike Price
05/02/16 Nov17 Options	Both	12	0.0299	\$3,588.00	\$3.500
05/26/16 Dec17 Options	Both	20	0.0324	\$6,480.00	\$4.000
06/28/16 Jan18 Options	Both	29	0.0704	\$20,416.00	\$4.300
07/27/16 Feb18 Options	Both	30	0.1034	\$31,020.00	\$4.500
08/29/16 Mar18 Options	Both	25	0.1223	\$30,575.00	\$4.650
07/31/17 Total Long Option Value				\$92,079.00	

MARGIN CASH BALANCE	Subtotal	Total
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07/01/17 Beginning Balance-carried forward from last month		(\$64,708.38)
Interest Credit	\$0.00	
Net Deposit to Margin Account	\$40,000.00	
Option Premiums of new activity	\$0.00	
Monthly Transaction Costs	\$0.00	
Total Monthly Cash Adjustment		\$40,000.00
07/31/17 Ending Balance (ACB)		(\$24,708.38)



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

	<b>Total Inventory</b>	<b>Average bal beg + end / 2</b>	<b>Internally Financed</b>	<b>Money Pool Interest Rate</b>	<b>Interest to Defer</b>	<b>NH</b>	<b>ME</b>
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	\$7,018,391.76	\$7,597,292.36	\$7,597,292.36	2.05%	\$12,972.11	\$5,502.77	\$7,469.34
February	\$3,991,804.55	\$5,505,098.15	\$5,505,098.15	2.05%	\$9,399.77	\$3,987.38	\$5,412.38
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

<b>Inventory ACCT#</b>		<b>MMBTU</b>	<b>AMOUNT</b>
	LNG		
515152	Inventory - Liquefied Natural Gas		
	NATURAL GAS	9,370	\$61,601.37
515114&115	Natural Gas Underground - SS-1 and FSS-1		
515116	Natural Gas Underground - SSNE	120,433	\$275,513.87
515113	Natural Gas Underground - MCN	2,219,388	\$6,681,276.52
516525	Washington 10 prepaid	-	
<b>Total Inventory</b>			<b>\$7,018,391.76</b>