

New Hampshire Monthly Cost of Gas Report

Summer Period

May 2021 Summary

The objective of the May Monthly Cost of Gas ("COG") Report is to determine if COG rates need to be adjusted in order to minimize the October 31, 2021 expected end-of-year COG balance. This analysis determines if the October 31, 2021 Summer Period ending balance exceeds the threshold for a COG rate change and, if exceeded, a COG rate change lowers the expected end-of-year COG balance.

For the May 2021 analysis, NYMEX prices were updated based on the closing prices on May 21, 2021 and are reflected in the projected direct gas costs shown on Line 19 of Table 1. The change in NYMEX prices also impacts the working capital component of projected indirect gas costs as shown on Line 20.

As shown on Line 23 of Table 1, the projected end of Summer Period balance is an under-collection of \$200,362. This balance is below the threshold of \$386,042 (Line 37) for requiring a rate change. Therefore, a Summer Period COG rate change is not required at this time.

Support for the estimated end of year balance is provided in Table 2.

NORTHERN UTILITIES, INC.
NEW HAMPSHIRE DIVISION
Calculation of the Projected Over or Under Collection of the
2020-2021 Summer Period Cost of Gas
DG 20-154
May 2021 Estimated

1	April 30, 2021 Target Balance	\$ (5,447,209)	Table 2, PG. 3, Line 108
2			
3	Forecasted firm therm sales 05/01/21-10/31/21		
4	Residential Heat & Non Heat	3,447,020	Table 2, PG. 2, Line 2
5	HLF Classes	1,912,209	Table 2, PG. 2, Line 3
6	LLF Classes	2,701,981	Table 2, PG. 2, Line 4
7			
8	Current recovery rate per therm		
9	Residential heat & non heat	\$0.4970	Table 2, PG. 1, Line 7
10	HLF classes	\$0.4501	Table 2, PG. 1, Line 8
11	LLF classes	\$0.5291	Table 2, PG. 1, Line 9
12			
13	Total	\$ (4,003,472)	(LN 4 * LN 9) + (LN 5 * LN 10) + (LN 6 * LN 11)
14			
15	Forecasted recovered costs at current rates 05/01/21 - 10/31/21	\$ (4,003,472)	LN 13
16	Actual recovered costs	\$ -	
17	Estimated total recovered costs 05/01/21 - 10/31/21	\$ (4,003,472)	LN 15 + LN 16
18			
19	Revised projected direct gas costs [1]	\$ 9,559,057	Table 2, PG. 2, Line 69
20	Revised projected indirect gas costs [2]	\$ 91,986	Table 2, PG. 4, Line 101
21	Revised total projected gas costs 05/01/21 - 10/31/21	\$ 9,651,043	LN 19 + LN 20
22			
23	Projected October 31, 2021 Summer Season Balance	\$ 200,362	LN 1 + LN 17 + LN 21
24			
25	Projected Winter Season Variance	\$ 146,605	Table 2, Page 3, LN 111
26			
27	Projected End of Year Balance	\$ 346,967	Table 2, Page 3, LN 99, October
28			
29			
30			
31	Projected Summer Season Imbalance Type	Under-collection	
32			
33	Projected End of Year Variance	2.08%	LN 27 / LN 21
34			
35	Summer Season Over-collection Threshold (4% of Projected Gas Costs)	NA	LN 23 * 4%
36			
37	Summer Season Under-collection Threshold (4% of Projected Gas Costs)	\$ 386,042	LN 21 * 4%
38			
39	Over-collection Rate Adjustment Required	NA	IF (ABS) LN 27 > (ABS) LN 35 Yes, ELSE No
40			
41	Under-collection Rate Adjustment Required	No	IF (ABS) LN 23 > (ABS) LN 37 Yes, ELSE No

NOTES

[1] Reflects futures prices as of May 21, 2021

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

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

Sales Revenues	Winter							Summer					
	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	(Forecast) May-21	(Forecast) Jun-21	(Forecast) Jul-21	(Forecast) Aug-21	(Forecast) Sep-21	(Forecast) Oct-21
Volumes													
Residential Heat & Non Heat								730,922	489,258	412,466	418,643	455,783	939,948
Sales HLF Classes								405,473	271,412	228,812	232,239	252,842	521,430
Sales LLF Classes								572,940	383,510	323,315	328,157	357,270	736,788
Total								1,709,335	1,144,180	964,593	979,040	1,065,895	2,198,166
Rates													
Residential Heat & Non Heat CGA								\$0.4970	\$0.4970	\$0.4970	\$0.4970	\$0.4970	\$0.4970
Sales HLF Classes CGA								\$0.4501	\$0.4501	\$0.4501	\$0.4501	\$0.4501	\$0.4501
Sales LLF Classes CGA								\$0.5291	\$0.5291	\$0.5291	\$0.5291	\$0.5291	\$0.5291
Revenues													
Residential Heat & Non Heat								\$ (363,268)	\$ (243,161)	\$ (204,995)	\$ (208,066)	\$ (226,524)	\$ (467,154)
Sales HLF Classes								\$ (182,504)	\$ (122,163)	\$ (102,988)	\$ (104,531)	\$ (113,804)	\$ (234,695)
Sales LLF Classes								\$ (303,143)	\$ (202,915)	\$ (171,066)	\$ (173,628)	\$ (189,032)	\$ (389,835)
Total Sales		\$ (2,882,446)	\$ (4,259,355)	\$ (5,212,885)	\$ (4,765,411)	\$ (4,067,873)	\$ (2,198,500)	\$ (848,914)	\$ (568,239)	\$ (479,050)	\$ (486,225)	\$ (529,360)	\$ (1,091,684)
Gas Costs and Credits	Winter							Summer					
	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	(Forecast) May-21	(Forecast) Jun-21	(Forecast) Jul-21	(Forecast) Aug-21	(Forecast) Sep-21	(Forecast) Oct-21
Demand Costs (net of Capacity Assignment)													
Pipeline								\$ 457,604	\$ 457,604	\$ 457,604	\$ 457,604	\$ 457,604	\$ 457,604
Storage								\$ 630,827	\$ 630,827	\$ 630,827	\$ 630,827	\$ 630,827	\$ 630,827
On-system Peaking								\$ 16,338	\$ 16,338	\$ 16,338	\$ 16,338	\$ 16,338	\$ 16,338
Off-System Peaking								\$ 317,658	\$ 317,658	\$ 317,658	\$ 317,658	\$ 317,658	\$ 317,658
Total Demand Costs								\$ 1,422,428	\$ 1,422,428	\$ 1,422,428	\$ 1,422,428	\$ 1,422,428	\$ 1,422,428
Asset Management and Capacity Release													
NUI AMA Revenue								\$ (712,459)	\$ (712,459)	\$ (712,459)	\$ (712,459)	\$ (712,459)	\$ (712,459)
NUI Capacity Release								\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NUI AMA Rev & Cap. Release Subtotal								\$ (288,787)	\$ (288,787)	\$ (288,787)	\$ (288,787)	\$ (288,787)	\$ (288,787)
NH AMA Revenue								\$ (288,787)	\$ (288,787)	\$ (288,787)	\$ (288,787)	\$ (288,787)	\$ (288,787)
NH Capacity Release								\$ (288,787)	\$ (288,787)	\$ (288,787)	\$ (288,787)	\$ (288,787)	\$ (288,787)
NH Total Asset Management and Capacity Release			\$ -					\$ (288,787)	\$ (288,787)	\$ (288,787)	\$ (288,787)	\$ (288,787)	\$ (288,787)
CNG Expenses								\$ 9,972	\$ 9,972	\$ 9,972	\$ 9,972	\$ 9,972	\$ 9,972
Re-entry Rate & Conversion Rate Revenue								\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Demand Costs		\$ 1,156,589	\$ 1,106,649	\$ 1,207,069	\$ 1,252,487	\$ 1,172,433	\$ 1,283,306	\$ 1,143,612	\$ 1,143,612	\$ 1,143,612	\$ 1,143,612	\$ 1,143,612	\$ 1,143,612
NUI Commodity Costs													
NUI Total Pipeline Volumes								499,328	337,173	291,023	294,102	320,183	619,360
Pipeline Costs Modeled in Sendout™								\$ 1,322,251	\$ 886,662	\$ 774,801	\$ 782,079	\$ 832,473	\$ 1,619,126
NYMEX Price Used for Forecast								\$ 2,2610	\$ 2,2970	\$ 2,3360	\$ 2,3450	\$ 2,3290	\$ 2,3540
NYMEX Price Used for Update								\$ 2,9250	\$ 2,9060	\$ 2,9770	\$ 2,9960	\$ 2,9930	\$ 3,0130
Increase/(Decrease) NYMEX Price								\$ 0.66	\$ 0.61	\$ 0.64	\$ 0.65	\$ 0.66	\$ 0.66
Increase/(Decrease) in Pipeline Costs								\$ 331,554	\$ 205,338	\$ 186,546	\$ 191,460	\$ 212,602	\$ 408,158
Updated Pipeline Costs								\$ 1,653,805	\$ 1,092,000	\$ 961,347	\$ 973,539	\$ 1,045,075	\$ 2,027,284
New Hampshire Allocated Percentage								34.56%	34.20%	33.37%	33.52%	33.54%	35.85%
NH Updated Pipeline Costs								\$ 571,481	\$ 373,459	\$ 320,791	\$ 326,293	\$ 350,525	\$ 726,809
NH Peaking Volumes								643	616	621	623	604	667
NH Peaking Costs Modeled in Sendout								\$ 4,767	\$ 4,130	\$ 4,141	\$ 4,153	\$ 3,992	\$ 4,396
Change in NYMEX Price %								\$ 0.66	\$ 0.61	\$ 0.64	\$ 0.65	\$ 0.66	\$ 0.66
Change in Peaking Costs								\$ 426.77	\$ 374.90	\$ 397.84	\$ 405.83	\$ 400.88	\$ 439.44
NH Updated Peaking Costs								\$ 5,194	\$ 4,505	\$ 4,539	\$ 4,559	\$ 4,393	\$ 4,836
NH Commodity Costs													
Pipeline								\$ 571,481	\$ 373,459	\$ 320,791	\$ 326,293	\$ 350,525	\$ 726,809
Storage								\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Peaking								\$ 5,194	\$ 4,505	\$ 4,539	\$ 4,559	\$ 4,393	\$ 4,836
Off-System Gas Sales Margin													
New Hampshire Allocated Percentage													
NH Off-System Gas Sales Margin													
Total Commodity Costs		\$ 912,258	\$ 1,908,761	\$ 2,183,030	\$ 1,508,422	\$ 1,492,625	\$ 794,282	\$ 576,675	\$ 377,963	\$ 325,330	\$ 330,851	\$ 354,918	\$ 731,645
Inventory Finance Charge								\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Anticipated Direct Cost of Gas		\$ 2,068,847	\$ 3,015,410	\$ 3,390,099	\$ 2,760,909	\$ 2,665,058	\$ 2,077,588	\$ 1,720,288	\$ 1,521,576	\$ 1,468,942	\$ 1,474,464	\$ 1,498,531	\$ 1,875,257

Northern Utilities
NEW HAMPSHIRE (Over) / Undercollection Analysis

Sales Revenues		Winter	Summer	Prior Period	Total
Volumes					
Residential Heat & Non Heat			3,447,020		
Sales HLF Classes			1,912,209		
Sales LLF Classes			2,701,981		
Total		-	8,061,210		
Rates					
Residential Heat & Non Heat CGA					
Sales HLF Classes CGA					
Sales LLF Classes CGA					
Revenues					
Residential Heat & Non Heat			\$ (1,713,169)		
Sales HLF Classes			\$ (860,685)		
Sales LLF Classes			\$ (1,429,618)		
Total Sales		\$ (23,386,468)	\$ (4,003,472)		\$ (27,389,940)
Gas Costs and Credits					Total
Demand Costs (net of Capacity Assignment)					
Pipeline		\$ -	\$ 2,745,625		\$ 2,745,625
Storage		\$ -	\$ 3,784,960		\$ 3,784,960
On-system Peaking		\$ -	\$ 98,030		\$ 98,030
Off-System Peaking		\$ -	\$ 1,905,950		\$ 1,905,950
Total Demand Costs		\$ -	\$ 8,534,565		\$ 8,534,565
Asset Management and Capacity Release					
NUI AMA Revenue					\$ (4,274,754)
NUI Capacity Release					\$ -
NUI AMA Rev & Cap. Release Subtotal					\$ -
NH AMA Revenue					\$ (1,732,724)
NH Capacity Release					\$ -
NH Total Asset Management and Capacity Release		\$ -	\$ (1,732,724)		\$ (1,732,724)
CNG Expenses		\$ -	\$ 59,833		\$ 59,833
Re-entry Rate & Conversion Rate Revenue		\$ (5,000)	\$ -		\$ (5,000)
Net Demand Costs		\$ 7,178,533	\$ 6,861,674		\$ 14,040,207
NUI Commodity Costs					
NUI Total Pipeline Volumes					
Pipeline Costs Modeled in Sendout™					
NYMEX Price Used for Forecast					
NYMEX Price Used for Update					
Increase/(Decrease) NYMEX Price					
Increase/(Decrease) in Pipeline Costs					
Updated Pipeline Costs					
New Hampshire Allocated Percentage					
NH Updated Pipeline Costs			\$ 2,669,358		\$ 2,669,358
NH Peaking Volumes					
NH Peaking Costs Modeled in Sendout					
Change in NYMEX Price %					
Change in Peaking Costs					
NH Updated Peaking Costs			\$ 28,025		\$ 28,025
NH Commodity Costs					
Pipeline			\$ 2,669,358		\$ 2,669,358
Storage					\$ -
Peaking			\$ 28,025		\$ 28,025
Off-System Gas Sales Margin					
New Hampshire Allocated Percentage					
NH Off-System Gas Sales Margin		\$ -			\$ -
Total Commodity Costs		\$ 8,799,378	\$ 2,697,383		\$ 11,496,761
Inventory Finance Charge					\$ -
Total Anticipated Direct Cost of Gas		\$ 15,977,911	\$ 9,559,057		\$ 25,536,967

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

	Winter							Summer						
	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	(Forecast) May-21	(Forecast) Jun-21	(Forecast) Jul-21	(Forecast) Aug-21	(Forecast) Sep-21	(Forecast) Oct-21	
Working Capital														
Total Anticipated Direct Cost of Gas		\$ 2,226,786	\$ 3,173,350	\$ 3,548,038	\$ 2,918,849	\$ 2,822,998	\$ 2,235,527	\$ 1,738,441	\$ 1,539,729	\$ 1,487,096	\$ 1,492,617	\$ 1,516,684	\$ 1,893,411	
Working Capital Percentage		0.0892%	0.0892%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	
Working Capital Allowance		\$ 1,986	\$ 2,831	\$ 3,165	\$ 2,604	\$ 2,518	\$ 1,994	\$ 1,551	\$ 1,373	\$ 1,326	\$ 1,331	\$ 1,353	\$ 1,689	
Beginning Period Working Capital Balance		\$ (41,387)	\$ (39,511)	\$ (36,783)	\$ (33,714)	\$ (31,198)	\$ (28,761)	\$ (26,842)	\$ (25,362)	\$ (24,055)	\$ (22,792)	\$ (21,520)	\$ (20,224)	
End of Period Working Capital Allowance		\$ (39,401)	\$ (36,680)	\$ (33,618)	\$ (31,110)	\$ (28,680)	\$ (26,767)	\$ (25,291)	\$ (23,988)	\$ (22,729)	\$ (21,461)	\$ (20,168)	\$ (18,535)	
Interest		\$ (109)	\$ (103)	\$ (95)	\$ (88)	\$ (81)	\$ (75)	\$ (71)	\$ (67)	\$ (63)	\$ (60)	\$ (56)	\$ (52)	
End of period with Interest	\$ (41,387)	\$ (39,511)	\$ (36,783)	\$ (33,714)	\$ (31,198)	\$ (28,761)	\$ (26,842)	\$ (25,362)	\$ (24,055)	\$ (22,792)	\$ (21,520)	\$ (20,224)	\$ (18,588)	
Bad Debt														
Projected Bad Debt	\$ -	\$ 4,903	\$ 10,407	\$ 12,015	\$ 2,685	\$ 5,854	\$ 4,358	\$ 2,371	\$ 2,371	\$ 2,371	\$ 2,371	\$ 2,371	\$ 2,371	
Beginning Period Bad Debt Balance		\$ (7,408)	\$ (2,518)	\$ 7,896	\$ 19,949	\$ 22,692	\$ 28,615	\$ 33,056	\$ 35,520	\$ 37,991	\$ 40,468	\$ 42,952	\$ 45,443	
End of Period Bad Debt Balance		\$ (2,505)	\$ 7,889	\$ 19,911	\$ 22,634	\$ 28,546	\$ 32,973	\$ 35,427	\$ 37,891	\$ 40,362	\$ 42,839	\$ 45,323	\$ 47,814	
Interest		\$ (13)	\$ 7	\$ 38	\$ 58	\$ 69	\$ 83	\$ 93	\$ 99	\$ 106	\$ 113	\$ 120	\$ 126	
End of Period Bad Debt Balance with Interest	\$ (7,408)	\$ (2,518)	\$ 7,896	\$ 19,949	\$ 22,692	\$ 28,615	\$ 33,056	\$ 35,520	\$ 37,991	\$ 40,468	\$ 42,952	\$ 45,443	\$ 47,940	
Local Production and Storage Capacity		\$ 79,351	\$ 79,351	\$ 79,351	\$ 79,351	\$ 79,351	\$ 79,351	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Miscellaneous Overhead		\$ 78,589	\$ 78,589	\$ 78,589	\$ 78,589	\$ 78,589	\$ 78,589	\$ 18,154	\$ 18,154	\$ 18,154	\$ 18,154	\$ 18,154	\$ 18,154	
Gas Cost Other than Bad Debt and Working Capital Over/Under Collection														
Beginning Balance Over/Under Collection	\$ 1,173,473	\$ 1,191,118	\$ 537,797	\$ (548,222)	\$ (2,216,808)	\$ (4,071,874)	\$ (5,329,462)	\$ (5,306,818)	\$ (4,430,459)	\$ (3,469,653)	\$ (2,469,638)	\$ (1,468,571)	\$ (483,888)	
Net Costs - Revenues		\$ (655,659)	\$ (1,086,005)	\$ (1,664,847)	\$ (1,846,562)	\$ (1,244,875)	\$ 37,028	\$ 889,527	\$ 971,490	\$ 1,008,046	\$ 1,006,393	\$ 987,324	\$ 801,727	
Ending Balance before Interest		\$ 535,459	\$ (548,208)	\$ (2,213,069)	\$ (4,063,370)	\$ (5,316,749)	\$ (5,292,435)	\$ (4,417,291)	\$ (3,458,969)	\$ (2,461,606)	\$ (1,463,246)	\$ (481,247)	\$ 317,839	
Average Balance		\$ 863,289	\$ (5,205)	\$ (1,380,645)	\$ (3,140,089)	\$ (4,694,311)	\$ (5,310,948)	\$ (4,862,055)	\$ (3,944,714)	\$ (2,965,630)	\$ (1,966,442)	\$ (974,909)	\$ (83,024)	
Interest Rate		3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	
Interest Expense		\$ 2,338	\$ (14)	\$ (3,739)	\$ (8,504)	\$ (12,714)	\$ (14,384)	\$ (13,168)	\$ (10,684)	\$ (8,032)	\$ (5,326)	\$ (2,640)	\$ (225)	
Ending Balance Incl Interest Expense	\$ 1,191,118	\$ 537,797	\$ (548,222)	\$ (2,216,808)	\$ (4,071,874)	\$ (5,329,462)	\$ (5,306,818)	\$ (4,430,459)	\$ (3,469,653)	\$ (2,469,638)	\$ (1,468,571)	\$ (483,888)	\$ 317,614	
Total Over/Under Collection Ending Balance	\$ 1,124,677	\$ 495,768	\$ (577,109)	\$ (2,230,573)	\$ (4,080,380)	\$ (5,329,608)	\$ (5,300,604)	\$ (4,420,301)	\$ (3,455,717)	\$ (2,451,962)	\$ (1,447,140)	\$ (458,669)	\$ 346,967	
Total Indirect Cost of Gas		\$ 167,044	\$ 171,068	\$ 169,323	\$ 154,694	\$ 153,586	\$ 149,916	\$ 8,930	\$ 11,247	\$ 13,862	\$ 16,583	\$ 19,301	\$ 22,063	
Total Cost of Gas		\$ 2,235,891	\$ 3,186,478	\$ 3,559,421	\$ 2,915,603	\$ 2,818,645	\$ 2,227,504	\$ 1,729,217	\$ 1,532,823	\$ 1,482,805	\$ 1,491,047	\$ 1,517,831	\$ 1,897,320	
Total Interest	\$ -	\$ 2,215	\$ (110)	\$ (3,797)	\$ (8,535)	\$ (12,725)	\$ (14,376)	\$ (13,146)	\$ (10,651)	\$ (7,989)	\$ (5,273)	\$ (2,577)	\$ (151)	

April 30th Target Balance	\$ (5,447,209)
April 30th Ending Balance	\$ (5,300,604)
Variance	\$ 146,605

Northern Utilities
NEW HAMPSHIRE (Over) / Undercollection Anal

	Winter	Summer	Prior Period	Total
Working Capital				
Total Anticipated Direct Cost of Gas				\$ 26,593,528
Working Capital Percentage				
Working Capital Allowance	\$ 15,098	\$ 8,624	\$ (41,387)	\$ (17,666)
Beginning Period Working Capital Balance				
End of Period Working Capital Allowance				
Interest	\$ (552)	\$ (370)		\$ (922)
End of period with Interest				
Bad Debt				
Projected Bad Debt	\$ 40,222	\$ 14,227	\$ (7,408)	\$ 47,041
Beginning Period Bad Debt Balance				
End of Period Bad Debt Balance				
Interest	\$ 242	\$ 657		\$ 899
End of Period Bad Debt Balance with Interest				
Local Production and Storage Capacity				\$ 476,106
				\$ -
Miscellaneous Overhead	\$ 471,532	\$ 108,923		\$ 580,455
Gas Cost Other than Bad Debt and Working Capital Over/L				
Beginning Balance Over/Under Collection				
Net Costs - Revenues	\$ (6,460,919)	\$ 5,664,507		\$ (796,412)
Ending Balance before Interest				
Average Balance				
Interest Rate				
Interest Expense	\$ (37,017)	\$ (40,075)		\$ (77,092)
Ending Balance Incl Interest Expense				
Total Over/Under Collection Ending Balance				
Total Indirect Cost of Gas	\$ 965,631	\$ 91,986	\$ 1,124,677	\$ 2,182,294
Total Cost of Gas	\$ 16,943,542	\$ 9,651,043	\$ 1,124,677	\$ 27,719,262
Total Interest	\$ (37,327)	\$ (39,787)		\$ (77,115)