New Hampshire Monthly Cost of Gas Report

Summer Period

April 2021 Summary

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

As shown Line 23 of Table 1, the projected end of Summer Period balance is an under-collection of $525,134. This amount is offset by the winter season variance, an over-collection of $74,993 (Line 25). The projected net end of year balance, an under-collection of $450,141 (Line 27), is above the 4% Summer Period under-collection threshold of $381,040 (Line 37) for requiring a change in COG rates. Therefore, a Summer Period COG rate change is required in order to reduce the end of year balance.

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
April 2021 Estimated

1	April 31, 2020 Target Balance		$ (5,447,209)	Table 2, PG. 3, Line 109,
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	$0.4412		Table 2, PG. 1, Line 7
10	HLF classes	$0.3943		Table 2, PG. 1, Line 8
11	LLF classes	$0.4733		Table 2, PG. 1, Line 9
12				
13	Total	$ (3,553,657)		(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		$ (3,553,657)	LN 13
16	Actual recovered costs		$ -	
17	Estimated total recovered costs 05/01/21 - 10/31/21		$ (3,553,657)	LN 15 + LN 16
18				
19	Revised projected direct gas costs [1]		$ 9,435,339	Table 2, PG. 2, Line 69
20	Revised projected indirect gas costs [2]		$ 90,661	Table 2, PG. 4, Line 101
21	Revised total projected gas costs 05/01/21 - 10/31/21		$ 9,526,000	LN 19 + LN 20
22				
23	Projected October 31, 2021 Summer Season Balance		$ 525,134	LN 1 + LN 17 + LN 21
24				
25	Projected Winter Season Variance		$ (74,993)	Table 2, Page 3, LN 111
26				
27	Projected End of Year Balance		$ 450,141	Table 2, Page 3, LN 99
28				
29				
30				
31	Projected Summer Season Imbalance Type		Under-collection	
32				
33	Projected End of Year Variance		4.73%	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)		$ 381,040	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 Requried		Yes	IF (ABS) LN 27 > (ABS) LN 37 Yes, ELSE No

NOTES
[1] Reflects futures prices as of April 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

			Winter						Summer						
	Sales Revenues							(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
1	Volumes	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21
2	Residential Heat & Non Heat							1,593,044	730,922	489,258	412,466	418,643	455,783	939,948
3	Sales HLF Classes							217,455	405,473	271,412	228,812	232,289	252,842	521,430
4	Sales LLF Classes							1,521,181	572,940	383,510	323,315	328,157	357,270	736,788
5	Total							3,331,679	1,709,335	1,144,180	964,593	979,040	1,065,895	2,198,166
6	Rates													
7	Residential Heat & Non Heat CGA							$0.7315	$0.4412	$0.4412	$0.4412	$0.4412	$0.4412	$0.4412
8	Sales HLF Classes CGA							$0.6465	$0.3943	$0.3943	$0.3943	$0.3943	$0.3943	$0.3943
9	Sales LLF Classes CGA							$0.7437	$0.4733	$0.4733	$0.4733	$0.4733	$0.4733	$0.4733
10	Revenues													
11	Residential Heat & Non Heat							$ (1,165,312)	$ (322,483)	$ (215,861)	$ (181,980)	$ (184,705)	$ (201,091)	$ (414,705)
12	Sales HLF Classes							$ (140,584)	$ (159,878)	$ (107,018)	$ (90,221)	$ (91,572)	$ (99,696)	$ (205,600)
13	Sales LLF Classes							$ (1,131,302)	$ (271,173)	$ (181,515)	$ (153,025)	$ (155,317)	$ (169,096)	$ (348,722)
14	Total Sales		$ (2,882,446)	$ (4,259,355)	$ (5,212,885)	$ (4,765,411)	$ (4,067,873)	$ (2,437,198)	$ (753,533)	$ (504,394)	$ (425,226)	$ (431,594)	$ (469,883)	$ (969,027)
15														
16			Winter						Summer						
17	**Gas Costs and Credits**							(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
18		Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21
19	Demand Costs (net of Capacity Assignment)													
20	Pipeline							$ 457,604	$ 457,604	$ 457,604	$ 457,604	$ 457,604	$ 457,604	$ 457,604
21	Storage							$ 630,827	$ 630,827	$ 630,827	$ 630,827	$ 630,827	$ 630,827	$ 630,827
22	On-system Peaking							$ 94,049	$ 16,338	$ 16,338	$ 16,338	$ 16,338	$ 16,338	$ 16,338
23	Off-System Peaking							$ 317,658	$ 317,658	$ 317,658	$ 317,658	$ 317,658	$ 317,658	$ 317,658
24	Total Demand Costs							$ 1,500,139	$ 1,422,428	$ 1,422,428	$ 1,422,428	$ 1,422,428	$ 1,422,428	$ 1,422,428
25														
26	Asset Management and Capacity Release													
27	NUI AMA Revenue							$ (712,459)	$ (712,459)	$ (712,459)	$ (712,459)	$ (712,459)	$ (712,459)	$ (712,459)
28	NUI Capacity Release								$ -	$ -	$ -	$ -	$ -	$ -
29	NUI AMA Rev & Cap. Release Subtotal													
30	NH AMA Revenue							$ (288,787)	$ (288,787)	$ (288,787)	$ (288,787)	$ (288,787)	$ (288,787)	$ (288,787)
31	NH Capacity Release													
32	NH Total Asset Management and Capacity Release			$ -				$ (288,787)	$ (288,787)	$ (288,787)	$ (288,787)	$ (288,787)	$ (288,787)	$ (288,787)
33														
34	CNG Expenses							$ 9,972	$ 9,972	$ 9,972	$ 9,972	$ 9,972	$ 9,972	$ 9,972
35														
36	Re-entry Rate & Conversion Rate Revenue								$ -	$ -	$ -	$ -	$ -	$ -
37														
38	Net Demand Costs		$ 1,156,589	$ 1,106,649	$ 1,207,069	$ 1,252,487	$ 1,172,433	$ 1,221,323	$ 1,143,612	$ 1,143,612	$ 1,143,612	$ 1,143,612	$ 1,143,612	$ 1,143,612
39														
40	NUI Commodity Costs													
41	NUI Total Pipeline Volumes							918,117	499,328	337,173	291,023	294,102	320,183	619,360
42	Pipeline Costs Modeled in Sendout™							$ 2,576,253	$ 1,322,251	$ 886,662	$ 774,801	$ 782,079	$ 832,473	$ 1,619,126
43	NYMEX Price Used for Forecast							$ 2.8230	$ 2.2610	$ 2.2970	$ 2.3360	$ 2.3450	$ 2.3290	$ 2.3540
44	NYMEX Price Used for Update							$ 2.5860	$ 2.6920	$ 2.7760	$ 2.8460	$ 2.8760	$ 2.8630	$ 2.8810
45	Increase/(Decrease) NYMEX Price							$ (0.24)	$ 0.43	$ 0.48	$ 0.51	$ 0.53	$ 0.53	$ 0.53
46	Increase/(Decrease) in Pipeline Costs							$ (217,594)	$ 215,210	$ 161,506	$ 148,422	$ 156,168	$ 170,978	$ 326,403
47	Updated Pipeline Costs							$ 2,358,659	$ 1,537,461	$ 1,048,168	$ 923,223	$ 938,247	$ 1,003,451	$ 1,945,528
48	New Hampshire Allocated Percentage							36.70%	34.56%	34.20%	33.37%	33.52%	33.54%	35.85%
49	NH Updated Pipeline Costs							$ 865,512	$ 531,278	$ 358,468	$ 308,069	$ 314,464	$ 336,564	$ 697,498
50														
51	NH Peaking Volumes							658	643	616	621	623	604	667
52	NH Peaking Costs Modeled in Sendout							$ 4,360	$ 4,618	$ 4,130	$ 4,141	$ 4,153	$ 3,992	$ 4,396
53	Change in NYMEX Price %							$ (0.24)	$ 0.43	$ 0.48	$ 0.51	$ 0.53	$ 0.53	$ 0.53
54	Change in Peaking Costs							$ (156)	$ 277.02	$ 294.87	$ 316.54	$ 331.03	$ 322.39	$ 351.42
55	NH Updated Peaking Costs							$ 4,204	$ 4,895	$ 4,425	$ 4,458	$ 4,484	$ 4,314	$ 4,748
56														
57	NH Commodity Costs													
58	Pipeline							$ 865,512	$ 531,278	$ 358,468	$ 308,069	$ 314,464	$ 336,564	$ 697,498
59	Storage							$ -	$ -	$ -	$ -	$ -	$ -	$ -
60	Peaking							$ 4,204	$ 4,895	$ 4,425	$ 4,458	$ 4,484	$ 4,314	$ 4,748
61														
62	Off-System Gas Sales Margin													
63	New Hampshire Allocated Percentage													
64	NH Off-System Gas Sales Margin													
65														
66	Total Commodity Costs		$ 912,258	$ 1,908,761	$ 2,183,030	$ 1,508,422	$ 1,492,625	$ 869,716	$ 536,173	$ 362,893	$ 312,527	$ 318,948	$ 340,879	$ 702,246
67	Inventory Finance Charge							$ 104	$ -	$ -	$ -	$ -	$ -	$ -
68														
69	**Total Anticipated Direct Cost of Gas**		$ 2,068,847	$ 3,015,410	$ 3,390,099	$ 2,760,909	$ 2,665,058	$ 2,091,143	$ 1,679,785	$ 1,506,505	$ 1,456,139	$ 1,462,560	$ 1,484,491	$ 1,845,859

Northern Utilities
NEW HAMPSHIRE (Over) / Undercollection Anal

	Sales Revenues			Prior	
1	Volumes	Winter	Summer	Period	Total
2	Residential Heat & Non Heat				5,040,064
3	Sales HLF Classes				2,129,664
4	Sales LLF Classes				4,223,162
5	Total	3,331,679	8,061,210		11,392,889
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				$ (2,686,137)
12	Sales HLF Classes				$ (894,568)
13	Sales LLF Classes				$ (2,410,150)
14	Total Sales	$ (23,625,167)	$ (3,553,657)		$ (27,178,824)
15					
16					
17	**Gas Costs and Credits**				
18					Total
19	Demand Costs (net of Capacity Assignment)				
20	Pipeline	$ 457,604	$ 2,745,625		$ 3,203,229
21	Storage	$ 630,827	$ 3,784,960		$ 4,415,786
22	On-system Peaking	$ 94,049	$ 98,030		$ 192,080
23	Off-System Peaking	$ 317,658	$ 1,905,950		$ 2,223,608
24	Total Demand Costs	$ 1,500,139	$ 8,534,565		$ 10,034,704
25					
26	Asset Management and Capacity Release				
27	NUI AMA Revenue				$ (4,987,214)
28	NUI Capacity Release				$ -
29	NUI AMA Rev & Cap. Release Subtotal				$ -
30	NH AMA Revenue				$ (2,021,512)
31	NH Capacity Release				$ -
32	NH Total Asset Management and Capacity Release	$ (288,787)	$ (1,732,724)		$ (2,021,512)
33					
34	CNG Expenses	$ 9,972	$ 59,833		$ 69,805
35					
36	Re-entry Rate & Conversion Rate Revenue	$ (5,000)	$ -		$ (5,000)
37					
38	Net Demand Costs	$ 7,116,550	$ 6,861,674		$ 13,978,224
39					
40	NUI Commodity Costs				
41	NUI Total Pipeline Volumes				3,279,286
42	Pipeline Costs Modeled in Sendout™				$ 8,793,644
43	NYMEX Price Used for Forecast				
44	NYMEX Price Used for Update				
45	Increase/(Decrease) NYMEX Price				
46	Increase/(Decrease) in Pipeline Costs				
47	Updated Pipeline Costs				
48	New Hampshire Allocated Percentage				
49	NH Updated Pipeline Costs				$ 3,411,854
50					
51	NH Peaking Volumes				
52	NH Peaking Costs Modeled in Sendout				
53	Change in NYMEX Price %				
54	Change in Peaking Costs				
55	NH Updated Peaking Costs				$ 31,527
56					
57	NH Commodity Costs				
58	Pipeline				$ 3,411,854
59	Storage				$ -
60	Peaking				$ 31,527
61					
62	Off-System Gas Sales Margin				
63	New Hampshire Allocated Percentage				
64	NH Off-System Gas Sales Margin	$ -			$ -
65					
66	Total Commodity Costs	$ 8,874,811	$ 2,573,666		$ 11,448,477
67	Inventory Finance Charge				$ 104
68					
69	**Total Anticipated Direct Cost of Gas**	$ 15,991,466	$ 9,435,339		$ 25,426,805

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

		Winter						Summer					
							(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	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	$ 2,249,083	$ 1,697,939	$ 1,524,659	$ 1,474,293	$ 1,480,714	$ 1,502,645	$ 1,864,012
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	$ 2,006	$ 1,515	$ 1,360	$ 1,315	$ 1,321	$ 1,340	$ 1,663
Beginning Period Working Capital Balance		$ (41,387)	$ (39,511)	$ (36,783)	$ (33,714)	$ (31,198)	$ (28,761)	$ (26,830)	$ (25,386)	$ (24,093)	$ (22,841)	$ (21,580)	$ (20,297)
End of Period Working Capital Allowance		$ (39,401)	$ (36,680)	$ (33,618)	$ (31,110)	$ (28,680)	$ (26,755)	$ (25,315)	$ (24,026)	$ (22,778)	$ (21,520)	$ (20,240)	$ (18,634)
Interest		$ (109)	$ (103)	$ (95)	$ (88)	$ (81)	$ (75)	$ (71)	$ (67)	$ (63)	$ (60)	$ (57)	$ (53)
End of period with Interest	$ (41,387)	$ (39,511)	$ (36,783)	$ (33,714)	$ (31,198)	$ (28,761)	$ (26,830)	$ (25,386)	$ (24,093)	$ (22,841)	$ (21,580)	$ (20,297)	$ (18,687)
Bad Debt													
Projected Bad Debt	$ -	$ 4,903	$ 10,407	$ 12,015	$ 2,685	$ 5,854	$ 26,101	$ 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	$ 54,829	$ 57,352	$ 59,881	$ 62,418	$ 64,961	$ 67,512
End of Period Bad Debt Balance		*$ (2,505)*	*$ 7,889*	*$ 19,911*	*$ 22,634*	*$ 28,546*	*$ 54,716*	*$ 57,200*	*$ 59,723*	*$ 62,252*	*$ 64,789*	*$ 67,332*	*$ 69,883*
Interest		$ (13)	$ 7	$ 38	$ 58	$ 69	$ 113	$ 152	$ 159	$ 165	$ 172	$ 179	$ 186
End of Period Bad Debt Balance with Interest	$ (7,408)	$ (2,518)	$ 7,896	$ 19,949	$ 22,692	$ 28,615	$ 54,829	$ 57,352	$ 59,881	$ 62,418	$ 64,961	$ 67,512	$ 70,069
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	$ 1,173,473	$ 520,104	$ (565,963)	$ (2,234,597)	$ (4,089,711)	$ (5,347,348)	$ (5,550,201)	$ (4,619,548)	$ (3,610,413)	$ (2,569,703)	$ (1,526,122)	$ (496,095)
Net Costs - Revenues		$ (655,659)	$ (1,086,005)	$ (1,664,847)	$ (1,846,562)	$ (1,244,875)	$ (188,116)	$ 944,405	$ 1,020,265	$ 1,049,068	$ 1,049,120	$ 1,032,762	$ 894,986
Ending Balance before Interest		$ 517,813	$ (565,901)	$ (2,230,810)	$ (4,081,159)	$ (5,334,586)	$ (5,535,464)	$ (4,605,795)	$ (3,599,283)	$ (2,561,345)	$ (1,520,583)	$ (493,360)	$ 398,891
Average Balance		$ 845,643	$ (22,899)	$ (1,398,387)	$ (3,157,878)	$ (4,712,149)	$ (5,441,406)	$ (5,077,998)	$ (4,109,416)	$ (3,085,879)	$ (2,045,143)	$ (1,009,741)	$ (48,602)
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		$ 2,290	$ (62)	$ (3,787)	$ (8,553)	$ (12,762)	$ (14,737)	$ (13,753)	$ (11,130)	$ (8,358)	$ (5,539)	$ (2,735)	$ (132)
Ending Balance Incl Interest Expense	$ 1,173,473	$ 520,104	$ (565,963)	$ (2,234,597)	$ (4,089,711)	$ (5,347,348)	$ (5,550,201)	$ (4,619,548)	$ (3,610,413)	$ (2,569,703)	$ (1,526,122)	$ (496,095)	$ 398,759
Total Over/Under Collection Ending Balance	$ 1,124,677	$ 478,075	$ (594,850)	$ (2,248,362)	$ (4,098,217)	$ (5,347,494)	**$ (5,522,202)**	$ (4,587,583)	$ (3,574,624)	$ (2,530,126)	$ (1,482,741)	$ (448,880)	$ 450,141
Total Indirect Cost of Gas		$ 166,997	$ 171,020	$ 169,275	$ 154,646	$ 153,538	$ 171,347	$ 8,368	$ 10,847	$ 13,584	$ 16,419	$ 19,253	$ 22,189
Total Cost of Gas		$ 2,235,843	$ 3,186,430	$ 3,559,373	$ 2,915,555	$ 2,818,596	$ 2,262,490	$ 1,688,153	$ 1,517,352	$ 1,469,724	$ 1,478,979	$ 1,503,744	$ 1,868,048
Total Interest	$ -	$ 2,167	$ (158)	$ (3,845)	$ (8,583)	$ (12,774)	$ (14,699)	$ (13,672)	$ (11,038)	$ (8,256)	$ (5,427)	$ (2,612)	$ 2

April 30th Target Balance	$ (5,447,209)
April 30th Projected Balance	$ (5,522,202)
Variance	$ (74,993)

Northern Utilities
NEW HAMPSHIRE (Over) / Undercollection Anal

	Winter	Summer	Prior Period	Total
Working Capital				
Total Anticipated Direct Cost of Gas				$ 26,483,366
Working Capital Percentage				
Working Capital Allowance	$ 15,110	$ 8,513	$ (41,387)	$ (17,764)
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	$ 61,965	$ 14,227	$ (7,408)	$ 68,784
Beginning Period Bad Debt Balance				
End of Period Bad Debt Balance				
Interest	$ 271	$ 1,013		$ 1,284
End of Period Bad Debt Balance with Interest				
Local Production and Storage Capacity				$ 476,106
				$ -
Miscellaneous Overhead				$ 580,455
Gas Cost Other than Bad Debt and Working Capital Over/U				
Beginning Balance Over/Under Collection				$ (28,916,127)
Net Costs - Revenues				$ (695,457)
Ending Balance before Interest				$ (29,611,584)
Average Balance				$ (29,263,855)
Interest Rate				
Interest Expense				$ (79,256)
Ending Balance Incl Interest Expense			$ 1,173,473	
Total Over/Under Collection Ending Balance				
Total Indirect Cost of Gas	$ 986,822	$ 90,661	$ -	$ 1,077,482
Total Cost of Gas	$ 16,978,288	$ 9,526,000	$ -	$ 26,504,288
Total Interest	$ (37,891)	$ (41,003)		$ (78,894)