NORTHERN UTILITIES, INC.
NEW HAMPSHIRE DIVISION
Calculation of the Projected Over or Under Collection of the
Summer 2016 Period Cost of Gas
DG 16-309
September 2016 Estimated

Under/(Over) collection as of 5/01/16			$	(19,052)
Forecasted firm therm sales 09/01/2016 - 10/31/2016				
Residential Heat & Non Heat		1,407,125		
HLF Classes		1,410,007		
LLF Classes		1,213,023		
Current recovery rate per therm				
Residential heat & non heat		$0.3904		
HLF classes		$0.3540		
LLF classes		$0.4327		
Total	$	(1,573,359)		
Forecasted recovered costs at current rates 09/01/2016 - 10/31/2016			$	(1,573,359)
Actual recovered costs 05/01/2016 - 08/31/2016			$	(1,535,775)
Estimated total recovered costs 05/01/2016 - 10/31/2016			$	(3,109,134)
Revised projected direct gas costs 05/01/16 - 10/31/16 [1]			$	3,144,826
Revised projected indirect gas costs 05/01/16 - 10/31/16 [2]			$	132,706
Projected under/(over) collection as of 10/31/16			$	149,347

Actual gas costs to date 05/01/2016 - 08/31/2016	$	1,651,044		
Revised projected indirect gas costs 09/01/2016 - 10/31/2016	$	49,103		
Revised projected direct gas costs 09/01/2016 - 10/31/2016	$	1,924,666		
Estimated total adjusted gas costs 05/01/16 - 10/31/16			$	3,624,813

Under/(over) collection as percent of total gas costs	4.12%

NOTES

[1] Revised as follows:
- Futures prices as of September 19, 2016

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

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

			Winter						Summer						
	Sales Revenues												(Forecast)	(Forecast)	Total
1	Volumes	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Summer
2	Residential Heat & Non Heat												489,892	917,233	1,407,125
3	Sales HLF Classes												490,895	919,111	1,410,007
4	Sales LLF Classes												422,315	790,708	1,213,023
5	Total												1,403,103	2,627,052	4,030,155
6	Rates														
7	Residential Heat & Non Heat CGA								$0.3196	$0.3430	$0.3904	$0.3904	$0.3904	$0.3904	
8	Sales HLF Classes CGA								$0.2832	$0.3066	$0.3540	$0.3540	$0.3540	$0.3540	
9	Sales LLF Classes CGA								$0.3619	$0.3853	$0.4327	$0.4327	$0.4327	$0.4327	
10	Revenues														
11	Residential Heat & Non Heat												$ (191,254)	$ (358,088)	$ (549,342)
12	Sales HLF Classes												$ (173,777)	$ (325,365)	$ (499,142)
13	Sales LLF Classes												$ (182,736)	$ (342,139)	$ (524,875)
14	Total Sales		$ (38,674)	$ (32)	$ 291	$ 2,260	$ 7,413	$ 180	$ (554,766)	$ (349,552)	$ (311,663)	$ (319,793)	$ (547,767)	$ (1,025,593)	$ (3,109,134)
15															
16			Winter						Summer						
17	**Gas Costs and Credits**												(Forecast)	(Forecast)	
18		Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Total
19	Net Demand Costs (Net of Injection Fees & Cap. Assign.)														
20	Pipeline									$ 87,648	$ 87,648	$ 87,648	$ 87,648	$ 87,648	$ 438,238
21	Storage									$ 55,694	$ 55,694	$ 55,694	$ 55,694	$ 55,694	$ 278,470
22	Peaking									$ 12,226	$ 12,226	$ 12,226	$ 12,226	$ 12,226	$ 61,132
23	Total Demand Costs		$ -	$ -	$ -	$ -	$ -	$ -	$ 155,568	$ 155,568	$ 155,568	$ 155,568	$ 155,568	$ 155,568	$ 933,408
24	Asset Management and Capacity Release														
25	NUI AMA Revenue														$ -
26	PNGTS Litigation Cost														$ -
27	NUI Capacity Release														$ -
28	NUI AMA Rev & Cap. Release Subtotal														$ -
29	NH AMA Revenue														$ -
30	NH Capacity Release														$ -
31	NH Total Asset Management and Capacity Release		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
32															
33	Total Demand Costs								$ 155,568	$ 155,568	$ 155,568	$ 155,568	$ 155,568	$ 155,568	$ 933,408
34	NUI Commodity Costs														
35	NUI Total Pipeline Volumes												347,502	673,103	1,020,605
36	Pipeline Costs Modeled in Sendout™												$ 707,191	$ 1,611,513	$ 2,318,704
37	NYMEX Price Used for Forecast												$ 2.0650	$ 2.1070	
38	NYMEX Price Used for Update												$ 2.8530	$ 2.9340	
39	Increase/(Decrease) NYMEX Price												$ 0.79	$ 0.83	
40	Increase/(Decrease) in Pipeline Costs												$ 273,832	$ 556,656	$ 830,488
41	Updated Pipeline Costs												$ 981,022	$ 2,168,170	
42	Interruptible Volumes - NH												0	0	
43	Average Supply Cost ($/MMBtu)												$ 2.82	$ 3.22	
44	Interruptible Cost - NH												$ -	$ -	
45	Total Updated Pipeline Costs												$ 981,022	$ 2,168,170	
46	New Hampshire Allocated Percentage												40.55%	39.30%	
47	NH Updated Pipeline Costs												$ 397,800	$ 852,092	$ 1,249,892
48	Hedging (Gain)/Loss Estimate														
49	NYMEX Options Contracts														
50	Number of Contracts												$ -	$ -	
51	Option Contract Price												$ -	$ -	
52	Hedging Expenses												$ -	$ -	
53	NYMEX Option Strike Price												$ -	$ -	
54	NYMEX Price Used for Forecast												$ -	$ -	
55	Strike Price Hit												NA	NA	
56	Option Hedging Gain (Credit)												-	-	
57	Tota Northern Hedginf Net Cost												$ -	$ -	$ -
58	New Hampshire Allocated Percentage												40.55%	39.30%	
59	NH Futures Hedging Net Cost												$ -	$ -	$ -

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

60	NH Commodity Costs														
61	Pipeline Excl Hedging												$ 397,800	$ 852,092	$ 1,249,892
62	Hedging (Gain)/Loss Estimate												$ -	$ -	$ -
63	Storage												$ -	$ -	$ -
64	Peaking												$ 8,158	$ 8,199	$ 16,358
65	Total Commodity Costs		$ (3,723)	$ (120)					$ 339,900	$ 197,884	$ 215,672	$ 191,713	$ 405,958	$ 860,292	$ 2,211,418
66	Inventory Finance Charge														$ -
67															
68	**Total Anticipated Direct Cost of Gas**		$ (3,723)	$ (120)	$ -	$ -	$ -	$ -	$ 495,468	$ 353,452	$ 371,240	$ 347,281	$ 561,526	$ 1,015,860	$ 3,144,826
69			Winter						Summer						
70													(Forecast)	(Forecast)	Total
71		Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Summer
72	Working Capital														
73	Total Anticipated Direct Cost of Gas		$ (3,723)	$ (120)	$ -	$ -	$ -	$ -	$ 515,113	$ 373,097	$ 390,885	$ 366,926	$ 581,171	$ 1,035,505	$ 3,262,697
74	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%	
75	Working Capital Allowance		$ (3)	$ (0)	$ -	$ -	$ -	$ -	$ 457	$ 331	$ 347	$ 325	$ 515	$ 918	$ 2,894
76	Beginning Period Working Capital Balance		$ (431)	$ (435)	$ (437)	$ (438)	$ (439)	$ (440)	$ (442)	$ 15	$ 346	$ 694	$ 1,022	$ 1,542	
77	End of Period Working Capital Allowance		$ (434)	$ (436)	$ (437)	$ (438)	$ (439)	$ (440)	$ 15	$ 346	$ 693	$ 1,020	$ 1,538	$ 2,460	
78	Interest		$ (1)	$ (1)	$ (1)	$ (1)	$ (1)	$ (1)	$ (1)	$ 1	$ 2	$ 2	$ 4	$ 6	$ 13
79	End of period with Interest	$ (431)	$ (435)	$ (437)	$ (438)	$ (439)	$ (440)	$ (442)	$ 15	$ 346	$ 694	$ 1,022	$ 1,542	$ 2,466	
80	Bad Debt														
81	Projected Bad Debt	$ -	$ 1,434	$ 921	$ (28)	$ 628	$ 335	$ 401	$ 327	$ 902	$ 739	$ 1,612	$ 3,815	$ 3,815	$ 11,210
82	Beginning Period Bad Debt Balance		$ (12,773)	$ (11,371)	$ (10,480)	$ (10,537)	$ (9,936)	$ (9,627)	$ (9,254)	$ (8,954)	$ (8,076)	$ (7,359)	$ (5,767)	$ (1,963)	
83	End of Period Bad Debt Balance		*$ (11,339)*	*$ (10,451)*	*$ (10,509)*	*$ (9,909)*	*$ (9,601)*	*$ (9,227)*	*$ (8,927)*	*$ (8,051)*	*$ (7,337)*	*$ (5,748)*	*$ (1,952)*	*$ 1,852*	
84	Interest		$ (33)	$ (30)	$ (28)	$ (28)	$ (26)	$ (27)	$ (27)	$ (25)	$ (22)	$ (19)	$ (11)	$ (0)	$ (104)
85	End of Period Bad Debt Balance with Interest	$ (12,773)	$ (11,371)	$ (10,480)	$ (10,537)	$ (9,936)	$ (9,627)	$ (9,254)	$ (8,954)	$ (8,076)	$ (7,359)	$ (5,767)	$ (1,963)	$ 1,852	
86	Local Production and Storage Capacity								$ -	$ -	$ -	$ -	$ -	$ -	$ -
87			$ -	$ -	$ -										$ -
88	Miscellaneous Overhead								$ 19,645	$ 19,645	$ 19,645	$ 19,645	$ 19,645	$ 19,645	$ 117,870
89															
90	Supplier Refund		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
91	Gas Cost Other than Bad Debt and Working Capital Over/Under Collection														
92	Beginning Balance Over/Under Collection		$ 23,260	$ (19,131)	$ (19,336)	$ (19,097)	$ (16,885)	$ (9,508)	$ (9,356)	$ (49,094)	$ (25,658)	$ 53,604	$ 100,962	$ 134,709	$ 205,167
93	Net Costs - Revenues		$ (42,397)	$ (152)	$ 291	$ 2,260	$ 7,413	$ 180	$ (39,653)	$ 23,544	$ 79,222	$ 47,132	$ 33,404	$ 9,912	$ 153,562
94	Ending Balance before Interest		$ (19,137)	$ (19,284)	$ (19,045)	$ (16,836)	$ (9,472)	$ (9,328)	$ (49,009)	$ (25,550)	$ 53,564	$ 100,737	$ 134,366	$ 144,621	$ 358,729
95	Average Balance		$ 2,062	$ (19,207)	$ (19,190)	$ (17,967)	$ (13,179)	$ (9,418)	$ (29,182)	$ (37,322)	$ 13,953	$ 77,171	$ 117,664	$ 139,665	$ 281,948
96	Interest Rate		3.25%	3.25%	3.25%	3.25%	3.25%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	
97	Interest Expense		$ 6	$ (52)	$ (52)	$ (49)	$ (36)	$ (27)	$ (85)	$ (109)	$ 41	$ 225	$ 343	$ 407	$ 822
98	Ending Balance Incl Interest Expense	$ 23,260	$ (19,131)	$ (19,336)	$ (19,097)	$ (16,885)	$ (9,508)	$ (9,356)	$ (49,094)	$ (25,658)	$ 53,604	$ 100,962	$ 134,709	$ 145,029	
99	**Total Over/Under Collection Ending Balance**	$ 10,056	$ (30,938)	$ (30,253)	$ (30,072)	$ (27,260)	$ (19,575)	$ (19,052)	$ (58,033)	$ (33,389)	$ 46,939	$ 96,218	$ 134,288	$ 149,347	
100															
101	**Total Indirect Cost of Gas**	$ 10,056	$ 1,403	$ 838	$ (110)	$ 551	$ 272	$ 344	$ 20,317	$ 20,745	$ 20,751	$ 21,791	$ 24,311	$ 24,792	$ 132,706
102															
103	**Total Cost of Gas**	$ 6,333	$ (2,321)	$ 717	$ (110)	$ 551	$ 272	$ 344	$ 515,785	$ 374,197	$ 391,991	$ 369,071	$ 585,837	$ 1,040,651	$ 3,277,533
104															
105	**Total Interest**	$ -	$ (28)	$ (83)	$ (82)	$ (78)	$ (63)	$ (56)	$ (112)	$ (133)	$ 20	$ 208	$ 336	$ 413	$ 732

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

Account # 53325

Current

ACB	($184,708.38)
TE	$280,961.00
LV	$96,252.62

ACTIVITY - Purchase Cost and Profit and Loss						**Expense**	**Profit and Loss**
Date	Description	State	Contracts	Option Premuim	Strike Price	Option Purchase Cost	
08/29/16	Mar18 Options	Both	25	$0.2400		$60,000.00	($60,000.00)
	Net P&L						($60,000.00)

TRANSACTION COSTS					**Subtotal**	**Total**
	Transaction Cost-Enter Options	Both	25	$7.36	($184.00)	
	Transaction Cost-Exit Options		0		$0.00	
	Total New Transaction Costs					($184.00)

OPEN CALL OPTION POSITIONS-Expense and Open Trade Equity					**Total**			**Total**
		State	QTY	Actual Option Premium	Option Purchase Cost	Strike Price	08/31/16 Futures Price	Current Open Trade Equity
04/28/15	Nov16 Options	Both	18	0.0770	$13,860.00	$4.800	$3.003	$0.00
05/27/15	Dec16 Options	Both	31	0.0850	$26,350.00	$5.250	$3.203	$0.00
06/26/15	Jan17 Options	Both	45	0.1030	$46,350.00	$6.000	$3.326	$0.00
07/29/15	Feb17 Options	Both	46	0.0990	$45,540.00	$6.250	$3.325	$0.00
08/27/15	Mar17 Options	Both	37	0.0800	$29,600.00	$6.300	$3.280	$0.00
05/02/16	Nov17 Options	Both	12	0.2300	$27,600.00	$3.500	$3.117	$0.00
05/26/16	Dec17 Options	Both	20	0.2370	$47,400.00	$4.000	$3.247	$0.00
06/28/16	Jan18 Options	Both	29	0.2475	$71,775.00	$4.300	$3.349	$0.00
07/27/16	Feb18 Options	Both	30	0.2470	$74,100.00	$4.500	$3.311	$0.00
08/29/16	Mar18 Options	Both	25	0.2400	$60,000.00	$4.650	$3.228	$0.00
	Total Expense, Open Trade Equity				**$442,575.00**			**$0.00**

OPEN CALL OPTION POSITIONS- Long Option Value					**Total**	
		State	QTY	Current Option Premium	Current Option Value	Strike Price
04/28/15	Nov16 Options	Both	18	0.0005	$90.00	$4.800
05/27/15	Dec16 Options	Both	31	0.0051	$1,581.00	$5.250
06/26/15	Jan17 Options	Both	45	0.0127	$5,715.00	$6.000
07/29/15	Feb17 Options	Both	46	0.0266	$12,236.00	$6.250
08/27/15	Mar17 Options	Both	37	0.0372	$13,764.00	$6.300
05/02/16	Nov17 Options	Both	12	0.2614	$31,368.00	$3.500
05/26/16	Dec17 Options	Both	20	0.2104	$42,080.00	$4.000
06/28/16	Jan18 Options	Both	29	0.2218	$64,322.00	$4.300
07/27/16	Feb18 Options	Both	30	0.2051	$61,530.00	$4.500
08/29/16	Mar18 Options	Both	25	0.1931	$48,275.00	$4.650
08/31/16	***Total Long Option Value***				**$280,961.00**	

MARGIN CASH BALANCE		**Subtotal**	**Total**
08/01/16	**Beginning Balance-carried forward from last month**		**($124,524.38)**
	Interest Credit	$0.00	
	Net Deposit to Margin Account	$0.00	
	Option Premiums of new activity	($60,000.00)	
	Monthly Transaction Costs	($184.00)	
	Total Monthly Cash Adjustment		($60,184.00)
08/31/16	***Ending Balance (ACB)***		**($184,708.38)**

NORTHERN UTILITIES, INC.

DETERMINATION OF INVENTORY FINANCING FROM MONEY POOL

August 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

Inventory ACCT #		MMBTU	AMOUNT
	LNG		
515152	Inventory - Liquified Natural Gas		
	NATURAL GAS	8,450	$83,043.05
515114&115	Natural Gas Underground - SS-1 and FSS-1		
515116	Natural Gas Underground - SSNE	144,244	$221,962.00
515113	Natural Gas Underground - MCN	2,994,082	$8,698,107.52
516525	Washington 10 prepaid	-	
Total Inventory			$9,003,112.57