

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
August 2016 Estimated

Under/(Over) collection as of 5/01/16		\$ (19,052)
Forecasted firm therm sales 08/01/2016 - 10/31/2016		
Residential Heat & Non Heat	1,854,613	
HLF Classes	1,858,411	
LLF Classes	1,598,784	
Current recovery rate per therm		
Residential heat & non heat	\$0.3904	
HLF classes	\$0.3540	
LLF classes	\$0.4327	
Total	\$ (2,073,712)	
Forecasted recovered costs at current rates 08/01/2016 - 10/31/2016		\$ (2,073,712)
Actual recovered costs 05/01/2016 - 07/31/2016		\$ (1,215,982)
Estimated total recovered costs 05/01/2016 - 10/31/2016		\$ (3,289,694)
Revised projected direct gas costs 05/01/16 - 10/31/16 [1]		\$ 3,207,054
Revised projected indirect gas costs 05/01/16 - 10/31/16 [2]		\$ 134,549
Projected under/(over) collection as of 10/31/16		\$ 32,857

Actual gas costs to date 05/01/2016 - 07/31/2016	\$ 1,281,973
Revised projected indirect gas costs 08/01/2016 - 10/31/2016	\$ 72,736
Revised projected direct gas costs 08/01/2016 - 10/31/2016	\$ 1,986,893
Estimated total adjusted gas costs 05/01/16 - 10/31/16	\$ 3,341,603

Under/(over) collection as percent of total gas costs	0.98%
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NOTES

[1] Revised as follows:

- Futures prices as of August 22, 2016

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

Winter								Summer						
Sales Revenues														
Volumes	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	(Forecast) Jul-16	(Forecast) Aug-16	(Forecast) Sep-16	(Forecast) Oct-16	Total Summer
Residential Heat & Non Heat											447,488	489,892	917,233	1,854,613
Sales HLF Classes											448,404	490,895	919,111	1,858,411
Sales LLF Classes											385,760	422,315	790,708	1,598,784
Total											1,281,652	1,403,103	2,627,052	5,311,807
Rates														
Residential Heat & Non Heat CGA								\$0.3196	\$0.3430	\$0.3904	\$0.3904	\$0.3904	\$0.3904	
Sales HLF Classes CGA								\$0.2832	\$0.3066	\$0.3540	\$0.3540	\$0.3540	\$0.3540	
Sales LLF Classes CGA								\$0.3619	\$0.3853	\$0.4327	\$0.4327	\$0.4327	\$0.4327	
Revenues														
Residential Heat & Non Heat											\$ (174,699)	\$ (191,254)	\$ (358,088)	\$ (724,041)
Sales HLF Classes											\$ (158,735)	\$ (173,777)	\$ (325,365)	\$ (657,877)
Sales LLF Classes											\$ (166,918)	\$ (182,736)	\$ (342,139)	\$ (691,794)
Total Sales		\$ (38,674)	\$ (32)	\$ 291	\$ 2,260	\$ 7,413	\$ 180	\$ (554,766)	\$ (349,552)	\$ (311,663)	\$ (500,353)	\$ (547,767)	\$ (1,025,593)	\$ (3,289,694)

Winter								Summer						
Gas Costs and Credits														
	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	(Forecast) Jul-16	(Forecast) Aug-16	(Forecast) Sep-16	(Forecast) Oct-16	Total
Net Demand Costs (Net of Injection Fees & Cap. Assign.)														
Pipeline									\$ 87,648	\$ 87,648	\$ 87,648	\$ 87,648	\$ 87,648	\$ 438,238
Storage									\$ 55,694	\$ 55,694	\$ 55,694	\$ 55,694	\$ 55,694	\$ 278,470
Peaking									\$ 12,226	\$ 12,226	\$ 12,226	\$ 12,226	\$ 12,226	\$ 61,132
Total Demand Costs		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 155,568	\$ 155,568	\$ 155,568	\$ 155,568	\$ 155,568	\$ 155,568	\$ 933,408
Asset Management and Capacity Release														
NUI AMA Revenue														\$ -
PNGTS Litigation Cost														\$ -
NUI Capacity Release														\$ -
NUI AMA Rev & Cap. Release Subtotal														\$ -
NH AMA Revenue														\$ -
NH Capacity Release														\$ -
NH Total Asset Management and Capacity Release		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Demand Costs								\$ 155,568	\$ 155,568	\$ 155,568	\$ 155,568	\$ 155,568	\$ 155,568	\$ 933,408
NUI Commodity Costs														
NUI Total Pipeline Volumes											302,138	347,502	673,103	1,322,743
Pipeline Costs Modeled in Sendout™											\$ 589,407	\$ 707,191	\$ 1,611,513	\$ 2,908,111
NYMEX Price Used for Forecast											\$ 2.0460	\$ 2.0650	\$ 2.1070	
NYMEX Price Used for Update											\$ 2.6720	\$ 2.6790	\$ 2.7010	
Increase/(Decrease) NYMEX Price											\$ 0.63	\$ 0.61	\$ 0.59	
Increase/(Decrease) in Pipeline Costs											\$ 189,138	\$ 213,366	\$ 399,823	\$ 802,328
Updated Pipeline Costs											\$ 778,545	\$ 920,557	\$ 2,011,337	
Interruptible Volumes - NH											0	0	0	
Average Supply Cost (\$/MMBtu)											\$ 2.58	\$ 2.65	\$ 2.99	
Interruptible Cost - NH											\$ -	\$ -	\$ -	
Total Updated Pipeline Costs											\$ 778,545	\$ 920,557	\$ 2,011,337	
New Hampshire Allocated Percentage											42.55%	40.55%	39.30%	
NH Updated Pipeline Costs											\$ 331,296	\$ 373,281	\$ 790,457	\$ 1,495,034
Hedging (Gain)/Loss Estimate														
NYMEX Options Contracts														
Number of Contracts											\$ -	\$ -	\$ -	
Option Contract Price											\$ -	\$ -	\$ -	
Hedging Expenses											\$ -	\$ -	\$ -	
NYMEX Option Strike Price											\$ -	\$ -	\$ -	
NYMEX Price Used for Forecast											\$ -	\$ -	\$ -	
Strike Price Hit											NA	NA	NA	
Option Hedging Gain (Credit)											-	-	-	
Tota Northern Hedginf Net Cost											\$ -	\$ -	\$ -	\$ -
New Hampshire Allocated Percentage											42.55%	40.55%	39.30%	
NH Futures Hedging Net Cost											\$ -	\$ -	\$ -	\$ -

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

NH Commodity Costs											\$ 331,296	\$ 373,281	\$ 790,457	\$ 1,495,034
Pipeline Excl Hedging											\$ -	\$ -	\$ -	\$ -
Hedging (Gain)/Loss Estimate											\$ -	\$ -	\$ -	\$ -
Storage											\$ 8,798	\$ 8,158	\$ 8,199	\$ 25,155
Peaking														
Total Commodity Costs		\$ (3,723)	\$ (120)					\$ 339,900	\$ 197,884	\$ 215,672	\$ 340,094	\$ 381,439	\$ 798,656	\$ 2,273,646
Inventory Finance Charge														\$ -
Total Anticipated Direct Cost of Gas		\$ (3,723)	\$ (120)	\$ -	\$ -	\$ -	\$ -	\$ 495,468	\$ 353,452	\$ 371,240	\$ 495,662	\$ 537,007	\$ 954,224	\$ 3,207,054
		Winter							Summer					
	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	(Forecast) Jul-16	(Forecast) Aug-16	(Forecast) Sep-16	(Forecast) Oct-16	Total Summer
Working Capital														
Total Anticipated Direct Cost of Gas		\$ (3,723)	\$ (120)	\$ -	\$ -	\$ -	\$ -	\$ 515,113	\$ 373,097	\$ 390,885	\$ 515,307	\$ 556,652	\$ 973,869	\$ 3,324,924
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		\$ (3)	\$ (0)	\$ -	\$ -	\$ -	\$ -	\$ 457	\$ 331	\$ 347	\$ 457	\$ 494	\$ 864	\$ 2,949
Beginning Period Working Capital Balance		\$ (431)	\$ (435)	\$ (437)	\$ (438)	\$ (439)	\$ (440)	\$ (442)	\$ 15	\$ 346	\$ 694	\$ 1,151	\$ 1,652	
End of Period Working Capital Allowance		\$ (434)	\$ (436)	\$ (437)	\$ (438)	\$ (439)	\$ (440)	\$ 15	\$ 346	\$ 693	\$ 1,151	\$ 1,648	\$ 2,516	
Interest		\$ (1)	\$ (1)	\$ (1)	\$ (1)	\$ (1)	\$ (1)	\$ (1)	\$ 1	\$ 2	\$ 3	\$ 4	\$ 6	\$ 14
End of period with Interest	\$ (431)	\$ (435)	\$ (437)	\$ (438)	\$ (439)	\$ (440)	\$ (442)	\$ 15	\$ 346	\$ 694	\$ 1,154	\$ 1,652	\$ 2,522	
Bad Debt														
Projected Bad Debt	\$ -	\$ 1,434	\$ 921	\$ (28)	\$ 628	\$ 335	\$ 401	\$ 327	\$ 902	\$ 739	\$ 3,815	\$ 3,815	\$ 3,815	\$ 13,414
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)	\$ (3,560)	\$ 250	
End of Period Bad Debt Balance		\$ (11,339)	\$ (10,451)	\$ (10,509)	\$ (9,909)	\$ (9,601)	\$ (9,227)	\$ (8,927)	\$ (8,051)	\$ (7,337)	\$ (3,544)	\$ 255	\$ 4,065	
Interest		\$ (33)	\$ (30)	\$ (28)	\$ (28)	\$ (26)	\$ (27)	\$ (27)	\$ (25)	\$ (22)	\$ (16)	\$ (5)	\$ 6	\$ (88)
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)	\$ (3,560)	\$ 250	\$ 4,071	
Local Production and Storage Capacity								\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Miscellaneous Overhead		\$ -	\$ -	\$ -				\$ 19,645	\$ 19,645	\$ 19,645	\$ 19,645	\$ 19,645	\$ 19,645	\$ 117,870
Supplier Refund		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Gas Cost Other than Bad Debt and Working Capital Over/Under Collection														
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	\$ 68,737	\$ 77,836	\$ 116,069
Net Costs - Revenues		\$ (42,397)	\$ (152)	\$ 291	\$ 2,260	\$ 7,413	\$ 180	\$ (39,653)	\$ 23,544	\$ 79,222	\$ 14,954	\$ 8,886	\$ (51,723)	\$ 35,230
Ending Balance before Interest		\$ (19,137)	\$ (19,284)	\$ (19,045)	\$ (16,836)	\$ (9,472)	\$ (9,328)	\$ (49,009)	\$ (25,550)	\$ 53,564	\$ 68,559	\$ 77,622	\$ 26,113	\$ 151,299
Average Balance		\$ 2,062	\$ (19,207)	\$ (19,190)	\$ (17,967)	\$ (13,179)	\$ (9,418)	\$ (29,182)	\$ (37,322)	\$ 13,953	\$ 61,082	\$ 73,180	\$ 51,974	\$ 133,684
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%	3.50%
Interest Expense		\$ 6	\$ (52)	\$ (52)	\$ (49)	\$ (36)	\$ (27)	\$ (85)	\$ (109)	\$ 41	\$ 178	\$ 213	\$ 152	\$ 390
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	\$ 68,737	\$ 77,836	\$ 26,264	
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	\$ 66,331	\$ 79,738	\$ 32,857	
Total Indirect Cost of Gas	\$ 10,056	\$ 1,403	\$ 838	\$ (110)	\$ 551	\$ 272	\$ 344	\$ 20,317	\$ 20,745	\$ 20,751	\$ 24,082	\$ 24,166	\$ 24,488	\$ 134,549
Total Cost of Gas	\$ 6,333	\$ (2,321)	\$ 717	\$ (110)	\$ 551	\$ 272	\$ 344	\$ 515,785	\$ 374,197	\$ 391,991	\$ 519,744	\$ 561,174	\$ 978,712	\$ 3,341,603
Total Interest	\$ -	\$ (28)	\$ (83)	\$ (82)	\$ (78)	\$ (63)	\$ (56)	\$ (112)	\$ (133)	\$ 20	\$ 165	\$ 213	\$ 164	\$ 316

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

Account # 53325

Current

ACB	(\$124,524.38)
TE	\$273,542.00
LV	\$149,017.62

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	
07/27/16	Feb18 Options	Both	30	\$0.2470		\$74,100.00	(\$74,100.00)
	<i>Net P&L</i>						(\$74,100.00)

TRANSACTION COSTS	Subtotal	Total
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Transaction Cost-Enter Options	Both	30	\$7.36			(\$220.80)	
Transaction Cost-Exit Options		0				\$0.00	
<i>Total New Transaction Costs</i>							(\$220.80)

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	07/29/16 Futures Price	Current Open Trade Equity
04/28/15	Nov16 Options	18	0.0770	\$13,860.00	\$4.800	\$3.076	\$0.00
05/27/15	Dec16 Options	31	0.0850	\$26,350.00	\$5.250	\$3.320	\$0.00
06/26/15	Jan17 Options	45	0.1030	\$46,350.00	\$6.000	\$3.436	\$0.00
07/29/15	Feb17 Options	46	0.0990	\$45,540.00	\$6.250	\$3.418	\$0.00
08/27/15	Mar17 Options	37	0.0800	\$29,600.00	\$6.300	\$3.360	\$0.00
05/02/16	Nov17 Options	12	0.2300	\$27,600.00	\$3.500	\$3.163	\$0.00
05/26/16	Dec17 Options	20	0.2370	\$47,400.00	\$4.000	\$3.294	\$0.00
06/28/16	Jan18 Options	29	0.2475	\$71,775.00	\$4.300	\$3.395	\$0.00
07/27/16	Feb18 Options	30	0.2470	\$74,100.00	\$4.500	\$3.358	\$0.00
<i>Total Expense, Open Trade Equity</i>				\$382,575.00			\$0.00

OPEN CALL OPTION POSITIONS- Long Option Value	Total
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	State	QTY	Current Option Premium	Current Option Value	Strike Price
04/28/15	Nov16 Options	18	0.0032	\$576.00	\$4.800
05/27/15	Dec16 Options	31	0.0114	\$3,534.00	\$5.250
06/26/15	Jan17 Options	45	0.0227	\$10,215.00	\$6.000
07/29/15	Feb17 Options	46	0.0390	\$17,940.00	\$6.250
08/27/15	Mar17 Options	37	0.0510	\$18,870.00	\$6.300
05/02/16	Nov17 Options	12	0.2943	\$35,316.00	\$3.500
05/26/16	Dec17 Options	20	0.2374	\$47,480.00	\$4.000
06/28/16	Jan18 Options	29	0.2499	\$72,471.00	\$4.300
07/27/16	Feb18 Options	30	0.2238	\$67,140.00	\$4.500
07/29/16	<i>Total Long Option Value</i>			\$273,542.00	

MARGIN CASH BALANCE	Subtotal	Total
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07/01/16	Beginning Balance-carried forward from last month		(\$50,203.58)
	Interest Credit	\$0.00	
	Net Deposit to Margin Account	\$0.00	
	Option Premiums of new activity	(\$74,100.00)	
	Monthly Transaction Costs	(\$220.80)	
	<i>Total Monthly Cash Adjustment</i>		(\$74,320.80)
07/29/16	Ending Balance (ACB)		(\$124,524.38)

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

Inventory
ACCT #

MMBTU

AMOUNT

LNG		
515152	Inventory - Liquified Natural Gas	
	NATURAL GAS	7,473 \$70,453.77
515114&115 Natural Gas Underground - SS-1 and FSS-1		
515116	Natural Gas Underground - SSNE	119,541 \$176,226.06
515113	Natural Gas Underground - MCN	2,791,123 \$8,143,420.52
516525	Washington 10 prepaid	-

Total Inventory

\$8,390,100.35