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
June 2016 Estimated

Under/(Over) collection as of 5/01/16			$	(19,052)
Forecasted firm therm sales 06/01/2016 - 10/31/2016				
Residential Heat & Non Heat		2,759,027		
HLF Classes		2,764,677		
LLF Classes		2,378,441		
Current recovery rate per therm				
Residential heat & non heat		$0.3430		
HLF classes		$0.3066		
LLF classes		$0.3853		
Total	$	(2,710,410)		
Forecasted recovered costs at current rates 06/01/2016 - 10/31/2016			$	(2,710,410)
Actual recovered costs 5/01/2016 - 05/31/2016			$	(554,766)
Estimated total recovered costs 05/01/2016 - 10/31/2016			$	(3,265,176)
Revised projected direct gas costs 05/01/16 - 10/31/16 [1]			$	3,465,960
Revised projected indirect gas costs 05/01/16 - 10/31/16 [2]			$	140,688
Projected under/(over) collection as of 10/31/16			$	322,419

Actual gas costs to date 5/01/2016 - 05/31/2016	$	515,785		
Revised projected indirect gas costs 06/01/2016 - 10/31/2016	$	120,371		
Revised projected direct gas costs 06/01/2016 - 10/31/2016	$	2,970,491		
Estimated total adjusted gas costs 05/01/16 - 10/31/16			$	3,606,647

Under/(over) collection as percent of total gas costs		8.94%

Projected under/(over) collection as of 10/31/16	$	322,419

Adjustment to Cost of Gas	$	310,000

NOTES
[1] Revised as follows:
- Futures prices as of May 20, 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)	(Forecast)	(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									473,945	430,469	447,488	489,892	917,233	2,759,027
3	Sales HLF Classes									474,916	431,351	448,404	490,895	919,111	2,764,677
4	Sales LLF Classes									408,568	371,089	385,760	422,315	790,708	2,378,441
5	Total									1,357,429	1,232,909	1,281,652	1,403,103	2,627,052	7,902,146
6	Rates														
7	Residential Heat & Non Heat CGA								$0.3196	$0.3430	$0.3430	$0.3430	$0.3430	$0.3430	
8	Sales HLF Classes CGA								$0.2832	$0.3066	$0.3066	$0.3066	$0.3066	$0.3066	
9	Sales LLF Classes CGA								$0.3619	$0.3853	$0.3853	$0.3853	$0.3853	$0.3853	
10	Revenues														
11	Residential Heat & Non Heat									$ (162,563)	$ (147,651)	$ (153,488)	$ (168,033)	$ (314,611)	$ (946,346)
12	Sales HLF Classes									$ (145,609)	$ (132,252)	$ (137,481)	$ (150,509)	$ (281,800)	$ (847,650)
13	Sales LLF Classes									$ (157,421)	$ (142,981)	$ (148,633)	$ (162,718)	$ (304,660)	$ (916,413)
14	Total Sales		$ (38,674)	$ (32)	$ 291	$ 2,260	$ 7,413	$ 180	$ (554,766)	$ (465,594)	$ (422,884)	$ (439,602)	$ (481,260)	$ (901,070)	$ (3,265,176)
15															

			Winter						Summer						
16															
17	**Gas Costs and Credits**									(Forecast)	(Forecast)	(Forecast)	(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									331,246	299,589	302,138	347,502	673,103	1,953,578
36	Pipeline Costs Modeled in Sendout™									$ 613,210	$ 568,272	$ 589,407	$ 707,191	$ 1,611,513	$ 4,089,593
37	NYMEX Price Used for Forecast									$ 1.9000	$ 1.9960	$ 2.0460	$ 2.0650	$ 2.1070	
38	NYMEX Price Used for Update									$ 1.9630	$ 2.7470	$ 2.7770	$ 2.7950	$ 2.8430	
39	Increase/(Decrease) NYMEX Price									$ 0.06	$ 0.75	$ 0.73	$ 0.73	$ 0.74	
40	Increase/(Decrease) in Pipeline Costs									$ 20,868	$ 224,991	$ 220,863	$ 253,676	$ 495,404	$ 1,215,803
41	Updated Pipeline Costs									$ 634,078	$ 793,263	$ 810,270	$ 960,867	$ 2,106,917	
42	Interruptible Volumes - NH									0	0	0	0	0	
43	Average Supply Cost ($/MMBtu)									$ 1.91	$ 2.65	$ 2.68	$ 2.77	$ 3.13	
44	Interruptible Cost - NH									$ -	$ -	$ -	$ -	$ -	
45	Total Updated Pipeline Costs									$ 634,078	$ 793,263	$ 810,270	$ 960,867	$ 2,106,917	
46	New Hampshire Allocated Percentage									41.14%	41.28%	42.55%	40.55%	39.30%	
47	NH Updated Pipeline Costs									$ 260,879	$ 327,465	$ 344,796	$ 389,627	$ 828,020	$ 2,150,786
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	NA	NA	NA	
56	Option Hedging Gain (Credit)									-	-	-	-	-	
57	Tota Northern Hedginf Net Cost									$ -	$ -	$ -	$ -	$ -	$ -
58	New Hampshire Allocated Percentage									41.14%	41.28%	42.55%	40.55%	39.30%	
59	NH Futures Hedging Net Cost									$ -	$ -	$ -	$ -	$ -	$ -

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

NH Commodity Costs														
Pipeline Excl Hedging									$ 260,879	$ 327,465	$ 344,796	$ 389,627	$ 828,020	$ 2,150,786
Hedging (Gain)/Loss Estimate									$ -	$ -	$ -	$ -	$ -	$ -
Storage									$ -	$ -	$ -	$ -	$ -	$ -
Peaking									$ 8,190	$ 8,519	$ 8,798	$ 8,158	$ 8,199	$ 41,865
Total Commodity Costs		$ (3,723)	$ (120)					$ 339,900	$ 269,069	$ 335,984	$ 353,594	$ 397,785	$ 836,219	$ 2,532,552
Inventory Finance Charge														$ -
Total Anticipated Direct Cost of Gas		$ (3,723)	$ (120)	$ -	$ -	$ -	$ -	$ 495,468	$ 424,637	$ 491,552	$ 509,162	$ 553,353	$ 991,787	$ 3,465,960
		Winter						Summer						
									(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	Total
	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
Working Capital														
Total Anticipated Direct Cost of Gas		$ (3,723)	$ (120)	$ -	$ -	$ -	$ -	$ 515,113	$ 424,637	$ 491,552	$ 509,162	$ 553,353	$ 991,787	$ 3,485,605
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	$ 377	$ 436	$ 452	$ 491	$ 880	$ 3,092
Beginning Period Working Capital Balance		$ (431)	$ (435)	$ (437)	$ (438)	$ (439)	$ (440)	$ (442)	$ 15	$ 392	$ 830	$ 1,284	$ 1,780	
End of Period Working Capital Allowance		$ (434)	$ (436)	$ (437)	$ (438)	$ (439)	$ (440)	$ 15	$ 391	$ 828	$ 1,281	$ 1,775	$ 2,659	
Interest		$ (1)	$ (1)	$ (1)	$ (1)	$ (1)	$ (1)	$ (1)	$ 1	$ 2	$ 3	$ 4	$ 6	$ 16
End of period with Interest	$ (431)	$ (435)	$ (437)	$ (438)	$ (439)	$ (440)	$ (442)	$ 15	$ 392	$ 830	$ 1,284	$ 1,780	$ 2,666	
Bad Debt														
Projected Bad Debt	$ -	$ 1,434	$ 921	$ (28)	$ 628	$ 335	$ 401	$ 327	$ 3,117	$ 3,815	$ 3,815	$ 3,815	$ 3,815	$ 18,704
Beginning Period Bad Debt Balance		$ (12,773)	$ (11,371)	$ (10,480)	$ (10,537)	$ (9,936)	$ (9,627)	$ (9,254)	$ (8,954)	$ (5,858)	$ (2,054)	$ 1,760	$ 5,586	
End of Period Bad Debt Balance		*$ (11,339)*	*$ (10,451)*	*$ (10,509)*	*$ (9,909)*	*$ (9,601)*	*$ (9,227)*	*$ (8,927)*	*$ (5,836)*	*$ (2,043)*	*$ 1,761*	*$ 5,575*	*$ 9,401*	
Interest		$ (33)	$ (30)	$ (28)	$ (28)	$ (26)	$ (27)	$ (27)	$ (22)	$ (12)	$ (0)	$ 11	$ 22	$ (27)
End of Period Bad Debt Balance with Interest	$ (12,773)	$ (11,371)	$ (10,480)	$ (10,537)	$ (9,936)	$ (9,627)	$ (9,254)	$ (8,954)	$ (5,858)	$ (2,054)	$ 1,760	$ 5,586	$ 9,423	
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)	$ (70,580)	$ 17,656	$ 107,042	$ 199,227	$ 194,895
Net Costs - Revenues		$ (42,397)	$ (152)	$ 291	$ 2,260	$ 7,413	$ 180	$ (39,653)	$ (21,311)	$ 88,313	$ 89,204	$ 91,738	$ 110,362	$ 318,653
Ending Balance before Interest		$ (19,137)	$ (19,284)	$ (19,045)	$ (16,836)	$ (9,472)	$ (9,328)	$ (49,009)	$ (70,405)	$ 17,733	$ 106,861	$ 198,781	$ 309,589	$ 513,549
Average Balance		$ 2,062	$ (19,207)	$ (19,190)	$ (17,967)	$ (13,179)	$ (9,418)	$ (29,182)	$ (59,750)	$ (26,423)	$ 62,258	$ 152,911	$ 254,408	$ 354,222
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%	
Interest Expense		$ 6	$ (52)	$ (52)	$ (49)	$ (36)	$ (27)	$ (85)	$ (174)	$ (77)	$ 182	$ 446	$ 742	$ 1,033
Ending Balance Incl Interest Expense	$ 23,260	$ (19,131)	$ (19,336)	$ (19,097)	$ (16,885)	$ (9,508)	$ (9,356)	$ (49,094)	$ (70,580)	$ 17,656	$ 107,042	$ 199,227	$ 310,331	
Total Over/Under Collection Ending Balance	$ 10,056	$ (30,938)	$ (30,253)	$ (30,072)	$ (27,260)	$ (19,575)	$ (19,052)	$ (58,033)	$ (76,046)	$ 16,432	$ 110,087	$ 206,592	$ 322,419	
Total Indirect Cost of Gas	$ 10,056	$ 1,403	$ 838	$ (110)	$ 551	$ 272	$ 344	$ 20,317	$ 22,944	$ 23,809	$ 24,096	$ 24,412	$ 25,110	$ 140,688
Total Cost of Gas	$ 6,333	$ (2,321)	$ 717	$ (110)	$ 551	$ 272	$ 344	$ 515,785	$ 447,581	$ 515,361	$ 533,258	$ 577,765	$ 1,016,898	$ 3,606,647
Total Interest	$ -	$ (28)	$ (83)	$ (82)	$ (78)	$ (63)	$ (56)	$ (112)	$ (195)	$ (87)	$ 184	$ 461	$ 770	$ 1,021

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

Account # 53325

Current

ACB	$196,784.86
TE	$196,784.86
LV	$311,693.86

ACTIVITY - Purchase Cost and Profit and Loss							**Expense**	**Profit and Loss**
Date	Description	State	Contracts	Option Premuim	Strike Price		Option Purchase Cost	
05/02/16	Nov17 Options	Both	12	$0.230			$27,600.00	($27,600.00)
05/26/16	Dec17 Options	Both	20	$0.237			$47,400.00	($47,400.00)
	Net P&L							($75,000.00)

TRANSACTION COSTS					**Subtotal**	**Total**
	Transaction Cost-Enter Options	Both	32	$6.93	($221.72)	
	Transaction Cost-Exit Options		0		$0.00	
	Total New Transaction Costs					($221.72)

OPEN CALL OPTION POSITIONS-Expense and Open Trade Equity					**Total**			**Total**
		State	QTY	Actual Option Premium	Option Purchase Cost	Strike Price	05/31/16 Futures Price	Current Open Trade Equity
04/28/15	Nov16 Options	Both	18	0.077	$13,860.00	$4.800	$2.722	$0.00
05/27/15	Dec16 Options	Both	31	0.085	$26,350.00	$5.250	$2.997	$0.00
06/26/15	Jan17 Options	Both	45	0.103	$46,350.00	$6.000	$3.126	$0.00
07/29/15	Feb17 Options	Both	46	0.099	$45,540.00	$6.250	$3.121	$0.00
08/27/15	Mar17 Options	Both	37	0.080	$29,600.00	$6.300	$3.079	$0.00
05/02/16	Nov17 Options	Both	12	0.230	$27,600.00	$3.500	$3.057	$0.00
05/26/16	Dec17 Options	Both	20	0.237	$47,400.00	$4.000	$3.201	$0.00
	Total Expense, Open Trade Equity				**$236,700.00**			**$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	0.0067	$1,206.00	$4.800
05/27/15	Dec16 Options	Both	31	0.0117	$3,627.00	$5.250
06/26/15	Jan17 Options	Both	45	0.0178	$8,010.00	$6.000
07/29/15	Feb17 Options	Both	46	0.0288	$13,248.00	$6.250
08/27/15	Mar17 Options	Both	37	0.0354	$13,098.00	$6.300
05/02/16	Nov17 Options	Both	12	0.2650	$31,800.00	$3.500
05/26/16	Dec17 Options	Both	20	0.2196	$43,920.00	$4.000
05/31/16	***Total Long Option Value***				**$114,909.00**	

MARGIN CASH BALANCE		**Subtotal**	**Total**
05/01/16	**Beginning Balance-carried forward from last month**		**$272,006.58**
	Interest Credit	$0.00	
	Net Deposit to Margin Account	$0.00	
	Option Premiums of new activity	($75,000.00)	
	Monthly Transaction Costs	($221.72)	
	Total Monthly Cash Adjustment		($75,221.72)
05/31/16	***Ending Balance (ACB)***		**$196,784.86**

NORTHERN UTILITIES, INC.

DETERMINATION OF INVENTORY FINANCING FROM MONEY POOL

May 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

Inventory ACCT #		MMBTU	AMOUNT
	LNG		
515152	Inventory - Liquified Natural Gas		
	NATURAL GAS	10,518	$94,968.85
515114&115	Natural Gas Underground - SS-1 and FSS-1		
515116	Natural Gas Underground - SSNE	71,051	$94,657.51
515113	Natural Gas Underground - MCN	2,385,205	$7,157,851.52
516525	Washington 10 prepaid	-	
Total Inventory			$7,347,477.88