

ATTACHMENT 2

REVENUE REQUIREMENT

Northern Utilities, Inc. - New Hampshire
Rate Plan Capital Expenditures - Eligible Facilities
2019 Step Adjustment

Northern Utilities, Inc.
Docket No. DG 19-____
Attachment 2
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Line No.	Rate Effective Date	Investment Year 2018
Line No.	Description	2018
<u>Rate Base</u>		
1	Utility Plant Additions	\$ 9,344,372
2	Cost of Removal	687,411
3	2018 Capital Expenditures - Eligible Facilities	<u>10,031,783</u>
4	Accumulated Depreciation	<u>126,660</u>
5	Net Utility Plant	9,905,123
6	Accumulated Deferred Income Taxes (ADIT)	<u>26,449</u>
7	Rate Base	<u>\$ 9,878,674</u>
<u>Revenue Requirement</u>		
8	Rate Base	\$ 9,878,674
9	Pre-Tax Rate of Return	9.43%
10	Return and Related Income Taxes	\$ 931,392
11	Depreciation Expense	253,320
12	Property Taxes ⁽¹⁾	<u>246,638</u>
13	Revenue Requirement	<u>\$ 1,431,349</u>
<u>Rate Cap Limit:</u>		
14	Revenue Requirement	\$ 1,431,349
15	Revenue Requirement Cap	\$ 4,552,719
16	Less: May 1, 2018 Step Adjustment Revenue Requirement	<u>2,337,446</u>
17	Remaining May 1, 2019 Step Adjustment Revenue Requirement Cap	\$ 2,215,273
18	Allowable Revenue Requirement (Min of Line 14 or 17)	<u>\$ 1,431,349</u>
<u>Supporting Calculations</u>		
19	<u>Book Depreciation</u>	\$ 253,320
<u>Tax Depreciation</u>		
20	Utility Plant Additions	\$ 9,344,372
21	Tax Depreciation Rate	3.75%
22	Tax Depreciation	\$ 350,414
23	Tax-Book Timing Difference	\$ 97,094
24	Income Tax Rate	27.24%
25	Accumulated Deferred Income Taxes (ADIT)	\$ 26,449
26	Accumulated Depreciation = Book Depreciation * 0.5	<u>\$ 126,660</u>

Notes:

(1) 2.49% rate (2018 Property Taxes of \$4,423,909 / 2018 Net Utility Plant of \$177,697,797)

Line No.	Budget Category	Work Order Number	Work Order Description	Install	Removal	Total	In Service Date
Gas Main Extensions							
1	JAB	N-008041-00183419	16 Ashbrook Rd Exeter NH	\$ 6,561	\$ -	\$ 6,561	11/2018
2	JAB	N-008041-00183423	20 Georges Terrace Portsmouth NH	4,133	-	4,133	11/2018
3	JAB	N-008041-00183428	6 Windsor Lane Exeter NH	4,791	-	4,791	11/2018
4	JAB	N-008041-00183431	0 Squire Lane Rochester NH	7,658	-	7,658	12/2018
5	JAB	N-008041-00183432	58 Briar Rd Hampton NH	2,431	-	2,431	11/2018
6	JAB	N-008041-00183441	11 Pine Knoll Rd Hampton NH	6,503	-	6,503	10/2018
7	JAB	N-008041-00183446	39 Lakeshore Dr Seabrook NH	3,843	-	3,843	11/2018
8	JAB	N-008041-00183455	Villages at Sunningdale Somersworth NH	24,044	-	24,044	12/2018
9	JAB	N-008041-00183459	35 Cedar Rd North Hampton NH	5,123	-	5,123	11/2018
10	JAB	N-008041-00183461	15 Silver St Somersworth NH	15,296	-	15,296	12/2018
11	JAB	N-008041-00183467	150 Shore Rd Hampton NH	7,217	-	7,217	12/2018
12	JAB	N-008041-00183469	55 Forest St Dover NH	2,805	-	2,805	12/2018
13	JAB	N-008041-00183472	10 Jenness St Rochester NH	3,402	-	3,402	12/2018
14	JAB	N-008048-00183421	201 Atlantic Ave North Hampton NH	525,289	-	525,289	10/2018
15	JAB	N-008049-00183422	113, 114, 115 & 117 Batchelder Rd Seabrook NH	49,383	-	49,383	11/2018
16	JAB	N-008050-00183424	104 Washington St Dover NH	138,919	-	138,919	12/2018
17	JAB	N-008051-00183425	10 Hampshire Rd Salem NH	100,687	-	100,687	12/2018
18	JAB	N-008055-00183430	1 Wentworth Terrace Dover NH	18,883	-	18,883	12/2018
19	JAB	N-008065-00183440	121 Corporate Drive Portsmouth NH	122,287	-	122,287	12/2018
20	JAB	N-008066-00183442	140 Wakefield St Rochester NH	41,087	-	41,087	12/2018
21	JAB	N-008067-00183443	13 Newfields Rd Exeter NH	23,696	-	23,696	11/2018
22	JAB	N-008069-00183445	109 Towle Farm Rd Hampton NH	87,536	-	87,536	12/2018
23	JAB	N-008071-00183449	21 Mechanic St Rochester NH	2,893	-	2,893	12/2018
24	JAB	N-008080-00183456	0 Borthwick Ave Portsmouth NH	124,347	-	124,347	12/2018
25	JAB	N-008083-00183462	118, 122, 159, 163, 165, & 167 Mt Vernon Dover NH	27,381	-	27,381	12/2018
26	JAB	N-008090-00183471	31A, 31B & 35 Wortley Ave Seabrook NH	3,470	-	3,470	12/2018
27	JAB	N-008095-00183477	106-114 Mt Vernon St Dover NH	17,051	-	17,051	12/2018
28	JPN	N-008081-00183458	101 International Drive Portsmouth NH	169,896	-	169,896	12/2018
29	Total Gas Main Extensions Excluding Services			\$ 1,546,611	\$ -	\$ 1,546,611	
Gas Main Extensions Carryover							
30	JAC	N-006031-00163445	Bramber Valley 128 Post Rd Greenland	\$ 54,549	\$ 1,961	\$ 56,510	06/2018
31	JAC	N-006038-00163463	36, 38, 40 & 42 Windsor Ave Exeter NH	2,057	-	2,057	05/2018
32	JAC	N-006039-00163458	Emerald Ln/Indian Ridge Dover	124,607	45,560	170,167	05/2018
33	JAC	N-006056-00163509	Concord Pl/McKay Dr Exeter NH - Late Charges	(658)	-	(658)	04/2018
34	JAC	N-007013-00173410	407 Old Dover Rd. Rochester	49,031	-	49,031	10/2018
35	JAC	N-007014-00173411	Whittier St Bridge Dover NH	(39,611)	52,570	12,959	05/2018
36	JAC	N-007022-00173437	Congress St/Fleet St/Vaughn Mall Rd Portsmouth NH	-	123,322	123,322	05/2018
37	JAC	N-007023-00173438	Indian Ridge Rochester NH	(3,584)	-	(3,584)	03/2018
38	JAC	N-007042-00173459	Windsor Pines Exeter	-	-	-	03/2018
39	JAC	N-007042-00173465	2 Pointe Place Dover NH	8,122	-	8,122	06/2018
40	JAC	N-007042-00173478	150 Rt 1 By-Pass Portsmouth NH	9,424	-	9,424	05/2018
41	JAC	N-007042-00173483	5 Sylvester St Portsmouth NH	6,018	-	6,018	05/2018
42	JAC	N-007051-00173468	77 Farmington Rd Rochester NH	(8,040)	-	(8,040)	05/2018
43	JAC	N-007052-00173469	Tuscan Village Project/Pleasant St	503,727	-	503,727	12/2018
44	JAC	N-007056-00173474	Stonebridge Estates Salem NH	4,276	-	4,276	03/2018
45	JAC	N-007057-00173475	Sierra Dr Dover NH	28,454	-	28,454	12/2018
46	JAC	N-007062-00173480	920 Lafayette Rd Seabrook NH	(6,347)	6,725	379	05/2018
47	JAC	N-007067-00173488	20 Garrison Rd (Wolcott Dr) Dover NH	18,365	-	18,365	05/2018
48	JAC	N-007068-00173489	206 Green St Somersworth NH	66,809	-	66,809	05/2018
49	Total Gas Main Extensions Carryover Excluding Services			\$ 817,199	\$ 230,138	\$ 1,047,337	
NH Bare Steel Replacement Carryover							
50	JCO	N-007017-00173418	Fern Ct Dover NH	\$ 91	\$ -	\$ 91	01/2018
51	JCO	N-007017-00173421	Central Ave/ Washington St	\$ (1,554)	\$ -	\$ (1,554)	02/2018
52	JCO	N-007017-00173422	Robie St Hampton NH	\$ 30	\$ -	\$ 30	01/2018
53	JCO	N-007017-00173423	Scott Rd Hampton NH	\$ 34	\$ -	\$ 34	01/2018
54	JCO	N-007017-00173431	High St / Walnut St Rochester NH	\$ 217	\$ -	\$ 217	02/2018
55	JCO	N-007017-00173432	Lois St Rochester NH	\$ 39	\$ -	\$ 39	01/2018
56	JCO	N-007017-00173456	Paving and lawn restoration for 2016	\$ 48,059	\$ 5,284	\$ 53,343	01/2018
57	JCO	N-007017-00173467	Franklin D/Woodbury Ave	\$ 130	\$ -	\$ 130	01/2018
58	JCO	N-007017-00173499	Fourth St Dover NH	\$ 1,559	\$ -	\$ 1,559	05/2018
59	Total NH Bare Steel Replacement Carryover			\$ 48,605	\$ 5,284	\$ 53,889	
Gas Highway Projects City State							
60	JHB	N-008030-00183411	Whitehouse Rd Rochester NH	\$ 5,418,362	\$ -	\$ 5,418,362	12/2018
61	JHB	N-008040-00183412	Barberry Ln/Green St Portsmouth NH	393,817	-	393,817	12/2018
62	JHB	N-008042-00183414	Stark St Bridge Portsmouth NH	230,928	-	230,928	12/2018
63	JHB	N-008045-00183416	828 Central Ave Dover NH	143,710	-	143,710	11/2018
64	JHB	N-008047-00183420	Woodbury Ave/Piscataqua Dr Newington NH	297,948	-	297,948	10/2018
65	JHB	N-008057-00183434	Daniel St and Tremont St Exeter NH	74,109	-	74,109	11/2018
66	JHB	N-008059-00183435	Railroad Ave @ Brickyard Rd Rochester NH	164,039	32,370	196,410	11/2018
67	JHB	N-008068-00183444	Lafayette Rd @ Andrew Jarvis Way Portsmouth NH	54,510	-	54,510	10/2018
68	JHB	N-008076-00183451	Jackson St/Sylvain St Rochester NH	233,793	-	233,793	11/2018
69	JHB	N-008085-00183464	Green St Portsmouth NH	50,472	-	50,472	12/2018
70	JHB	N-008087-00183466	Main St Salem NH	22,895	-	22,895	12/2018
71	Total Gas Highway Projects City State			\$ 7,084,582	\$ 32,370	\$ 7,116,952	
Gas Highway Projects Carryover City State							
72	JHC	N-007040-00173446	Islington St/Bartlett St Portsmouth NH	\$ 61,016	\$ 263,978	\$ 324,994	06/2018
73	JHC	N-007045-00173500	Dover Point Rd Crossing Dover NH	\$ 16,321	\$ -	\$ 16,321	11/2018
74	JHC	N-007046-00173452	Wakefield St Rochester NH	\$ (78,533)	\$ 42,482	\$ (36,051)	05/2018
75	JHC	N-007050-00173464	Court St HDD Exeter NH	\$ 5,440	\$ 19,729	\$ 25,169	05/2018
76	JHC	N-007058-00173476	Tanner, Parker, Sudbury, Brewster, McDonough Portsmouth NH	\$ (93,397)	\$ -	\$ (93,397)	04/2018
77	JHC	N-007069-00173492	Chestnut St Portsmouth NH	\$ 1,502	\$ -	\$ 1,502	03/2018
78	JHC	N-007070-00173493	Third St Dover NH	\$ 47,249	\$ 7,603	\$ 54,851	06/2018
79	Total Gas Highway Projects Carryover City State			\$ (40,403)	\$ 333,791	\$ 293,388	
Rochester Reinforcement							
80	JPB	N-007059-00173477	Rochester Reinforcement	\$ (112,221)	\$ 85,827	\$ (26,394)	06/2018
81	Total Rochester Reinforcement			\$ (112,221)	\$ 85,827	\$ (26,394)	
82	2018 Total Closed to Plant			\$ 9,344,372	\$ 687,411	\$ 10,031,783	

Northern Utilities, Inc. - New Hampshire
 Calculation of Rate Plan Depreciation Expense

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Line No.	FERC ACCOUNT	Additions	Rate	Depreciation Expense
1	376-20 Mains, Coated/Wrapped-G	\$ 5,888,297	2.66%	\$ 156,629
2	376-30 Mains, Bare Steel-G	-	N/A	-
3	376-40 Mains, Plastic-G	3,732,115	2.87%	107,112
4	376-60 Mains, Cathodic Protectio-G	(57,895)	4.17%	(2,414)
5	378-20 Measuring & Regulating St-G	-	3.50%	-
6	380-00 Services-G	(218,145)	3.67%	(8,006)
7	Total	\$ 9,344,372		\$ 253,320

Northern Utilities, Inc. - New Hampshire
Pre Tax Rate of Return
December 31, 2016 Pro Forma

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Line No.	(1) Description	(2) Amount	(3) Weight	(4) Cost of Capital	(5) Weighted Cost of Capital	(6) Tax Factor	(7) Pre-Tax Cost
1	Common Stock Equity	\$155,183,729	51.70%	9.50%	4.91%	1.3744	6.75%
2	Long Term Debt	145,000,000	48.30%	5.55%	2.68%		2.68%
3	Short Term Debt	-	0.00%	2.19%	0.00%		0.00%
4	Total	<u>\$ 300,183,729</u>	<u>100.00%</u>		<u>7.59%</u>		<u>9.43%</u>

ATTACHMENT 3

RATE DESIGN

Northern Utilities Inc. - New Hampshire Division
Settlement Agreement - Permanent Rates and Step Adjusted Rates

May 1, 2019 Step 2 \$ Increase \$1,431,349
May 1, 2019 Step 2 Percent Increase 4.08%

Rates Effective May 1, 2019 - Including Step 2 Adjustment

Rate Class	Customers	Winter Blocks		Summer Blocks		Revenue	
		Charge	First Therms \$/thm	Excess Therms \$/thm	First Therms \$/thm		Excess Therms \$/thm
R-5 Residential, Heating		\$22.23	\$0.6931	\$0.6931	\$0.6109	\$0.6109	\$17,311,186
R-10 Residential Heating, Low Income		\$22.23	\$0.6931	\$0.6931	\$0.6109	\$0.6109	\$720,762
Discount*		<u>-\$13.34</u>	<u>-\$0.4159</u>	<u>-\$0.4159</u>	<u>-\$0.3666</u>	<u>-\$0.3666</u>	
Total Residential Heating, Low Income		\$8.89	\$0.2773	\$0.2773	\$0.2444	\$0.2444	
R-6 Residential, Non-Heating		\$22.23	\$0.6481	\$0.6481	\$0.6481	\$0.6481	\$525,082
G-40 Low Annual, High Winter Use		\$75.20	\$0.1868	\$0.1868	\$0.1868	\$0.1868	\$6,176,077
G-50 Low Annual, Low Winter Use		\$75.20	\$0.1868	\$0.1868	\$0.1868	\$0.1868	\$1,044,053
G-41 Medium Annual, High Winter Use		\$222.99	\$0.2429		\$0.1898		\$4,904,136
G-51 Medium Annual, Low Winter Use		\$222.99	\$0.1715	\$0.1401	\$0.1339	\$0.1089	\$1,343,623
G-42 High Annual, High Winter Use		\$1,337.94	\$0.1987		\$0.1208		\$1,811,757
G-52 High Annual, Low Winter Use		\$1,337.94	\$0.1722		\$0.0793		\$2,717,756
Total							\$36,554,432

* Revenues associated with the low income discounts are reconciled and recovered in the Residential Low Income Assistance and Regulatory Assessment Clause (RLIARA). Discounts are based on the same discounts as in current permanent distribution rates.

ATTACHMENT 4

BILL IMPACTS

Northern Utilities - NH Division
Residential Heating Customer - R5
Proposed Rates with Step Adjustment versus Present Rates, as filed
Winter

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills		\$ Difference	% Difference
		@ Present Rates	Monthly Bills @ Proposed Rates		
<u>Delivery and Supply</u>					
10.0%	8.26	\$34.29	\$35.38	\$1.09	3.2%
20.0%	26.13	\$62.23	\$63.81	\$1.58	2.5%
30.0%	41.73	\$86.64	\$88.64	\$2.00	2.3%
40.0%	56.24	\$109.35	\$111.74	\$2.39	2.2%
50.0%	70.90	\$132.27	\$135.06	\$2.79	2.1%
60.0%	86.45	\$156.60	\$159.82	\$3.21	2.1%
70.0%	104.48	\$184.80	\$188.51	\$3.70	2.0%
80.0%	126.94	\$219.95	\$224.26	\$4.31	2.0%
90.0%	158.18	\$268.82	\$273.97	\$5.16	1.9%
100.0%	243.66	\$402.54	\$410.02	\$7.47	1.9%
Average	92.30	\$165.75	\$169.12	\$3.37	2.0%

<u>Distribution Only</u>					
10.0%	8.26	\$26.86	\$27.96	\$1.09	4.1%
20.0%	26.13	\$38.76	\$40.34	\$1.58	4.1%
30.0%	41.73	\$49.15	\$51.15	\$2.00	4.1%
40.0%	56.24	\$58.82	\$61.21	\$2.39	4.1%
50.0%	70.90	\$68.58	\$71.37	\$2.79	4.1%
60.0%	86.45	\$78.94	\$82.15	\$3.21	4.1%
70.0%	104.48	\$90.94	\$94.64	\$3.70	4.1%
80.0%	126.94	\$105.90	\$110.21	\$4.31	4.1%
90.0%	158.18	\$126.71	\$131.86	\$5.16	4.1%
100.0%	243.66	\$183.64	\$191.11	\$7.47	4.1%
Average	92.30	\$82.83	\$86.20	\$3.37	4.1%

Present Rates

Customer Charge (\$/customer)	\$21.36 (1)
Distribution Charge - First 50 therms (\$/thm)	\$0.6660 (1)
Distribution Charge - Excess 50 therms (\$/thm)	\$0.6660 (1)
LDAC (\$/thm)	\$0.0691 (1)
COG (\$/thm)	0.8293 (2)

Proposed Rates

Customer Charge (\$/customer)	\$22.23 (3)
Distribution Charge - First 50 therms (\$/thm)	\$0.6931 (3)
Distribution Charge - Excess 50 therms (\$/thm)	\$0.6931 (3)
LDAC (\$/thm)	\$0.0691 (1)
COG (\$/thm)	0.8293 (2)

- (1) Currently effective rates
- (2) 6 month average seasonal COG
- (3) Proposed Rates, Schedule 3

Northern Utilities - NH Division
Residential Heating Customer - R5
Proposed Rates with Step Adjustment versus Present Rates, as filed
Summer

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	0.00	\$21.36	\$22.23	\$0.87	4.1%
20.0%	2.61	\$24.02	\$24.96	\$0.93	3.9%
30.0%	6.85	\$28.36	\$29.39	\$1.03	3.6%
40.0%	10.34	\$31.92	\$33.04	\$1.12	3.5%
50.0%	13.64	\$35.29	\$36.49	\$1.20	3.4%
60.0%	17.10	\$38.82	\$40.10	\$1.28	3.3%
70.0%	21.29	\$43.11	\$44.49	\$1.38	3.2%
80.0%	27.06	\$49.00	\$50.52	\$1.52	3.1%
90.0%	37.40	\$59.57	\$61.33	\$1.76	3.0%
100.0%	75.30	\$98.28	\$100.95	\$2.67	2.7%
Average	21.16	\$42.97	\$44.35	\$1.38	3.2%
<u>Distribution Only</u>					
10.0%	0.00	\$21.36	\$22.23	\$0.87	4.1%
20.0%	2.61	\$22.89	\$23.82	\$0.93	4.1%
30.0%	6.85	\$25.38	\$26.42	\$1.03	4.1%
40.0%	10.34	\$27.43	\$28.55	\$1.12	4.1%
50.0%	13.64	\$29.37	\$30.56	\$1.20	4.1%
60.0%	17.10	\$31.40	\$32.67	\$1.28	4.1%
70.0%	21.29	\$33.86	\$35.24	\$1.38	4.1%
80.0%	27.06	\$37.25	\$38.76	\$1.52	4.1%
90.0%	37.40	\$43.31	\$45.08	\$1.76	4.1%
100.0%	75.30	\$65.56	\$68.23	\$2.67	4.1%
Average	21.16	\$33.78	\$35.16	\$1.38	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$21.36 (1)	Customer Charge (\$/customer)		\$22.23 (2)
Distribution Charge - First 50 therms (\$/thm)		\$0.5870 (1)	Distribution Charge - First 50 therms (\$/thm)		\$0.6109 (2)
Distribution Charge - Excess 50 therms (\$/thm)		\$0.5870 (1)	Distribution Charge - Excess 50 therms (\$/thm)		\$0.6109 (2)
LDAC (\$/thm)		\$0.0675 (3)	LDAC (\$/thm)		\$0.0675 (3)
COG (\$/thm)		\$0.3670 (3)	COG (\$/thm)		\$0.3670 (3)

(1) Currently effective rates
(2) Proposed Rates, Schedule 3
(3) Approved rates effective May 1, 2019

Northern Utilities - NH Division
Residential Low Income Heating Customer - R10
Proposed Rates with Step Adjustment versus Present Rates, as filed
Winter

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Present Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	13.42	\$24.17	\$24.67	\$0.49	2.0%
20.0%	30.86	\$44.49	\$45.17	\$0.68	1.5%
30.0%	43.75	\$59.51	\$60.33	\$0.82	1.4%
40.0%	55.35	\$73.01	\$73.96	\$0.95	1.3%
50.0%	66.76	\$86.30	\$87.38	\$1.08	1.2%
60.0%	79.29	\$100.91	\$102.12	\$1.21	1.2%
70.0%	93.47	\$117.42	\$118.79	\$1.37	1.2%
80.0%	112.63	\$139.74	\$141.32	\$1.58	1.1%
90.0%	140.35	\$172.02	\$173.90	\$1.88	1.1%
100.0%	207.60	\$250.36	\$252.97	\$2.61	1.0%
Average	84.35	\$106.79	\$108.06	\$1.27	1.2%
<u>Distribution Only</u>					
10.0%	13.42	\$12.12	\$12.61	\$0.49	4.1%
20.0%	30.86	\$16.76	\$17.45	\$0.68	4.1%
30.0%	43.75	\$20.20	\$21.03	\$0.82	4.1%
40.0%	55.35	\$23.29	\$24.24	\$0.95	4.1%
50.0%	66.76	\$26.33	\$27.40	\$1.08	4.1%
60.0%	79.29	\$29.67	\$30.88	\$1.21	4.1%
70.0%	93.47	\$33.45	\$34.81	\$1.37	4.1%
80.0%	112.63	\$38.55	\$40.13	\$1.58	4.1%
90.0%	140.35	\$45.93	\$47.81	\$1.88	4.1%
100.0%	207.60	\$63.85	\$66.46	\$2.61	4.1%
Average	84.35	\$31.01	\$32.28	\$1.27	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$8.54 (1)	Customer Charge (\$/customer)		\$8.89 (3)
Distribution Charge - First 50 therms (\$/thm)		\$0.2664 (1)	Distribution Charge - First 50 therms (\$/thm) *		\$0.2773 (3)
Distribution Charge - Excess 50 therms (\$/thm)		\$0.2664 (1)	Distribution Charge - Excess 50 therms (\$/thm) *		\$0.2773 (3)
LDAC (\$/thm)		\$0.0691 (1)	LDAC (\$/thm)		\$0.0691 (1)
COG (\$/thm)		\$0.8293 (2)	COG (\$/thm)		\$0.8293 (2)

(1) Currently effective rates
(2) 6 month average seasonal COG
(3) Proposed Rates, Schedule 3

* Assumes current 60% discount on distribution rates

Northern Utilities - NH Division
Residential Low Income Heating Customer - R10
Proposed Rates with Step Adjustment versus Present Rates, as filed
Summer

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Present Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	0.09	\$8.60	\$8.95	\$0.35	4.1%
20.0%	3.46	\$10.86	\$11.24	\$0.38	3.5%
30.0%	7.52	\$13.58	\$14.00	\$0.42	3.1%
40.0%	10.44	\$15.53	\$15.98	\$0.45	2.9%
50.0%	13.36	\$17.49	\$17.96	\$0.48	2.7%
60.0%	16.33	\$19.47	\$19.98	\$0.50	2.6%
70.0%	20.10	\$22.00	\$22.54	\$0.54	2.5%
80.0%	25.06	\$25.32	\$25.90	\$0.59	2.3%
90.0%	34.33	\$31.52	\$32.20	\$0.68	2.1%
100.0%	64.97	\$52.03	\$53.00	\$0.97	1.9%
Average	19.57	\$21.64	\$22.17	\$0.54	2.5%
<u>Distribution Only</u>					
10.0%	0.09	\$8.56	\$8.91	\$0.35	4.1%
20.0%	3.46	\$9.36	\$9.74	\$0.38	4.1%
30.0%	7.52	\$10.31	\$10.73	\$0.42	4.1%
40.0%	10.44	\$11.00	\$11.44	\$0.45	4.1%
50.0%	13.36	\$11.68	\$12.16	\$0.48	4.1%
60.0%	16.33	\$12.38	\$12.88	\$0.50	4.1%
70.0%	20.10	\$13.26	\$13.80	\$0.54	4.1%
80.0%	25.06	\$14.43	\$15.02	\$0.59	4.1%
90.0%	34.33	\$16.60	\$17.28	\$0.68	4.1%
100.0%	64.97	\$23.80	\$24.77	\$0.97	4.1%
Average	19.57	\$13.14	\$13.67	\$0.54	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$8.54 (1)	Customer Charge (\$/customer)		\$8.89 (2)
Distribution Charge - First 50 therms (\$/thm)		\$0.2348 (1)	Distribution Charge - First 50 therms (\$/thm) *		\$0.2444 (2)
Distribution Charge - Excess 50 therms (\$/thm)		\$0.2348 (1)	Distribution Charge - Excess 50 therms (\$/thm) *		\$0.2444 (2)
LDAC (\$/thm)		\$0.0675 (3)	LDAC (\$/thm)		\$0.0675 (3)
COG (\$/thm)		\$0.3670 (3)	COG (\$/thm)		\$0.3670 (3)

(1) Currently effective rates
(2) Proposed Rates, Schedule 3
(3) Approved rates effective May 1, 2019

* Assumes current 60% discount on distribution rates

Northern Utilities - NH Division
Residential Non-Heating Customer - R6
Proposed Rates with Step Adjustment versus Present Rates, as filed
Winter

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Present Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	0.00	\$21.36	\$22.23	\$0.87	4.1%
20.0%	0.53	\$22.16	\$23.05	\$0.88	4.0%
30.0%	2.32	\$24.89	\$25.82	\$0.93	3.7%
40.0%	5.40	\$29.57	\$30.58	\$1.01	3.4%
50.0%	9.21	\$35.36	\$36.47	\$1.10	3.1%
60.0%	12.75	\$40.76	\$41.95	\$1.19	2.9%
70.0%	16.55	\$46.53	\$47.82	\$1.29	2.8%
80.0%	21.45	\$53.98	\$55.40	\$1.41	2.6%
90.0%	30.58	\$67.88	\$69.52	\$1.65	2.4%
100.0%	74.59	\$134.81	\$137.58	\$2.76	2.1%
Average	17.34	\$47.73	\$49.04	\$1.31	2.7%
<u>Distribution Only</u>					
10.0%	0.00	\$21.36	\$22.23	\$0.87	4.1%
20.0%	0.53	\$21.69	\$22.57	\$0.88	4.1%
30.0%	2.32	\$22.81	\$23.73	\$0.93	4.1%
40.0%	5.40	\$24.72	\$25.73	\$1.01	4.1%
50.0%	9.21	\$27.09	\$28.20	\$1.10	4.1%
60.0%	12.75	\$29.30	\$30.49	\$1.19	4.1%
70.0%	16.55	\$31.67	\$32.96	\$1.29	4.1%
80.0%	21.45	\$34.72	\$36.13	\$1.41	4.1%
90.0%	30.58	\$40.40	\$42.05	\$1.65	4.1%
100.0%	74.59	\$67.80	\$70.57	\$2.76	4.1%
Average	17.34	\$32.16	\$33.47	\$1.31	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$21.36 (1)	Customer Charge (\$/customer)		\$22.23 (3)
Distribution Charge - First 10 therms (\$/thm)		\$0.6227 (1)	Distribution Charge - First 10 therms (\$/thm)		\$0.6481 (3)
Distribution Charge - Excess 10 therms (\$/thm)		\$0.6227 (1)	Distribution Charge - Excess 10 therms (\$/thm)		\$0.6481 (3)
LDAC (\$/thm)		\$0.0691 (1)	LDAC (\$/thm)		\$0.0691 (1)
COG (\$/thm)		\$0.8293 (2)	COG (\$/thm)		\$0.8293 (2)

(1) Currently effective rates
(2) 6 month average seasonal COG
(3) Proposed Rates, Schedule 3

Northern Utilities - NH Division
Residential Non-Heating Customer - R6
Proposed Rates with Step Adjustment versus Present Rates, as filed
Summer

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Present Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	0.00	\$21.36	\$22.23	\$0.87	4.1%
20.0%	0.84	\$22.25	\$23.14	\$0.89	4.0%
30.0%	2.36	\$23.85	\$24.78	\$0.93	3.9%
40.0%	4.47	\$26.08	\$27.07	\$0.98	3.8%
50.0%	6.84	\$28.59	\$29.63	\$1.04	3.7%
60.0%	8.97	\$30.85	\$31.95	\$1.10	3.6%
70.0%	11.19	\$33.19	\$34.34	\$1.15	3.5%
80.0%	13.87	\$36.02	\$37.24	\$1.22	3.4%
90.0%	18.00	\$40.39	\$41.72	\$1.33	3.3%
100.0%	36.07	\$59.49	\$61.28	\$1.79	3.0%
Average	10.26	\$32.21	\$33.34	\$1.13	3.5%
<u>Distribution Only</u>					
10.0%	0.00	\$21.36	\$22.23	\$0.87	4.1%
20.0%	0.84	\$21.88	\$22.77	\$0.89	4.1%
30.0%	2.36	\$22.83	\$23.76	\$0.93	4.1%
40.0%	4.47	\$24.14	\$25.13	\$0.98	4.1%
50.0%	6.84	\$25.62	\$26.66	\$1.04	4.1%
60.0%	8.97	\$26.95	\$28.05	\$1.10	4.1%
70.0%	11.19	\$28.33	\$29.48	\$1.15	4.1%
80.0%	13.87	\$30.00	\$31.22	\$1.22	4.1%
90.0%	18.00	\$32.57	\$33.90	\$1.33	4.1%
100.0%	36.07	\$43.82	\$45.61	\$1.79	4.1%
Average	10.26	\$27.75	\$28.88	\$1.13	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$21.36 (1)	Customer Charge (\$/customer)		\$22.23 (2)
Distribution Charge - First 10 therms (\$/thm)		\$0.6227 (1)	Distribution Charge - First 10 therms (\$/thm)		\$0.6481 (2)
Distribution Charge - Excess 10 therms (\$/thm)		\$0.6227 (1)	Distribution Charge - Excess 10 therms (\$/thm)		\$0.6481 (2)
LDAC (\$/thm)		\$0.0675 (3)	LDAC (\$/thm)		\$0.0675 (3)
COG (\$/thm)		\$0.3670 (3)	COG (\$/thm)		\$0.3670 (3)

(1) Currently effective rates
(2) Proposed Rates, Schedule 3
(3) Approved rates effective May 1, 2019

Northern Utilities - NH Division
General Service - Low Annual, High Winter Use - G40
Proposed Rates with Step Adjustment versus Present Rates, as filed
Winter

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	4.43	\$76.97	\$79.95	\$2.97	3.9%
20.0%	27.64	\$101.66	\$104.80	\$3.14	3.1%
30.0%	54.57	\$130.30	\$133.64	\$3.34	2.6%
40.0%	86.90	\$164.69	\$168.27	\$3.57	2.2%
50.0%	126.77	\$207.11	\$210.97	\$3.87	1.9%
60.0%	177.28	\$260.84	\$265.07	\$4.23	1.6%
70.0%	245.10	\$332.98	\$337.71	\$4.73	1.4%
80.0%	338.06	\$431.86	\$437.27	\$5.41	1.3%
90.0%	484.85	\$588.01	\$594.49	\$6.48	1.1%
100.0%	923.90	\$1,055.05	\$1,064.73	\$9.68	0.9%
Average	246.95	\$334.95	\$339.69	\$4.74	1.4%
<u>Distribution Only</u>					
10.0%	4.43	\$73.06	\$76.03	\$2.97	4.1%
20.0%	27.64	\$77.22	\$80.36	\$3.14	4.1%
30.0%	54.57	\$82.05	\$85.39	\$3.34	4.1%
40.0%	86.90	\$87.86	\$91.43	\$3.57	4.1%
50.0%	126.77	\$95.02	\$98.88	\$3.87	4.1%
60.0%	177.28	\$104.08	\$108.32	\$4.23	4.1%
70.0%	245.10	\$116.26	\$120.99	\$4.73	4.1%
80.0%	338.06	\$132.94	\$138.35	\$5.41	4.1%
90.0%	484.85	\$159.29	\$165.77	\$6.48	4.1%
100.0%	923.90	\$238.10	\$247.78	\$9.68	4.1%
Average	246.95	\$116.59	\$121.33	\$4.74	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$72.26 (1)	Customer Charge (\$/customer)		\$75.20 (3)
Distribution Charge - First 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - First 75 therms (\$/thm)		\$0.1868 (3)
Distribution Charge - Excess 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - Excess 75 therms (\$/thm)		\$0.1868 (3)
LDAC (\$/thm)		\$0.0396 (1)	LDAC (\$/thm)		\$0.0396 (1)
COG (\$/thm)		\$0.8446 (2)	COG (\$/thm)		\$0.8446 (2)

(1) Currently effective rates
(2) 6 month average seasonal COG
(3) Proposed Rates, Schedule 3

Northern Utilities - NH Division
General Service - Low Annual, High Winter Use - G40
Proposed Rates with Step Adjustment versus Present Rates, as filed
Summer

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	0.00	\$72.26	\$75.20	\$2.94	4.1%
20.0%	0.00	\$72.26	\$75.20	\$2.94	4.1%
30.0%	0.00	\$72.26	\$75.20	\$2.94	4.1%
40.0%	1.16	\$72.97	\$75.92	\$2.95	4.0%
50.0%	5.41	\$75.58	\$78.56	\$2.98	3.9%
60.0%	11.70	\$79.43	\$82.46	\$3.03	3.8%
70.0%	23.50	\$86.67	\$89.79	\$3.11	3.6%
80.0%	45.46	\$100.14	\$103.41	\$3.27	3.3%
90.0%	87.78	\$126.10	\$129.68	\$3.58	2.8%
100.0%	249.91	\$225.53	\$230.30	\$4.76	2.1%
Average	42.49	\$98.32	\$101.57	\$3.25	3.3%
<u>Distribution Only</u>					
10.0%	0.00	\$72.26	\$75.20	\$2.94	4.1%
20.0%	0.00	\$72.26	\$75.20	\$2.94	4.1%
30.0%	0.00	\$72.26	\$75.20	\$2.94	4.1%
40.0%	1.16	\$72.47	\$75.42	\$2.95	4.1%
50.0%	5.41	\$73.23	\$76.21	\$2.98	4.1%
60.0%	11.70	\$74.36	\$77.38	\$3.03	4.1%
70.0%	23.50	\$76.48	\$79.59	\$3.11	4.1%
80.0%	45.46	\$80.42	\$83.69	\$3.27	4.1%
90.0%	87.78	\$88.02	\$91.60	\$3.58	4.1%
100.0%	249.91	\$117.12	\$121.88	\$4.76	4.1%
Average	42.49	\$79.89	\$83.14	\$3.25	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$72.26 (1)	Customer Charge (\$/customer)		\$75.20 (2)
Distribution Charge - First 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - First 75 therms (\$/thm)		\$0.1868 (2)
Distribution Charge - Excess 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - Excess 75 therms (\$/thm)		\$0.1868 (2)
LDAC (\$/thm)		\$0.0380 (3)	LDAC (\$/thm)		\$0.0380 (3)
COG (\$/thm)		\$0.3958 (3)	COG (\$/thm)		\$0.3958 (3)

(1) Currently effective rates
(2) Proposed Rates, Schedule 3
(3) Approved rates effective May 1, 2019

Northern Utilities - NH Division
General Service - Low Annual, Low Winter Use - G50
Proposed Rates with Step Adjustment versus Present Rates, as filed
Winter

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	0.00	\$72.26	\$75.20	\$2.94	4.1%
20.0%	2.72	\$74.83	\$77.79	\$2.96	4.0%
30.0%	9.58	\$81.33	\$84.34	\$3.01	3.7%
40.0%	23.28	\$94.30	\$97.41	\$3.11	3.3%
50.0%	47.61	\$117.34	\$120.62	\$3.29	2.8%
60.0%	91.23	\$158.63	\$162.23	\$3.61	2.3%
70.0%	172.70	\$235.76	\$239.96	\$4.20	1.8%
80.0%	300.72	\$356.96	\$362.10	\$5.14	1.4%
90.0%	456.81	\$504.74	\$511.01	\$6.27	1.2%
100.0%	769.53	\$800.80	\$809.35	\$8.56	1.1%
Average	187.42	\$249.69	\$254.00	\$4.31	1.7%
<u>Distribution Only</u>					
10.0%	0.00	\$72.26	\$75.20	\$2.94	4.1%
20.0%	2.72	\$72.75	\$75.71	\$2.96	4.1%
30.0%	9.58	\$73.98	\$76.99	\$3.01	4.1%
40.0%	23.28	\$76.44	\$79.55	\$3.11	4.1%
50.0%	47.61	\$80.81	\$84.09	\$3.29	4.1%
60.0%	91.23	\$88.63	\$92.24	\$3.61	4.1%
70.0%	172.70	\$103.26	\$107.46	\$4.20	4.1%
80.0%	300.72	\$126.24	\$131.37	\$5.14	4.1%
90.0%	456.81	\$154.26	\$160.53	\$6.27	4.1%
100.0%	769.53	\$210.39	\$218.95	\$8.56	4.1%
Average	187.42	\$105.90	\$110.21	\$4.31	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$72.26 (1)	Customer Charge (\$/customer)		\$75.20 (3)
Distribution Charge - First 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - First 75 therms (\$/thm)		\$0.1868 (3)
Distribution Charge - Excess 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - Excess 75 therms (\$/thm)		\$0.1868 (3)
LDAC (\$/thm)		\$0.0396 (1)	LDAC (\$/thm)		\$0.0396 (1)
COG (\$/thm)		\$0.7276 (2)	COG (\$/thm)		\$0.7276 (2)

(1) Currently effective rates
(2) 6 month average seasonal COG
(3) Proposed Rates, Schedule 3

Northern Utilities - NH Division
General Service - Low Annual, Low Winter Use - G50
Proposed Rates with Step Adjustment versus Present Rates, as filed
Summer

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	0.07	\$72.30	\$75.24	\$2.94	4.1%
20.0%	2.86	\$73.82	\$76.78	\$2.96	4.0%
30.0%	8.24	\$76.75	\$79.75	\$3.00	3.9%
40.0%	17.63	\$81.86	\$84.93	\$3.07	3.7%
50.0%	35.77	\$91.73	\$94.93	\$3.20	3.5%
60.0%	71.14	\$110.99	\$114.45	\$3.46	3.1%
70.0%	142.62	\$149.90	\$153.88	\$3.98	2.7%
80.0%	247.68	\$207.10	\$211.84	\$4.75	2.3%
90.0%	372.16	\$274.86	\$280.52	\$5.66	2.1%
100.0%	611.33	\$405.07	\$412.47	\$7.40	1.8%
Average	150.95	\$154.44	\$158.48	\$4.04	2.6%
<u>Distribution Only</u>					
10.0%	0.07	\$72.27	\$75.21	\$2.94	4.1%
20.0%	2.86	\$72.77	\$75.73	\$2.96	4.1%
30.0%	8.24	\$73.74	\$76.74	\$3.00	4.1%
40.0%	17.63	\$75.42	\$78.49	\$3.07	4.1%
50.0%	35.77	\$78.68	\$81.88	\$3.20	4.1%
60.0%	71.14	\$85.03	\$88.49	\$3.46	4.1%
70.0%	142.62	\$97.86	\$101.84	\$3.98	4.1%
80.0%	247.68	\$116.72	\$121.47	\$4.75	4.1%
90.0%	372.16	\$139.06	\$144.72	\$5.66	4.1%
100.0%	611.33	\$181.99	\$189.40	\$7.40	4.1%
Average	150.95	\$99.36	\$103.40	\$4.04	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$72.26 (1)	Customer Charge (\$/customer)		\$75.20 (2)
Distribution Charge - First 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - First 75 therms (\$/thm)		\$0.1868 (2)
Distribution Charge - Excess 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - Excess 75 therms (\$/thm)		\$0.1868 (2)
LDAC (\$/thm)		\$0.0380 (3)	LDAC (\$/thm)		\$0.0380 (3)
COG (\$/thm)		\$0.3269 (3)	COG (\$/thm)		\$0.3269 (3)

(1) Currently effective rates
(2) Proposed Rates, Schedule 3
(3) Approved rates effective May 1, 2019

Northern Utilities - NH Division
General Service - Medium Annual, High Winter Use - G41
Proposed Rates with Step Adjustment versus Present Rates, as filed
Winter

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	310.17	\$560.91	\$572.59	\$11.68	2.1%
20.0%	818.65	\$1,129.21	\$1,145.72	\$16.51	1.5%
30.0%	1,089.68	\$1,432.12	\$1,451.21	\$19.08	1.3%
40.0%	1,314.59	\$1,683.48	\$1,704.70	\$21.22	1.3%
50.0%	1,553.42	\$1,950.42	\$1,973.91	\$23.49	1.2%
60.0%	1,858.38	\$2,291.24	\$2,317.63	\$26.38	1.2%
70.0%	2,313.08	\$2,799.43	\$2,830.13	\$30.70	1.1%
80.0%	3,035.26	\$3,606.57	\$3,644.13	\$37.56	1.0%
90.0%	4,276.44	\$4,993.75	\$5,043.11	\$49.36	1.0%
100.0%	7,338.99	\$8,416.56	\$8,495.01	\$78.45	0.9%
Average	2,390.87	\$2,886.37	\$2,917.81	\$31.44	1.1%
<u>Distribution Only</u>					
10.0%	310.17	\$286.65	\$298.33	\$11.68	4.1%
20.0%	818.65	\$405.33	\$421.84	\$16.51	4.1%
30.0%	1,089.68	\$468.59	\$487.67	\$19.08	4.1%
40.0%	1,314.59	\$521.08	\$542.30	\$21.22	4.1%
50.0%	1,553.42	\$576.83	\$600.32	\$23.49	4.1%
60.0%	1,858.38	\$648.00	\$674.39	\$26.38	4.1%
70.0%	2,313.08	\$754.13	\$784.84	\$30.70	4.1%
80.0%	3,035.26	\$922.69	\$960.25	\$37.56	4.1%
90.0%	4,276.44	\$1,212.38	\$1,261.74	\$49.36	4.1%
100.0%	7,338.99	\$1,927.18	\$2,005.63	\$78.45	4.1%
Average	2,390.87	\$772.29	\$803.73	\$31.44	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$214.26 (1)	Customer Charge (\$/customer)		\$222.99 (3)
Distribution Charge - All therms (\$/thm)		\$0.2334 (1)	Distribution Charge - All therms (\$/thm)		\$0.2429 (3)
LDAC (\$/thm)		\$0.0396 (1)	LDAC (\$/thm)		\$0.0396 (1)
COG (\$/thm)		\$0.8446 (2)	COG (\$/thm)		\$0.8446 (2)

(1) Currently effective rates
(2) 6 month average seasonal COG
(3) Proposed Rates, Schedule 3

Northern Utilities - NH Division
General Service - Medium Annual, High Winter Use - G41
Proposed Rates with Step Adjustment versus Present Rates, as filed
Summer

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	0.00	\$214.26	\$222.99	\$8.73	4.1%
20.0%	5.88	\$217.88	\$226.66	\$8.77	4.0%
30.0%	39.86	\$238.82	\$247.85	\$9.02	3.8%
40.0%	119.15	\$287.68	\$297.29	\$9.61	3.3%
50.0%	230.97	\$356.58	\$367.02	\$10.44	2.9%
60.0%	364.21	\$438.68	\$450.11	\$11.43	2.6%
70.0%	509.61	\$528.28	\$540.79	\$12.50	2.4%
80.0%	719.54	\$657.64	\$671.70	\$14.05	2.1%
90.0%	1,106.64	\$896.17	\$913.09	\$16.92	1.9%
100.0%	2,524.27	\$1,769.72	\$1,797.13	\$27.41	1.5%
Average	562.01	\$560.57	\$573.46	\$12.89	2.3%
<u>Distribution Only</u>					
10.0%	0.00	\$214.26	\$222.99	\$8.73	4.1%
20.0%	5.88	\$215.33	\$224.11	\$8.77	4.1%
30.0%	39.86	\$221.53	\$230.56	\$9.02	4.1%
40.0%	119.15	\$235.99	\$245.60	\$9.61	4.1%
50.0%	230.97	\$256.39	\$266.83	\$10.44	4.1%
60.0%	364.21	\$280.69	\$292.12	\$11.43	4.1%
70.0%	509.61	\$307.21	\$319.71	\$12.50	4.1%
80.0%	719.54	\$345.50	\$359.56	\$14.05	4.1%
90.0%	1,106.64	\$416.11	\$433.03	\$16.92	4.1%
100.0%	2,524.27	\$674.69	\$702.10	\$27.41	4.1%
Average	562.01	\$316.77	\$329.66	\$12.89	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$214.26 (1)	Customer Charge (\$/customer)		\$222.99 (2)
Distribution Charge - All therms (\$/thm)		\$0.1824 (1)	Distribution Charge - All therms (\$/thm)		\$0.1898 (2)
LDAC (\$/thm)		\$0.0380 (3)	LDAC (\$/thm)		\$0.0380 (3)
COG (\$/thm)		\$0.3958 (3)	COG (\$/thm)		\$0.3958 (3)

(1) Currently effective rates
(2) Proposed Rates, Schedule 3
(3) Approved rates effective May 1, 2019

Northern Utilities - NH Division
General Service - Medium Annual, Low Winter Use - G51
Proposed Rates with Step Adjustment versus Present Rates, as filed
Winter

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	335.07	\$526.56	\$537.53	\$10.97	2.1%
20.0%	725.69	\$890.63	\$904.22	\$13.59	1.5%
30.0%	853.10	\$1,009.37	\$1,023.82	\$14.45	1.4%
40.0%	971.90	\$1,120.10	\$1,135.34	\$15.24	1.4%
50.0%	1,107.19	\$1,246.19	\$1,262.34	\$16.15	1.3%
60.0%	1,275.87	\$1,403.41	\$1,420.69	\$17.28	1.2%
70.0%	1,495.24	\$1,601.98	\$1,620.49	\$18.51	1.2%
80.0%	1,899.30	\$1,966.37	\$1,987.10	\$20.74	1.1%
90.0%	2,635.60	\$2,630.39	\$2,655.18	\$24.79	0.9%
100.0%	5,025.23	\$4,785.44	\$4,823.37	\$37.93	0.8%
Average	1,632.42	\$1,725.69	\$1,744.96	\$19.27	1.1%
<u>Distribution Only</u>					
10.0%	335.07	\$269.48	\$280.45	\$10.97	4.1%
20.0%	725.69	\$333.85	\$347.45	\$13.59	4.1%
30.0%	853.10	\$354.85	\$369.30	\$14.45	4.1%
40.0%	971.90	\$374.43	\$389.67	\$15.24	4.1%
50.0%	1,107.19	\$396.72	\$412.87	\$16.15	4.1%
60.0%	1,275.87	\$424.52	\$441.80	\$17.28	4.1%
70.0%	1,495.24	\$454.78	\$473.29	\$18.51	4.1%
80.0%	1,899.30	\$509.17	\$529.90	\$20.74	4.1%
90.0%	2,635.60	\$608.27	\$633.06	\$24.79	4.1%
100.0%	5,025.23	\$929.92	\$967.85	\$37.93	4.1%
Average	1,632.42	\$473.24	\$492.51	\$19.27	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$214.26 (1)	Customer Charge (\$/customer)		\$222.99 (3)
Distribution Charge - First 1,300 therms (\$/thm)		\$0.1648 (1)	Distribution Charge - First 1,300 therms (\$/thm)		\$0.1715 (3)
Distribution Charge - Excess 1,300 therms (\$/thm)		\$0.1346 (1)	Distribution Charge - Excess 1,300 therms (\$/thm)		\$0.1401 (3)
LDAC (\$/thm)		\$0.0396 (1)	LDAC (\$/thm)		\$0.0396 (1)
COG (\$/thm)		\$0.7276 (2)	COG (\$/thm)		\$0.7276 (2)

(1) Currently effective rates
(2) 6 month average seasonal COG
(3) Proposed Rates, Schedule 3

Northern Utilities - NH Division
General Service - Medium Annual, Low Winter Use - G51
Proposed Rates with Step Adjustment versus Present Rates, as filed
Summer

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	164.90	\$295.65	\$305.24	\$9.59	3.2%
20.0%	521.45	\$471.65	\$483.09	\$11.44	2.4%
30.0%	628.41	\$524.44	\$536.44	\$12.00	2.3%
40.0%	721.26	\$570.27	\$582.75	\$12.48	2.2%
50.0%	808.31	\$613.24	\$626.18	\$12.93	2.1%
60.0%	930.76	\$673.69	\$687.26	\$13.57	2.0%
70.0%	1,113.81	\$761.29	\$775.71	\$14.42	1.9%
80.0%	1,362.49	\$878.05	\$893.54	\$15.49	1.8%
90.0%	1,768.95	\$1,068.88	\$1,086.12	\$17.24	1.6%
100.0%	3,649.96	\$1,952.02	\$1,977.34	\$25.32	1.3%
Average	1,167.03	\$786.28	\$800.93	\$14.65	1.9%
<u>Distribution Only</u>					
10.0%	164.90	\$235.48	\$245.07	\$9.59	4.1%
20.0%	521.45	\$281.37	\$292.81	\$11.44	4.1%
30.0%	628.41	\$295.14	\$307.13	\$12.00	4.1%
40.0%	721.26	\$307.09	\$319.57	\$12.48	4.1%
50.0%	808.31	\$318.29	\$331.22	\$12.93	4.1%
60.0%	930.76	\$334.05	\$347.62	\$13.57	4.1%
70.0%	1,113.81	\$354.86	\$369.28	\$14.42	4.1%
80.0%	1,362.49	\$380.88	\$396.37	\$15.49	4.1%
90.0%	1,768.95	\$423.39	\$440.63	\$17.24	4.1%
100.0%	3,649.96	\$620.15	\$645.47	\$25.32	4.1%
Average	1,167.03	\$360.43	\$375.08	\$14.65	4.1%

Present Rates

Customer Charge (\$/customer)	\$214.26 (1)
Distribution Charge - First 1,000 therms (\$/thm)	\$0.1287 (1)
Distribution Charge - Excess 1,000 therms (\$/thm)	\$0.1046 (1)
LDAC (\$/thm)	\$0.0380 (3)
COG (\$/thm)	\$0.3269 (3)

Proposed Rates

Customer Charge (\$/customer)	\$222.99 (2)
Distribution Charge - First 1,000 therms (\$/thm)	\$0.1339 (2)
Distribution Charge - Excess 1,000 therms (\$/thm)	\$0.1089 (2)
LDAC (\$/thm)	\$0.0380 (3)
COG (\$/thm)	\$0.3269 (3)

- (1) Currently effective rates
- (2) Proposed Rates, Schedule 3
- (3) Approved rates effective May 1, 2019

Northern Utilities - NH Division
General Service - High Annual, High Winter Use - G42
Proposed Rates with Step Adjustment versus Present Rates, as filed
Winter

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
9.8%	3,268.24	\$4,799.35	\$4,877.23	\$77.88	1.6%
20.1%	7,419.74	\$9,262.76	\$9,373.02	\$110.26	1.2%
29.9%	9,222.99	\$11,201.50	\$11,325.82	\$124.33	1.1%
40.2%	10,830.36	\$12,929.63	\$13,066.50	\$136.87	1.1%
50.0%	12,077.18	\$14,270.13	\$14,416.72	\$146.59	1.0%
59.8%	14,047.99	\$16,389.01	\$16,550.97	\$161.96	1.0%
70.1%	16,354.75	\$18,869.08	\$19,049.04	\$179.96	1.0%
79.9%	18,890.81	\$21,595.69	\$21,795.43	\$199.74	0.9%
90.2%	24,097.25	\$27,193.31	\$27,433.66	\$240.35	0.9%
100.0%	98,242.53	\$106,909.36	\$107,728.05	\$818.68	0.8%
Average	21,445.18	\$24,341.98	\$24,561.64	\$219.66	0.9%
<u>Distribution Only</u>					
9.8%	3,268.24	\$1,909.46	\$1,987.34	\$77.88	4.1%
20.1%	7,419.74	\$2,701.98	\$2,812.24	\$110.26	4.1%
29.9%	9,222.99	\$3,046.22	\$3,170.55	\$124.33	4.1%
40.2%	10,830.36	\$3,353.07	\$3,489.93	\$136.87	4.1%
50.0%	12,077.18	\$3,591.08	\$3,737.68	\$146.59	4.1%
59.8%	14,047.99	\$3,967.31	\$4,129.27	\$161.96	4.1%
70.1%	16,354.75	\$4,407.67	\$4,587.63	\$179.96	4.1%
79.9%	18,890.81	\$4,891.81	\$5,091.54	\$199.74	4.1%
90.2%	24,097.25	\$5,885.72	\$6,126.06	\$240.35	4.1%
100.0%	98,242.53	\$20,040.05	\$20,858.73	\$818.68	4.1%
Average	21,445.18	\$5,379.44	\$5,599.10	\$219.66	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$1,285.55 (1)	Customer Charge (\$/customer)	\$1,337.94 (3)	
Distribution Charge - All therms (\$/thm)		\$0.1909 (1)	Distribution Charge - All therms (\$/thm)	\$0.1987 (3)	
LDAC (\$/thm)		\$0.0396 (1)	LDAC (\$/thm)	\$0.0396 (1)	
COG (\$/thm)		\$0.8446 (2)	COG (\$/thm)	\$0.8446 (2)	

(1) Currently effective rates
(2) 6 month average seasonal COG
(3) Proposed Rates, Schedule 3

Northern Utilities - NH Division
General Service - High Annual, High Winter Use - G42
Proposed Rates with Step Adjustment versus Present Rates, as filed
Summer

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
10.0%	194.84	\$1,392.69	\$1,446.00	\$53.31	3.8%
20.1%	466.60	\$1,542.13	\$1,596.72	\$54.58	3.5%
30.1%	1,161.76	\$1,924.40	\$1,982.25	\$57.85	3.0%
40.2%	2,092.77	\$2,436.36	\$2,498.59	\$62.23	2.6%
50.2%	3,103.77	\$2,992.31	\$3,059.29	\$66.98	2.2%
59.8%	3,754.37	\$3,350.08	\$3,420.11	\$70.04	2.1%
69.9%	4,661.49	\$3,848.90	\$3,923.20	\$74.30	1.9%
79.9%	6,258.51	\$4,727.10	\$4,808.91	\$81.80	1.7%
90.0%	8,711.55	\$6,076.03	\$6,169.37	\$93.33	1.5%
100.0%	42,931.93	\$24,893.82	\$25,147.99	\$254.17	1.0%
Average	7,333.76	\$5,318.38	\$5,405.24	\$86.86	1.6%
<u>Distribution Only</u>					
10.0%	194.84	\$1,308.17	\$1,361.48	\$53.31	4.1%
20.1%	466.60	\$1,339.72	\$1,394.31	\$54.58	4.1%
30.1%	1,161.76	\$1,420.43	\$1,478.28	\$57.85	4.1%
40.2%	2,092.77	\$1,528.52	\$1,590.75	\$62.23	4.1%
50.2%	3,103.77	\$1,645.90	\$1,712.88	\$66.98	4.1%
59.8%	3,754.37	\$1,721.43	\$1,791.47	\$70.04	4.1%
69.9%	4,661.49	\$1,826.75	\$1,901.05	\$74.30	4.1%
79.9%	6,258.51	\$2,012.16	\$2,093.97	\$81.80	4.1%
90.0%	8,711.55	\$2,296.96	\$2,390.30	\$93.33	4.1%
100.0%	42,931.93	\$6,269.95	\$6,524.12	\$254.17	4.1%
Average	7,333.76	\$2,137.00	\$2,223.86	\$86.86	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$1,285.55 (1)	Customer Charge (\$/customer)	\$1,337.94 (2)	
Distribution Charge - All therms (\$/thm)		\$0.1161 (1)	Distribution Charge - All therms (\$/thm)	\$0.1208 (2)	
LDAC (\$/thm)		\$0.0380 (3)	LDAC (\$/thm)	\$0.0380 (3)	
COG (\$/thm)		\$0.3958 (3)	COG (\$/thm)	\$0.3958 (3)	

(1) Currently effective rates
(2) Proposed Rates, Schedule 3
(3) Approved rates effective May 1, 2019

Northern Utilities - NH Division
General Service - High Annual, Low Winter Use - G52
Proposed Rates with Step Adjustment versus Present Rates, as filed
Winter

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
9.8%	3,102.47	\$4,179.32	\$4,252.50	\$73.18	1.8%
20.1%	9,768.47	\$10,396.92	\$10,514.76	\$117.84	1.1%
29.9%	14,676.19	\$14,974.52	\$15,125.24	\$150.72	1.0%
40.2%	20,424.77	\$20,336.41	\$20,525.65	\$189.24	0.9%
50.0%	24,742.79	\$24,363.98	\$24,582.14	\$218.17	0.9%
59.8%	35,960.92	\$34,827.50	\$35,120.82	\$293.33	0.8%
70.1%	46,755.90	\$44,896.34	\$45,261.99	\$365.65	0.8%
79.9%	54,331.66	\$51,962.50	\$52,378.92	\$416.41	0.8%
90.2%	69,522.58	\$66,131.58	\$66,649.77	\$518.19	0.8%
100.0%	191,929.38	\$180,304.48	\$181,642.80	\$1,338.32	0.7%
Average	47,121.51	\$45,237.36	\$45,605.46	\$368.10	0.8%
<u>Distribution Only</u>					
9.8%	3,102.47	\$1,799.01	\$1,872.18	\$73.18	4.1%
20.1%	9,768.47	\$2,902.23	\$3,020.07	\$117.84	4.1%
29.9%	14,676.19	\$3,714.46	\$3,865.18	\$150.72	4.1%
40.2%	20,424.77	\$4,665.85	\$4,855.09	\$189.24	4.1%
50.0%	24,742.79	\$5,380.48	\$5,598.65	\$218.17	4.1%
59.8%	35,960.92	\$7,237.08	\$7,530.41	\$293.33	4.1%
70.1%	46,755.90	\$9,023.65	\$9,389.31	\$365.65	4.1%
79.9%	54,331.66	\$10,277.44	\$10,693.85	\$416.41	4.1%
90.2%	69,522.58	\$12,791.54	\$13,309.73	\$518.19	4.1%
100.0%	191,929.38	\$33,049.86	\$34,388.18	\$1,338.32	4.0%
Average	47,121.51	\$9,084.16	\$9,452.26	\$368.10	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$1,285.55 (1)	Customer Charge (\$/customer)		\$1,337.94 (3)
Distribution Charge - All therms (\$/thm)		\$0.1655 (1)	Distribution Charge - All therms (\$/thm)		\$0.1722 (3)
LDAC (\$/thm)		\$0.0396 (1)	LDAC (\$/thm)		\$0.0396 (1)
COG (\$/thm)		\$0.7276 (2)	COG (\$/thm)		\$0.7276 (2)

(1) Currently effective rates
(2) 6 month average seasonal COG
(3) Proposed Rates, Schedule 3

Northern Utilities - NH Division
General Service - High Annual, Low Winter Use - G52
Proposed Rates with Step Adjustment versus Present Rates, as filed
Summer

Cumulative Percentage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference
<u>Delivery and Supply</u>					
9.9%	5,926.56	\$3,899.75	\$3,970.52	\$70.76	1.8%
19.8%	10,415.80	\$5,879.96	\$5,964.64	\$84.68	1.4%
30.2%	15,361.14	\$8,061.35	\$8,161.36	\$100.01	1.2%
40.1%	20,456.75	\$10,309.02	\$10,424.83	\$115.81	1.1%
50.0%	24,326.38	\$12,015.92	\$12,143.72	\$127.80	1.1%
59.9%	29,065.87	\$14,106.51	\$14,249.00	\$142.49	1.0%
69.8%	34,228.84	\$16,383.89	\$16,542.39	\$158.50	1.0%
80.2%	40,790.42	\$19,278.20	\$19,457.04	\$178.84	0.9%
90.1%	63,504.84	\$29,297.54	\$29,546.79	\$249.26	0.9%
100.0%	156,775.16	\$70,439.07	\$70,977.47	\$538.39	0.8%
Average	40,085.18	\$18,967.12	\$19,143.78	\$176.65	0.9%
<u>Distribution Only</u>					
9.9%	5,926.56	\$1,737.15	\$1,807.92	\$70.76	4.1%
19.8%	10,415.80	\$2,079.23	\$2,163.91	\$84.68	4.1%
30.2%	15,361.14	\$2,456.07	\$2,556.08	\$100.01	4.1%
40.1%	20,456.75	\$2,844.35	\$2,960.16	\$115.81	4.1%
50.0%	24,326.38	\$3,139.22	\$3,267.02	\$127.80	4.1%
59.9%	29,065.87	\$3,500.37	\$3,642.86	\$142.49	4.1%
69.8%	34,228.84	\$3,893.79	\$4,052.29	\$158.50	4.1%
80.2%	40,790.42	\$4,393.78	\$4,572.62	\$178.84	4.1%
90.1%	63,504.84	\$6,124.62	\$6,373.87	\$249.26	4.1%
100.0%	156,775.16	\$13,231.82	\$13,770.21	\$538.39	4.1%
Average	40,085.18	\$4,340.04	\$4,516.69	\$176.65	4.1%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$1,285.55 (1)	Customer Charge (\$/customer)		\$1,337.94 (2)
Distribution Charge - All therms (\$/thm)		\$0.0762 (1)	Distribution Charge - All therms (\$/thm)		\$0.0793 (2)
LDAC (\$/thm)		\$0.0380 (3)	LDAC (\$/thm)		\$0.0380 (3)
COG (\$/thm)		\$0.3269 (3)	COG (\$/thm)		\$0.3269 (3)

(1) Currently effective rates
(2) Proposed Rates, Schedule 3
(3) Approved rates effective May 1, 2019