

Revised Supplemental Attachment 2

Revenue Requirement

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

Northern Utilities, Inc.
Docket No. DG 17-070
Revised Supplemental Attachment 2
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Line No.	Description	Rate Effective Date	Investment Year 2018
		5/1/2019	
	<u>Rate Base</u>		
1	Utility Plant Additions		\$ 9,136,655
2	Cost of Removal		628,116
3	2018 Capital Expenditures - Eligible Facilities		<u>9,764,771</u>
4	Accumulated Depreciation		<u>124,201</u>
5	Net Utility Plant		9,640,569
6	Accumulated Deferred Income Taxes (ADIT)		<u>25,667</u>
7	Rate Base		<u>\$ 9,614,902</u>
	<u>Revenue Requirement</u>		
8	Rate Base		\$ 9,614,902
9	Pre-Tax Rate of Return		9.43%
10	Return and Related Income Taxes		<u>\$ 906,522</u>
11	Depreciation Expense		248,402
12	Property Taxes ⁽¹⁾		<u>240,050</u>
13	Revenue Requirement		<u>\$ 1,394,975</u>
	<u>Rate Cap Limit:</u>		
14	Revenue Requirement		\$ 1,394,975
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>\$ 1,394,975</u>
	<u>Supporting Calculations</u>		
19	<u>Book Depreciation</u>		\$ 248,402
	<u>Tax Depreciation</u>		
20	Utility Plant Additions		\$ 9,136,655
21	Tax Depreciation Rate		3.75%
22	Tax Depreciation		<u>\$ 342,625</u>
23	Tax-Book Timing Difference		\$ 94,222
24	Income Tax Rate		27.24%
25	Accumulated Deferred Income Taxes (ADIT)		<u>\$ 25,667</u>
26	Accumulated Depreciation = Book Depreciation * 0.5		<u>\$ 124,201</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-008048-00183421	201 Atlantic Ave North Hampton NH	\$ 523,228	\$ -	\$ 523,228	10/2018
2	JAB	N-008049-00183422	113, 114, 115 & 117 Batchelder Rd Seabrook NH	49,383	-	49,383	11/2018
3	JAB	N-008050-00183424	104 Washington St Dover NH	138,919	-	138,919	12/2018
4	JAB	N-008051-00183425	10 Hampshire Rd Salem NH	100,687	-	100,687	12/2018
5	JAB	N-008065-00183440	121 Corporate Drive Portsmouth NH	122,287	-	122,287	12/2018
6	JAB	N-008066-00183442	140 Wakefield St Rochester NH	41,087	-	41,087	12/2018
7	JAB	N-008069-00183445	109 Towle Farm Rd Hampton NH	87,536	-	87,536	12/2018
8	JAB	N-008080-00183456	0 Borthwick Ave Portsmouth NH	124,347	-	124,347	12/2018
9	JPN	N-008081-00183458	101 International Drive Portsmouth NH	169,896	-	169,896	12/2018
10	Total Gas Main Extensions Excluding Services			\$ 1,357,370	\$ -	\$ 1,357,370	
Gas Main Extensions Carryover							
11	JAC	N-006031-00163445	Bramber Valley 128 Post Rd Greenland	\$ 54,549	\$ 1,961	\$ 56,510	06/2018
12	JAC	N-006039-00163458	Emerald Ln/Indian Ridge Dover	124,607	45,560	170,167	05/2018
13	JAC	N-007013-00173410	407 Old Dover Rd. Rochester	49,031	-	49,031	10/2018
14	JAC	N-007022-00173437	Congress St/Fleet St/Vaughn Mall Rd Portsmouth NH	-	123,322	123,322	05/2018
15	JAC	N-007052-00173469	Tuscan Village Project/Pleasant St	503,727	-	503,727	12/2018
16	JAC	N-007068-00173489	206 Green St Somersworth NH	66,809	-	66,809	05/2018
17	Total Gas Main Extensions Carryover Excluding Services			\$ 798,723	\$ 170,843	\$ 969,565	
NH Bare Steel Replacement Carryover							
18	JCO	N-007017-00173418	Fern Ct Dover NH	\$ 91	\$ -	\$ 91	01/2018
19	JCO	N-007017-00173421	Central Ave/ Washington St	(1,554)	-	(1,554)	02/2018
20	JCO	N-007017-00173422	Robie St Hampton NH	30	-	30	01/2018
21	JCO	N-007017-00173423	Scott Rd Hampton NH	34	-	34	01/2018
22	JCO	N-007017-00173431	High St / Walnut St Rochester NH	217	-	217	02/2018
23	JCO	N-007017-00173432	Lois St Rochester NH	39	-	39	01/2018
24	JCO	N-007017-00173456	Paving and lawn restoration for 2016	48,059	5,284	53,343	01/2018
25	JCO	N-007017-00173467	Franklin D/Woodbury Ave	130	-	130	01/2018
26	JCO	N-007017-00173499	Fourth St Dover NH	1,559	-	1,559	05/2018
27	Total NH Bare Steel Replacement Carryover			\$ 48,605	\$ 5,284	\$ 53,889	
Gas Highway Projects City State							
28	JHB	N-008030-00183411	Whitehouse Rd Rochester NH	\$ 5,418,362	\$ -	\$ 5,418,362	12/2018
29	JHB	N-008040-00183412	Barberry Ln/Green St Portsmouth NH	393,817	-	393,817	12/2018
30	JHB	N-008042-00183414	Stark St Bridge Portsmouth NH	230,928	-	230,928	12/2018
31	JHB	N-008045-00183416	828 Central Ave Dover NH	143,710	-	143,710	11/2018
32	JHB	N-008047-00183420	Woodbury Ave/Piscataqua Dr Newington NH	297,948	-	297,948	10/2018
33	JHB	N-008057-00183434	Daniel St and Tremont St Exeter NH	74,109	-	74,109	11/2018
34	JHB	N-008059-00183435	Railroad Ave @ Brickyard Rd Rochester NH	164,039	32,370	196,410	11/2018
35	JHB	N-008068-00183444	Lafayette Rd @ Andrew Jarvis Way Portsmouth NH	54,510	-	54,510	10/2018
36	JHB	N-008076-00183451	Jackson St/Sylvain St Rochester NH	233,793	-	233,793	11/2018
37	JHB	N-008085-00183464	Green St Portsmouth NH	50,472	-	50,472	12/2018
38	JHB	N-008087-00183466	Main St Salem NH	22,895	-	22,895	12/2018
39	Total Gas Highway Projects City State			\$ 7,084,582	\$ 32,370	\$ 7,116,952	
Gas Highway Projects Carryover City State							
40	JHC	N-007040-00173446	Islington St/Bartlett St Portsmouth NH	\$ 61,016	\$ 263,978	\$ 324,994	06/2018
41	JHC	N-007045-00173500	Dover Point Rd Crossing Dover NH	16,321	-	16,321	11/2018
42	JHC	N-007046-00173452	Wakefield St Rochester NH	(78,533)	42,482	(36,051)	05/2018
43	JHC	N-007050-00173464	Court St HDD Exeter NH	5,440	19,729	25,169	05/2018
44	JHC	N-007058-00173476	Tanner, Parker, Sudbury, Brewster, McDonough Portsmouth NH	(93,397)	-	(93,397)	04/2018
45	JHC	N-007069-00173492	Chestnut St Portsmouth NH	1,502	-	1,502	03/2018
46	JHC	N-007070-00173493	Third St Dover NH	47,249	7,603	54,851	06/2018
47	Total Gas Highway Projects Carryover City State			\$ (40,403)	\$ 333,791	\$ 293,388	
Rochester Reinforcement							
48	JPB	N-007059-00173477	Rochester Reinforcement	\$ (112,221)	\$ 85,827	\$ (26,394)	06/2018
49	Total Rochester Reinforcement			\$ (112,221)	\$ 85,827	\$ (26,394)	
50	2018 Total Closed to Plant			\$ 9,136,655	\$ 628,116	\$ 9,764,771	

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	\$ 5,791,929	2.66%	\$ 154,065
2	376-30 Mains, Bare Steel-G	-	N/A	-
3	376-40 Mains, Plastic-G	3,556,073	2.87%	102,059
4	376-60 Mains, Cathodic Protectio-G	6,797	4.17%	283
5	378-20 Measuring & Regulating St-G	-	3.50%	-
6	380-00 Services-G	(218,145)	3.67%	(8,006)
7	Total	\$ 9,136,655		\$ 248,402

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

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Line No.	Description	Amount	Weight	Cost of Capital	Weighted Cost of Capital	Tax Factor	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	\$ 300,183,729	100.00%		7.59%		9.43%

Revised Supplemental Attachment 3

Rate Design

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

Billing Determinants - Test Year Ending Annualized

Rate Class	Annual Customers	Winter Blocks		Summer Blocks		Total Therms
		First Therms	Excess Therms	First Therms	Excess Therms	
R-5 Residential, Heating	270,640	5,789,680	7,839,764	2,642,288	382,014	16,653,745
R-10 Residential Heating, Low Income	12,052	267,004	283,179	108,201	8,800	667,183
R-6 Residential, Non-Heating	16,650	55,015	94,660	55,804	33,594	239,073
G-40 Low Annual, High Winter Use	58,925	1,839,901	6,193,053	729,110	576,749	9,338,812
G-50 Low Annual, Low Winter Use	9,708	218,399	697,489	219,197	545,720	1,680,805
G-41 Medium Annual, High Winter Use	8,266	10,640,539		2,508,973		13,149,512
G-51 Medium Annual, Low Winter Use	3,103	1,631,320	979,727	1,234,616	636,585	4,482,248
G-42 High Annual, High Winter Use	450	5,047,220		1,710,865		6,758,085
G-52 High Annual, Low Winter Use	386	9,238,799		7,699,964		16,938,763
Total	380,179	34,727,877	16,087,870	16,909,018	2,183,460	69,908,226

May 1, 2018 Step 1 Increase \$2,337,446
May 1, 2018 Step 1 Percent Increase 7.13%

Actual Permanent Settlement Rates Effective May 1, 2018 - Including Step 1 Adjustment

Rate Class	Customers Charge	Winter Blocks		Summer Blocks		Revenue
		First Therms \$/thm	Excess Therms \$/thm	First Therms \$/thm	Excess Therms \$/thm	
R-5 Residential, Heating	\$21.36	\$0.6660	\$0.6660	\$0.5870	\$0.5870	\$16,633,337
R-10 Residential Heating, Low Income	\$21.36	\$0.6660	\$0.6660	\$0.5870	\$0.5870	\$692,540
Discount*	-\$12.82	-\$0.3996	-\$0.3996	-\$0.3522	-\$0.3522	
Total Residential Heating, Low Income	\$8.54	\$0.2664	\$0.2664	\$0.2348	\$0.2348	
R-6 Residential, Non-Heating	\$21.36	\$0.6227	\$0.6227	\$0.6227	\$0.6227	\$504,521
G-40 Low Annual, High Winter Use	\$72.26	\$0.1795	\$0.1795	\$0.1795	\$0.1795	\$5,934,242
G-50 Low Annual, Low Winter Use	\$72.26	\$0.1795	\$0.1795	\$0.1795	\$0.1795	\$1,003,171
G-41 Medium Annual, High Winter Use	\$214.26	\$0.2334		\$0.1824		\$4,712,107
G-51 Medium Annual, Low Winter Use	\$214.26	\$0.1648	\$0.1346	\$0.1287	\$0.1046	\$1,291,011
G-42 High Annual, High Winter Use	\$1,285.55	\$0.1909		\$0.1161		\$1,740,815
G-52 High Annual, Low Winter Use	\$1,285.55	\$0.1655		\$0.0762		\$2,611,338
Total						\$35,123,082

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

May 1, 2019 Step 2 \$ Increase \$1,394,975
May 1, 2019 Step 2 Percent Increase 3.97%

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		\$22.21	\$0.6925	\$0.6925	\$0.6103	\$0.6103	\$17,293,960
R-10 Residential Heating, Low Income		\$22.21	\$0.6925	\$0.6925	\$0.6103	\$0.6103	\$720,045
Discount*		<u>-\$13.33</u>	<u>-\$0.4155</u>	<u>-\$0.4155</u>	<u>-\$0.3662</u>	<u>-\$0.3662</u>	
Total Residential Heating, Low Income		\$8.88	\$0.2770	\$0.2770	\$0.2441	\$0.2441	
R-6 Residential, Non-Heating		\$22.21	\$0.6474	\$0.6474	\$0.6474	\$0.6474	\$524,559
G-40 Low Annual, High Winter Use		\$75.13	\$0.1866	\$0.1866	\$0.1866	\$0.1866	\$6,169,931
G-50 Low Annual, Low Winter Use		\$75.13	\$0.1866	\$0.1866	\$0.1866	\$0.1866	\$1,043,014
G-41 Medium Annual, High Winter Use		\$222.77	\$0.2427		\$0.1896		\$4,899,256
G-51 Medium Annual, Low Winter Use		\$222.77	\$0.1713	\$0.1399	\$0.1338	\$0.1088	\$1,342,286
G-42 High Annual, High Winter Use		\$1,336.61	\$0.1985		\$0.1207		\$1,809,954
G-52 High Annual, Low Winter Use		\$1,336.61	\$0.1721		\$0.0792		\$2,715,052
Total							\$36,518,057

* 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.

Revised Supplemental 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	\$35.36	\$1.07	3.1%
20.0%	26.13	\$62.23	\$63.77	\$1.54	2.5%
30.0%	41.73	\$86.64	\$88.60	\$1.96	2.3%
40.0%	56.24	\$109.35	\$111.69	\$2.34	2.1%
50.0%	70.90	\$132.27	\$135.00	\$2.73	2.1%
60.0%	86.45	\$156.60	\$159.74	\$3.14	2.0%
70.0%	104.48	\$184.80	\$188.42	\$3.62	2.0%
80.0%	126.94	\$219.95	\$224.16	\$4.21	1.9%
90.0%	158.18	\$268.82	\$273.86	\$5.04	1.9%
100.0%	243.66	\$402.54	\$409.85	\$7.31	1.8%
Average	92.30	\$165.75	\$169.05	\$3.30	2.0%
<u>Distribution Only</u>					
10.0%	8.26	\$26.86	\$27.93	\$1.07	4.0%
20.0%	26.13	\$38.76	\$40.30	\$1.54	4.0%
30.0%	41.73	\$49.15	\$51.11	\$1.96	4.0%
40.0%	56.24	\$58.82	\$61.16	\$2.34	4.0%
50.0%	70.90	\$68.58	\$71.31	\$2.73	4.0%
60.0%	86.45	\$78.94	\$82.08	\$3.14	4.0%
70.0%	104.48	\$90.94	\$94.56	\$3.62	4.0%
80.0%	126.94	\$105.90	\$110.12	\$4.21	4.0%
90.0%	158.18	\$126.71	\$131.75	\$5.04	4.0%
100.0%	243.66	\$183.64	\$190.95	\$7.31	4.0%
Average	92.30	\$82.83	\$86.13	\$3.30	4.0%

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)	\$22.21 (3)
Distribution Charge - First 50 therms (\$/thm)	\$0.6925 (3)
Distribution Charge - Excess 50 therms (\$/thm)	\$0.6925 (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	\$22.21	\$0.85	4.0%
20.0%	2.61	\$24.02	\$24.93	\$0.91	3.8%
30.0%	6.85	\$28.36	\$29.37	\$1.01	3.6%
40.0%	10.34	\$31.92	\$33.01	\$1.09	3.4%
50.0%	13.64	\$35.29	\$36.46	\$1.17	3.3%
60.0%	17.10	\$38.82	\$40.07	\$1.25	3.2%
70.0%	21.29	\$43.11	\$44.46	\$1.35	3.1%
80.0%	27.06	\$49.00	\$50.49	\$1.48	3.0%
90.0%	37.40	\$59.57	\$61.29	\$1.72	2.9%
100.0%	75.30	\$98.28	\$100.89	\$2.60	2.7%
Average	21.16	\$42.97	\$44.32	\$1.34	3.1%
<u>Distribution Only</u>					
10.0%	0.00	\$21.36	\$22.21	\$0.85	4.0%
20.0%	2.61	\$22.89	\$23.80	\$0.91	4.0%
30.0%	6.85	\$25.38	\$26.39	\$1.01	4.0%
40.0%	10.34	\$27.43	\$28.52	\$1.09	4.0%
50.0%	13.64	\$29.37	\$30.53	\$1.17	4.0%
60.0%	17.10	\$31.40	\$32.64	\$1.25	4.0%
70.0%	21.29	\$33.86	\$35.21	\$1.35	4.0%
80.0%	27.06	\$37.25	\$38.73	\$1.48	4.0%
90.0%	37.40	\$43.31	\$45.04	\$1.72	4.0%
100.0%	75.30	\$65.56	\$68.17	\$2.60	4.0%
Average	21.16	\$33.78	\$35.12	\$1.34	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$21.36 (1)	Customer Charge (\$/customer)		\$22.21 (2)
Distribution Charge - First 50 therms (\$/thm)		\$0.5870 (1)	Distribution Charge - First 50 therms (\$/thm)		\$0.6103 (2)
Distribution Charge - Excess 50 therms (\$/thm)		\$0.5870 (1)	Distribution Charge - Excess 50 therms (\$/thm)		\$0.6103 (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	\$24.66	\$0.48	2.0%
20.0%	30.86	\$44.49	\$45.16	\$0.67	1.5%
30.0%	43.75	\$59.51	\$60.31	\$0.80	1.4%
40.0%	55.35	\$73.01	\$73.94	\$0.93	1.3%
50.0%	66.76	\$86.30	\$87.35	\$1.05	1.2%
60.0%	79.29	\$100.91	\$102.09	\$1.18	1.2%
70.0%	93.47	\$117.42	\$118.75	\$1.33	1.1%
80.0%	112.63	\$139.74	\$141.27	\$1.53	1.1%
90.0%	140.35	\$172.02	\$173.85	\$1.83	1.1%
100.0%	207.60	\$250.36	\$252.90	\$2.54	1.0%
Average	84.35	\$106.79	\$108.03	\$1.23	1.2%
<u>Distribution Only</u>					
10.0%	13.42	\$12.12	\$12.60	\$0.48	4.0%
20.0%	30.86	\$16.76	\$17.43	\$0.67	4.0%
30.0%	43.75	\$20.20	\$21.00	\$0.80	4.0%
40.0%	55.35	\$23.29	\$24.22	\$0.93	4.0%
50.0%	66.76	\$26.33	\$27.38	\$1.05	4.0%
60.0%	79.29	\$29.67	\$30.85	\$1.18	4.0%
70.0%	93.47	\$33.45	\$34.78	\$1.33	4.0%
80.0%	112.63	\$38.55	\$40.08	\$1.53	4.0%
90.0%	140.35	\$45.93	\$47.76	\$1.83	4.0%
100.0%	207.60	\$63.85	\$66.39	\$2.54	4.0%
Average	84.35	\$31.01	\$32.25	\$1.23	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$8.54 (1)	Customer Charge (\$/customer)		\$8.88 (3)
Distribution Charge - First 50 therms (\$/thm)		\$0.2664 (1)	Distribution Charge - First 50 therms (\$/thm) *		\$0.2770 (3)
Distribution Charge - Excess 50 therms (\$/thm)		\$0.2664 (1)	Distribution Charge - Excess 50 therms (\$/thm) *		\$0.2770 (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	\$8.94	\$0.34	4.0%
20.0%	3.46	\$10.86	\$11.23	\$0.37	3.4%
30.0%	7.52	\$13.58	\$13.99	\$0.41	3.0%
40.0%	10.44	\$15.53	\$15.97	\$0.44	2.8%
50.0%	13.36	\$17.49	\$17.95	\$0.46	2.7%
60.0%	16.33	\$19.47	\$19.97	\$0.49	2.5%
70.0%	20.10	\$22.00	\$22.52	\$0.53	2.4%
80.0%	25.06	\$25.32	\$25.89	\$0.57	2.3%
90.0%	34.33	\$31.52	\$32.18	\$0.66	2.1%
100.0%	64.97	\$52.03	\$52.97	\$0.95	1.8%
Average	19.57	\$21.64	\$22.16	\$0.52	2.4%
<u>Distribution Only</u>					
10.0%	0.09	\$8.56	\$8.91	\$0.34	4.0%
20.0%	3.46	\$9.36	\$9.73	\$0.37	4.0%
30.0%	7.52	\$10.31	\$10.72	\$0.41	4.0%
40.0%	10.44	\$11.00	\$11.43	\$0.44	4.0%
50.0%	13.36	\$11.68	\$12.15	\$0.46	4.0%
60.0%	16.33	\$12.38	\$12.87	\$0.49	4.0%
70.0%	20.10	\$13.26	\$13.79	\$0.53	4.0%
80.0%	25.06	\$14.43	\$15.00	\$0.57	4.0%
90.0%	34.33	\$16.60	\$17.26	\$0.66	4.0%
100.0%	64.97	\$23.80	\$24.74	\$0.95	4.0%
Average	19.57	\$13.14	\$13.66	\$0.52	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$8.54 (1)	Customer Charge (\$/customer)		\$8.88 (2)
Distribution Charge - First 50 therms (\$/thm)		\$0.2348 (1)	Distribution Charge - First 50 therms (\$/thm) *		\$0.2441 (2)
Distribution Charge - Excess 50 therms (\$/thm)		\$0.2348 (1)	Distribution Charge - Excess 50 therms (\$/thm) *		\$0.2441 (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	\$22.21	\$0.85	4.0%
20.0%	0.53	\$22.16	\$23.03	\$0.86	3.9%
30.0%	2.32	\$24.89	\$25.80	\$0.91	3.6%
40.0%	5.40	\$29.57	\$30.55	\$0.98	3.3%
50.0%	9.21	\$35.36	\$36.44	\$1.08	3.0%
60.0%	12.75	\$40.76	\$41.92	\$1.16	2.9%
70.0%	16.55	\$46.53	\$47.79	\$1.26	2.7%
80.0%	21.45	\$53.98	\$55.36	\$1.38	2.6%
90.0%	30.58	\$67.88	\$69.48	\$1.61	2.4%
100.0%	74.59	\$134.81	\$137.50	\$2.69	2.0%
Average	17.34	\$47.73	\$49.01	\$1.28	2.7%
<u>Distribution Only</u>					
10.0%	0.00	\$21.36	\$22.21	\$0.85	4.0%
20.0%	0.53	\$21.69	\$22.55	\$0.86	4.0%
30.0%	2.32	\$22.81	\$23.71	\$0.91	4.0%
40.0%	5.40	\$24.72	\$25.70	\$0.98	4.0%
50.0%	9.21	\$27.09	\$28.17	\$1.08	4.0%
60.0%	12.75	\$29.30	\$30.47	\$1.16	4.0%
70.0%	16.55	\$31.67	\$32.92	\$1.26	4.0%
80.0%	21.45	\$34.72	\$36.10	\$1.38	4.0%
90.0%	30.58	\$40.40	\$42.01	\$1.61	4.0%
100.0%	74.59	\$67.80	\$70.50	\$2.69	4.0%
Average	17.34	\$32.16	\$33.43	\$1.28	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$21.36 (1)	Customer Charge (\$/customer)	\$22.21 (3)	
Distribution Charge - First 10 therms (\$/thm)		\$0.6227 (1)	Distribution Charge - First 10 therms (\$/thm)	\$0.6474 (3)	
Distribution Charge - Excess 10 therms (\$/thm)		\$0.6227 (1)	Distribution Charge - Excess 10 therms (\$/thm)	\$0.6474 (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	\$22.21	\$0.85	4.0%
20.0%	0.84	\$22.25	\$23.12	\$0.87	3.9%
30.0%	2.36	\$23.85	\$24.76	\$0.91	3.8%
40.0%	4.47	\$26.08	\$27.04	\$0.96	3.7%
50.0%	6.84	\$28.59	\$29.61	\$1.02	3.6%
60.0%	8.97	\$30.85	\$31.92	\$1.07	3.5%
70.0%	11.19	\$33.19	\$34.32	\$1.13	3.4%
80.0%	13.87	\$36.02	\$37.21	\$1.19	3.3%
90.0%	18.00	\$40.39	\$41.69	\$1.29	3.2%
100.0%	36.07	\$59.49	\$61.24	\$1.74	2.9%
Average	10.26	\$32.21	\$33.31	\$1.10	3.4%
<u>Distribution Only</u>					
10.0%	0.00	\$21.36	\$22.21	\$0.85	4.0%
20.0%	0.84	\$21.88	\$22.75	\$0.87	4.0%
30.0%	2.36	\$22.83	\$23.73	\$0.91	4.0%
40.0%	4.47	\$24.14	\$25.10	\$0.96	4.0%
50.0%	6.84	\$25.62	\$26.64	\$1.02	4.0%
60.0%	8.97	\$26.95	\$28.02	\$1.07	4.0%
70.0%	11.19	\$28.33	\$29.45	\$1.13	4.0%
80.0%	13.87	\$30.00	\$31.19	\$1.19	4.0%
90.0%	18.00	\$32.57	\$33.87	\$1.29	4.0%
100.0%	36.07	\$43.82	\$45.56	\$1.74	4.0%
Average	10.26	\$27.75	\$28.85	\$1.10	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$21.36 (1)	Customer Charge (\$/customer)		\$22.21 (2)
Distribution Charge - First 10 therms (\$/thm)		\$0.6227 (1)	Distribution Charge - First 10 therms (\$/thm)		\$0.6474 (2)
Distribution Charge - Excess 10 therms (\$/thm)		\$0.6227 (1)	Distribution Charge - Excess 10 therms (\$/thm)		\$0.6474 (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	\$79.88	\$2.90	3.8%
20.0%	27.64	\$101.66	\$104.72	\$3.07	3.0%
30.0%	54.57	\$130.30	\$133.56	\$3.26	2.5%
40.0%	86.90	\$164.69	\$168.18	\$3.49	2.1%
50.0%	126.77	\$207.11	\$210.88	\$3.77	1.8%
60.0%	177.28	\$260.84	\$264.97	\$4.13	1.6%
70.0%	245.10	\$332.98	\$337.59	\$4.61	1.4%
80.0%	338.06	\$431.86	\$437.13	\$5.27	1.2%
90.0%	484.85	\$588.01	\$594.32	\$6.31	1.1%
100.0%	923.90	\$1,055.05	\$1,064.47	\$9.43	0.9%
Average	246.95	\$334.95	\$339.57	\$4.62	1.4%
<u>Distribution Only</u>					
10.0%	4.43	\$73.06	\$75.96	\$2.90	4.0%
20.0%	27.64	\$77.22	\$80.29	\$3.07	4.0%
30.0%	54.57	\$82.05	\$85.31	\$3.26	4.0%
40.0%	86.90	\$87.86	\$91.34	\$3.49	4.0%
50.0%	126.77	\$95.02	\$98.79	\$3.77	4.0%
60.0%	177.28	\$104.08	\$108.21	\$4.13	4.0%
70.0%	245.10	\$116.26	\$120.87	\$4.61	4.0%
80.0%	338.06	\$132.94	\$138.21	\$5.27	4.0%
90.0%	484.85	\$159.29	\$165.60	\$6.31	4.0%
100.0%	923.90	\$238.10	\$247.53	\$9.43	4.0%
Average	246.95	\$116.59	\$121.21	\$4.62	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$72.26 (1)	Customer Charge (\$/customer)		\$75.13 (3)
Distribution Charge - First 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - First 75 therms (\$/thm)		\$0.1866 (3)
Distribution Charge - Excess 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - Excess 75 therms (\$/thm)		\$0.1866 (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	\$75.13	\$2.87	4.0%
20.0%	0.00	\$72.26	\$75.13	\$2.87	4.0%
30.0%	0.00	\$72.26	\$75.13	\$2.87	4.0%
40.0%	1.16	\$72.97	\$75.85	\$2.88	3.9%
50.0%	5.41	\$75.58	\$78.49	\$2.91	3.8%
60.0%	11.70	\$79.43	\$82.39	\$2.95	3.7%
70.0%	23.50	\$86.67	\$89.71	\$3.04	3.5%
80.0%	45.46	\$100.14	\$103.33	\$3.19	3.2%
90.0%	87.78	\$126.10	\$129.59	\$3.49	2.8%
100.0%	249.91	\$225.53	\$230.18	\$4.64	2.1%
Average	42.49	\$98.32	\$101.49	\$3.17	3.2%
<u>Distribution Only</u>					
10.0%	0.00	\$72.26	\$75.13	\$2.87	4.0%
20.0%	0.00	\$72.26	\$75.13	\$2.87	4.0%
30.0%	0.00	\$72.26	\$75.13	\$2.87	4.0%
40.0%	1.16	\$72.47	\$75.35	\$2.88	4.0%
50.0%	5.41	\$73.23	\$76.14	\$2.91	4.0%
60.0%	11.70	\$74.36	\$77.31	\$2.95	4.0%
70.0%	23.50	\$76.48	\$79.52	\$3.04	4.0%
80.0%	45.46	\$80.42	\$83.61	\$3.19	4.0%
90.0%	87.78	\$88.02	\$91.51	\$3.49	4.0%
100.0%	249.91	\$117.12	\$121.76	\$4.64	4.0%
Average	42.49	\$79.89	\$83.06	\$3.17	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$72.26 (1)	Customer Charge (\$/customer)		\$75.13 (2)
Distribution Charge - First 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - First 75 therms (\$/thm)		\$0.1866 (2)
Distribution Charge - Excess 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - Excess 75 therms (\$/thm)		\$0.1866 (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	\$75.13	\$2.87	4.0%
20.0%	2.72	\$74.83	\$77.72	\$2.89	3.9%
30.0%	9.58	\$81.33	\$84.27	\$2.94	3.6%
40.0%	23.28	\$94.30	\$97.34	\$3.04	3.2%
50.0%	47.61	\$117.34	\$120.54	\$3.21	2.7%
60.0%	91.23	\$158.63	\$162.14	\$3.52	2.2%
70.0%	172.70	\$235.76	\$239.85	\$4.10	1.7%
80.0%	300.72	\$356.96	\$361.97	\$5.01	1.4%
90.0%	456.81	\$504.74	\$510.85	\$6.11	1.2%
100.0%	769.53	\$800.80	\$809.13	\$8.33	1.0%
Average	187.42	\$249.69	\$253.89	\$4.20	1.7%
<u>Distribution Only</u>					
10.0%	0.00	\$72.26	\$75.13	\$2.87	4.0%
20.0%	2.72	\$72.75	\$75.64	\$2.89	4.0%
30.0%	9.58	\$73.98	\$76.92	\$2.94	4.0%
40.0%	23.28	\$76.44	\$79.47	\$3.04	4.0%
50.0%	47.61	\$80.81	\$84.01	\$3.21	4.0%
60.0%	91.23	\$88.63	\$92.15	\$3.52	4.0%
70.0%	172.70	\$103.26	\$107.36	\$4.10	4.0%
80.0%	300.72	\$126.24	\$131.24	\$5.01	4.0%
90.0%	456.81	\$154.26	\$160.37	\$6.11	4.0%
100.0%	769.53	\$210.39	\$218.72	\$8.33	4.0%
Average	187.42	\$105.90	\$110.10	\$4.20	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$72.26 (1)	Customer Charge (\$/customer)		\$75.13 (3)
Distribution Charge - First 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - First 75 therms (\$/thm)		\$0.1866 (3)
Distribution Charge - Excess 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - Excess 75 therms (\$/thm)		\$0.1866 (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	\$75.17	\$2.87	4.0%
20.0%	2.86	\$73.82	\$76.71	\$2.89	3.9%
30.0%	8.24	\$76.75	\$79.67	\$2.93	3.8%
40.0%	17.63	\$81.86	\$84.85	\$3.00	3.7%
50.0%	35.77	\$91.73	\$94.86	\$3.12	3.4%
60.0%	71.14	\$110.99	\$114.36	\$3.38	3.0%
70.0%	142.62	\$149.90	\$153.78	\$3.88	2.6%
80.0%	247.68	\$207.10	\$211.72	\$4.63	2.2%
90.0%	372.16	\$274.86	\$280.38	\$5.51	2.0%
100.0%	611.33	\$405.07	\$412.28	\$7.21	1.8%
Average	150.95	\$154.44	\$158.38	\$3.94	2.6%
<u>Distribution Only</u>					
10.0%	0.07	\$72.27	\$75.14	\$2.87	4.0%
20.0%	2.86	\$72.77	\$75.66	\$2.89	4.0%
30.0%	8.24	\$73.74	\$76.67	\$2.93	4.0%
40.0%	17.63	\$75.42	\$78.42	\$3.00	4.0%
50.0%	35.77	\$78.68	\$81.80	\$3.12	4.0%
60.0%	71.14	\$85.03	\$88.40	\$3.38	4.0%
70.0%	142.62	\$97.86	\$101.74	\$3.88	4.0%
80.0%	247.68	\$116.72	\$121.35	\$4.63	4.0%
90.0%	372.16	\$139.06	\$144.57	\$5.51	4.0%
100.0%	611.33	\$181.99	\$189.20	\$7.21	4.0%
Average	150.95	\$99.36	\$103.30	\$3.94	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$72.26 (1)	Customer Charge (\$/customer)		\$75.13 (2)
Distribution Charge - First 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - First 75 therms (\$/thm)		\$0.1866 (2)
Distribution Charge - Excess 75 therms (\$/thm)		\$0.1795 (1)	Distribution Charge - Excess 75 therms (\$/thm)		\$0.1866 (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	\$572.31	\$11.39	2.0%
20.0%	818.65	\$1,129.21	\$1,145.34	\$16.12	1.4%
30.0%	1,089.68	\$1,432.12	\$1,450.77	\$18.64	1.3%
40.0%	1,314.59	\$1,683.48	\$1,704.22	\$20.74	1.2%
50.0%	1,553.42	\$1,950.42	\$1,973.38	\$22.96	1.2%
60.0%	1,858.38	\$2,291.24	\$2,317.04	\$25.79	1.1%
70.0%	2,313.08	\$2,799.43	\$2,829.45	\$30.02	1.1%
80.0%	3,035.26	\$3,606.57	\$3,643.31	\$36.74	1.0%
90.0%	4,276.44	\$4,993.75	\$5,042.04	\$48.28	1.0%
100.0%	7,338.99	\$8,416.56	\$8,493.32	\$76.76	0.9%
Average	2,390.87	\$2,886.37	\$2,917.12	\$30.75	1.1%
<u>Distribution Only</u>					
10.0%	310.17	\$286.65	\$298.05	\$11.39	4.0%
20.0%	818.65	\$405.33	\$421.46	\$16.12	4.0%
30.0%	1,089.68	\$468.59	\$487.24	\$18.64	4.0%
40.0%	1,314.59	\$521.08	\$541.82	\$20.74	4.0%
50.0%	1,553.42	\$576.83	\$599.79	\$22.96	4.0%
60.0%	1,858.38	\$648.00	\$673.80	\$25.79	4.0%
70.0%	2,313.08	\$754.13	\$784.15	\$30.02	4.0%
80.0%	3,035.26	\$922.69	\$959.43	\$36.74	4.0%
90.0%	4,276.44	\$1,212.38	\$1,260.66	\$48.28	4.0%
100.0%	7,338.99	\$1,927.18	\$2,003.94	\$76.76	4.0%
Average	2,390.87	\$772.29	\$803.03	\$30.75	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$214.26 (1)	Customer Charge (\$/customer)	\$222.77 (3)	
Distribution Charge - All therms (\$/thm)		\$0.2334 (1)	Distribution Charge - All therms (\$/thm)	\$0.2427 (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	\$222.77	\$8.51	4.0%
20.0%	5.88	\$217.88	\$226.44	\$8.55	3.9%
30.0%	39.86	\$238.82	\$247.62	\$8.80	3.7%
40.0%	119.15	\$287.68	\$297.05	\$9.37	3.3%
50.0%	230.97	\$356.58	\$366.75	\$10.17	2.9%
60.0%	364.21	\$438.68	\$449.82	\$11.13	2.5%
70.0%	509.61	\$528.28	\$540.46	\$12.18	2.3%
80.0%	719.54	\$657.64	\$671.33	\$13.69	2.1%
90.0%	1,106.64	\$896.17	\$912.65	\$16.48	1.8%
100.0%	2,524.27	\$1,769.72	\$1,796.40	\$26.68	1.5%
Average	562.01	\$560.57	\$573.13	\$12.56	2.2%
<u>Distribution Only</u>					
10.0%	0.00	\$214.26	\$222.77	\$8.51	4.0%
20.0%	5.88	\$215.33	\$223.89	\$8.55	4.0%
30.0%	39.86	\$221.53	\$230.33	\$8.80	4.0%
40.0%	119.15	\$235.99	\$245.36	\$9.37	4.0%
50.0%	230.97	\$256.39	\$266.56	\$10.17	4.0%
60.0%	364.21	\$280.69	\$291.82	\$11.13	4.0%
70.0%	509.61	\$307.21	\$319.39	\$12.18	4.0%
80.0%	719.54	\$345.50	\$359.20	\$13.69	4.0%
90.0%	1,106.64	\$416.11	\$432.59	\$16.48	4.0%
100.0%	2,524.27	\$674.69	\$701.37	\$26.68	4.0%
Average	562.01	\$316.77	\$329.33	\$12.56	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$214.26 (1)	Customer Charge (\$/customer)		\$222.77 (2)
Distribution Charge - All therms (\$/thm)		\$0.1824 (1)	Distribution Charge - All therms (\$/thm)		\$0.1896 (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	\$537.25	\$10.69	2.0%
20.0%	725.69	\$890.63	\$903.86	\$13.23	1.5%
30.0%	853.10	\$1,009.37	\$1,023.43	\$14.06	1.4%
40.0%	971.90	\$1,120.10	\$1,134.93	\$14.83	1.3%
50.0%	1,107.19	\$1,246.19	\$1,261.90	\$15.71	1.3%
60.0%	1,275.87	\$1,403.41	\$1,420.22	\$16.80	1.2%
70.0%	1,495.24	\$1,601.98	\$1,619.97	\$17.99	1.1%
80.0%	1,899.30	\$1,966.37	\$1,986.50	\$20.14	1.0%
90.0%	2,635.60	\$2,630.39	\$2,654.43	\$24.04	0.9%
100.0%	5,025.23	\$4,785.44	\$4,822.15	\$36.70	0.8%
Average	1,632.42	\$1,725.69	\$1,744.41	\$18.72	1.1%
<u>Distribution Only</u>					
10.0%	335.07	\$269.48	\$280.17	\$10.69	4.0%
20.0%	725.69	\$333.85	\$347.08	\$13.23	4.0%
30.0%	853.10	\$354.85	\$368.91	\$14.06	4.0%
40.0%	971.90	\$374.43	\$389.26	\$14.83	4.0%
50.0%	1,107.19	\$396.72	\$412.43	\$15.71	4.0%
60.0%	1,275.87	\$424.52	\$441.33	\$16.80	4.0%
70.0%	1,495.24	\$454.78	\$472.77	\$17.99	4.0%
80.0%	1,899.30	\$509.17	\$529.30	\$20.14	4.0%
90.0%	2,635.60	\$608.27	\$632.31	\$24.04	4.0%
100.0%	5,025.23	\$929.92	\$966.62	\$36.70	3.9%
Average	1,632.42	\$473.24	\$491.97	\$18.72	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$214.26 (1)	Customer Charge (\$/customer)		\$222.77 (3)
Distribution Charge - First 1,300 therms (\$/thm)		\$0.1648 (1)	Distribution Charge - First 1,300 therms (\$/thm)		\$0.1713 (3)
Distribution Charge - Excess 1,300 therms (\$/thm)		\$0.1346 (1)	Distribution Charge - Excess 1,300 therms (\$/thm)		\$0.1399 (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	\$305.01	\$9.35	3.2%
20.0%	521.45	\$471.65	\$482.82	\$11.17	2.4%
30.0%	628.41	\$524.44	\$536.16	\$11.71	2.2%
40.0%	721.26	\$570.27	\$582.46	\$12.19	2.1%
50.0%	808.31	\$613.24	\$625.88	\$12.63	2.1%
60.0%	930.76	\$673.69	\$686.94	\$13.26	2.0%
70.0%	1,113.81	\$761.29	\$775.38	\$14.09	1.9%
80.0%	1,362.49	\$878.05	\$893.18	\$15.13	1.7%
90.0%	1,768.95	\$1,068.88	\$1,085.72	\$16.84	1.6%
100.0%	3,649.96	\$1,952.02	\$1,976.76	\$24.74	1.3%
Average	1,167.03	\$786.28	\$800.59	\$14.31	1.8%
<u>Distribution Only</u>					
10.0%	164.90	\$235.48	\$244.83	\$9.35	4.0%
20.0%	521.45	\$281.37	\$292.54	\$11.17	4.0%
30.0%	628.41	\$295.14	\$306.85	\$11.71	4.0%
40.0%	721.26	\$307.09	\$319.27	\$12.19	4.0%
50.0%	808.31	\$318.29	\$330.92	\$12.63	4.0%
60.0%	930.76	\$334.05	\$347.31	\$13.26	4.0%
70.0%	1,113.81	\$354.86	\$368.95	\$14.09	4.0%
80.0%	1,362.49	\$380.88	\$396.01	\$15.13	4.0%
90.0%	1,768.95	\$423.39	\$440.23	\$16.84	4.0%
100.0%	3,649.96	\$620.15	\$644.89	\$24.74	4.0%
Average	1,167.03	\$360.43	\$374.74	\$14.31	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$214.26 (1)	Customer Charge (\$/customer)		\$222.77 (2)
Distribution Charge - First 1,000 therms (\$/thm)		\$0.1287 (1)	Distribution Charge - First 1,000 therms (\$/thm)		\$0.1338 (2)
Distribution Charge - Excess 1,000 therms (\$/thm)		\$0.1046 (1)	Distribution Charge - Excess 1,000 therms (\$/thm)		\$0.1088 (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 - 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	\$4,875.24	\$75.90	1.6%
20.1%	7,419.74	\$9,262.76	\$9,370.21	\$107.45	1.2%
29.9%	9,222.99	\$11,201.50	\$11,322.65	\$121.15	1.1%
40.2%	10,830.36	\$12,929.63	\$13,063.00	\$133.37	1.0%
50.0%	12,077.18	\$14,270.13	\$14,412.97	\$142.85	1.0%
59.8%	14,047.99	\$16,389.01	\$16,546.83	\$157.82	1.0%
70.1%	16,354.75	\$18,869.08	\$19,044.44	\$175.36	0.9%
79.9%	18,890.81	\$21,595.69	\$21,790.32	\$194.63	0.9%
90.2%	24,097.25	\$27,193.31	\$27,427.51	\$234.20	0.9%
100.0%	98,242.53	\$106,909.36	\$107,707.07	\$797.70	0.7%
Average	21,445.18	\$24,341.98	\$24,556.02	\$214.04	0.9%
<u>Distribution Only</u>					
9.8%	3,268.24	\$1,909.46	\$1,985.36	\$75.90	4.0%
20.1%	7,419.74	\$2,701.98	\$2,809.43	\$107.45	4.0%
29.9%	9,222.99	\$3,046.22	\$3,167.37	\$121.15	4.0%
40.2%	10,830.36	\$3,353.07	\$3,486.44	\$133.37	4.0%
50.0%	12,077.18	\$3,591.08	\$3,733.93	\$142.85	4.0%
59.8%	14,047.99	\$3,967.31	\$4,125.14	\$157.82	4.0%
70.1%	16,354.75	\$4,407.67	\$4,583.03	\$175.36	4.0%
79.9%	18,890.81	\$4,891.81	\$5,086.44	\$194.63	4.0%
90.2%	24,097.25	\$5,885.72	\$6,119.91	\$234.20	4.0%
100.0%	98,242.53	\$20,040.05	\$20,837.75	\$797.70	4.0%
Average	21,445.18	\$5,379.44	\$5,593.48	\$214.04	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$1,285.55 (1)	Customer Charge (\$/customer)		\$1,336.61 (3)
Distribution Charge - All therms (\$/thm)		\$0.1909 (1)	Distribution Charge - All therms (\$/thm)		\$0.1985 (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	\$1,444.65	\$51.96	3.7%
20.1%	466.60	\$1,542.13	\$1,595.34	\$53.21	3.5%
30.1%	1,161.76	\$1,924.40	\$1,980.81	\$56.40	2.9%
40.2%	2,092.77	\$2,436.36	\$2,497.05	\$60.69	2.5%
50.2%	3,103.77	\$2,992.31	\$3,057.65	\$65.34	2.2%
59.8%	3,754.37	\$3,350.08	\$3,418.41	\$68.33	2.0%
69.9%	4,661.49	\$3,848.90	\$3,921.41	\$72.50	1.9%
79.9%	6,258.51	\$4,727.10	\$4,806.95	\$79.85	1.7%
90.0%	8,711.55	\$6,076.03	\$6,167.16	\$91.13	1.5%
100.0%	42,931.93	\$24,893.82	\$25,142.37	\$248.55	1.0%
Average	7,333.76	\$5,318.38	\$5,403.18	\$84.80	1.6%

<u>Distribution Only</u>					
10.0%	194.84	\$1,308.17	\$1,360.13	\$51.96	4.0%
20.1%	466.60	\$1,339.72	\$1,392.93	\$53.21	4.0%
30.1%	1,161.76	\$1,420.43	\$1,476.83	\$56.40	4.0%
40.2%	2,092.77	\$1,528.52	\$1,589.21	\$60.69	4.0%
50.2%	3,103.77	\$1,645.90	\$1,711.23	\$65.34	4.0%
59.8%	3,754.37	\$1,721.43	\$1,789.76	\$68.33	4.0%
69.9%	4,661.49	\$1,826.75	\$1,899.25	\$72.50	4.0%
79.9%	6,258.51	\$2,012.16	\$2,092.01	\$79.85	4.0%
90.0%	8,711.55	\$2,296.96	\$2,388.09	\$91.13	4.0%
100.0%	42,931.93	\$6,269.95	\$6,518.49	\$248.55	4.0%
Average	7,333.76	\$2,137.00	\$2,221.79	\$84.80	4.0%

Present Rates

Customer Charge (\$/customer)	\$1,285.55 (1)
Distribution Charge - All therms (\$/thm)	\$0.1161 (1)
LDAC (\$/thm)	\$0.0380 (3)
COG (\$/thm)	\$0.3958 (3)

Proposed Rates

Customer Charge (\$/customer)	\$1,336.61 (2)
Distribution Charge - All therms (\$/thm)	\$0.1207 (2)
LDAC (\$/thm)	\$0.0380 (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	\$4,250.86	\$71.54	1.7%
20.1%	9,768.47	\$10,396.92	\$10,512.46	\$115.53	1.1%
29.9%	14,676.19	\$14,974.52	\$15,122.44	\$147.92	1.0%
40.2%	20,424.77	\$20,336.41	\$20,522.28	\$185.86	0.9%
50.0%	24,742.79	\$24,363.98	\$24,578.34	\$214.36	0.9%
59.8%	35,960.92	\$34,827.50	\$35,115.90	\$288.40	0.8%
70.1%	46,755.90	\$44,896.34	\$45,255.99	\$359.65	0.8%
79.9%	54,331.66	\$51,962.50	\$52,372.15	\$409.65	0.8%
90.2%	69,522.58	\$66,131.58	\$66,641.48	\$509.91	0.8%
100.0%	191,929.38	\$180,304.48	\$181,622.28	\$1,317.79	0.7%
Average	47,121.51	\$45,237.36	\$45,599.42	\$362.06	0.8%
<u>Distribution Only</u>					
9.8%	3,102.47	\$1,799.01	\$1,870.54	\$71.54	4.0%
20.1%	9,768.47	\$2,902.23	\$3,017.76	\$115.53	4.0%
29.9%	14,676.19	\$3,714.46	\$3,862.38	\$147.92	4.0%
40.2%	20,424.77	\$4,665.85	\$4,851.71	\$185.86	4.0%
50.0%	24,742.79	\$5,380.48	\$5,594.84	\$214.36	4.0%
59.8%	35,960.92	\$7,237.08	\$7,525.48	\$288.40	4.0%
70.1%	46,755.90	\$9,023.65	\$9,383.30	\$359.65	4.0%
79.9%	54,331.66	\$10,277.44	\$10,687.09	\$409.65	4.0%
90.2%	69,522.58	\$12,791.54	\$13,301.45	\$509.91	4.0%
100.0%	191,929.38	\$33,049.86	\$34,367.66	\$1,317.79	4.0%
Average	47,121.51	\$9,084.16	\$9,446.22	\$362.06	4.0%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$1,285.55 (1)	Customer Charge (\$/customer)		\$1,336.61 (3)
Distribution Charge - All therms (\$/thm)		\$0.1655 (1)	Distribution Charge - All therms (\$/thm)		\$0.1721 (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	\$3,968.59	\$68.84	1.8%
19.8%	10,415.80	\$5,879.96	\$5,962.27	\$82.31	1.4%
30.2%	15,361.14	\$8,061.35	\$8,158.49	\$97.14	1.2%
40.1%	20,456.75	\$10,309.02	\$10,421.45	\$112.43	1.1%
50.0%	24,326.38	\$12,015.92	\$12,139.96	\$124.04	1.0%
59.9%	29,065.87	\$14,106.51	\$14,244.76	\$138.26	1.0%
69.8%	34,228.84	\$16,383.89	\$16,537.64	\$153.75	0.9%
80.2%	40,790.42	\$19,278.20	\$19,451.63	\$173.43	0.9%
90.1%	63,504.84	\$29,297.54	\$29,539.11	\$241.57	0.8%
100.0%	156,775.16	\$70,439.07	\$70,960.46	\$521.39	0.7%
Average	40,085.18	\$18,967.12	\$19,138.44	\$171.32	0.9%
<u>Distribution Only</u>					
9.9%	5,926.56	\$1,737.15	\$1,805.99	\$68.84	4.0%
19.8%	10,415.80	\$2,079.23	\$2,161.54	\$82.31	4.0%
30.2%	15,361.14	\$2,456.07	\$2,553.21	\$97.14	4.0%
40.1%	20,456.75	\$2,844.35	\$2,956.78	\$112.43	4.0%
50.0%	24,326.38	\$3,139.22	\$3,263.26	\$124.04	4.0%
59.9%	29,065.87	\$3,500.37	\$3,638.63	\$138.26	3.9%
69.8%	34,228.84	\$3,893.79	\$4,047.53	\$153.75	3.9%
80.2%	40,790.42	\$4,393.78	\$4,567.21	\$173.43	3.9%
90.1%	63,504.84	\$6,124.62	\$6,366.19	\$241.57	3.9%
100.0%	156,775.16	\$13,231.82	\$13,753.20	\$521.39	3.9%
Average	40,085.18	\$4,340.04	\$4,511.36	\$171.32	3.9%
<u>Present Rates</u>			<u>Proposed Rates</u>		
Customer Charge (\$/customer)		\$1,285.55 (1)	Customer Charge (\$/customer)		\$1,336.61 (2)
Distribution Charge - All therms (\$/thm)		\$0.0762 (1)	Distribution Charge - All therms (\$/thm)		\$0.0792 (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