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 Supplemental Attachment 2 Page 1 of 4

Rate Effective Date

5/1/2019

Line No.	Description	Investm 20		
	Rate Base			
1	Utility Plant Additions	\$	9,136,655	
2 3	Cost of Removal 2018 Capital Expenditures - Eligible Facilities		628,116 9,764,771	
4	Accumulated Depreciation		126,660	
5	Net Utility Plant		9,638,110	
6	Accumulated Deferred Income Taxes (ADIT)		24,327	
7	Rate Base	\$	9,613,783	
	Revenue Requirement			
8	Rate Base	\$	9,613,783	
9	Pre-Tax Rate of Return		9.43%	
10	Return and Related Income Taxes	\$	906,417	
11	Depreciation Expense		253,320	
12	Property Taxes ⁽¹⁾		239,989	
13	Revenue Requirement	\$	1,399,726	
	Rate Cap Limit:			
14	Revenue Requirement	\$	1,399,726	
15	Revenue Requirement Cap	\$	4,552,719	
16	Less: May 1, 2018 Step Adjustment Revenue Requirement		2,337,446	
17	Remaining May 1, 2019 Step Adjustment Revenue Requirement Cap	\$	2,215,273	
18	Allowable Revenue Requirement (Min of Line 14 or 17)	\$	1,399,726	
	Supporting Calculations			
19	Book Depreciation	\$	253,320	
	Tax Depreciation			
20	Utility Plant Additions	\$	9,136,655	
21	Tax Depreciation Rate		3.75%	
22	Tax Depreciation	\$	342,625	
23	Tax-Book Timing Difference	\$	89,304	
24	Income Tax Rate	_	27.24%	
25	Accumulated Deferred Income Taxes (ADIT)	\$	24,327	
26	Accumulated Depreciation = Book Depreciation * 0.5	\$	126,660	

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

Northern Utilities, Inc. - New Hampshire 2018 Eligible Facilities Project Detail

Line

No.	Budget Category	Work Order Number	Work Order Description		Install	Removal	Total	In Service Date
	Gas Main Extensions	s						
1	JAB	N-008048-00183421	201 Atlantic Ave North Hampton NH	S	523,228	\$ -	\$ 523,228	10/2018
2	JAB	N-008049-00183422	113, 114, 115 & 117 Batchelder Rd Seabrook NH	•	49,383	-		11/2018
3	JAB	N-008050-00183424	104 Washington St Dover NH		138,919	_		12/2018
4								
	JAB	N-008051-00183425	10 Hampshire Rd Salem NH		100,687	-		12/2018
5	JAB	N-008065-00183440	121 Corporate Drive Portsmouth NH		122,287	-		12/2018
6	JAB	N-008066-00183442	140 Wakefield St Rochester NH		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 Ex	xtensions Excluding Service	s	\$	1,357,370	\$ -	\$ 1,357,370	
	Gas Main Extensions	s 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/Vaugn Mall Rd Portsmouth NH			123,322	123,322	05/2018
15	JAC	N-007052-00173469	Tuscan Village Project/Pleasant St		503,727	120,022	503.727	12/2018
16	JAC	N-007052-00173489	206 Green St Somersworth NH		66.809	_	66,809	05/2018
17		xtensions Carryover Excludi		\$	798,723	\$ 170,843		03/2016
17	Total Gas Main Ex	xtensions Carryover Excludi	ng Services	•	196,123	\$ 170,643	\$ 969,565	
	NH Bare Steel Repla							
18	JCO	N-007017-00173418	Fern Ct Dover NH	\$	91			01/2018
19	JCO	N-007017-00173421	Central Ave/ Washington St		(1,554)		\$ (1,554)	
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		eel Replacement Carryover		\$	48,605	\$ 5,284	\$ 53,889	-
	Gas Highway Project	ts 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 Highwa	y Projects City State		\$	7,084,582	\$ 32,370	\$ 7,116,952	
	Gas Highway Project	ts 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		05/2018
43	JHC	N-007050-00173464	Court St HDD Exeter NH		5,440	19,729		05/2018
44	JHC	N-007058-00173476	Tanner, Parker, Sudbury, Brewster, McDonough Portsmouth NH		(93,397)		\$ (93,397)	
45	JHC	N-007050-00173470 N-007069-00173492	Chestnut St Portsmouth NH		1.502		\$ (93,597) \$ 1.502	03/2018
46	JHC		Third St Dover NH		47,249		\$ 1,502 \$ 54,851	06/2018
46 47		N-007070-00173493		S	(40,403)			06/2018
41	i otai Gas nighwa	y Projects Carryover City St	ate	Þ	(40,403)	φ 333,797	φ ∠93,368	
45	Rochester Reinforce		Bud ata Baldanana		(440.00**			00/0010
48	JPB	N-007059-00173477	Rochester Reinforcement	\$	(112,221)			
49	Total Rochester R	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

Northern Utilities, Inc. Docket No. DG 17-070 Supplemental Attachment 2 Page 3 of 4

Line No.	FERC ACCOUNT	Additions	Rate	Depreciation Expense		
1	376-20 Mains, Coated/Wrapped-G	\$ 5,888,29	7 2.66%	\$ 156,629		
2	376-30 Mains, Bare Steel-G		- N/A	-		
3	376-40 Mains, Plastic-G	3,732,11	5 2.87%	107,112		
4	376-60 Mains, Cathodic Protectio-G	(57,89	5) 4.17%	(2,414)		
5	378-20 Measuring & Regulating St-G		- 3.50%	-		
6	380-00 Services-G	(218,14	5) 3.67%	(8,006)		
7	Total	\$ 9,344,37	2	\$ 253,320		

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

			Winter B	Winter Blocks		Summer Blocks	
		Annual	First	Excess	First	Excess	Total
	Rate Class	Customers	<u>Therms</u>	<u>Therms</u>	<u>Therms</u>	<u>Therms</u>	<u>Therms</u>
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 May 1, 2018 Step 1 Percent Increase \$2,337,446

7.13%

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

			Winter Blocks		Summer Blocks		
		Customers	First	Excess	First	Excess	
	Rate Class	<u>Charge</u>	Therms \$/thm	Therms \$/thm	Therms \$/thm	Therms \$/thm	Revenue
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 May 1, 2019 Step 2 Percent Increase \$1,399,726 3.99%

Rates Effective May 1, 2019 - Including Step 2 Adjustment

			Winter Blocks		Summer Blocks		
		Customers	First	Excess	First	Excess	
	Rate Class	<u>Charge</u>	Therms \$/thm	Therms \$/thm	Therms \$/thm	Therms \$/thm	Revenue
R-5	Residential, Heating	\$22.21	\$0.6925	\$0.6925	\$0.6104	\$0.6104	\$17,296,210
R-10	Residential Heating, Low Income	\$22.21	\$0.6925	\$0.6925	\$0.6104	\$0.6104	\$720,139
	Discount*	<u>-\$13.33</u>	<u>-\$0.4155</u>	<u>-\$0.4155</u>	-\$0.3662	<u>-\$0.3662</u>	
	Total Residential Heating, Low Income	\$8.88	\$0.2770	\$0.2770	\$0.2442	\$0.2442	
R-6	Residential, Non-Heating	\$22.21	\$0.6475	\$0.6475	\$0.6475	\$0.6475	\$524,627
G-40	Low Annual, High Winter Use	\$75.14	\$0.1867	\$0.1867	\$0.1867	\$0.1867	\$6,170,734
G-50	Low Annual, Low Winter Use	\$75.14	\$0.1867	\$0.1867	\$0.1867	\$0.1867	\$1,043,150
G-41	Medium Annual, High Winter Use	\$222.80	\$0.2427		\$0.1897		\$4,899,894
G-51	Medium Annual, Low Winter Use	\$222.80	\$0.1714	\$0.1400	\$0.1338	\$0.1088	\$1,342,460
G-42	High Annual, High Winter Use	\$1,336.78	\$0.1985		\$0.1207		\$1,810,190
G-52	High Annual, Low Winter Use	\$1,336.78	\$0.1721		\$0.0792		\$2,715,405
Total							\$36,522,808

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

Supplemental Attachment 4

Bill Impacts

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

		Monthly Bills				
 Cumulative Percentage of Bills	Average Monthly Usage (Therms)	@ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference	
		Deliver	and Supply			
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%	
		Distrib	oution Only			
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				Proposed Rates		
Customer Charge (\$/customer) Distribution Charge - First 50 therms (\$/thm) Distribution Charge - Excess 50 therms (\$/thm) LDAC (\$/thm) COG (\$/thm)		\$21.36 \$0.6660 \$0.6660 \$0.0691 0.8293	(1) (1) (1)	Customer Charge (\$/cust Distribution Charge - Firs Distribution Charge - Exc LDAC (\$/thm) COG (\$/thm)	t 50 therms (\$/thm)	(3) (3) (1)

⁽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	_
		Delivery	and Supply			
10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0%	0.00 2.61 6.85 10.34 13.64 17.10 21.29 27.06	\$21.36 \$24.02 \$28.36 \$31.92 \$35.29 \$38.82 \$43.11 \$49.00	\$22.21 \$24.94 \$29.37 \$33.01 \$36.46 \$40.07 \$44.46 \$50.49	\$0.85 \$0.91 \$1.01 \$1.09 \$1.17 \$1.25 \$1.35 \$1.48	4.0% 3.8% 3.6% 3.4% 3.3% 3.2% 3.1% 3.0%	
90.0% 100.0%	37.40 75.30	\$59.57 \$98.28	\$61.29 \$100.90	\$1.73 \$2.61	2.9% 2.7%	
Average	21.16	\$42.97 <u>Distrib</u>	\$44.32 oution Only	\$1.35	3.1%	
10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0% 90.0% 100.0%	0.00 2.61 6.85 10.34 13.64 17.10 21.29 27.06 37.40 75.30	\$21.36 \$22.89 \$25.38 \$27.43 \$29.37 \$31.40 \$33.86 \$37.25 \$43.31 \$65.56	\$22.21 \$23.80 \$26.39 \$28.52 \$30.54 \$32.65 \$35.21 \$38.73 \$45.04 \$68.18	\$0.85 \$0.91 \$1.01 \$1.09 \$1.17 \$1.25 \$1.35 \$1.48 \$1.73 \$2.61	4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0%	
Present Rates Customer Charge (\$/customer) Distribution Charge - First 50 therms (\$/thm) Distribution Charge - Excess 50 therms (\$/thm) LDAC (\$/thm) COG (\$/thm)		\$21.36 \$0.5870 \$0.5870 \$0.0675 \$0.3670	(1) (1) (3)	Proposed Rates Customer Charge (\$/custo Distribution Charge - First Distribution Charge - Exces LDAC (\$/thm) COG (\$/thm)	50 therms (\$/thm)	\$22.21 (2) \$0.6104 (2) \$0.6104 (2) \$0.0675 (3) \$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</u>	and Supply				
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>Distrib</u>	ution Only				
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%		
Present Rates				Proposed Rates			
Customer Charge (\$/cus Distribution Charge - Fir Distribution Charge - Ex LDAC (\$/thm) COG (\$/thm)	st 50 therms (\$/thm)	\$8.54 \$0.2664 \$0.2664 \$0.0691 \$0.8293	(1) (1) (1)	Customer Charge (\$/custor Distribution Charge - First & Distribution Charge - Exces LDAC (\$/thm) COG (\$/thm)	50 therms (\$/thm) *		(3) (3) (1)

⁽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		
		Delivery	and Supply				
10.0%	0.09	\$8.60	\$8.94	\$0.34	4.0%		
20.0% 30.0%	3.46 7.52	\$10.86 \$13.58	\$11.23 \$13.99	\$0.37 \$0.41	3.4% 3.0%		
40.0%	10.44	\$15.53	\$15.97	\$0.44	2.8%		
50.0%	13.36	\$17.49	\$17.95	\$0.47	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	\$52.98	\$0.95	1.8%		
Average	19.57	\$21.64	\$22.16	\$0.52	2.4%		
		<u>Distrib</u>	ution Only				
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	\$0.47	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	\$17.27	\$0.66	4.0%		
100.0%	64.97	\$23.80	\$24.75	\$0.95	4.0%		
Average	19.57	\$13.14	\$13.66	\$0.52	4.0%		
Present Rates				Proposed Rates			
Customer Charge (\$/cus Distribution Charge - Fir Distribution Charge - Ex LDAC (\$/thm) COG (\$/thm)	st 50 therms (\$/thm)	\$8.54 \$0.2348 \$0.2348 \$0.0675 \$0.3670	(1) (1) (3)	Customer Charge (\$/custo Distribution Charge - First Distribution Charge - Exce LDAC (\$/thm) COG (\$/thm)	50 therms (\$/thm) *	\$8.88 (2) \$0.2442 (2) \$0.2442 (2) \$0.0675 (3) \$0.3670 (3)	2) 2) 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	_	
		Delivery	and Supply				
10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0%	0.00 0.53 2.32 5.40 9.21 12.75 16.55 21.45	\$21.36 \$22.16 \$24.89 \$29.57 \$35.36 \$40.76 \$46.53 \$53.98	\$22.21 \$23.03 \$25.80 \$30.55 \$36.44 \$41.92 \$47.79 \$55.37	\$0.85 \$0.86 \$0.91 \$0.98 \$1.08 \$1.17 \$1.26 \$1.38	4.0% 3.9% 3.6% 3.3% 3.0% 2.9% 2.7% 2.6%		
90.0% 100.0%	30.58 74.59	\$67.88 \$134.81	\$69.49 \$137.51	\$1.61 \$2.70	2.4% 2.0%		
Average	17.34	\$47.73 <u>Distrib</u>	\$49.01 ution Only	\$1.28	2.7%		
10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0% 90.0% Average	0.00 0.53 2.32 5.40 9.21 12.75 16.55 21.45 30.58 74.59	\$21.36 \$21.69 \$22.81 \$24.72 \$27.09 \$29.30 \$31.67 \$34.72 \$40.40 \$67.80	\$22.21 \$22.55 \$23.71 \$25.70 \$28.17 \$30.47 \$32.93 \$36.10 \$42.01 \$70.50	\$0.85 \$0.86 \$0.91 \$0.98 \$1.08 \$1.17 \$1.26 \$1.38 \$1.61 \$2.70	4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0%		
Present Rates Customer Charge (\$/customer) Distribution Charge - First 10 therms (\$/thm) Distribution Charge - Excess 10 therms (\$/thm) LDAC (\$/thm) COG (\$/thm)		\$21.36 \$0.6227 \$0.6227 \$0.0691 \$0.8293	(1) (1) (1)	Proposed Rates Customer Charge (\$/custor Distribution Charge - First 1 Distribution Charge - Exces LDAC (\$/thm) COG (\$/thm)	10 therms (\$/thm)	\$22.21 \$0.6475 \$0.6475 \$0.0691 \$0.8293	(3) (3) (3) (1) (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	_	
			Delivery	and Supply				
	10.0%	0.00	\$21.36	\$22.21	\$0.85	4.0%		
	20.0% 30.0%	0.84 2.36	\$22.25 \$23.85	\$23.12 \$24.76	\$0.87 \$0.91	3.9% 3.8%		
	40.0% 50.0%	4.47 6.84	\$26.08 \$28.59	\$27.04 \$29.61	\$0.96 \$1.02	3.7% 3.6%		
	60.0% 70.0%	8.97 11.19	\$30.85 \$33.19	\$31.92 \$34.32	\$1.07 \$1.13	3.5% 3.4%		
	80.0% 90.0%	13.87 18.00	\$36.02 \$40.39	\$37.22 \$41.69	\$1.19 \$1.30	3.3% 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>Distrib</u>	ution Only				
	10.0% 20.0%	0.00 0.84	\$21.36 \$21.88	\$22.21 \$22.75	\$0.85 \$0.87	4.0% 4.0%		
	30.0% 40.0%	2.36	\$22.83 \$24.14	\$23.73 \$25.10	\$0.91 \$0.96	4.0%		
	50.0%	4.47 6.84	\$25.62	\$26.64	\$1.02	4.0% 4.0%		
	60.0% 70.0%	8.97 11.19	\$26.95 \$28.33	\$28.02 \$29.46	\$1.07 \$1.13	4.0% 4.0%		
	80.0% 90.0%	13.87 18.00	\$30.00 \$32.57	\$31.19 \$33.87	\$1.19 \$1.30	4.0% 4.0%		
	100.0%	36.07	\$43.82	\$45.57	\$1.74	4.0%		
	Average	10.26	\$27.75	\$28.85	\$1.10	4.0%		
<u> </u>	Present Rates				Proposed Rates			
[[L	Customer Charge (\$/customer) Distribution Charge - First 10 therms (\$/thm) Distribution Charge - Excess 10 therms (\$/thm) LDAC (\$/thm) COG (\$/thm)		\$21.36 \$0.6227 \$0.6227 \$0.0675 \$0.3670	(1) (1) (3)	Customer Charge (\$/custo Distribution Charge - First Distribution Charge - Exce LDAC (\$/thm) COG (\$/thm)	10 therms (\$/thm)	\$22.21 \$0.6475 \$0.6475 \$0.0675 \$0.3670	(2) (2) (2) (3) (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</u>	and Supply				
10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0%	4.43 27.64 54.57 86.90 126.77 177.28 245.10	\$76.97 \$101.66 \$130.30 \$164.69 \$207.11 \$260.84 \$332.98	\$79.89 \$104.74 \$133.58 \$168.20 \$210.90 \$264.99 \$337.63	\$2.91 \$3.08 \$3.27 \$3.51 \$3.79 \$4.16 \$4.64	3.8% 3.0% 2.5% 2.1% 1.8% 1.6% 1.4%		
80.0% 90.0% 100.0% Average	338.06 484.85 923.90 246.95	\$431.86 \$588.01 \$1,055.05 \$334.95	\$437.18 \$594.38 \$1,064.58 \$339.61	\$5.31 \$6.37 \$9.53 \$4.66	1.2% 1.1% 0.9% 1.4%		
		<u>Distrib</u>	ution Only				
10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0% 100.0% Average	4.43 27.64 54.57 86.90 126.77 177.28 245.10 338.06 484.85 923.90	\$73.06 \$77.22 \$82.05 \$87.86 \$95.02 \$104.08 \$116.26 \$132.94 \$159.29 \$238.10 \$116.59	\$75.97 \$80.30 \$85.33 \$91.36 \$98.81 \$108.24 \$120.90 \$138.26 \$165.66 \$247.63	\$2.91 \$3.08 \$3.27 \$3.51 \$3.79 \$4.16 \$4.64 \$5.31 \$6.37 \$9.53	4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0%		
Present Rates Customer Charge (\$/cus Distribution Charge - Fir Distribution Charge - Ex LDAC (\$/thm) COG (\$/thm)	st 75 therms (\$/thm)	\$72.26 \$0.1795 \$0.1795 \$0.0396 \$0.8446	(1) (1) (1)	Proposed Rates Customer Charge (\$/custo Distribution Charge - First Distribution Charge - Exce LDAC (\$/thm) COG (\$/thm)	75 therms (\$/thm)	\$75.14 \$0.1867 \$0.1867 \$0.0396 \$0.8446	(3) (3) (3) (1) (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</u>	and Supply				
10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0%	0.00 0.00 0.00 1.16 5.41 11.70 23.50 45.46	\$72.26 \$72.26 \$72.26 \$72.97 \$75.58 \$79.43 \$86.67 \$100.14	\$75.14 \$75.14 \$75.14 \$75.86 \$78.50 \$82.40 \$89.72 \$103.35	\$2.88 \$2.88 \$2.88 \$2.89 \$2.92 \$2.96 \$3.05 \$3.21	4.0% 4.0% 4.0% 4.0% 3.9% 3.7% 3.5% 3.2%		
90.0% 100.0% Average	87.78 249.91 42.49	\$126.10 \$225.53 \$98.32	\$129.61 \$230.21 \$101.51	\$3.51 \$4.68 \$3.19	2.8% 2.1% 3.2%		
, wordge	12.10		oution Only	ψο. το	0.270		
10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0% 90.0% Average	0.00 0.00 0.00 1.16 5.41 11.70 23.50 45.46 87.78 249.91	\$72.26 \$72.26 \$72.26 \$72.47 \$73.23 \$74.36 \$76.48 \$80.42 \$88.02 \$117.12	\$75.14 \$75.14 \$75.36 \$76.15 \$77.32 \$79.53 \$83.63 \$91.53 \$121.80 \$83.07	\$2.88 \$2.88 \$2.89 \$2.92 \$2.96 \$3.05 \$3.21 \$3.51 \$4.68	4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0%		
Present Rates Customer Charge (\$/cus Distribution Charge - Fir Distribution Charge - Ex LDAC (\$/thm) COG (\$/thm)	st 75 therms (\$/thm)	\$72.26 \$0.1795 \$0.1795 \$0.0380 \$0.3958	(1) (1) (3)	Proposed Rates Customer Charge (\$/custo Distribution Charge - First Distribution Charge - Exce LDAC (\$/thm) COG (\$/thm)	75 therms (\$/thm)	\$75.14 (2 \$0.1867 (2 \$0.1867 (2 \$0.0380 (3 \$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	_
		Delivery	and Supply			
10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0%	0.00 2.72 9.58 23.28 47.61 91.23 172.70 300.72	\$72.26 \$74.83 \$81.33 \$94.30 \$117.34 \$158.63 \$235.76 \$356.96	\$75.14 \$77.73 \$84.28 \$97.35 \$120.56 \$162.16 \$239.88 \$362.01	\$2.88 \$2.90 \$2.95 \$3.05 \$3.22 \$3.54 \$4.12 \$5.05	4.0% 3.9% 3.6% 3.2% 2.7% 2.2% 1.7%	
90.0% 100.0% Average	456.81 769.53 187.42	\$504.74 \$800.80 \$249.69	\$510.90 \$809.22 \$253.92	\$6.17 \$8.42 \$4.23	1.2% 1.1% 1.7%	
		<u>Distrib</u>	ution Only			
10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0% 90.0% 100.0% Average	0.00 2.72 9.58 23.28 47.61 91.23 172.70 300.72 456.81 769.53	\$72.26 \$72.75 \$73.98 \$76.44 \$80.81 \$88.63 \$103.26 \$126.24 \$154.26 \$210.39 \$105.90	\$75.14 \$75.65 \$76.93 \$79.49 \$84.03 \$92.17 \$107.38 \$131.28 \$160.43 \$218.81 \$110.13	\$2.88 \$2.90 \$2.95 \$3.05 \$3.22 \$3.54 \$4.12 \$5.05 \$6.17 \$8.42	4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0%	
Present Rates Customer Charge (\$/cus Distribution Charge - Fir. Distribution Charge - Ex LDAC (\$/thm) COG (\$/thm)	st 75 therms (\$/thm)	\$72.26 \$0.1795 \$0.0396 \$0.7276	(1) (1) (1)	Proposed Rates Customer Charge (\$/custo Distribution Charge - First Distribution Charge - Exce LDAC (\$/thm) COG (\$/thm)	75 therms (\$/thm)	\$75.14 (3) \$0.1867 (3) \$0.1867 (3) \$0.0396 (1) \$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</u>	and Supply			
	10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0%	0.07 2.86 8.24 17.63 35.77 71.14 142.62 247.68	\$72.30 \$73.82 \$76.75 \$81.86 \$91.73 \$110.99 \$149.90 \$207.10	\$75.18 \$76.72 \$79.68 \$84.87 \$94.87 \$114.38 \$153.81 \$211.76	\$2.88 \$2.90 \$2.94 \$3.01 \$3.14 \$3.39 \$3.91 \$4.66	4.0% 3.9% 3.8% 3.7% 3.4% 3.1% 2.6% 2.3%	
	90.0% 100.0% Average	372.16 611.33 150.95	\$274.86 \$405.07 \$154.44	\$280.42 \$412.35 \$158.40	\$5.56 \$7.28 \$3.97	2.0% 1.8% 2.6%	
			<u>Distrib</u>	ution Only			
	10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0% 90.0% 100.0%	0.07 2.86 8.24 17.63 35.77 71.14 142.62 247.68 372.16 611.33	\$72.27 \$72.77 \$73.74 \$75.42 \$78.68 \$85.03 \$97.86 \$116.72 \$139.06 \$181.99 \$99.36	\$75.15 \$75.67 \$76.68 \$78.43 \$81.82 \$88.42 \$101.77 \$121.38 \$144.62 \$189.28	\$2.88 \$2.90 \$2.94 \$3.01 \$3.14 \$3.39 \$3.91 \$4.66 \$5.56 \$7.28	4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0%	
C C C L	Present Rates Customer Charge (\$/cus Distribution Charge - Fire Distribution Charge - Exc DAC (\$/thm) COG (\$/thm)	st 75 therms (\$/thm)	\$72.26 \$0.1795 \$0.0380 \$0.3269	(1) (1) (3)	Proposed Rates Customer Charge (\$/custor Distribution Charge - First Distribution Charge - Exces LDAC (\$/thm) COG (\$/thm)	75 therms (\$/thm)	\$75.14 (2) \$0.1867 (2) \$0.1867 (2) \$0.0380 (3) \$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	
			Delivery	and Supply			
	10.0%	310.17	\$560.91	\$572.34	\$11.42	2.0%	
	20.0%	818.65	\$1,129.21	\$1,145.37	\$16.15	1.4%	
	30.0%	1,089.68	\$1,432.12	\$1,450.80	\$18.67	1.3%	
	40.0%	1,314.59	\$1,683.48	\$1,704.25	\$20.77	1.2%	
	50.0%	1,553.42	\$1,950.42	\$1,973.41	\$22.99	1.2%	
	60.0%	1,858.38	\$2,291.24	\$2,317.07	\$25.82	1.1%	
	70.0%	2,313.08	\$2,799.43	\$2,829.48	\$30.05	1.1%	
	80.0%	3,035.26	\$3,606.57	\$3,643.34	\$36.77	1.0%	
	90.0%	4,276.44	\$4,993.75	\$5,042.07	\$48.31	1.0%	
	100.0%	7,338.99	\$8,416.56	\$8,493.35	\$76.79	0.9%	
	Average	2,390.87	\$2,886.37	\$2,917.15	\$30.78	1.1%	
			Distrib	oution Only			
	10.0%	310.17	\$286.65	\$298.08	\$11.42	4.0%	
	20.0%	818.65	\$405.33	\$421.49	\$16.15	4.0%	
	30.0%	1,089.68	\$468.59	\$487.27	\$18.67	4.0%	
	40.0%	1,314.59	\$521.08	\$541.85	\$20.77	4.0%	
	50.0%	1,553.42	\$576.83	\$599.82	\$22.99	4.0%	
	60.0%	1,858.38	\$648.00	\$673.83	\$25.82	4.0%	
	70.0%	2,313.08	\$754.13	\$784.18	\$30.05	4.0%	
	80.0%	3,035.26	\$922.69	\$959.46	\$36.77	4.0%	
	90.0%	4,276.44	\$1,212.38	\$1,260.69	\$48.31	4.0%	
	100.0%	7,338.99	\$1,927.18	\$2,003.97	\$76.79	4.0%	
	Average	2,390.87	\$772.29	\$803.06	\$30.78	4.0%	
<u> </u>	Present Rates				Proposed Rates		
[L	Customer Charge (\$/cus Distribution Charge - All LDAC (\$/thm) COG (\$/thm)	•	\$214.26 \$0.2334 \$0.0396 \$0.8446	(1) (1)	Customer Charge (\$/custor Distribution Charge - All the LDAC (\$/thm) COG (\$/thm)	,	\$222.80 (3) \$0.2427 (3) \$0.0396 (1) \$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

	umulative entage of Bills	Average Monthly Usage (Therms)	Monthly Bills @ Present Rates	Monthly Bills @ Proposed Rates	\$ Difference	% Difference	
			<u>Delivery</u>	and Supply			
	10.0%	0.00	\$214.26	\$222.80	\$8.54	4.0%	
	20.0%	5.88	\$217.88	\$226.47	\$8.58	3.9%	
	30.0%	39.86	\$238.82	\$247.66	\$8.83	3.7%	
	40.0%	119.15	\$287.68	\$297.09	\$9.41	3.3%	
	50.0%	230.97	\$356.58	\$366.81	\$10.23	2.9%	
	60.0%	364.21	\$438.68	\$449.88	\$11.20	2.6%	
	70.0%	509.61	\$528.28	\$540.54	\$12.26	2.3%	
	80.0%	719.54	\$657.64	\$671.44	\$13.79	2.1%	
	90.0%	1,106.64	\$896.17	\$912.79	\$16.62	1.9%	
	100.0%	2,524.27	\$1,769.72	\$1,796.68	\$26.97	1.5%	
,	Average	562.01	\$560.57	\$573.22	\$12.64	2.3%	
			Distrib	ution Only			
	10.0%	0.00	\$214.26	\$222.80	\$8.54	4.0%	
	20.0%	5.88	\$215.33	\$223.92	\$8.58	4.0%	
	30.0%	39.86	\$221.53	\$230.36	\$8.83	4.0%	
	40.0%	119.15	\$235.99	\$245.40	\$9.41	4.0%	
	50.0%	230.97	\$256.39	\$266.61	\$10.23	4.0%	
	60.0%	364.21	\$280.69	\$291.89	\$11.20	4.0%	
	70.0%	509.61	\$307.21	\$319.47	\$12.26	4.0%	
	80.0%	719.54	\$345.50	\$359.30	\$13.79	4.0%	
	90.0%	1,106.64	\$416.11	\$432.73	\$16.62	4.0%	
	100.0%	2,524.27	\$674.69	\$701.65	\$26.97	4.0%	
,	Average	562.01	\$316.77	\$329.41	\$12.64	4.0%	
Present I	<u>Rates</u>				Proposed Rates		
	,	•	\$214.26 \$0.1824 \$0.0380 \$0.3958	(1) (3)	Customer Charge (\$/custo Distribution Charge - All th LDAC (\$/thm) COG (\$/thm)	,	\$222.80 (2) \$0.1897 (2) \$0.0380 (3) \$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</u>	and Supply				
10.0%	335.07	\$526.56	\$537.31	\$10.75	2.0%		
20.0% 30.0%	725.69 853.10	\$890.63 \$1,009.37	\$903.96 \$1,023.55	\$13.33 \$14.17	1.5% 1.4%		
40.0%	971.90	\$1,120.10	\$1,135.05	\$14.95	1.3%		
50.0%	1,107.19	\$1,246.19	\$1,262.04	\$15.85	1.3%		
60.0%	1,275.87	\$1,403.41	\$1,420.37	\$16.96	1.2%		
70.0%	1,495.24	\$1,601.98	\$1,620.15	\$18.17	1.1%		
80.0%	1,899.30	\$1,966.37	\$1,986.72	\$20.36	1.0%		
90.0%	2,635.60	\$2,630.39	\$2,654.73	\$24.33	0.9%		
100.0%	5,025.23	\$4,785.44	\$4,822.68	\$37.24	0.8%		
Average	1,632.42	\$1,725.69	\$1,744.60	\$18.92	1.1%		
		<u>Distrib</u>	oution Only				
10.0%	335.07	\$269.48	\$280.23	\$10.75	4.0%		
20.0%	725.69	\$333.85	\$347.18	\$13.33	4.0%		
30.0%	853.10	\$354.85	\$369.02	\$14.17	4.0%		
40.0%	971.90	\$374.43	\$389.38	\$14.95	4.0%		
50.0%	1,107.19	\$396.72	\$412.57	\$15.85	4.0%		
60.0%	1,275.87	\$424.52	\$441.48	\$16.96	4.0%		
70.0%	1,495.24	\$454.78	\$472.95	\$18.17	4.0%		
80.0%	1,899.30	\$509.17	\$529.52	\$20.36	4.0%		
90.0%	2,635.60	\$608.27	\$632.60	\$24.33	4.0%		
100.0%	5,025.23	\$929.92	\$967.15	\$37.24	4.0%		
Average	1,632.42	\$473.24	\$492.16	\$18.92	4.0%		
Present Rates				Proposed Rates			
Customer Charge (\$/cus Distribution Charge - Fir Distribution Charge - Ex LDAC (\$/thm) COG (\$/thm)	•	\$214.26 \$0.1648 \$0.1346 \$0.0396 \$0.7276	(1) (1) (1)	Customer Charge (\$/custon Distribution Charge - First 1 Distribution Charge - Exces LDAC (\$/thm) COG (\$/thm)	,300 therms (\$/thm)	\$222.80 \$0.1714 \$0.1400 \$0.0396 \$0.7276	(3) (3) (1)

⁽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		
		Delivery	and Supply				
10.0% 20.0% 30.0% 40.0% 50.0%	164.90 521.45 628.41 721.26 808.31	\$295.65 \$471.65 \$524.44 \$570.27 \$613.24	\$305.04 \$482.85 \$536.19 \$582.49 \$625.91	\$9.38 \$11.20 \$11.74 \$12.22 \$12.66	3.2% 2.4% 2.2% 2.1% 2.1%		
60.0% 70.0% 80.0% 90.0% 100.0%	930.76 1,113.81 1,362.49 1,768.95 3,649.96	\$673.69 \$761.29 \$878.05 \$1,068.88 \$1,952.02	\$686.97 \$775.41 \$893.21 \$1,085.75 \$1,976.79	\$13.29 \$14.12 \$15.16 \$16.87 \$24.77	2.0% 1.9% 1.7% 1.6% 1.3%		
Average	1,167.03	\$786.28 <u>Distrib</u>	\$800.62 oution Only	\$14.34	1.8%		
10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0% 90.0% 100.0%	164.90 521.45 628.41 721.26 808.31 930.76 1,113.81 1,362.49 1,768.95 3,649.96	\$235.48 \$281.37 \$295.14 \$307.09 \$318.29 \$334.05 \$354.86 \$380.88 \$423.39 \$620.15	\$244.86 \$292.57 \$306.88 \$319.30 \$330.95 \$347.34 \$368.98 \$396.04 \$440.26 \$644.92	\$9.38 \$11.20 \$11.74 \$12.22 \$12.66 \$13.29 \$14.12 \$15.16 \$16.87 \$24.77	4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0%		
Present Rates Customer Charge (\$/cus Distribution Charge - Fir Distribution Charge - Ex LDAC (\$/thm) COG (\$/thm)		\$214.26 \$0.1287 \$0.1046 \$0.0380 \$0.3269	(1) (1) (3)	Proposed Rates Customer Charge (\$/custom Distribution Charge - First 1 Distribution Charge - Exces LDAC (\$/thm) COG (\$/thm)	,000 therms (\$/thm)	\$0.1088 \$0.0380	(2) (2) (2) (3) (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	_
		Delivery	and Supply			
9.8%	3,268.24	\$4,799.35	\$4,875.41	\$76.07	1.6%	
20.1%	7,419.74	\$9,262.76	\$9,370.38	\$107.62	1.2%	
29.9%	9,222.99	\$11,201.50	\$11,322.82	\$121.32	1.1%	
40.2%	10,830.36	\$12,929.63	\$13,063.17	\$133.54	1.0%	
50.0%	12,077.18	\$14,270.13	\$14,413.14	\$143.02	1.0%	
59.8%	14,047.99	\$16,389.01	\$16,547.00	\$157.99	1.0%	
70.1%	16,354.75	\$18,869.08	\$19,044.61	\$175.53	0.9%	
79.9%	18,890.81	\$21,595.69	\$21,790.49	\$194.80	0.9%	
90.2%	24,097.25	\$27,193.31	\$27,427.68	\$234.37	0.9%	
100.0%	98,242.53	\$106,909.36	\$107,707.24	\$797.87	0.7%	
Average	21,445.18	\$24,341.98	\$24,556.19	\$214.21	0.9%	
		Distrib	ution Only			
9.8%	3,268.24	\$1,909.46	\$1,985.53	\$76.07	4.0%	
20.1%	7,419.74	\$2,701.98	\$2,809.60	\$107.62	4.0%	
29.9%	9,222.99	\$3,046.22	\$3,167.54	\$121.32	4.0%	
40.2%	10,830.36	\$3,353.07	\$3,486.61	\$133.54	4.0%	
50.0%	12,077.18	\$3,591.08	\$3,734.10	\$143.02	4.0%	
59.8%	14,047.99	\$3,967.31	\$4,125.31	\$157.99	4.0%	
70.1%	16,354.75	\$4,407.67	\$4,583.20	\$175.53	4.0%	
79.9%	18,890.81	\$4,891.81	\$5,086.61	\$194.80	4.0%	
90.2%	24,097.25	\$5,885.72	\$6,120.08	\$234.37	4.0%	
100.0%	98,242.53	\$20,040.05	\$20,837.92	\$797.87	4.0%	
Average	21,445.18	\$5,379.44	\$5,593.65	\$214.21	4.0%	
Present Rates				Proposed Rates		
Customer Charge (\$/cus Distribution Charge - All LDAC (\$/thm) COG (\$/thm)		\$1,285.55 \$0.1909 \$0.0396 \$0.8446	(1) (1)	Customer Charge (\$/custo Distribution Charge - All th LDAC (\$/thm) COG (\$/thm)	,	\$1,336.78 (3) \$0.1985 (3) \$0.0396 (1) \$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> </u>	
		Delivery	and Supply				
10.0%	194.84	\$1,392.69	\$1,444.82	\$52.13	3.7%		
20.1%	466.60	\$1,542.13	\$1,595.51	\$53.38	3.5%		
30.1%	1,161.76	\$1,924.40	\$1,980.98	\$56.57	2.9%		
40.2%	2,092.77	\$2,436.36	\$2,497.22	\$60.86	2.5%		
50.2%	3,103.77	\$2,992.31	\$3,057.82	\$65.51	2.2%		
59.8%	3,754.37	\$3,350.08	\$3,418.58	\$68.50	2.0%		
69.9%	4,661.49	\$3,848.90	\$3,921.58	\$72.67	1.9%		
79.9%	6,258.51	\$4,727.10	\$4,807.12	\$80.02	1.7%		
90.0%	8,711.55	\$6,076.03	\$6,167.33	\$91.30	1.5%		
100.0%	42,931.93	\$24,893.82	\$25,142.54	\$248.72	1.0%		
Average	7,333.76	\$5,318.38	\$5,403.35	\$84.97	1.6%		
		Distrib	ution Only				
10.0%	194.84	\$1,308.17	\$1,360.30	\$52.13	4.0%		
20.1%	466.60	\$1,339.72	\$1,393.10	\$53.38	4.0%		
30.1%	1,161.76	\$1,420.43	\$1,477.00	\$56.57	4.0%		
40.2%	2,092.77	\$1,528.52	\$1,589.38	\$60.86	4.0%		
50.2%	3,103.77	\$1,645.90	\$1,711.40	\$65.51	4.0%		
59.8%	3,754.37	\$1,721.43	\$1,789.93	\$68.50	4.0%		
69.9%	4,661.49	\$1,826.75	\$1,899.42	\$72.67	4.0%		
79.9%	6,258.51	\$2,012.16	\$2,092.18	\$80.02	4.0%		
90.0%	8,711.55	\$2,296.96	\$2,388.26	\$91.30	4.0%		
100.0%	42,931.93	\$6,269.95	\$6,518.66	\$248.72	4.0%		
Average	7,333.76	\$2,137.00	\$2,221.96	\$84.97	4.0%		
Present Rates				<u>Proposed Rates</u>			
Customer Charge (\$/customer Charge - All LDAC (\$/thm) COG (\$/thm)	•	\$1,285.55 \$0.1161 \$0.0380 \$0.3958	` '	Customer Charge (\$/custo Distribution Charge - All th LDAC (\$/thm) COG (\$/thm)	,	\$1,336.78 \$0.1207 \$0.0380 \$0.3958	(2) (2) (3) (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	_
		Delivery	and Supply			
9.8%	3,102.47	\$4,179.32	\$4,251.03	\$71.71	1.7%	
20.1%	9,768.47	\$10,396.92	\$10,512.63	\$115.70	1.1%	
29.9%	14,676.19	\$14,974.52	\$15,122.61	\$148.09	1.0%	
40.2%	20,424.77	\$20,336.41	\$20,522.45	\$186.03	0.9%	
50.0%	24,742.79	\$24,363.98	\$24,578.51	\$214.53	0.9%	
59.8%	35,960.92	\$34,827.50	\$35,116.07	\$288.57	0.8%	
70.1%	46,755.90	\$44,896.34	\$45,256.16	\$359.82	0.8%	
79.9%	54,331.66	\$51,962.50	\$52,372.32	\$409.82	0.8%	
90.2%	69,522.58	\$66,131.58	\$66,641.65	\$510.08	0.8%	
100.0%	191,929.38	\$180,304.48	\$181,622.45	\$1,317.96	0.7%	
Average	47,121.51	\$45,237.36	\$45,599.59	\$362.23	0.8%	
		Distrib	ution Only			
9.8%	3,102.47	\$1,799.01	\$1,870.71	\$71.71	4.0%	
20.1%	9,768.47	\$2,902.23	\$3,017.93	\$115.70	4.0%	
29.9%	14,676.19	\$3,714.46	\$3,862.55	\$148.09	4.0%	
40.2%	20,424.77	\$4,665.85	\$4,851.88	\$186.03	4.0%	
50.0%	24,742.79	\$5,380.48	\$5,595.01	\$214.53	4.0%	
59.8%	35,960.92	\$7,237.08	\$7,525.65	\$288.57	4.0%	
70.1%	46,755.90	\$9,023.65	\$9,383.47	\$359.82	4.0%	
79.9%	54,331.66	\$10,277.44	\$10,687.26	\$409.82	4.0%	
90.2%	69,522.58	\$12,791.54	\$13,301.62	\$510.08	4.0%	
100.0%	191,929.38	\$33,049.86	\$34,367.83	\$1,317.96	4.0%	
Average	47,121.51	\$9,084.16	\$9,446.39	\$362.23	4.0%	
Present Rates				Proposed Rates		
Customer Charge (\$/cus Distribution Charge - All LDAC (\$/thm) COG (\$/thm)		\$1,285.55 \$0.1655 \$0.0396 \$0.7276	(1) (1)	Customer Charge (\$/custo Distribution Charge - All th LDAC (\$/thm) COG (\$/thm)	,	\$1,336.78 (3) \$0.1721 (3) \$0.0396 (1) \$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> </u>	
		<u>Delivery</u>	and Supply				
9.9%	5,926.56	\$3,899.75	\$3,968.76	\$69.01	1.8%		
19.8%	10,415.80	\$5,879.96	\$5,962.44	\$82.48	1.4%		
30.2%	15,361.14	\$8,061.35	\$8,158.66	\$97.31	1.2%		
40.1%	20,456.75	\$10,309.02	\$10,421.62	\$112.60	1.1%		
50.0%	24,326.38	\$12,015.92	\$12,140.13	\$124.21	1.0%		
59.9%	29,065.87	\$14,106.51	\$14,244.93	\$138.43	1.0%		
69.8%	34,228.84	\$16,383.89	\$16,537.81	\$153.92	0.9%		
80.2%	40,790.42	\$19,278.20	\$19,451.80	\$173.60	0.9%		
90.1%	63,504.84	\$29,297.54	\$29,539.28	\$241.74	0.8%		
100.0%	156,775.16	\$70,439.07	\$70,960.63	\$521.56	0.7%		
Average	40,085.18	\$18,967.12	\$19,138.61	\$171.49	0.9%		
		<u>Distrib</u>	ution Only				
9.9%	5,926.56	\$1,737.15	\$1,806.16	\$69.01	4.0%		
19.8%	10,415.80	\$2,079.23	\$2,161.71	\$82.48	4.0%		
30.2%	15,361.14	\$2,456.07	\$2,553.38	\$97.31	4.0%		
40.1%	20,456.75	\$2,844.35	\$2,956.95	\$112.60	4.0%		
50.0%	24,326.38	\$3,139.22	\$3,263.43	\$124.21	4.0%		
59.9%	29,065.87	\$3,500.37	\$3,638.80	\$138.43	4.0%		
69.8%	34,228.84	\$3,893.79	\$4,047.70	\$153.92	4.0%		
80.2%	40,790.42	\$4,393.78	\$4,567.38	\$173.60	4.0%		
90.1%	63,504.84	\$6,124.62	\$6,366.36	\$241.74	3.9%		
100.0%	156,775.16	\$13,231.82	\$13,753.37	\$521.56	3.9%		
Average	40,085.18	\$4,340.04	\$4,511.53	\$171.49	4.0%		
Present Rates				Proposed Rates			
Customer Charge (\$/customer Charge - All LDAC (\$/thm) COG (\$/thm)	•	\$1,285.55 \$0.0762 \$0.0380 \$0.3269	(3)	Customer Charge (\$/custo Distribution Charge - All th LDAC (\$/thm) COG (\$/thm)		\$1,336.78 \$0.0792 \$0.0380 \$0.3269	(2) (2) (3) (3)

⁽¹⁾ Currently effective rates

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