Docket No. DG 17-070
Northern Utilities, Inc. - New Hampshire
Rate Plan Capital Expenditures - Eligible Facilities Adjusted for CIAC
2019 Step Adjustment

Rate Effective Date: May 1, 2019

Line No.	Description		Investment Year 2018
	Rate Base		
1	Utility Plant Additions	$	8,987,173
2	Cost of Removal		628,116
3	2018 Capital Expenditures - Eligible Facilities		9,615,289
4	Accumulated Depreciation		122,056
5	Net Utility Plant		9,493,233
6	Accumulated Deferred Income Taxes (ADIT)		25,309
7	Rate Base	$	9,467,924
	Revenue Requirement		
8	Rate Base	$	9,467,924
9	Pre-Tax Rate of Return		9.43%
10	Return and Related Income Taxes	$	892,665
11	Depreciation Expense		244,112
12	Property Taxes[1]		236,381
13	Revenue Requirement	$	1,373,158
	Rate Cap Limit:		
14	Revenue Requirement	$	1,373,158
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)	$	1,373,158
	Supporting Calculations		
19	Book Depreciation	$	244,112
	Tax Depreciation		
20	Utility Plant Additions	$	8,987,173
21	Tax Depreciation Rate		3.75%
22	Tax Depreciation	$	337,019
23	Tax-Book Timing Difference	$	92,907
24	Income Tax Rate		27.24%
25	Accumulated Deferred Income Taxes (ADIT)	$	25,309
26	Accumulated Depreciation = Book Depreciation * 0.5	$	122,056

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

Docket No. DG 17-070
Northern Utilities, Inc. - New Hampshire
2018 Eligible Facilities Project Detail
Step 2 Rate Adjustment

Line No.	Budget Category	Work Order Number	Work Order Description	Install	CIAC Adjustment	Adjusted Install	Removal	Total	In Service Date
	Gas Main Extensions								
1	JAB	N-008048-00183421	201 Atlantic Ave North Hampton NH	$ 523,228	$ (103,532)	$ 419,696	$ -	$ 419,696	10/2018
2	JAB	N-008049-00183422	113, 114, 115 & 117 Batchelder Rd Seabrook NH	49,383		49,383	-	49,383	11/2018
3	JAB	N-008050-00183424	104 Washington St Dover NH	138,919		138,919	-	138,919	12/2018
4	JAB	N-008051-00183425	10 Hampshire Rd Salem NH	100,687	(45,950)	54,737	-	54,737	12/2018
5	JAB	N-008065-00183440	121 Corporate Drive Portsmouth NH	122,287		122,287	-	122,287	12/2018
6	JAB	N-008066-00183442	140 Wakefield St Rochester NH	41,087		41,087	-	41,087	12/2018
7	JAB	N-008069-00183445	109 Towle Farm Rd Hampton NH	87,536		87,536	-	87,536	12/2018
8	JAB	N-008080-00183456	0 Borthwick Ave Portsmouth NH	124,347		124,347	-	124,347	12/2018
9	JPN	N-008081-00183458	101 International Drive Portsmouth NH	169,896		169,896	-	169,896	12/2018
10	Total Gas Main Extensions Excluding Services			$ 1,357,370	$ (149,482)	$ 1,207,888	$ -	$ 1,207,888	
	Gas Main Extensions Carryover								
11	JAC	N-006031-00163445	Bramber Valley 128 Post Rd Greenland	$ 54,549		$ 54,549	$ 1,961	$ 56,510	06/2018
12	JAC	N-006039-00163458	Emerald La/Indian Ridge Dover	124,607		124,607	45,560	170,167	05/2018
13	JAC	N-007013-00173410	407 Old Dover Rd. Rochester	49,031		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		503,727	-	503,727	12/2018
16	JAC	N-007068-00173489	206 Green St Somersworth NH	66,809		66,809	-	66,809	05/2018
17	Total Gas Main Extensions Carryover Excluding Services			$ 798,723		$ 798,723	$ 170,843	$ 969,565	
	NH Bare Steel Replacement Carryover								
18	JCO	N-007017-00173418	Fern Ct Dover NH	$ 91		$ 91	$ -	$ 91	01/2018
19	JCO	N-007017-00173421	Central Ave/ Washington St	(1,554)		(1,554)	-	(1,554)	02/2018
20	JCO	N-007017-00173422	Roble St Hampton NH	30		30	-	30	01/2018
21	JCO	N-007017-00173423	Scott Rd Hampton NH	34		34	-	34	01/2018
22	JCO	N-007017-00173431	High St / Walnut St Rochester NH	217		217	-	217	02/2018
23	JCO	N-007017-00173432	Lois St Rochester NH	39		39	-	39	01/2018
24	JCO	N-007017-00173456	Paving and lawn restoration for 2016	48,059		48,059	5,284	53,343	01/2018
25	JCO	N-007017-00173467	Franklin D/Woodbury Ave	130		130	-	130	01/2018
26	JCO	N-007017-00173499	Fourth St Dover NH	1,559		1,559	-	1,559	05/2018
27	Total NH Bare Steel Replacement Carryover			$ 48,605		$ 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	$ -	$ 5,418,362	12/2018
29	JHB	N-008040-00183412	Barberry La/Green St Portsmouth NH	393,817		393,817	-	393,817	12/2018
30	JHB	N-008042-00183414	Stark St Bridge Portsmouth NH	230,928		230,928	-	230,928	12/2018
31	JHB	N-008045-00183416	828 Central Ave Dover NH	143,710		143,710	-	143,710	11/2018
32	JHB	N-008047-00183420	Woodbury Ave/Piscataqua Dr Newington NH	297,948		297,948	-	297,948	10/2018
33	JHB	N-008057-00183434	Daniel St and Tremont St Exeter NH	74,109		74,109	-	74,109	11/2018
34	JHB	N-008059-00183435	Railroad Ave @ Brickyard Rd Rochester NH	164,039		164,039	32,370	196,410	11/2018
35	JHB	N-008068-00183444	Lafayette Rd @ Andrew Jarvis Way Portsmouth NH	54,510		54,510	-	54,510	10/2018
36	JHB	N-008076-00183451	Jackson St/Sylvain St Rochester NH	233,793		233,793	-	233,793	11/2018
37	JHB	N-008085-00183464	Green St Portsmouth NH	50,472		50,472	-	50,472	12/2018
38	JHB	N-008087-00183466	Main St Salem NH	22,895		22,895	-	22,895	12/2018
39	Total Gas Highway Projects City State			$ 7,084,582		$ 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		$ 61,016	$ 263,978	$ 324,994	06/2018
41	JHC	N-007045-00173500	Dover Point Rd Crossing Dover NH	16,321		16,321	-	16,321	11/2018
42	JHC	N-007046-00173452	Wakefield St Rochester NH	(78,533)		(78,533)	42,482	(36,051)	05/2018
43	JHC	N-007050-00173464	Court St HDD Exeter NH	5,440		5,440	19,729	25,169	05/2018
44	JHC	N-007058-00173476	Tanner, Parker, Sudbury, Brewster, McDonough Portsmouth NH	(93,397)		(93,397)	-	(93,397)	04/2018
45	JHC	N-007069-00173492	Chestnut St Portsmouth NH	1,502		1,502	-	1,502	03/2018
46	JHC	N-007070-00173493	Third St Dover NH	47,249		47,249	7,602	54,851	06/2018
47	Total Gas Highway Projects Carryover City State			$ (40,403)		$ (40,403)	$ 333,791	$ 293,388	
	Rochester Reinforcement								
48	JPB	N-007059-00173477	Rochester Reinforcement	$ (112,221)		$ (112,221)	$ 85,827	$ (26,394)	06/2018
49	Total Rochester Reinforcement			$ (112,221)		$ (112,221)	$ 85,827	$ (26,394)	
50	2018 Total Closed to Plant			$ 9,136,655	$ (149,482)	$ 8,987,173	$ 628,116	$ 9,615,289	

Docket No. DG 17-070
Northern Utilities, Inc. - New Hampshire
Calculation of Rate Plan Depreciation Expense
Step 2 Rate Adjustment

Line No.	FERC ACCOUNT	Additions	CIAC Adjustment	Adjusted Additions	Rate	Depreciation Expense
1	376-20 Mains, Coated/Wrapped-G	$ 5,791,929	$ -	$ 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	(149,482)	3,406,591	2.87%	97,769
4	376-60 Mains, Cathodic Protectio-G	6,797	-	6,797	4.17%	283
5	378-20 Measuring & Regulating St-G	-	-	-	3.50%	-
6	380-00 Services-G	(218,145)	-	(218,145)	3.67%	(8,006)
7	Total	$ 9,136,655	$ (149,482)	$ 8,987,173		$ 244,112

Docket No. DG 17-070
Northern Utilities, Inc. - New Hampshire
Pre Tax Rate of Return
December 31, 2016 Pro Forma
Step 2 Rate Adjustment

	(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%

Docket No. DG 17-017
Northern Utilities, Inc. - New Hampshire
Settlement - Step 2 Adjusted Rates

Rates Effective Date: May 1, 2019

May 1, 2019 Step 2 $ Increase	**$1,373,158**
May 1, 2019 Step 2 Percent Increase	**3.91%**

			Winter Blocks		Summer Blocks		
		Customers	First	Excess	First	Excess	
	Rate Class	Charge	Therms $/thm	Therms $/thm	Therms $/thm	Therms $/thm	Revenue
R-5	Residential, Heating	$22.20	$0.6920	$0.6920	$0.6099	$0.6099	$17,283,628
R-10	Residential Heating, Low Income	$22.20	$0.6920	$0.6920	$0.6099	$0.6099	$719,615
	Discount*	-$13.32	-$0.4152	-$0.4152	-$0.3660	-$0.3660	
	Total Residential Heating, Low Income	$8.88	$0.2768	$0.2768	$0.2440	$0.2440	
R-6	Residential, Non-Heating	$22.20	$0.6470	$0.6470	$0.6470	$0.6470	$524,246
G-40	Low Annual, High Winter Use	$75.09	$0.1865	$0.1865	$0.1865	$0.1865	$6,166,245
G-50	Low Annual, Low Winter Use	$75.09	$0.1865	$0.1865	$0.1865	$0.1865	$1,042,391
G-41	Medium Annual, High Winter Use	$222.64	$0.2425		$0.1895		$4,896,329
G-51	Medium Annual, Low Winter Use	$222.64	$0.1712	$0.1399	$0.1337	$0.1087	$1,341,484
G-42	High Annual, High Winter Use	$1,335.81	$0.1984		$0.1206		$1,808,873
G-52	High Annual, Low Winter Use	$1,335.81	$0.1720		$0.0792		$2,713,430
Total							$36,496,241

* 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.

DG 17-070

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION

Typical Residential Heating Bill - 754 therms/year
Impact of May 1, 2019 Delivery Rate Change

				Nov	Dec	Jan	Feb	Mar	Apr	Winter	May	June	July	August	Sept	October	Summer	Annual
1	**Delivery Rates (Effective 5/1/19)**			Nov	Dec	Jan	Feb	Mar	Apr	Winter	May	June	July	August	Sept	October	Summer	Annual
2	Typical Usage therms (weighed by use/weather normalized)			56	95	135	138	111	83	618	45	28	16	14	15	18	136	754
3																		
4	Customer Charge	units @	$ 22 20	$22 20	$22 20	$22 20	$22 20	$22 20	$22 20	$133 17								
5	First	50 units @	$0 6920	$34 60	$34 60	$34 60	$34 60	$34 60	$34 60	$207 61								
6	Over	50 units @	$0 0920	$4 15	$31 14	$56 82	$60 90	$42 21	$22 84	$220 07								
7		COG 1	$0 8271	$46 32						$46 32								
8		COG 2	$0 8953		$85 05					$85 05								
9		COG 3	$0 8618			$116 34				$116 34								
10		COG 4	$0 8618				$118 93			$118 93								
11		COG 5	$0 7650					$84 92		$84 92								
12		COG 6	$0 7650						$63 50	$63 50								
13		LDAC	$0 0691	$3 87	$6 56	$9 33	$9 54	$7 67	$5 74	$42 70								
14																		
15	Customer Charge	units @	$ 22 20								$ 22 20	$22 20	$22 20	$22 20	$ 22 20	$22 20	$133 20	
16	First	50 units @	$0 6099								$27 45	$17 08	$9 76	$8 54	$9 15	$10 98	$82 95	
17	Over	50 units @	$0 6099								$0 00	$0 00	$0 00	$0 00	$0 00	$0 00	$0 00	
20		COG 1	$0 3670								$16 52						$16 52	
21		COG 2	$0 3670									$10 28					$10 28	
22		COG 3	$0 3670										$5 87				$5 87	
23		COG 4	$0 3670											$5 14			$5 14	
24		COG 5	$0 3670												$5 51		$5 51	
25		COG 6	$0 3670													$6 61	$6 61	
26																		
27		LDAC	$ 0 0675								$3 04	$1 69	$1 08	$0 95	$1 01	$1.22	$9 18	
28			TOTAL	$111 14	$179 56	$241.29	$246.16	$191 60	$148 86	$1,116.61	$69 20	$51 44	$38 91	$36 82	$37 87	$41 00	$275 24	$1 393 84
29																		
36	**Prior Rates**			Nov	Dec	Jan	Feb	Mar	Apr	Winter	May	June	July	August	Sept	October	Summer	Annual
37	Typical Usage: therms (weighed by use/weather normalized)			56	95	135	138	111	83	618	45	28	16	14	15	18	136	754
38																		
39	Customer Charge	units @	$ 21 36	$21 36	$21 36	$21 36	$21 36	$21 36	$21 36	$128 16								
40	First	50 units @	$0 6660	$33 30	$33 30	$33 30	$33 30	$33 30	$33 30	$199 80								
41	Over	50 units @	$0 6660	$4 00	$29 97	$50 61	$58 61	$40 63	$21 98	$211 79								
42		COG 1	$0 8271	$46 32						$46 32								
43		COG 2	$0 8953		$85 05					$85 05								
44		COG 3	$0 8618			$116 34				$116 34								
45		COG 4	$0 8618				$118 93			$118 93								
46		COG 5	$0 7650					$84 92		$84 92								
47		COG 6	$0 7650						$63 50	$63 50								
48																		
49		LDAC	$ 0 0691	$3 87	$6 56	$9 33	$9 54	$7 67	$5 74	$42 70								
50																		
51	Customer Charge	units @	$ 21 36								$21 36	$21 36	$21 36	$21 36	$21 36	$21 36	$128 16	
52	First	50 units @	$0 5870								$26 42	$16 44	$9 39	$8 22	$8 81	$10 57	$79 83	
53	Over	50 units @	$0 5870								$0 00	$0 00	$0 00	$0 00	$0 00	$0 00	$0 00	
54		COG 1	$0 3975								$17 69						$17 89	
55		COG 2	$0 3975									$11 13					$11 13	
56		COG 3	$0 3975										$6 38				$6 30	
57		COG 4	$0 3975											$5 57			$5 57	
58		COG 5	$0 3975												$5.96		$5 96	
59		COG 6	$0 3975													$7 16	$7 16	
60																		
61		LDAC	$ 0 0576								$2 59	$1.61	$0 92	$0 81	$0 86	$1 04	$7.63	
62	TOTAL			$108 84	$170 25	$236.94	$241 73	$187 87	$145 87	$1,097.50	$68 25	$50 54	$38 03	$35 95	$36 99	$40 12	$269 89	$1,387 39
63	Total Bill Impact - May 1 Rate Increase			$2 29	$3 31	$4 35	$4 43	$3 73	$3 00	$21.10	$0 94	$0 90	$0 88	$0 87	$0 87	$0 88	$5.35	$26.45
64	Percentage Change			2 11%	1 88%	1 84%	1 83%	1.96%	2.05%	1.92%	1 38%	1.78%	2.31%	2.43%	2.36%	2 20%	1.98%	1 93%
65	Base Rate Impact			$2 29	$3 31	$4 35	$4 43	$3 73	$3 00	$21 10	$0 00	$0 00	$0 00	$0 00	$0 00	$0 00	$0 00	$0 00
66	Percentage Change			2 11%	1 88%	1 84%	1 83%	1.96%	2 05%	1.92%	0.00%	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%	0 00%
67	COG & LDAC Impact			$0 00	$0 00	$0 00	$0 00	$0 00	$0 00	$0 00	$0 94	$0 90	$0 88	$0 87	$0 87	$0 88	$5 35	$0 00
68	Percentage Change			$0 00	$0 00	$0 00	$0 00	$0 00	$0 00	$0 00	$0 01	$0 02	$0 02	$0 02	$0 02	$0 02	$0 02	$0 00