



September 22, 2022

**BY E-MAIL**

Daniel Goldner, Chair  
New Hampshire Public Utilities Commission  
21 S. Fruit Street, Suite 10  
Concord, NH 03301-2429

Re: **Northern Utilities, Inc. -- DG 22-059**  
**2022 / 2023 Annual Cost of Gas and Associated Charges Filing:**  
**Supplemental Cost of Gas Rate Filing**

Dear Chair Goldner:

Enclosed please find the supplemental filing, in redacted and confidential versions, of Northern Utilities, Inc.'s ("Northern" or the "Company") proposed 2022 / 2023 Annual Cost of Gas ("COG") Adjustment filing. This supplemental filing is being submitted due to minor updates to Northern's COG reconciliation that were not available at the time the initial filing was submitted on September 16, 2022. As a result of these updates, Northern is submitting revisions to the following Tariff Sheets:

Fifth Revised Page 40 (COG);  
Fifth Revised Page 41 (COG);  
Twelfth Revised Page 42 (COG);  
Fifteenth Revised Page 43 (COG);  
Sixteenth & Seventeenth Revised Page No. 86 (Rate Summaries);  
Fifteenth & Sixteenth Revised Page No. 88 (Rate Summaries); and  
Fifth Revised Page 158 (Appendix D).

Also provided is the supplemental testimony and revised attachments of Christopher Kahl explaining the updates and the impact on the COG calculation. In addition, typical bill impacts are provided in the supplemental testimony and revised Attachment NUI-SED-3 of Elena Demeris.

The revised 2022 / 2023 Winter Season COG rate for Residential customers is \$1.1289 per therm and the revised 2023 Summer Season COG rate for Residential customers is \$0.6916 per therm. Fall all rate classes the Winter Season and Summer Season COG rates are \$0.0068 and \$0.0011 lower, respectively, than those in the September 16, 2022 filing.

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The typical bill for a Residential heating customer for the 2022 / 2023 Winter Season is projected to be \$1,437.72. This is higher than the 2021 / 2022 Winter Season bill by \$256.46 or 21.7%.<sup>1</sup> The typical bill for a Residential heating customer for the 2023 Summer Season is projected to be \$356.21. This is higher than the 2022 Summer Season bill by \$8.75 or 2.51%.

If you have any questions or need additional information, please contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Matthew J. Fossum", with a long horizontal flourish extending to the right.

Matthew J. Fossum  
Senior Counsel

CC: Faisal Deen Arif, New Hampshire Department of Energy  
Mary Schwarzer, New Hampshire Department of Energy  
Donald Kreis, New Hampshire Office of the Consumer Advocate  
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<sup>1</sup> This bill impact includes changes to the Company's COG, LDAC and Distribution Base Rates.

**NORTHERN UTILITIES, INC.  
NEW HAMPSHIRE DIVISION  
NOVEMBER 2022 / OCTOBER 2023 ANNUAL PERIOD  
COST OF GAS ADJUSTMENT FILING  
PREFILED SUPPLEMENTAL TESTIMONY OF  
CHRISTOPHER A. KAHL**

1   **Q.     Please state your name and business address.**

2   A.     My name is Christopher A. Kahl. My business address is 6 Liberty Lane West,  
3           Hampton, New Hampshire.

4   **Q.     For whom do you work and in what capacity?**

5   A.     I am a Senior Regulatory Analyst for Unitil Service Corp. (“Unitil Service”), a subsidiary  
6           of Unitil Corporation (“Unitil”). Unitil Service provides managerial, financial, regulatory  
7           and engineering services to the principal subsidiaries of Unitil. These subsidiaries are  
8           Fitchburg Gas and Electric Light Company d/b/a Unitil, Granite State Gas Transmission,  
9           Inc. (“Granite”), Northern Utilities, Inc. d/b/a Unitil (“Northern” or “the Company”), and  
10          Unitil Energy Systems, Inc. I am responsible for developing, providing and sponsoring  
11          certain reports, testimony and proposals filed with regulatory agencies.

12   **Q.     Please summarize your professional and educational background.**

13   A.     I have worked in the natural gas industry for over twenty-five years. Before joining  
14          Unitil in January 2011, I was employed as an Analyst with Columbia Gas of  
15          Massachusetts (“Columbia”) where I had worked since 1997 in supply planning. Prior to  
16          working for Columbia, I was employed as an Analyst in the Rates and Regulatory Affairs  
17          Department of Algonquin Gas Transmission Company (“Algonquin”) from 1993 to 1997.  
18          Prior to working for Algonquin, I was employed as a Senior Associate/Energy Consultant

Prefiled Supplemental Testimony of Christopher A. Kahl  
2022/2023 Annual COG Filing  
Page 2 of 6

1 for DRI/McGraw-Hill. I received a Bachelor of Sciences degree and a Masters of Arts  
2 degree in Economics from Northeastern University.

3 **Q. Have you previously testified before the New Hampshire Public Utilities**  
4 **Commission or for Unitil?**

5 A. Yes, I have testified before the Commission in the 2021 / 2020 Annual Cost of Gas  
6 (“COG”) proceeding, Docket No. DG 21-131 and the 2020 / 2021 Annual COG  
7 proceeding, Docket No. DG 20-154. I have testified in numerous other Cost of Gas  
8 proceedings as well.

9 **Q. Please explain the why Northern is submitting this supplement to its Annual COG**  
10 **filing.**

11 A. Northern is submitting this supplemental filing due to revisions in the Company’s  
12 accounting data that were not available for inclusion in the Company’s initial COG filing  
13 submitted on September 16, 2022. Specifically, revised indirect demand costs related to  
14 the Company’s most recent rate case, Docket No. DG 21-104, but collected through the  
15 COG were revised effective August 1, 2021. Despite being revised for effect on August  
16 1, 2021, the revisions to the monthly demand charges, as utilized in the reconciliation,  
17 were not available at the time the initial COG filing needed to be made. Now that these  
18 costs are available, they need to be reflected in the filing.

19 **Q. Please explain what costs are changing.**

20 A. As described in footnote 1 to Section 2.1 of the May 26, 2022 Settlement Agreement in  
21 Docket No. DG 21-104, indirect costs relating to production and storage capacity and  
22 overheads were being revised downward through the settlement. While those costs were

Prefiled Supplemental Testimony of Christopher A. Kahl  
2022/2023 Annual COG Filing  
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1 revised following the approval of the settlement agreement, the posting of the revised  
2 monthly demand costs were not available until just after the initial filing was submitted.

3 **Q. In which attachment does this change appear?**

4 A. The change in the reconciliation appears in Attachment NUI-CAK-10. Specifically, on  
5 Schedule 4, Page 2, the costs “Local Storage and Production Allowance” and “Other  
6 A&G Allowance” has been revised. Whereas Other A&G Allowance shows a small  
7 increase in costs, Local Production and Storage shows an approximate \$262,000 decrease  
8 in costs when compared to the prior approved amount.

9 **Q. Are other attachments impacted?**

10 A. Yes, the change in the reconciliation impacts the ending balance and interest calculation  
11 in Attachment NUI-CAK-12, the final calculated COG rates in Attachment NUI-CAK-  
12 13, the comparison of projected COG rates to current COG rates in Attachment NUI-  
13 CAK-14, the calculation of the Re-entry rates in Attachment NUI-FXW-11 and the  
14 typical bill analysis in Attachment NUI-SED-3. I have included revised versions of my  
15 attachments as well as a revised version of Attachment NUI-FXW-11. Elena Demeris,  
16 Senior Regulatory Analyst for Unitil Service, has provided a revised version of  
17 Attachment NUI-SED-2.

18 **Q. What is the impact of the revised reconciliation on COG rates?**

Prefiled Supplemental Testimony of Christopher A. Kahl  
2022/2023 Annual COG Filing  
Page 4 of 6

1 A. Because the revision applies to indirect gas costs, the impact on all rate classes is the  
2 same. Compared to the initial COG filing, the Winter Season and Summer Season rate  
3 impacts are decreases of \$0.0068 per therm and \$0.0011 per therm respectively.

4 **Q. Were any other changes made to the reconciliation?**

5 A. A few minor changes were made including a correction to the footnote on Schedule 2, the  
6 removal of reference errors on page 4 and a revision of the October 2021 prime rate to  
7 reflect the most recent increase in interest rates instituted by the Federal Reserve.

8 **Q. What was the reconciliation revision's impact on the Re-entry Rate?**

9 A. The Re-entry Rate was revised from \$0.0709 per therm to \$0.0724 per therm.

10 **Q. Is there any change to the Conversion Rate?**

11 A. There is no change to the Conversion Rate.

12 **Q. Which tariff pages are you resubmitting?**

13 A. I am resubmitting tariff pages, 40, 41, 42, 43, 86 and 88 and page 158. Pages 86 and 88  
14 will include both a Summer Season rate summary and a Winter Season rate summary.

15 **Q. Which tariff pages are unaffected and not being resubmitted?**

16 A. The tariff pages that are not impacted by the change in the reconciliation and, therefore,  
17 not being resubmitted are Page 62 (LDAC), Page 144 (Appendix A, administrative fees  
18 and charges) and Page 156 (Appendix C, capacity allocators).

Prefiled Supplemental Testimony of Christopher A. Kahl  
2022/2023 Annual COG Filing  
Page 5 of 6

**Q. Please Summarize Northern’s revised 2022 / 2023 Summer Period and Winter Period COG rates and describe how they compare to last year’s rates.**

**A.** Table 1 below provides Northern’s revised 2022 / 2023 Winter Period COG rates and compares them to the average COG rates for the 2021 / 2022 Winter Period. As this table shows, Winter Period COG rates are higher than those in 2021 / 2022 by \$0.1570 for residential customers and higher by \$0.1756 and \$0.1550 per therm for High and Low Load Factor Commercial / Industrial (“C / I”) customers, respectively.

**Table 1**  
**Winter Period Cost of Gas Rates**

<b>Class</b>	<b>2022 / 2023 Proposed Rate per therm</b>	<b>2021 / 2022 Average Rate per therm</b>	<b>Percent Change From 2021/2022 Winter Period</b>
Residential Non-Heat (R-5, R-6 & R-10)	\$1.1289	\$0.9719	15.70%
C & I - High Load Factor (G-50, G-51 & G-52)	\$1.0536	\$0.8780	20.00%
C & I - Low Load Factor (G-40, G-41 & G-42)	\$1.1428	\$0.9878	15.69%

Table 2 below provides Northern’s revised 2022 / 2023 Summer Period COG rates and compares them to the average COG rates for the 2021 / 2022 Summer Period. As this table shows, the proposed COG rates are \$0.2442 lower for Residential customers, \$0.2591 lower for High Load Factor C / I customers and \$0.2244 lower for Low Load Factor C / I customers.

Prefiled Supplemental Testimony of Christopher A. Kahl  
2022/2023 Annual COG Filing  
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**Table 2**

**Summer Period Cost of Gas Rates**

<b>Class</b>	<b>2022 / 2023 Proposed Rate per therm</b>	<b>2021 / 2022 Average Rate per therm</b>	<b>Percent Change From 2021 / 2022 Summer Period</b>
Residential Non-Heat (R-5, R-6 & R-10)	\$0.6916	\$0. 9358	(26.10)%
C & I - High Load Factor (G-50, G-51 & G-52)	\$0.6331	\$0. 8922	(29.04)%
C & I - Low Load Factor (G-40, G-41 & G-42)	\$0.7383	\$0. 9627	(23.31)%

**Q. What is typical bill impact for a residential customer?**

A. Typical bill impacts are discussed in the supplemental testimony of Elena Demeris

**Q. Does this conclude you testimony?**

A. Yes it does.



**NORTHERN UTILITIES, INC.  
NEW HAMPSHIRE DIVISION  
NOVEMBER 2022/OCTOBER 2023 ANNUAL COST OF GAS  
ADJUSTMENT FILING  
PREFILED SUPPLEMENTAL TESTIMONY OF  
S. ELENA DEMERIS**

**I. INTRODUCTION**

**Q. Please state your name and business address.**

A. My name is S. Elena Demeris. My business address is 6 Liberty Lane West, Hampton, New Hampshire.

**Q. For whom do you work and in what capacity?**

A. I am a Senior Regulatory Analyst for Unitil Service Corp. (“Unitil Service”), a subsidiary of Unitil Corporation that provides managerial, financial, regulatory and engineering services to Unitil Corporation’s principal subsidiaries Fitchburg Gas and Electric Light Company, d/b/a Unitil (“FG&E”), Granite State Gas Transmission, Inc. (“Granite”), Northern Utilities, Inc. d/b/a Unitil (“Northern”), and Unitil Energy Systems, Inc. (“UES”) (together “Unitil”). In this capacity I am responsible for preparing regulatory filings, pricing research, regulatory analysis, tariff administration, revenue requirements calculations, customer research, and other analytical services.

**Q. Please summarize your professional and educational background.**

A. In 1996, I graduated from the University of Massachusetts - Lowell with a Bachelor’s of Science Degree in Civil Engineering. In 2005, I earned a Master’s Degree in Business Administration and in 2006 a Master’s Degree in Finance from Southern New Hampshire University. I joined Unitil in July 1998 in the regulatory/rate department.

**Prefiled Supplemental Testimony of S. Elena Demeris**  
**Annual 2022/2023 COG Filing**  
**Page 2 of 2**

1   **Q.     Please explain why you are providing supplemental testimony?**

2   A.     Due to the changes detailed in the supplemental testimony of Mr. Kahl, I am providing  
3           updated bill impacts.

4  
5   **Q.     Have you updated the typical bill analyses showing the impacts of the proposed**  
6           **COG and LDAC rate changes for effect on November 1, 2022 for typical Residential**  
7           **heating customers over the upcoming Winter Season?**

8   A.     Yes, REVISED Attachment NUI-SED-3, page 1 provides the analyses. It shows that a  
9           typical Residential heating customer consuming 582 therms during the 2022/2023 Winter  
10          Season can expect a bill of \$1,437.72. This is an increase of \$256.46, or 21.7%  
11          compared to the 2021/2022 Winter Season bill with the same consumption.

12  
13   **Q.     Have you updated the typical bill analyses showing the impacts of the proposed**  
14          **COG and LDAC for effect on May 1, 2023 for typical Residential heating gas**  
15          **customers over the next Summer Season?**

16   A.     Yes, REVISED Attachment NUI-SED-3, page 6 provides this analysis. It shows that a  
17          typical residential heating customer consuming 124 therms during the 2023 Summer  
18          Season can expect a bill of \$356.21. This is an increase of \$8.74, or 2.51% compared to  
19          the 2022 Summer Season bill with the same consumption.

20  
21   **Q.     Does this conclude your testimony?**

22   A.     Yes, it does.

N.H.P.U.C No. 12  
NORTHERN UTILITIES, INC.

Fifth Revised Page 40  
Superseding Fourth Revised Page 40

### Anticipated Cost of Gas

#### New Hampshire Division

Period Covered: November 1, 2022 - April 30, 2023

(Col 1)	(Col 2)	(Col 3)
<b><u>ANTICIPATED DIRECT COST OF GAS</u></b>		
<b>Purchased Gas:</b>		
Demand Costs:	\$6,358,704	
Supply Costs:	\$20,129,627	
<b>Storage &amp; Peaking Gas:</b>		
Demand, Capacity:	\$12,558,149	
Commodity Costs:	\$11,531,102	
<b>Interruptible Included Above</b>	\$0	
<b>Inventory Finance Charge</b>	\$6,382	
<b>Capacity Release, &amp; Asset Management</b>	(\$8,570,786)	
<b>Re-entry Rate &amp; Conversion Rate Revenues</b>	\$ (5,000)	
<b>Total Anticipated Direct Cost of Gas</b>		<u>\$42,008,180</u>
<b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>		
<b>Adjustments:</b>		
Prior Period Under/(Over) Collection	(\$2,757,176)	
Interest	(\$54,387)	
Refunds	\$0	
<u>Interruptible Margins</u>	<u>\$0</u>	
Total Adjustments		(\$2,811,562)
<b>Working Capital:</b>		
Total Anticipated Direct Cost of Gas	\$42,008,180	
Working Capital Percentage	<u>0.1588%</u>	
Working Capital Allowance	\$ 66,714	
Plus: Working Capital Reconciliation (Acct 173)	<u>\$7,437</u>	
Total Working Capital Allowance		\$74,150
<b>Bad Debt:</b>		
Bad Debt Allowance	\$121,564	
Plus: Bad Debt Reconciliation (Acct 173)	(\$10,671)	
Total Bad Debt Allowance		\$110,893
<b>Local Production and Storage Capacity</b>		\$214,538
<b>Miscellaneous Overhead-80.46% Allocated to Winter Season</b>		<u>\$492,287</u>
<b>Total Anticipated Indirect Cost of Gas</b>		(\$1,919,694)
<b>Total Cost of Gas</b>		<u>\$40,088,486</u>

Issued: September 22, 2022

Issued By: Robert B. Hevert  
Senior Vice President

Effective Date: November 1, 2022

Authorized by NHPUC Order No. \_\_\_\_\_, in Docket No. DG 22-\_\_\_\_, dated \_\_\_\_\_, 2022

N.H.P.U.C No. 12  
NORTHERN UTILITIES, INC.

Fifth Revised Page No. 41  
Superseding Fourth Revised Page No. 41

### Anticipated Cost of Gas

New Hampshire Division  
Period Covered: May 1, 2022 - October 31, 2023

(Col 1)	(Col 2)	(Col 3)
<b><u>ANTICIPATED DIRECT COST OF GAS</u></b>		
<b>Purchased Gas:</b>		
Demand Costs:	\$ 1,055,340	
Supply Costs:	\$ 4,140,569	
<b>Storage &amp; Peaking Gas:</b>		
Demand, Capacity:	\$ 397,527	
Commodity Costs:	\$ 162,908	
<b>Interruptible Included Above</b>	\$0	
<b>Inventory Finance Charge</b>	\$0	
<b>Capacity Release &amp; Asset Management</b>	\$0	
<b>Re-entry Rate and Conversion Rate Revenues</b>	\$0	
<b>Total Anticipated Direct Cost of Gas</b>		<u>\$5,756,343</u>
<b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>		
<b>Adjustments:</b>		
Prior Period Under/(Over) Collection	\$94,114	
Interest	(\$31,303)	
Refunds	\$0	
<u>Interruptible Margins</u>	<u>\$0</u>	
Total Adjustments		\$62,811
<b>Working Capital:</b>		
Total Anticipated Direct Cost of Gas	\$5,756,344	
Working Capital Percentage	<u>0.1398%</u>	
Working Capital Allowance	\$9,142	
Plus: Working Capital Reconciliation (Acct 173)	<u>\$1,807</u>	
Total Working Capital Allowance		\$10,948
<b>Bad Debt:</b>		
Bad Debt Allowance	\$17,079	
Plus: Bad Debt Reconciliation (Acct 173)	(\$562)	
Total Bad Debt Allowance		\$16,517
<b>Local Production and Storage Capacity</b>		\$0
<b>Miscellaneous Overhead-19.54% Allocated to Summer Season</b>		\$119,588
<b>Total Anticipated Indirect Cost of Gas</b>		\$209,865
<b>Total Cost of Gas</b>		<u>\$5,966,208</u>

Issued: September 22, 2022

Issued By: Robert B. Hevert  
Senior Vice President

Effective Date: May 1, 2023

Authorized by NHPUC Order No. \_\_\_\_\_, in Docket No. DG 22-\_\_\_\_, dated \_\_\_\_\_, 2022

N.H.P.U.C No. 12  
NORTHERN UTILITIES, INC.

Twelfth Revised Page 42  
Superseding Eleventh Revised Page 42

**CALCULATION OF FIRM SALES COST OF GAS RATE**

Period Covered: November 1, 2021 - April 30, 2022

(Col 1)	(Col 2)	(Col 3)
Total Anticipated Direct Cost of Gas	\$42,008,180	
Projected Prorated Sales (11/01/22 - 04/30/23)	35,507,405	
<b>Direct Cost of Gas Rate</b>		\$1.1831 per therm
<b>Demand Cost of Gas Rate</b>	\$10,341,068	\$0.2912 per therm
<b>Commodity Cost of Gas Rate</b>	<u>\$31,667,112</u>	<u>\$0.8918</u> per therm
<b>Total Direct Cost of Gas Rate</b>	<u>\$42,008,180</u>	<b>\$1.1830</b> per therm
Total Anticipated Indirect Cost of Gas	(\$1,919,694)	
Projected Prorated Sales (11/01/22 - 04/30/23)	35,507,405	
<b>Indirect Cost of Gas</b>		(\$0.0541) per therm
<b>TOTAL PERIOD AVERAGE COST OF GAS</b>		<b>\$1.1289 per therm</b>

<b>RESIDENTIAL COST OF GAS RATE -11/01/22</b>	<b>COGwr</b>	<b>\$1.1289 per therm</b>
	<b>Maximum (COG+25%)</b>	<b>\$1.4112</b>

<b>COM/IND LOW WINTER USE COST OF GAS RATE - 11/01/22</b>	<b>COGwl</b>	<b>\$1.0536 per therm</b>
	<b>Maximum (COG+25%)</b>	<b>\$1.3170</b>

C&I HLF DEMAND COSTS ALLOCATED PER SMBA	\$569,531
PLUS: RESIDENTIAL DEMAND REALLOCATION TO C&I HLF	<u>\$8,570</u>
C&I HLF TOTAL ADJUSTED DEMAND COSTS	\$578,101
C&I HLF PROJECTED PRORATED SALES (11/01/22 - 04/30/23)	2,898,272
<b>DEMAND COST OF GAS RATE</b>	<b>\$0.1995</b>
C&I HLF COMMODITY COSTS ALLOCATED PER SMBA	\$2,634,583
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I HLF	<u>(\$2,272)</u>
C&I HLF TOTAL ADJUSTED COMMODITY COSTS	\$2,632,312
C&I HLF PROJECTED PRORATED SALES (11/01/22 - 04/30/23)	2,898,272
<b>COMMODITY COST OF GAS RATE</b>	<b>\$0.9082</b>
<b>INDIRECT COST OF GAS</b>	<b>(\$0.0541)</b>
<b>TOTAL C&amp;I HLF COST OF GAS RATE</b>	<b>\$1.0536</b>

<b>COM/IND HIGH WINTER USE COST OF GAS RATE - 11/01/22</b>	<b>COGwh</b>	<b>\$1.1428 per therm</b>
	<b>Maximum (COG+25%)</b>	<b>\$1.4285</b>

C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$4,796,055
PLUS RESIDENTIAL DEMAND REALLOCATION TO C&I LLF	<u>\$72,168</u>
C&I LLF TOTAL ADJUSTED DEMAND COSTS	\$4,868,223
C&I LLF PROJECTED PRORATED SALES (11/01/22 - 04/30/23)	15,802,392
<b>DEMAND COST OF GAS RATE</b>	<b>\$0.3081</b>
C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$14,057,910
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I LLF	<u>(\$12,123)</u>
C&I LLF TOTAL ADJUSTED COMMODITY COSTS	\$14,045,788
C&I LLF PROJECTED PRORATED SALES (11/01/22 - 04/30/23)	15,802,392
<b>COMMODITY COST OF GAS RATE</b>	<b>\$0.8888</b>
<b>INDIRECT COST OF GAS</b>	<b>(\$0.0541)</b>
<b>TOTAL C&amp;I LLF COST OF GAS RATE</b>	<b>\$1.1428</b>

Issued: September 22, 2022  
Effective Date: November 1, 2022  
Authorized by NHPUC Order No. \_\_\_\_\_, in Docket No. DG 22-\_\_\_\_, dated \_\_\_\_\_.

Issued By: Robert B. Hevert  
Senior Vice President

N.H.P.U.C No. 12  
NORTHERN UTILITIES, INC.

Fifteenth Revised Page No. 43  
Superseding Fourteenth Revised Page No. 43

**CALCULATION OF FIRM SALES COST OF GAS RATE**

Period Covered: May 1, 2023 - October 31, 2023

(Col 1)	(Col 2)	(Col 3)
Total Anticipated Direct Cost of Gas	\$5,756,344	
Projected Prorated Sales (05/01/23 - 10/31/23)	8,625,565	
<b>Direct Cost of Gas Rate</b>		\$0.6674 per therm
<b>Demand Cost of Gas Rate</b>	\$1,452,867	\$0.1684 per therm
<b>Commodity Cost of Gas Rate</b>	<u>\$4,303,477</u>	<u>\$0.4989</u> per therm
<b>Total Direct Cost of Gas Rate</b>	\$5,756,344	<b>\$0.6673</b> per therm
Total Anticipated Indirect Cost of Gas	\$209,865	
Projected Prorated Sales (05/01/23 - 10/31/23)	8,625,565	
<b>Indirect Cost of Gas</b>		\$0.0243 per therm
<b>TOTAL PERIOD AVERAGE COST OF GAS</b>		<b>\$0.6916</b> per therm

<b>RESIDENTIAL COST OF GAS RATE -05/01/23</b>	<b>COGwr</b>	<b>\$0.6916</b> per therm
<b>Maximum Preapproved Adjustment (COG+25%)*</b>		<b>\$0.8645</b>

<b>COM/IND LOW WINTER USE COST OF GAS RATE - 05/01/23</b>	<b>COGwl</b>	<b>\$0.6331</b> per therm
<b>Maximum Preapproved Adjustment (COG+25%)*</b>		<b>\$0.7914</b>

C&I HLF DEMAND COSTS ALLOCATED PER SMBA	\$230,600
PLUS: RESIDENTIAL DEMAND RELOCATION TO C&I HLF	<u>\$11,833</u>
C&I HLF TOTAL ADJUSTED DEMAND COSTS	\$242,434
C&I HLF PROJECTED PRORATED SALES (05/01/23 - 10/31/23)	2,206,001
<b>DEMAND COST OF GAS RATE</b>	<b>\$0.1099</b>
C&I HLF COMMODITY COSTS ALLOCATED PER SMBA	\$1,100,620
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I HLF	<u>\$34</u>
C&I HLF TOTAL ADJUSTED COMMODITY COSTS	\$1,100,655
C&I HLF PROJECTED PRORATED SALES (05/01/23 - 10/31/23)	2,206,001
<b>COMMODITY COST OF GAS RATE</b>	<b>\$0.4989</b>
<b>INDIRECT COST OF GAS</b>	<b>\$0.0243</b>
<b>TOTAL C&amp;I HLF COST OF GAS RATE</b>	<b>\$0.6331</b>

<b>COM/IND HIGH WINTER USE COST OF GAS RATE - 05/01/23</b>	<b>COGwh</b>	<b>\$0.7383</b> per therm
<b>Maximum Preapproved Adjustment (COG+25%)*</b>		<b>\$0.9229</b>

C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$566,892
PLUS RESIDENTIAL DEMAND REALLOCATION TO C&I LLF	<u>\$29,091</u>
C&I LLF TOTAL ADJUSTED DEMAND COSTS	\$595,983
C&I LLF PROJECTED PRORATED SALES (05/01/23 - 10/31/23)	2,770,809
<b>DEMAND COST OF GAS RATE</b>	<b>\$0.2151</b>
C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$1,382,415
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I LLF	<u>\$43</u>
C&I LLF TOTAL ADJUSTED COMMODITY COSTS	\$1,382,458
C&I LLF PROJECTED PRORATED SALES (05/01/23 - 10/31/23)	2,770,809
<b>COMMODITY COST OF GAS RATE</b>	<b>\$0.4989</b>
<b>INDIRECT COST OF GAS</b>	<b>\$0.0243</b>
<b>TOTAL C&amp;I LLF COST OF GAS RATE</b>	<b>\$0.7383</b>

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Issued By: Robert B. Hevert  
Senior Vice President

NHPUC No. 12 - Gas  
NORTHERN UTILITIES, INC.

Sixteenth Revised Page 86  
Superseding Fifteenth Revised Page 86

**NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION**  
**CURRENTLY EFFECTIVE RESIDENTIAL RATES**

<b>Winter Season November 2022 - April 2023</b>		<b>Tariff Rates</b>	<b>Total Delivery Rates (Includes LDAC)</b>	<b>Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas</b>
Residential Heating	<b><u>Tariff Rate R 5:</u></b>			
	Monthly Customer Charge	\$22.20	\$22.20	\$22.20
	All usage	\$0.9266	\$1.1111	\$2.2400
	<b>LDAC</b>	<b>\$0.1845</b>		
	<b><u>Gas Cost Adjustment:</u></b>			
	Cost of Gas	\$1.1289		
Residential Heating Low Income	<b><u>Tariff Rate R 10:</u></b>			
	Monthly Customer Charge	\$22.20	\$22.20	\$22.20
	All usage	\$0.9266	\$1.1111	\$2.2400
	<b>LDAC</b>	<b>\$0.1845</b>		
	<b><u>Gas Cost Adjustment:</u></b>			
	Cost of Gas	\$1.1289		
	Monthly Customer Charge	(\$9.99)	(\$9.99)	(\$9.99)
	All usage	(\$0.4170)	(\$0.4170)	(\$0.9250)
	<b>LDAC</b>	\$0.0000		
	<b><u>Gas Cost Adjustment:</u></b>			
	Cost of Gas	(\$0.5080)		
Residential Non-Heating	<b><u>Tariff Rate R 6:</u></b>			
	Monthly Customer Charge	\$22.20	\$22.20	\$22.20
	All usage	\$1.4053	\$1.5898	\$2.7187
	<b>LDAC</b>	<b>\$0.1845</b>		
	<b><u>Gas Cost Adjustment:</u></b>			
	Cost of Gas	\$1.1289		

\*: Discount applicable to winter months November through April only.

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Title: **Senior Vice President**

NHPUC No. 12 - Gas  
NORTHERN UTILITIES, INC.

Seventeenth Revised Page 86  
Superseding Sixteenth Revised Page 86

**NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION**  
**CURRENTLY EFFECTIVE RESIDENTIAL RATES**

<b>Summer Season May 2023 - October 2023</b>		<b>Tariff Rates</b>	<b>Total Delivery Rates (Includes LDAC)</b>	<b>Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas</b>
Residential Heating	<b><u>Tariff Rate R 5:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b><u>Gas Cost Adjustment:</u></b> Cost of Gas	\$22.20 \$0.9266 <b>\$0.1845</b>  <b>\$0.6916</b>	<b>\$22.20</b>  <b>\$1.1111</b>	<b>\$22.20</b>  <b>\$1.8027</b>
Residential Heating Low Income	<b><u>Tariff Rate R 10:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b><u>Gas Cost Adjustment:</u></b> Cost of Gas	\$22.20 \$0.9266 <b>\$0.1845</b>  <b>\$0.6916</b>	<b>\$22.20</b>  <b>\$1.1111</b>	<b>\$22.20</b>  <b>\$1.8027</b>
Discount*	Monthly Customer Charge	\$0.00	<b>\$0.00</b>	<b>\$0.00</b>
Discount*	All usage	\$0.0000	<b>\$0.0000</b>	<b>\$0.0000</b>
Discount*	<b>LDAC</b>	\$0.0000		
Discount*	<b><u>Gas Cost Adjustment:</u></b> Cost of Gas	\$0.0000		
Residential Non-Heating	<b><u>Tariff Rate R 6:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b><u>Gas Cost Adjustment:</u></b> Cost of Gas	\$22.20 \$1.4053 <b>\$0.1845</b>  <b>\$0.6916</b>	<b>\$22.20</b>  <b>\$1.5898</b>	<b>\$22.20</b>  <b>\$2.2814</b>

\*: Discount applicable to winter months November through April only.

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Title: Senior Vice President



NHPUC No. 12 - Gas  
NORTHERN UTILITIES, INC.

Fifteenth Revised Page 88  
Superseding Fourteenth Revised Page 88

**NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION**  
**CURRENTLY EFFECTIVE C & I RATES**

<b>Winter Season November 2022 - April 2023</b>		<b>Tariff Rates</b>	<b>Total Delivery Rates (Includes LDAC)</b>	<b>Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas</b>
C&I Low Annual/High Winter	<b><u>Tariff Rate G 40:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$80.00 \$0.2556 <b>\$0.0488</b> <b>\$1.1428</b>	<b>\$80.00</b> <b>\$0.3044</b>	<b>\$80.00</b> <b>\$1.4472</b>
C&I Low Annual/Low Winter	<b><u>Tariff Rate G 50:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$80.00 \$0.2359 <b>\$0.0488</b> <b>\$1.0536</b>	<b>\$80.00</b> <b>\$0.2847</b>	<b>\$80.00</b> <b>\$1.3383</b>
C&I Medium Annual/High Winter	<b><u>Tariff Rate G 41:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$225.00 \$0.2883 <b>\$0.0488</b> <b>\$1.1428</b>	<b>\$225.00</b> <b>\$0.3371</b>	<b>\$225.00</b> <b>\$1.4799</b>
C&I Medium Annual/Low Winter	<b><u>Tariff Rate G 51:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$225.00 \$0.1770 <b>\$0.0488</b> <b>\$1.0536</b>	<b>\$225.00</b> <b>\$0.2258</b>	<b>\$225.00</b> <b>\$1.2794</b>
C&I High Annual/High Winter	<b><u>Tariff Rate G 42:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$1,350.00 \$0.2185 <b>\$0.0488</b> <b>\$1.1428</b>	<b>\$1,350.00</b> <b>\$0.2673</b>	<b>\$1,350.00</b> <b>\$1.4101</b>
C&I High Annual/Low Winter	<b><u>Tariff Rate G 52:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas	\$1,350.00 \$0.1796 <b>\$0.0488</b> <b>\$1.0536</b>	<b>\$1,350.00</b> <b>\$0.2284</b>	<b>\$1,350.00</b> <b>\$1.2820</b>

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Issued by:

Title:

**Robert B. Hevert**

**Senior Vice President**

NHPUC No. 12 - Gas  
NORTHERN UTILITIES, INC.

Sixteenth Revised Page 88  
Superseding Fifteenth Revised Page 88

**NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION**  
**CURRENTLY EFFECTIVE C & I RATES**

<b>Summer Season May 2023 - October 2023</b>		<b>Tariff Rates</b>	<b>Total Delivery Rates (Includes LDAC)</b>	<b>Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas</b>
C&I Low Annual/High Winter	<b><u>Tariff Rate G 40:</u></b>			
	Monthly Customer Charge	\$80.00	\$80.00	\$80.00
	All usage	\$0.2556	\$0.3044	\$1.0427
	<b>LDAC</b>	<b>\$0.0488</b>		
	<b>Gas Cost Adjustment:</b>			
	Cost of Gas	<b>\$0.7383</b>		
C&I Low Annual/Low Winter	<b><u>Tariff Rate G 50:</u></b>			
	Monthly Customer Charge	\$80.00	\$80.00	\$80.00
	All usage	\$0.2359	\$0.2847	\$0.9178
	<b>LDAC</b>	<b>\$0.0488</b>		
	<b>Gas Cost Adjustment:</b>			
	Cost of Gas	<b>\$0.6331</b>		
C&I Medium Annual/High Winter	<b><u>Tariff Rate G 41:</u></b>			
	Monthly Customer Charge	\$225.00	\$225.00	\$225.00
	All usage	\$0.2883	\$0.3371	\$1.0754
	<b>LDAC</b>	<b>\$0.0488</b>		
	<b>Gas Cost Adjustment:</b>			
	Cost of Gas	<b>\$0.7383</b>		
C&I Medium Annual/Low Winter	<b><u>Tariff Rate G 51:</u></b>			
	Monthly Customer Charge	\$225.00	\$225.00	\$225.00
	All usage	\$0.1770	\$0.2258	\$0.8589
	<b>LDAC</b>	<b>\$0.0488</b>		
	<b>Gas Cost Adjustment:</b>			
	Cost of Gas	<b>\$0.6331</b>		
C&I High Annual/High Winter	<b><u>Tariff Rate G 42:</u></b>			
	Monthly Customer Charge	\$1,350.00	\$1,350.00	\$1,350.00
	All usage	\$0.2185	\$0.2673	\$1.0056
	<b>LDAC</b>	<b>\$0.0488</b>		
	<b>Gas Cost Adjustment:</b>			
	Cost of Gas	<b>\$0.7383</b>		
C&I High Annual/Low Winter	<b><u>Tariff Rate G 52:</u></b>			
	Monthly Customer Charge	\$1,350.00	\$1,350.00	\$1,350.00
	All usage	\$0.1096	\$0.1584	\$0.7915
	<b>LDAC</b>	<b>\$0.0488</b>		
	<b>Gas Cost Adjustment:</b>			
	Cost of Gas	<b>\$0.6331</b>		

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NHPUC No. 12 – Gas  
Northern Utilities, Inc.

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**VII. DELIVERY SERVICE TERMS AND CONDITIONS (continued)**

**Appendix D**

**Re-entry Surcharge and Conversion Surcharge  
(continued)**

**D. Information to be Filed with the Commission:**

As part of the annual Cost of Gas filing, the Company shall file with the Commission a report showing the number of customers assessed the Re-entry Surcharge and the Conversion Surcharge and the amount of revenue received for each charge through the prior April 30. Pursuant to the Company's Cost of Gas Clause, the Company will apply such revenues as credits to the Company's New Hampshire Division Cost of Gas.

The following Re-entry Surcharge and Conversion Surcharge shall be applicable for the periods of November 1, 2022 through April 30, 2023 and May 1, 2023 through October 2023.

<b>Effective Dates:</b>	<b>November 1, 2022 – April 30, 2022</b>	<b>May 1, 2023 – October 30, 2023</b>
<b>Re-entry Surcharge:</b>	\$0.0724 per therm	\$0.0000 per therm
<b>Conversion Surcharge, Low Load Factor (G-40, G-41, G-42):</b>	\$1.5529 per therm	\$0.0000 per therm
<b>Conversion Surcharge, High Load Factor (G-50, G-51, G-52):</b>	\$1.6421 per therm	\$0.0000 per therm

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N.H.P.U.C No.12  
NORTHERN UTILITIES, INC.

Fourth Revised Page 40  
Superseding Third Revised Page 40

### Anticipated Cost of Gas

#### New Hampshire Division

Period Covered: November 1, 2021 - October 31, 2022

(Col 1)	(Col 2)	(Col 3)
<b>ANTICIPATED DIRECT COST OF GAS</b>		
<b>Purchased Gas:</b>		
Demand Costs:	\$ <del>4,553,044</del>	\$ 6,358,704
Supply Costs:	\$ <del>11,472,168</del>	\$ 20,129,627
<b>Storage &amp; Peaking Gas:</b>		
Demand, Capacity:	\$ <del>12,327,011</del>	\$ 12,558,149
Commodity Costs:	\$ <del>7,733,349</del>	\$ 11,531,102
<b>Interruptible Included Above</b>	\$ <del>          </del>	\$ -
<b>Inventory Finance Charge</b>	\$ <del>1,378</del>	\$ 6,382
<b>Capacity Release</b>	\$ <del>(4,076,771)</del>	\$ (8,570,786)
<b>Re-entry Rate &amp; Conversion Rate Revenues</b>	\$ <del>(5,000)</del>	\$ (5,000)
<b>Total Anticipated Direct Cost of Gas</b>	\$ <del>32,005,179</del>	\$ 42,008,180
<b>ANTICIPATED INDIRECT COST OF GAS</b>		
<b>Adjustments:</b>		
Prior Period Under/(Over) Collection	\$ <del>189,294</del>	\$ (2,757,176)
Interest	\$ <del>(42,086)</del>	\$ (54,387)
Refunds	\$ <del>          </del>	\$ -
<u>Interruptible Margins</u>	\$ <del>          </del>	\$ <del>          </del>
Total Adjustments	\$ <del>147,208</del>	\$ (2,811,562)
<b>Working Capital:</b>		
Total Anticipated Direct Cost of Gas	\$ <del>32,005,179</del>	\$ 42,008,180
Working Capital Percentage	<del>0.0892%</del>	0.1588%
Working Capital Allowance	\$ <del>28,555</del>	\$ 66,714
Plus: Working Capital Reconciliation (Acct 173)	\$ <del>(5,834)</del>	\$ 7,437
Total Working Capital Allowance	\$ <del>22,721</del>	\$ 74,150
<b>Bad Debt:</b>		
Bad Debt Allowance	\$ <del>137,320</del>	\$ 121,564
Plus: Bad Debt Reconciliation (Acct 173)	\$ <del>(61,950)</del>	\$ (10,671)
Total Bad Debt Allowance	\$ <del>75,370</del>	\$ 110,893
<b>Local Production and Storage Capacity</b>	\$ <del>476,106</del>	\$ 214,538
<b>Miscellaneous Overhead -79.87% Allocated to Winter Season</b>	\$ <del>463,606</del>	\$ 492,287
<b>Total Anticipated Indirect Cost of Gas</b>	\$ <del>1,185,042</del>	\$ (1,919,694)
<b>Total Cost of Gas</b>	\$ <del>33,190,191</del>	\$ 40,088,486

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Senior Vice President

N.H.P.U.C No. 12  
NORTHERN UTILITIES, INC.

FourthFifth Revised Page 41  
Superseding ThirdFourth Revised Page 41

Anticipated Cost of Gas				
New Hampshire Division				
Period Covered: May 1, 202223 - October 31, 202223				
(Col 1)	(Col 2)	(Col 2)	(Col 3)	(Col 3)
<b>ANTICIPATED DIRECT COST OF GAS</b>				
<b>Purchased Gas:</b>				
Demand Costs:	\$956,729	\$1,055,340		
Supply Costs:	\$3,110,213	\$4,140,569		
<b>Storage &amp; Peaking Gas:</b>				
Demand, Capacity:	\$397,395	\$397,527		
Commodity Costs:	\$21,467	\$162,908		
<b>Interruptible Included Above</b>	\$0	\$0		
<b>Inventory Finance Charge</b>	\$0	\$0		
<b>Capacity Release &amp; Asset Management</b>	\$0	\$0		
<b>Re-entry Rate &amp; Conversion Rate Revenues</b>	\$0	\$0		
<b>Total Anticipated Direct Cost of Gas</b>			\$4,485,805	\$5,756,343
<b>ANTICIPATED INDIRECT COST OF GAS</b>				
<b>Adjustments:</b>				
Prior Period Under/(Over) Collection	\$47,710	\$94,114		
Interest	(\$41,380)	(\$31,303)		
Refunds	\$0	\$0		
Interruptible Margins	\$0	\$0		
<b>Total Adjustments</b>			\$6,330	\$62,811
<b>Working Capital:</b>				
Total Anticipated Direct Cost of Gas	\$4,485,805	\$5,756,344		
Working Capital Percentage	0.0892%	0.1398%		
Working Capital Allowance	\$4,002	\$9,142		
Plus: Working Capital Reconciliation (Acct 173)	(\$1,470)	\$1,807		
<b>Total Working Capital Allowance</b>			\$2,532	\$10,948
<b>Bad Debt:</b>				
Bad Debt Allowance	\$14,529	\$17,079		
Plus: Bad Debt Reconciliation (Acct 173)	(\$15,614)	(\$562)		
<b>Total Bad Debt Allowance</b>			(\$1,084)	\$16,518
<b>Local Production and Storage Capacity</b>			\$0	\$0
<b>Miscellaneous Overhead-20.1319.54% Allocated to the Summer Season</b>			\$116,849	\$119,588
<b>Total Anticipated Indirect Cost of Gas</b>			\$124,627	\$209,865
<b>Total Cost of Gas</b>			\$4,610,433	\$5,966,208

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Robert B. Hevert  
Senior Vice President

N.H.P.U.C No. 12  
NORTHERN UTILITIES, INC.

Eleventh-Twelfth Revised Page 42  
Superseding Tenth Eleventh Revised Page 42

CALCULATION OF FIRM SALES COST OF GAS RATE

Period Covered: November 1, 2021 - April 30, 2022

(Col 1)	(Col 2)	(Col 3)		
Total Anticipated Direct Cost of Gas	\$32,006,179	\$42,008,180		
Projected Prorated Sales (11/01/21 - 04/30/22)	35,339,329	35,507,405		
<b>Direct Cost of Gas Rate</b>			<b>\$0.9057</b>	<b>\$1.1831</b> per therm
<b>Demand Cost of Gas Rate</b>	<b>\$12,798,284</b>	<b>\$10,341,068</b>	<b>\$0.3622</b>	<b>\$0.2912</b> per therm
<b>Commodity Cost of Gas Rate</b>	<b>\$19,206,895</b>	<b>\$31,667,112</b>	<b>\$0.5435</b>	<b>\$0.8918</b> per therm
<b>Total Direct Cost of Gas Rate</b>	<b>\$32,006,179</b>	<b>\$42,008,180</b>	<b>\$0.9057</b>	<b>\$1.1830</b> per therm
Total Anticipated Indirect Cost of Gas	\$1,186,042	(\$1,919,694)		
Projected Prorated Sales (11/01/21 - 04/30/22)	35,339,329	35,507,405		
<b>Indirect Cost of Gas</b>			<b>\$0.0335</b>	<b>(\$0.0541)</b> per therm
<b>TOTAL PERIOD AVERAGE COST OF GAS</b>			<b>\$0.9392</b>	<b>\$1.1289</b> per therm
<b>Period ending under collection to be recovered as determined on 12/21/2021</b>				(\$995,768)
<b>Projected Sales (01/01/22 - 04/30/2022)</b>				23,906,709
<b>Per-unit change in Cost of Gas (01/01/21 - 04/30/22)</b>				(\$0.0417)
<b>Period ending under collection to be recovered as determined on 1/24/2022</b>				\$779,744
<b>Projected Sales (02/01/22 - 04/30/2022)</b>				16,025,403
<b>Per-unit change in Cost of Gas (02/01/21 - 04/30/22)</b>				\$0.0487
<b>Period ending under collection to be recovered as determined on 2/22/2022</b>				\$1,003,825
<b>Projected Sales (03/01/22 - 04/30/2022)</b>				9,250,801
<b>Per-unit change in Cost of Gas (03/01/21 - 04/30/22)</b>				\$0.1085
<b>RESIDENTIAL COST OF GAS RATE - 03/01/22 - 11/01/2022</b>	<b>COGwr</b>	<b>\$1.0547</b>	<b>\$1.1289</b>	<b>per therm</b>
	<b>Maximum (COG+25%)</b>	<b>\$1.1740</b>	<b>\$1.4111</b>	
RESIDENTIAL COST OF GAS RATES - 11/01/2021		\$0.9392		
CHANGE IN PER UNIT COST		(\$0.0417)		
RESIDENTIAL COST OF GAS RATES - 01/01/2022		\$0.8975		
CHANGE IN PER UNIT COST		\$0.0487		
RESIDENTIAL COST OF GAS RATES - 02/01/2022		\$0.9462		
CHANGE IN PER UNIT COST		\$0.1085		
RESIDENTIAL COST OF GAS RATES - 03/01/2022		\$1.0547		
<b>COM/IND LOW WINTER USE COST OF GAS RATE - 03/01/22 - 11/01/2022</b>	<b>COGwl</b>	<b>\$0.9608</b>	<b>\$1.0536</b>	<b>per therm</b>
	<b>Maximum (COG+25%)</b>	<b>\$1.0566</b>	<b>\$1.3170</b>	
COM/IND LOW WINTER USE COST OF GAS RATES - 11/01/2021		\$0.8453		
CHANGE IN PER UNIT COST		(\$0.0417)		
COM/IND LOW WINTER USE COST OF GAS RATES - 01/01/2022		\$0.8036		
CHANGE IN PER UNIT COST		\$0.0487		
COM/IND LOW WINTER USE COST OF GAS RATES - 02/01/2022		\$0.8623		
CHANGE IN PER UNIT COST		\$0.1085		
COM/IND LOW WINTER USE COST OF GAS RATES - 03/01/2022		\$0.9608		
C&I HLF DEMAND COSTS ALLOCATED PER SMBA	\$569,531			
PLUS: RESIDENTIAL DEMAND RELOCATION TO C&I HLF	\$8,570			
C&I HLF TOTAL ADJUSTED DEMAND COSTS	\$578,101			
C&I HLF PROJECTED PRORATED SALES (11/01/21 - 04/30/22)	2,898,272			
DEMAND COST OF GAS RATE	\$0.1995			
C&I HLF COMMODITY COSTS ALLOCATED PER SMBA	\$2,634,583			
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I HLF	(\$2,272)			
C&I HLF TOTAL ADJUSTED COMMODITY COSTS	\$2,632,312			
C&I HLF PROJECTED PRORATED SALES (11/01/21 - 04/30/22)	2,898,272			
COMMODITY COST OF GAS RATE	\$0.9082			
INDIRECT COST OF GAS	(\$0.0541)			
<b>TOTAL C&amp;I HLF COST OF GAS RATE</b>	<b>\$1.0536</b>			
<b>COM/IND HIGH WINTER USE COST OF GAS RATE - 03/01/22 - 11/01/2022</b>	<b>COGwh</b>	<b>\$1.0706</b>	<b>\$1.1428</b>	<b>per therm</b>
	<b>Maximum (COG+25%)</b>	<b>\$1.1939</b>	<b>\$1.4285</b>	
COM/IND HIGH WINTER USE COST OF GAS RATES - 11/01/2021		\$0.9551		
CHANGE IN PER UNIT COST		(\$0.0417)		
COM/IND HIGH WINTER USE COST OF GAS RATES - 01/01/2022		\$0.9134		
CHANGE IN PER UNIT COST		\$0.0487		
COM/IND HIGH WINTER USE COST OF GAS RATES - 02/01/2022		\$0.9621		
CHANGE IN PER UNIT COST		\$0.1085		
COM/IND HIGH WINTER USE COST OF GAS RATES - 03/01/2022		\$1.0706		
C&I LLF DEMAND COSTS ALLOCATED PER SMBA	\$4,796,055			
PLUS RESIDENTIAL DEMAND REALLOCATION TO C&I LLF	\$72,168			
C&I LLF TOTAL ADJUSTED DEMAND COSTS	\$4,868,223			
C&I LLF PROJECTED PRORATED SALES (11/01/21 - 04/30/22)	\$15,802,392			
DEMAND COST OF GAS RATE	\$0.3081			
C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$14,057,910			
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I LLF	(\$12,123)			
C&I LLF TOTAL ADJUSTED COMMODITY COSTS	\$14,045,788			
C&I LLF PROJECTED PRORATED SALES (11/01/21 - 04/30/22)	\$15,802,392			
COMMODITY COST OF GAS RATE	\$0.8888			
INDIRECT COST OF GAS	(\$0.0541)			
<b>TOTAL C&amp;I LLF COST OF GAS RATE</b>	<b>\$1.1428</b>			

Issued: February 22, 2022

Effective Date: March 1, 2022

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Issued By: Robert B. Hevert  
Senior Vice President

N.H.P.U.C No. 12  
NORTHERN UTILITIES, INC.

~~Fourteenth~~<sup>Fifteenth</sup> Revised Page No. 43  
Superseding ~~Thirteenth~~<sup>Fourteenth</sup> Page No. 43

**CALCULATION OF FIRM SALES COST OF GAS RATE**

Period Covered: May 1, 2023 - October 31, 2023

(Col 1)	(Col 2)	(Col 3)
Total Anticipated Direct Cost of Gas	\$4,485,805	\$5,756,344
Projected Prorated Sales (05/01/21 <del>22</del> <sup>23</sup> - 10/31/2023)	8,907,030	8,625,565
<b>Direct Cost of Gas Rate</b>		<b>\$0.5036</b>
<b>Demand Cost of Gas Rate</b>	<b>\$1,354,125</b>	<b>\$1,452,867</b>
<b>Commodity Cost of Gas Rate</b>	<b>\$2,131,680</b>	<b>\$4,303,477</b>
<b>Total Direct Cost of Gas Rate</b>	<b>\$4,485,805</b>	<b>\$0.5036</b>
Total Anticipated Indirect Cost of Gas	\$124,627	\$209,865
Projected Prorated Sales (05/01/21 <del>22</del> <sup>23</sup> - 10/31/2023)	8,907,030	8,625,565
<b>Indirect Cost of Gas</b>		<b>\$0.0140</b>
<b>TOTAL PERIOD AVERAGE COST OF GAS</b>		<b>\$0.5176</b>
Period ending under collection to be recovered – per April Report	\$1,055,500	
Projected sales (05/01/22 – 10/31/22)	8,907,030	
Per-unit change in Cost of Gas (05/01/22 – 10/31/22)	\$0.1185	
Period ending under collection to be recovered – per May Report	\$1,935,343	
Projected sales (06/01/22 – 10/31/22)	\$6,999,418,9071	
Per-unit change in Cost of Gas (06/01/22 – 10/31/22)	\$0.2765	
Period ending under collection to be recovered – per August Report	\$743,260	
Projected sales (09/01/22 – 10/31/22)	\$3,577,562	
Per-unit change in Cost of Gas (09/01/22 – 10/31/22)	\$0.2078	

RESIDENTIAL COST OF GAS RATE	09/05/01/22 <sup>23</sup>	COGwr	\$1.1204	\$0.6916	per therm
Maximum Preapproved Adjustment (COG+25%)*			<b>\$0.6470</b>	<b>\$0.8645</b>	
INITIAL RESIDENTIAL COST OF GAS RATE – 05/01/22			\$0.6476		
CHANGE IN PER UNIT COST			\$0.1185		
REVISED RESIDENTIAL COST OF GAS RATE – 05/01/22			\$0.6361		
CHANGE IN PER UNIT COST			\$0.2765		
RESIDENTIAL COST OF GAS RATE – 06/01/22			\$0.9126		
CHANGE IN PER UNIT COST			\$0.2078		
RESIDENTIAL COST OF GAS RATE – 09/01/22			\$1.1204		

COM/IND LOW WINTER USE COST OF GAS RATE	09/05/01/22 <sup>23</sup>	COGwl	\$1.0768	\$0.6331	per therm
Maximum Preapproved Adjustment (COG+25%)*			<b>\$0.5925</b>	<b>\$0.7914</b>	
INITIAL COM/IND LOW WINTER USE COST OF GAS RATE – 5/01/22			\$0.4740		
CHANGE IN PER UNIT COST			\$0.1185		
REVISED COM/IND LOW WINTER USE COST OF GAS RATE – 05/01/22			\$0.5925		
CHANGE IN PER UNIT COST			\$0.2765		
COM/IND LOW WINTER USE COST OF GAS RATE – 06/01/22			\$0.8690		
CHANGE IN PER UNIT COST			\$0.2078		
COM/IND LOW WINTER USE COST OF GAS RATE – 09/01/22			\$1.0768		

C&I HLF DEMAND COSTS ALLOCATED PER SMBA	\$230,600
PLUS: RESIDENTIAL DEMAND REALLOCATION TO C&I HLF	\$11,833
C&I HLF TOTAL ADJUSTED DEMAND COSTS	\$242,434
C&I HLF PROJECTED PRORATED SALES (05/01/23 - 10/31/23)	2,206,001
DEMAND COST OF GAS RATE	<b>\$0.1099</b>
C&I HLF COMMODITY COSTS ALLOCATED PER SMBA	\$1,100,620
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I HLF	\$34
C&I HLF TOTAL ADJUSTED COMMODITY COSTS	\$1,100,655
C&I HLF PROJECTED PRORATED SALES (05/01/23 - 10/31/23)	2,206,001
COMMODITY COST OF GAS RATE	<b>\$0.4989</b>
INDIRECT COST OF GAS	<b>\$0.0243</b>
TOTAL C&I HLF COST OF GAS RATE	<b>\$0.6331</b>

COM/IND HIGH WINTER USE COST OF GAS RATE	09/05/01/22 <sup>23</sup>	COGwh	\$1.1473	\$0.7383	per therm
Maximum Preapproved Adjustment (COG+25%)*			<b>\$0.6806</b>	<b>\$0.9229</b>	
INITIAL COM/IND HIGH WINTER USE COST OF GAS RATE – 05/01/22			\$0.5445		
CHANGE IN PER UNIT COST			\$0.1185		
REVISED COM/IND HIGH WINTER USE COST OF GAS RATE – 05/01/22			\$0.6630		
CHANGE IN PER UNIT COST			\$0.2765		
COM/IND LOW WINTER USE COST OF GAS RATE – 06/01/22			\$0.9395		
CHANGE IN PER UNIT COST			\$0.2078		
COM/IND LOW WINTER USE COST OF GAS RATE – 09/01/22			\$1.1473		

C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$566,892
PLUS: RESIDENTIAL DEMAND REALLOCATION TO C&I LLF	\$29,091
C&I LLF TOTAL ADJUSTED DEMAND COSTS	\$595,983
C&I LLF PROJECTED PRORATED SALES (05/01/22 - 10/31/22)	2,770,809
DEMAND COST OF GAS RATE	<b>\$0.2151</b>
C&I LLF COMMODITY COSTS ALLOCATED PER SMBA	\$1,382,415
PLUS: RESIDENTIAL COMMODITY REALLOCATION TO C&I LLF	\$43
C&I LLF TOTAL ADJUSTED COMMODITY COSTS	\$1,382,458
C&I LLF PROJECTED PRORATED SALES (05/01/22 - 10/31/22)	2,770,809
COMMODITY COST OF GAS RATE	<b>\$0.4989</b>
INDIRECT COST OF GAS	<b>\$0.0243</b>
TOTAL C&I LLF COST OF GAS RATE	<b>\$0.7383</b>

∴ Rate increases in June and September were implemented through amended COG filings and not preapproved  
Issued: August 29 September 22, 2022  
Effective Date: September 1, 2022 May 1, 2023  
Authorized by NHPUC Order No. 26,539, in Docket No. DG 21-131, dated October 29, 2021.  
& Order No. 626 in Docket No. DG 21-131, dated June 12, 2022.

Robert B. Hevert  
Senior Vice President

NHPUC No. 12 - Gas  
NORTHERN UTILITIES, INC.

~~Fifteenth~~ ~~Sixteenth~~ Revised Page 86  
Superseding ~~Fourteenth~~ ~~Fifteenth~~ Page 86

NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION  
CURRENTLY EFFECTIVE RESIDENTIAL RATES

	<del>Summer</del> <del>Winter Season</del> <del>May 2023 - October 2022</del> <del>November 2022 - April 2023</del>	Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
Residential Heating	<b><u>Tariff Rate R 5:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b><u>Gas Cost Adjustment:</u></b> Cost of Gas	\$22.20 \$0.9266 <del>\$0.0816</del> <u>\$0.1845</u>  <del>\$1.1204</del> <u>\$1.1289</u>	  <del>\$1.0082</del> <u>\$1.1111</u>  \$22.20	  <del>\$2.1286</del> <u>\$2.2400</u>  \$22.20
Residential Heating Low income	<b><u>Tariff Rate R 10:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b><u>Gas Cost Adjustment:</u></b> Cost of Gas  Monthly Customer Charge All usage <b>LDAC</b> <b><u>Gas Cost Adjustment:</u></b> Cost of Gas	\$22.20 \$0.9266 <del>\$0.0816</del> <u>\$0.1845</u>  <del>\$1.1204</del> <u>\$1.1289</u>  \$0.0000 ( <u>\$9.9900</u> ) \$0.0000 ( <u>\$0.4170</u> ) \$0.0000 <del>(\$0.5042)</del> ( <u>\$0.5080</u> )	  <del>\$1.0082</del> <u>\$1.1111</u>  \$22.20   (\$9.99) <del>\$0.0000</del> ( <u>\$0.4170</u> )  \$0.0000	  <del>\$2.1286</del> <u>\$2.2400</u>  \$22.20   (\$9.99) <del>\$0.0000</del> ( <u>\$0.9250</u> )  \$0.0000
Residential Non-Heating	<b><u>Tariff Rate R 6:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b><u>Gas Cost Adjustment:</u></b> Cost of Gas	\$22.20 \$1.4053 <del>\$0.0816</del> <u>\$0.1845</u>  <del>\$1.1204</del> <u>\$1.1289</u>	  <del>\$1.4869</del> <u>\$1.5898</u>  \$22.20	  <del>\$2.6073</del> <u>\$2.7187</u>  \$22.20

\*: Discount applicable to winter months November through April only.

Issued: September 8~~22~~, 2022

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Issued by:

Robert B. Hevert

Title:

Senior Vice President



NHPUC No. 12 - Gas  
NORTHERN UTILITIES, INC.

~~Sixteenth~~ ~~Seventeenth~~ Revised Page 86  
Superseding ~~Fifteenth~~ ~~Sixteenth~~ Page 86

NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION  
CURRENTLY EFFECTIVE RESIDENTIAL RATES

	<del>Winter</del> <del>Summer</del> Season <del>May 2023 - October 2023</del> <del>November 2022 - April 2023</del>	Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
Residential Heating	<b><u>Tariff Rate R 5:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b><u>Gas Cost Adjustment:</u></b> Cost of Gas	\$22.20 \$0.9266 \$0.1845  <del>\$1.4289</del> <del>\$0.6916</del>	\$22.20 \$1.1111	\$22.20 <del>\$2.2400</del> <del>\$1.8027</del>
Residential Heating Low income	<b><u>Tariff Rate R 10:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b><u>Gas Cost Adjustment:</u></b> Cost of Gas	\$22.20 \$0.9266 \$0.1845  <del>\$1.4289</del> <del>\$0.6916</del>	\$22.20 \$1.1111	\$22.20 <del>\$2.2400</del> <del>\$1.8027</del>
Discount	Monthly Customer Charge	<del>(\$9.99)</del> <del>\$0.0000</del>	<del>(\$9.99)</del> <del>\$0.0000</del>	<del>(\$9.99)</del> <del>\$0.0000</del>
Discount	All usage	<del>(\$0.4170)</del> <del>\$0.0000</del>	<del>(\$0.4170)</del> <del>\$0.0000</del>	<del>(\$0.9250)</del> <del>\$0.0000</del>
Discount	<b>LDAC</b>	\$0.0000 \$0.0000		
Discount	<b><u>Gas Cost Adjustment:</u></b> Cost of Gas	<del>(\$0.5080)</del> <del>\$0.0000</del>		
Residential Non-Heating	<b><u>Tariff Rate R 6:</u></b> Monthly Customer Charge All usage <b>LDAC</b> <b><u>Gas Cost Adjustment:</u></b> Cost of Gas	\$22.20 \$1.4053 \$0.1845  <del>\$1.4289</del> <del>\$0.6916</del>	\$22.20 \$1.5898	\$22.20 <del>\$2.7187</del> <del>\$2.2814</del>

\*: Discount applicable to winter months November through April only.

Issued: September 8 22, 2022

Effective: With Service Rendered On and After ~~September 1, 2022~~ ~~May 1, 2023~~

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Issued by:

Title:

Robert B. Hevert  
Senior Vice President

NHPUC No. 12 - Gas  
NORTHERN UTILITIES, INC.

Fourteenth Fifteenth Revised Page 88  
Superseding Thirteenth Fourteenth Page 88

NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION  
CURRENTLY EFFECTIVE C & I RATES

	Summer Winter Season May 2022 - October 2022 November 2022 - April 2023		Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
C&I Low Annual/High Winter	<b>Tariff Rate G 40:</b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas		\$80.00 \$0.2556 <del>\$0.0504</del> <u>\$0.0488</u>  <del>\$1.1473</del> <u>\$1.1428</u>	 \$80.00 <del>\$0.3060</del> <u>\$0.3044</u>  	 \$80.00 <del>\$1.4533</del> <u>\$1.4472</u>  
C&I Low Annual/Low Winter	<b>Tariff Rate G 50:</b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas		\$80.00 \$0.2359 <del>\$0.0504</del> <u>\$0.0488</u>  <del>\$1.0768</del> <u>\$1.0536</u>	 \$80.00 <del>\$0.2863</del> <u>\$0.2847</u>  	 \$80.00 <del>\$1.3634</del> <u>\$1.3383</u>  
C&I Medium Annual/High Winter	<b>Tariff Rate G 41:</b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas		\$225.00 \$0.2883 <del>\$0.0504</del> <u>\$0.0488</u>  <del>\$1.1473</del> <u>\$1.1428</u>	 \$225.00 <del>\$0.3387</del> <u>\$0.3371</u>  	 \$225.00 <del>\$1.4860</del> <u>\$1.4799</u>  
C&I Medium Annual/Low Winter	<b>Tariff Rate G 51:</b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas		\$225.00 \$0.1770 <del>\$0.0504</del> <u>\$0.0488</u>  <del>\$1.0768</del> <u>\$1.0536</u>	 \$225.00 <del>\$0.2274</del> <u>\$0.2258</u>  	 \$225.00 <del>\$1.3042</del> <u>\$1.2794</u>  
C&I High Annual/High Winter	<b>Tariff Rate G 42:</b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas		\$1,350.00 \$0.2185 <del>\$0.0504</del> <u>\$0.0488</u>  <del>\$1.1473</del> <u>\$1.1428</u>	 \$1,350.00 <del>\$0.2689</del> <u>\$0.2673</u>  	 \$1,350.00 <del>\$1.4162</del> <u>\$1.4101</u>  
C&I High Annual/Low Winter	<b>Tariff Rate G 52:</b> Monthly Customer Charge All usage <b>LDAC</b> <b>Gas Cost Adjustment:</b> Cost of Gas		\$1,350.00 <del>\$0.1096</del> <u>\$0.1796</u> <del>\$0.0504</del> <u>\$0.0488</u>  <del>\$1.0768</del> <u>\$1.0536</u>	 \$1,350.00 <del>\$0.1600</del> <u>\$0.2284</u>  	 \$1,350.00 <del>\$1.2368</del> <u>\$1.2820</u>  

Issued: September ~~822~~, 2022

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Robert B. Hevert

Title:

Senior Vice President

NHPUC No. 12 - Gas  
NORTHERN UTILITIES, INC.

~~Fifteenth~~ Sixteenth Revised Page 88  
Superseding ~~Fourteenth~~ Fifteenth Page 88

NORTHERN UTILITIES - NEW HAMPSHIRE DIVISION  
CURRENTLY EFFECTIVE C & I RATES

	<del>Winter</del> <u>Summer</u> Season <u>May 2023 - October 2023</u> <del>November 2022 - April 2023</del>		Tariff Rates	Total Delivery Rates (Includes LDAC)	Total Billed Rates Tariff Rates, LDAC Plus Cost of Gas
C&I Low Annual/High Winter	<u><b>Tariff Rate G 40:</b></u> Monthly Customer Charge All usage <b>LDAC</b> <u><b>Gas Cost Adjustment:</b></u> Cost of Gas		\$80.00 \$0.2556 \$0.0488  <del>\$1.1428</del> <u>\$0.7383</u>	\$80.00 \$0.3044	<del>\$1.4472</del> <u>\$1.0427</u> \$80.00
C&I Low Annual/Low Winter	<u><b>Tariff Rate G 50:</b></u> Monthly Customer Charge All usage <b>LDAC</b> <u><b>Gas Cost Adjustment:</b></u> Cost of Gas		\$80.00 \$0.2359 \$0.0488  <del>\$1.0536</del> <u>\$0.6331</u>	\$80.00 \$0.2847	<del>\$1.3383</del> <u>\$0.9178</u> \$80.00
C&I Medium Annual/High Winter	<u><b>Tariff Rate G 41:</b></u> Monthly Customer Charge All usage <b>LDAC</b> <u><b>Gas Cost Adjustment:</b></u> Cost of Gas		\$225.00 \$0.2883 \$0.0488  <del>\$1.1428</del> <u>\$0.7383</u>	\$225.00 \$0.3371	<del>\$1.4799</del> <u>\$1.0754</u> \$225.00
C&I Medium Annual/Low Winter	<u><b>Tariff Rate G 51:</b></u> Monthly Customer Charge All usage <b>LDAC</b> <u><b>Gas Cost Adjustment:</b></u> Cost of Gas		\$225.00 \$0.1770 \$0.0488  <del>\$1.0536</del> <u>\$0.6331</u>	\$225.00 \$0.2258	<del>\$1.2794</del> <u>\$0.8589</u> \$225.00
C&I High Annual/High Winter	<u><b>Tariff Rate G 42:</b></u> Monthly Customer Charge All usage <b>LDAC</b> <u><b>Gas Cost Adjustment:</b></u> Cost of Gas		\$1,350.00 \$0.2185 \$0.0488  <del>\$1.1428</del> <u>\$0.7383</u>	\$1,350.00 \$0.2673	<del>\$1.4101</del> <u>\$1.0056</u> \$1,350.00
C&I High Annual/Low Winter	<u><b>Tariff Rate G 52:</b></u> Monthly Customer Charge All usage <b>LDAC</b> <u><b>Gas Cost Adjustment:</b></u> Cost of Gas		\$1,350.00 <del>\$0.1796</del> <u>\$0.1096</u> \$0.0488  <del>\$1.0536</del> <u>\$0.6331</u>	<del>\$0.2284</del> <u>\$0.1584</u> \$1,350.00	<del>\$1.2820</del> <u>\$0.7915</u> \$1,350.00

Issued: September 8 22, 2022

Effective: With Service Rendered On and After ~~September 1, 2022~~ May 1, 2023

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Issued by:

Title:

**Robert B. Hevert**  
Senior Vice President

NHPUC No. 12 – Gas  
Northern Utilities, Inc.

~~Fourth-Fifth~~ Revised Page 158  
Superseding ~~Third-Fourth~~ Revised Page 158

**VII. DELIVERY SERVICE TERMS AND CONDITIONS (continued)**

**Appendix D**

**Re-entry Surcharge and Conversion Surcharge  
(continued)**

**D. Information to be Filed with the Commission:**

As part of the annual Cost of Gas filing, the Company shall file with the Commission a report showing the number of customers assessed the Re-entry Surcharge and the Conversion Surcharge and the amount of revenue received for each charge through the prior April 30. Pursuant to the Company's Cost of Gas Clause, the Company will apply such revenues as credits to the Company's New Hampshire Division Cost of Gas.

The following Re-entry Surcharge and Conversion Surcharge shall be applicable for the periods of November 1, ~~2021-2022~~ through April 30, ~~2022-2023~~ and May 1, ~~2022-2023~~ through October ~~2022-2023~~.

Effective Dates:	November 1, <del>2021</del> <del>2022</del> – April 30, <del>2022-2023</del>	May 1, <del>2022-2023</del> – October 30, <del>2022-2023</del>
Re-entry Surcharge:	\$ <del>0.0000</del> <del>0.0724</del> per therm	\$0.0000 per therm
Conversion Surcharge, Low Load Factor (G-40, G-41, G-42):	\$ <del>0.7543</del> <del>1.5529</del> per therm	\$0.0000 per therm
Conversion Surcharge, High Load Factor (G-50, G-51, G-52):	\$ <del>0.8641</del> <del>1.6421</del> per therm	\$0.0000 per therm

Issued: ~~November 4, 2021~~September 22, 2022  
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Title: Senior Vice President

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**REVISED ATTACHMENT NUI-CAK-10**  
**FORM III**  
**Schedule 1**

**NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION**  
**2021-22 ANNUAL COG RECONCILIATION**  
**SCHEDULE 1: SUMMARY OF ANNUAL BALANCE**  
**August 2021 - October 2022**

	AMOUNT	
Annual Beginning Balance	\$ (3,085,000)	FORM III SCHEDULE 2
Less: Reported Collections	\$ (41,330,648)	FORM III SCHEDULE 3
Add: Cost of Firm Gas Allowable	\$ 41,873,686	FORM III SCHEDULE 4
Add: Interest	\$ (121,100)	FORM III SCHEDULE 2
Annual Ending Balance	\$ (2,663,062)	
Summer Season Reconciliation	\$ 94,114	FORM III ATTACHMENT F
Winter Season Reconciliation	\$ (2,757,176)	FORM III ATTACHMENT F

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
2021-22 ANNUAL COG RECONCILIATION  
SCHEDULE 2: ADJUSTMENTS TO REPORTED SUMMER, WINTER AND ANNUAL ACCOUNTS  
August 2021 - October 2022  
Acct 191

	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	<u>Dec-21</u>	<u>Jan-22</u>	<u>Feb-22</u>	<u>Mar-22</u>	<u>Apr-22</u>	<u>May-22</u>	<u>Jun-22</u>	<u>Jul-22</u>	-----Estimated----- <u>Aug-22</u>	<u>Sep-22</u>	<u>Oct-22</u>	<u>Total</u>
Initial Account Beginning Balance(1)	\$ (3,091,269)															
Adjustment	\$ 6,269															
Adjusted Beginning Balance	\$ (3,085,000)	\$ (2,074,098)	\$ (982,516)	\$ 256,626	\$ (415,953)	\$ (1,062,471)	\$ (1,556,509)	\$ (2,962,220)	\$ (4,413,357)	\$ (5,704,684)	\$ (5,011,489)	\$ (4,171,359)	\$ (3,623,802)	\$ (2,977,299)	\$ (2,522,360)	
Plus: Cost of Firm Gas (Schedule 4)	\$ 1,449,728	\$ 1,524,147	\$ 1,951,648	\$ 3,142,812	\$ 4,853,683	\$ 6,811,624	\$ 5,317,195	\$ 3,949,005	\$ 2,230,502	\$ 1,814,523	\$ 1,526,484	\$ 1,304,370	\$ 1,652,041	\$ 1,817,491	\$ 2,528,433	\$ 41,873,686
Less: Reported Collections (Schedule 3)	\$ (431,849)	\$ (428,432)	\$ (711,525)	\$ (3,815,175)	\$ (5,498,203)	\$ (7,302,120)	\$ (6,716,795)	\$ (5,390,169)	\$ (3,508,145)	\$ (1,106,837)	\$ (673,935)	\$ (743,843)	\$ (994,555)	\$ (1,353,401)	\$ (2,655,666)	\$ (41,330,648)
Annual Account Ending Balance	\$ (2,067,121)	\$ (978,382)	\$ 257,608	\$ (415,737)	\$ (1,060,472)	\$ (1,552,967)	\$ (2,956,109)	\$ (4,403,383)	\$ (5,691,001)	\$ (4,996,998)	\$ (4,158,941)	\$ (3,610,831)	\$ (2,966,315)	\$ (2,513,209)	\$ (2,649,593)	
Month's Average Balance	\$ (2,576,060)	\$ (1,526,240)	\$ (362,454)	\$ (79,556)	\$ (738,212)	\$ (1,307,719)	\$ (2,256,309)	\$ (3,682,801)	\$ (5,052,179)	\$ (5,350,841)	\$ (4,585,215)	\$ (3,891,095)	\$ (3,295,058)	\$ (2,745,254)	\$ (2,585,976)	
Interest Rate (Prime Rate)	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	4.00%	4.00%	4.00%	6.25%	
Interest Applied	\$ (6,977)	\$ (4,134)	\$ (982)	\$ (215)	\$ (1,999)	\$ (3,542)	\$ (6,111)	\$ (9,974)	\$ (13,683)	\$ (14,492)	\$ (12,418)	\$ (12,970)	\$ (10,984)	\$ (9,151)	\$ (13,469)	\$ (121,100)
Annual Account Ending Balance w/int	<u>\$ (2,074,098)</u>	<u>\$ (982,516)</u>	<u>\$ 256,626</u>	<u>\$ (415,953)</u>	<u>\$ (1,062,471)</u>	<u>\$ (1,556,509)</u>	<u>\$ (2,962,220)</u>	<u>\$ (4,413,357)</u>	<u>\$ (5,704,684)</u>	<u>\$ (5,011,489)</u>	<u>\$ (4,171,359)</u>	<u>\$ (3,623,802)</u>	<u>\$ (2,977,299)</u>	<u>\$ (2,522,360)</u>	<u>\$ (2,663,062)</u>	

(1) Reflects ATV charges of \$6,211 plus interest, not included in the 2020-2021 reconciliation.

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
2021-22 ANNUAL COG RECONCILIATION  
SCHEDULE 3: REVENUE BACKUP TO REPORTED COLLECTIONS  
August 2021 - October 2022

	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	<u>Dec-21</u>	<u>Jan-22</u>	<u>Feb-22</u>	<u>Mar-22</u>	<u>Apr-22</u>	<u>May-22</u>	<u>Jun-22</u>	<u>Jul-22</u>	----- <u>Aug-22</u>	Estimated <sup>(1)</sup> <u>Sep-22</u>	----- <u>Oct-22</u>	<u>Total</u>
Accrued Revenue	\$ (20,383)	\$ (26,148)	\$ 123,726	\$ 1,827,473	\$ 594,965	\$ 641,860	\$ (410,161)	\$ (860,914)	\$ (504,541)	\$ (909,991)	\$ (241,998)	\$ (88,683)				
Billed Revenue	\$ 452,233	\$ 454,580	\$ 587,798	\$ 1,987,702	\$ 4,903,238	\$ 6,660,260	\$ 7,126,956	\$ 6,251,082	\$ 4,012,686	\$ 2,016,828	\$ 915,933	\$ 832,526				
Calendarized Revenue	<u>\$ 431,849</u>	<u>\$ 428,432</u>	<u>\$ 711,525</u>	<u>\$ 3,815,175</u>	<u>\$ 5,498,203</u>	<u>\$ 7,302,120</u>	<u>\$ 6,716,795</u>	<u>\$ 5,390,169</u>	<u>\$ 3,508,145</u>	<u>\$ 1,106,837</u>	<u>\$ 673,935</u>	<u>\$ 743,843</u>	<u>\$ 994,555</u>	<u>\$ 1,353,401</u>	<u>\$ 2,655,666</u>	<u>\$ 41,330,648</u>

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
2021-22 ANNUAL COG RECONCILIATION  
SCHEDULE 4: PURCHASED GAS COSTS  
August 2021 - October 2022

														-----Estimated <sup>(1)</sup> -----		
Commodity Costs	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Total
Citadel Energy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 434,767	\$ 448,750	\$ 416,882	\$ -	\$ -	\$ -	\$ 30,230				\$ 1,330,629
DTE Energy	\$ 54,410	\$ 55,209	\$ 62,508	\$ 93,098	\$ 96,770	\$ 51,147	\$ -	\$ -	\$ 36,265	\$ -	\$ -	\$ -				\$ 449,406
Emera Energy Services Corp.	\$ 176,055	\$ 214,622	\$ 318,473	\$ 642,889	\$ 1,185,284	\$ 2,127,443	\$ 2,073,780	\$ 2,478,915	\$ 1,367,635	\$ 1,276,983	\$ 1,068,077	\$ 734,868				\$ 13,665,023
Repsol	\$ 60,239	\$ 58,817	\$ 62,507	\$ 88,577	\$ 108,741	\$ 419,445	\$ 1,920,023	\$ 1,021,527	\$ 427,034	\$ -	\$ -	\$ -				\$ 4,166,909
Shell	\$ -	\$ 9,855	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 9,855
Subtotal - Commodity	\$ 290,705	\$ 338,503	\$ 443,488	\$ 824,563	\$ 1,390,795	\$ 3,032,802	\$ 4,442,552	\$ 3,917,324	\$ 1,830,934	\$ 1,276,983	\$ 1,068,077	\$ 765,098				\$ 19,621,823
Transportation																
Granite	\$ 101	\$ 116	\$ 126	\$ 254	\$ 419	\$ 648	\$ 507	\$ 304	\$ 187	\$ 163	\$ 118	\$ 97				\$ 3,039
Emera	\$ 57	\$ 45	\$ 81	\$ 186	\$ 458	\$ 677	\$ 1,058	\$ 885	\$ 548	\$ 424	\$ 331	\$ 200				\$ 4,950
Emera Energy Services	\$ -	\$ -	\$ -	\$ -	\$ 1,247	\$ 1,313	\$ 2,367	\$ 1,832	\$ 2,074	\$ 12	\$ 8	\$ -				\$ 8,853
Maritimes	\$ (3,793)	\$ -	\$ -	\$ -	\$ 7,311	\$ 26,834	\$ 22,982	\$ 21,834	\$ 11,788	\$ -	\$ -	\$ -				\$ 86,956
Tennessee	\$ 2,253	\$ 1,984	\$ 1,717	\$ 1,818	\$ 1,711	\$ 2,254	\$ 2,506	\$ 2,315	\$ 2,338	\$ 2,300	\$ 2,398	\$ 2,136				\$ 25,732
Subtotal - Commodity Transportation	\$ (1,381)	\$ 2,145	\$ 1,925	\$ 2,258	\$ 11,147	\$ 31,725	\$ 29,420	\$ 27,169	\$ 16,934	\$ 2,899	\$ 2,855	\$ 2,433				\$ 129,530
Commodity Cost Estimates	\$ 340,536	\$ 445,304	\$ 826,567	\$ 1,401,523	\$ 3,024,667	\$ 4,471,277	\$ 3,944,397	\$ 1,847,812	\$ 1,281,905	\$ 1,070,814	\$ 767,435	\$ 521,844				\$ 19,944,082
Commodity Cost Reversals	\$ (293,016)	\$ (340,536)	\$ (445,304)	\$ (826,567)	\$ (1,401,523)	\$ (3,024,667)	\$ (4,471,277)	\$ (3,944,397)	\$ (1,847,812)	\$ (1,281,905)	\$ (1,070,814)	\$ (767,435)				\$ (19,715,254)
Subtotal - Estimates	\$ 47,520	\$ 104,768	\$ 381,263	\$ 574,956	\$ 1,623,144	\$ 1,446,610	\$ (526,880)	\$ (2,096,585)	\$ (565,907)	\$ (211,092)	\$ (303,379)	\$ (245,591)				\$ 40,629,693
Subtotal - Supply	\$ 336,844	\$ 445,416	\$ 826,675	\$ 1,401,777	\$ 3,025,087	\$ 4,511,138	\$ 3,945,092	\$ 1,847,908	\$ 1,281,962	\$ 1,068,790	\$ 767,553	\$ 521,940				\$ 19,980,181
Withdrawal - Underground Storage	\$ 4,228	\$ 3,114	\$ (7,135)	\$ 535,015	\$ 613,115	\$ 1,103,032	\$ 862,673	\$ 597,180	\$ 114	\$ 52	\$ (244)	\$ 140				\$ 3,711,284
ATV Reconciliation Charges	\$ (6,276)	\$ (3,079)	\$ 14,019	\$ 48,546	\$ (55,137)	\$ (246,204)	\$ (161,610)	\$ (15,690)	\$ 34,491	\$ -	\$ -	\$ -				\$ (390,939)
Off System Sales	\$ -	\$ -	\$ -	\$ (33,131)	\$ (19,114)	\$ -	\$ -	\$ (713,954)	\$ (256,926)	\$ (13,782)	\$ -	\$ -				\$ (1,036,906)
Net OBA Adjustment	\$ (4,169)	\$ 558	\$ 504	\$ (1,065)	\$ (707)	\$ (16,308)	\$ (18,106)	\$ (26,245)	\$ (16,203)	\$ (3,330)	\$ (1,199)	\$ (76)				\$ (86,346)
Company Managed	\$ -	\$ -	\$ -	\$ -	\$ (150,524)	\$ (151,331)	\$ -	\$ (397,607)	\$ (133,072)	\$ -	\$ -	\$ -				\$ (832,534)
LNG Withdrawal / Boiloff	\$ 2,139	\$ 2,101	\$ 1,669	\$ 1,568	\$ 5,186	\$ 65,575	\$ 19,965	\$ (943)	\$ 3,446	\$ 2,817	\$ 2,959	\$ 2,865				\$ 109,345
Supplier Balancing	\$ -	\$ (16,467)	\$ 659	\$ (79,193)	\$ 30,458	\$ 147,211	\$ -	\$ 733,243	\$ 65,326	\$ 7,695	\$ 22,608	\$ 36,550				\$ 948,091
Inventory Finance Charge	\$ 118	\$ 139	\$ 174	\$ 213	\$ 230	\$ 180	\$ 102	\$ 68	\$ 78	\$ 187	\$ 335	\$ 533				\$ 2,357
Subtotal - Other Commodity	\$ (3,959)	\$ (13,634)	\$ 9,890	\$ 471,953	\$ 423,507	\$ 902,154	\$ 703,023	\$ 176,053	\$ (302,746)	\$ (6,361)	\$ 24,460	\$ 40,012				\$ 2,424,351
Sales for Resale Estimates	\$ -	\$ -	\$ (33,146)	\$ (169,638)	\$ (151,331)	\$ (168,932)	\$ (942,629)	\$ (389,998)	\$ (13,782)	\$ -	\$ -	\$ -				\$ (1,869,456)
Sales for Resale Reversals	\$ -	\$ -	\$ -	\$ 33,146	\$ 169,638	\$ 151,331	\$ 168,932	\$ 942,629	\$ 389,998	\$ 13,782	\$ -	\$ -				\$ 1,869,456
Subtotal - Estimates	\$ -	\$ -	\$ (33,146)	\$ (136,492)	\$ 18,306	\$ (17,601)	\$ (773,697)	\$ 552,630	\$ 376,216	\$ 13,782	\$ -	\$ -				\$ -
Total Commodity Costs	\$ 332,885	\$ 431,782	\$ 803,419	\$ 1,737,238	\$ 3,466,900	\$ 5,395,691	\$ 3,874,419	\$ 2,576,591	\$ 1,355,432	\$ 1,076,211	\$ 792,012	\$ 561,952	\$ 910,677	\$ 1,076,126	\$ 1,787,068	\$ 26,178,403

(1) Monthly estimates provided in Table 2 of Northern's August 2022 Monthly Cost of Gas Report, submitted in DG 21-131 on August 12, 2022. Estimates updated for September 7, 2022 NYMEX prices



NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
2021-22 ANNUAL COG RECONCILIATION  
SCHEDULE 4: PURCHASED GAS COSTS  
August 2021 - October 2022

Demand Costs	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Total
-----Estimated <sup>(1)</sup> -----																
Pipeline Reservation																
Alberta Northeast	\$ 5,836	\$ 4,195	\$ 4,381	\$ 3,926	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 18,337
Algonquin	\$ 189,780	\$ 189,780	\$ 189,784	\$ 189,784	\$ 188,762	\$ 190,281	\$ 190,257	\$ 190,105	\$ 190,101	\$ 190,248	\$ 182,497	\$ 190,295				\$ 2,271,674
Emera	\$ 428,069	\$ 425,072	\$ 437,606	\$ 424,971	\$ 415,710	\$ 428,192	\$ 422,117	\$ 431,121	\$ 427,337	\$ 422,750	\$ 418,881	\$ 420,526				\$ 5,102,352
Emera Energy Services LLC	\$ -	\$ -	\$ 5,164	\$ 2,102	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ -
Granite State	\$ 179,428	\$ 188,483	\$ 188,436	\$ 295,526	\$ 295,526	\$ 295,526	\$ 295,526	\$ 295,526	\$ 295,526	\$ 188,943	\$ 188,943	\$ 188,943				\$ 2,896,332
Iroquois	\$ 14,060	\$ 14,060	\$ 14,060	\$ 14,060	\$ 14,098	\$ 14,098	\$ 14,098	\$ 14,098	\$ 14,098	\$ 14,098	\$ 14,098	\$ 14,098				\$ 169,023
Maritimes	\$ 41,033	\$ 41,033	\$ 40,816	\$ 40,231	\$ 41,144	\$ 41,144	\$ 41,144	\$ 41,144	\$ 41,144	\$ 41,144	\$ 41,144	\$ 41,144				\$ 411,444
Portland	\$ 393,492	\$ 393,493	\$ 385,262	\$ 391,390	\$ 390,838	\$ 393,890	\$ 393,890	\$ 384,732	\$ 393,890	\$ 390,838	\$ 393,890	\$ 390,838				\$ 4,696,443
Tennessee	\$ 132,065	\$ 132,065	\$ 132,065	\$ 132,065	\$ 129,546	\$ 129,546	\$ 129,546	\$ 129,546	\$ 129,546	\$ 129,546	\$ 129,546	\$ 129,546				\$ 1,564,627
Texas Eastern	\$ 2,787	\$ 2,793	\$ 2,793	\$ 2,793	\$ 2,801	\$ 2,796	\$ 2,796	\$ 4,570	\$ 4,570	\$ 4,792	\$ 4,792	\$ 4,792				\$ 43,073
Total Pipeline Reservation	\$ 1,386,551	\$ 1,390,973	\$ 1,400,367	\$ 1,496,849	\$ 1,478,424	\$ 1,495,472	\$ 1,489,373	\$ 1,490,841	\$ 1,496,211	\$ 1,382,358	\$ 1,373,791	\$ 1,380,181				\$ 17,261,390
Product Demand																
Excelon	\$ -	\$ -	\$ -	\$ -	\$ 145,596	\$ 145,596	\$ 145,596	\$ 145,596	\$ 145,596	\$ -	\$ -	\$ -				\$ 727,982
Repsol	\$ 327,778	\$ 327,778	\$ 327,778	\$ 327,778	\$ 328,660	\$ 328,660	\$ 328,660	\$ 328,660	\$ 328,660	\$ 328,660	\$ 328,660	\$ 328,660				\$ 3,940,393
Total Product Demand	\$ 327,778	\$ 327,778	\$ 327,778	\$ 327,778	\$ 474,257	\$ 474,257	\$ 474,257	\$ 474,257	\$ 474,257	\$ 328,660	\$ 328,660	\$ 328,660				\$ 4,668,376
Storage Pipeline Transportation and Demand Reservation																
Emera	\$ 96,749	\$ 96,749	\$ 96,749	\$ 96,749	\$ 97,010	\$ 97,010	\$ 97,010	\$ 97,010	\$ 97,010	\$ 97,010	\$ 97,010	\$ 97,010				\$ 1,163,075
Tennessee	\$ 4,169	\$ 4,169	\$ 4,169	\$ 4,169	\$ 4,087	\$ 4,087	\$ 4,087	\$ 4,087	\$ 4,087	\$ 4,087	\$ 4,087	\$ 4,087				\$ 49,369
Total Storage & Demand Reservation	\$ 100,918	\$ 100,918	\$ 100,918	\$ 100,918	\$ 101,096	\$ 101,096	\$ 101,096	\$ 101,096	\$ 101,096	\$ 101,096	\$ 101,096	\$ 101,096				\$ 1,212,444
Demand Cost Estimates	\$ 1,358,704	\$ 1,353,020	\$ 1,368,022	\$ 1,522,892	\$ 1,505,894	\$ 1,516,102	\$ 1,503,274	\$ 1,511,785	\$ 983,476	\$ 978,047	\$ 981,815	\$ 975,293				\$ 15,558,325
Demand Cost Reversals	\$ (1,361,208)	\$ (1,358,704)	\$ (1,353,020)	\$ (1,368,022)	\$ (1,522,892)	\$ (1,505,894)	\$ (1,516,102)	\$ (1,503,274)	\$ (1,511,785)	\$ (983,476)	\$ (978,047)	\$ (981,815)				\$ (15,944,240)
Subtotal	\$ (2,504)	\$ (5,684)	\$ 15,002	\$ 154,870	\$ (16,999)	\$ 10,208	\$ (12,828)	\$ 8,511	\$ (528,308)	\$ (5,429)	\$ 3,768	\$ (6,522)				\$ (385,915)
Capacity Release <sup>(2)</sup>	\$ (713,889)	\$ (715,524)	\$ (715,070)	\$ (732,389)	\$ (712,179)	\$ (727,500)	\$ (726,347)	\$ (708,972)	\$ (729,577)	\$ (1,078,405)	\$ (1,082,634)	\$ (1,074,141)				\$ (9,716,627)
Company Managed	\$ -	\$ (24,425)	\$ -	\$ (24,134)	\$ (54,780)	\$ (55,644)	\$ -	\$ (109,596)	\$ (55,718)	\$ (55,816)	\$ (10,831)	\$ (10,740)				\$ -
Other A&G Allowance	\$ -	\$ -	\$ -	\$ 35,756	\$ 35,756	\$ 35,756	\$ 35,756	\$ 35,756	\$ 35,756	\$ -	\$ -	\$ -				\$ 214,538
Local Production and Storage Allowance	\$ 18,154	\$ 18,154	\$ 19,137	\$ 81,450	\$ 81,450	\$ 81,450	\$ 81,450	\$ 81,450	\$ 81,450	\$ 20,529	\$ 20,529	\$ 20,529				\$ 605,732
Conversion & Re-entry Fees	\$ (1)	\$ (2)	\$ (3)	\$ (4)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ (9)
Fuel Tax Recovery	\$ -	\$ -	\$ -	\$ -	\$ 622	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,458				\$ 4,080
Outage Replacement Costs	\$ -	\$ -	\$ -	\$ 7,240	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 335	\$ -	\$ -				\$ -
Total Indirect Demand Costs	\$ (695,736)	\$ (721,798)	\$ (695,936)	\$ (632,079)	\$ (649,131)	\$ (665,937)	\$ (609,140)	\$ (701,362)	\$ (668,088)	\$ (1,113,357)	\$ (1,072,936)	\$ (1,060,894)				\$ (9,286,393)
Estimates - Cap Release & Comp Managed	\$ (9,294)	\$ (9,117)	\$ (9,017)	\$ (51,780)	\$ (52,644)	\$ (51,807)	\$ (51,789)	\$ (52,718)	\$ (52,816)	\$ (7,831)	\$ (7,740)	\$ (7,842)				\$ (364,394)
Reversals - Cap Release & Comp Managed	\$ 9,131	\$ 9,294	\$ 9,117	\$ 9,017	\$ 51,780	\$ 52,644	\$ 51,807	\$ 51,789	\$ 52,718	\$ 52,816	\$ 7,831	\$ 7,740				\$ 365,683
Subtotal	\$ (164)	\$ 178	\$ 99	\$ (42,763)	\$ (864)	\$ 836	\$ 18	\$ (929)	\$ (97)	\$ 44,985	\$ 91	\$ (102)				\$ 1,289
Annual Demand Costs	\$ 1,116,843	\$ 1,092,365	\$ 1,148,229	\$ 1,405,574	\$ 1,386,783	\$ 1,415,933	\$ 1,442,776	\$ 1,372,414	\$ 875,070	\$ 738,313	\$ 734,471	\$ 742,419	\$ 741,365	\$ 741,365	\$ 741,365	\$ 15,695,283
Total Gas Costs	\$ 1,449,728	\$ 1,524,147	\$ 1,951,648	\$ 3,142,812	\$ 4,853,683	\$ 6,811,624	\$ 5,317,195	\$ 3,949,005	\$ 2,230,502	\$ 1,814,523	\$ 1,526,484	\$ 1,304,370	\$ 1,652,041	\$ 1,817,491	\$ 2,528,433	\$ 41,873,686

(1) Monthly estimates provided in Table 2 of Northern's August 2022 Monthly Cost of Gas Report, submitted in DG 21-131 on August 12, 2022. Estimates updated for September 7, 2022 NYMEX prices

(2) Includes Asset Management Agreement Revenue

REDACTED

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
2021-22 ANNUAL COG RECONCILIATION  
COST OF GAS ADJUSTMENT - FORM III, Schedule 4 - UNITS  
August 2021 - October 2022

Indicates Confidential Data

Commodity Volumes:	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	<u>Dec-21</u>	<u>Jan-22</u>	<u>Feb-22</u>	<u>Mar-22</u>	<u>Apr-22</u>	<u>May-22</u>	<u>Jun-22</u>	<u>Jul-22</u>	<u>Aug-22</u>	<u>Sep-22</u>	<u>Oct-22</u>	<u>Total</u>
Citadel Energy																
DTE Energy																
Emera Energy Services Corp.																
Repsol																
Shell																
Subtotal - Commodity Supply																
<b><u>Transportation Volumes</u></b>																
Granite																
Emera																
Emera Energy Services																
Maritimes																
Tennessee																
Subtotal - Commodity Transportation																
Commodity Volume Estimates																
Commodity Volume Reversals																
Subtotal - Estimates																
Subtotal - Supply																
Withdrawal - Underground Storage																
ATV Reconciliation Charges																
Off System Sales																
Net OBA Adjustment																
Company Managed																
LNG Withdrawal / Boiloff																
Supplier Balancing																
Inventory Finance Charge																
Subtotal - Other Commodity																
Sales for Resale Estimates																
Sales for Resale Reversals																
Subtotal - Estimates																
<b>Total Commodity Volumes</b>													109,042	120,812	236,943	

(1) Monthly estimates provided in Table 2 of Northern's August 2022 Monthly Cost of Gas Report, submitted in DG 21-131 on August 12, 2022. Estimates updated for September 7, 2022 NYMEX prices

**NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION**  
**2021-22 ANNUAL COG RECONCILIATION**  
**COST OF GAS ADJUSTMENT - FORM III, Schedule 4 - IN COST PER UNIT**  
**August 2021 - October 2022**

Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Total
												\$ -	\$ -	\$ -	
												n/a	n/a	n/a	
												n/a	n/a	n/a	
												n/a	n/a	n/a	
												n/a	n/a	n/a	
												n/a	n/a	n/a	

New Hampshire	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Total
Throughput IN													
BTU Factor	1.03	1.031	1.032	1.035	1.038	1.045	1.041	1.032	1.033	1.033	1.03	1.03	
GST Meter Throughput (MCF)	340,320	351,408	459,510	748,758	889,474	1,261,618	1,008,910	886,100	626,997	433,341	355,913	319,407	7,681,756
Salem Meter (MCF)	13,564	14,462	21,702	46,909	65,683	93,668	70,882	57,250	35,197	19,773	14,624	12,447	466,161
GST Meter Throughput (DTH)	350,530	362,302	474,214	774,965	923,274	1,318,391	1,050,275	914,455	647,688	447,641	366,590	328,989	7,959,314
Salem Meter (DTH)	13,971	14,910	22,396	48,551	68,179	97,883	73,788	59,082	36,359	20,426	15,063	12,820	483,428
LNG/Propane													-
Total Throughput	364,501	377,212	496,611	823,515	991,453	1,416,274	1,124,063	973,537	684,046	468,067	381,653	341,810	8,442,742
Throughput OUT													
Residential Gas													
Charged	35,197	34,821	43,485	116,661	243,350	336,974	360,490	293,847	176,136	108,521	48,742	36,040	1,834,264
Uncharged Current	17,907	17,818	27,656	114,951	156,101	219,026	173,908	112,639	91,632	61,708	24,159	19,923	1,037,428
Uncharged Prior	(18,971)	(17,907)	(17,818)	(27,656)	(114,951)	(156,101)	(219,026)	(173,908)	(112,639)	(91,632)	(61,708)	(24,159)	(1,036,476)
Total Residential Gas	34,133	34,732	53,323	203,956	284,500	399,899	315,372	232,578	155,129	78,597	11,193	31,804	1,835,216
Interruptible				-	-	-	-	-	-	-	-	-	-
Commercial/Industrial Gas													
Charged	57,552	58,183	70,080	148,143	280,843	390,268	414,781	330,019	206,545	130,581	69,713	56,034	2,212,742
Uncharged Current	29,281	29,772	44,570	121,670	172,688	242,037	203,039	134,006	111,982	74,252	34,553	30,976	1,228,826
Uncharged Prior	(38,707)	(29,281)	(29,772)	(44,570)	(121,670)	(172,688)	(242,037)	(203,039)	(134,006)	(111,982)	(74,252)	(34,553)	(1,236,557)
Total C/I Gas	48,126	58,674	84,878	225,243	331,861	459,617	375,783	260,986	184,521	92,851	30,014	52,457	2,205,011
Transportation													
Charged	273,159	273,788	300,567	365,727	399,260	494,559	475,783	466,008	382,231	327,505	278,593	252,114	4,289,294
Uncharged Current	92,203	90,530	131,612	191,535	202,192	241,728	191,636	158,391	160,567	130,740	88,236	88,983	1,768,353
Uncharged Prior	(93,246)	(92,203)	(90,530)	(131,612)	(191,535)	(202,192)	(241,728)	(191,636)	(158,391)	(160,567)	(130,740)	(88,236)	(1,772,616)
Total Transportation	272,116	272,115	341,649	425,650	409,917	534,095	425,691	432,763	384,407	297,678	236,089	252,861	4,285,031
Company Use	106	116	83	64	167	298	1,231	423	834	88	389	92	

REVISED Attachment A

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
DEFERRED WORKING CAPITAL ALLOWANCE ON PURCHASED GAS COSTS  
August 2021 - October 2022

ANNUAL BALANCE SEASON - Acct 173

	<u>BEGINNING</u> <u>BALANCE</u>	<u>WORKING CAP</u> <u>ALLOWANCE (1)</u>	<u>WORKING CAP</u> <u>PERCENTAGE</u>	<u>WORKING CAP</u> <u>COLLECTIONS</u>	<u>WORKING CAP</u> <u>DEFERRED</u>	<u>ENDING</u> <u>BALANCE</u>	<u>AVE MONTHLY</u> <u>BALANCE</u>	<u>INTEREST</u> <u>RATE</u>	<u>INTEREST</u>	<u>ENDING BAL</u> <u>W/ INTEREST</u>
	A	B	C	D	E = B + D	F = A + E	G = (A + F) / 2	H	I = G * (H / 12)	K = F + I + J
August 2021	\$ (7,882)									
Adjustment	\$ 6									
August 2021	\$ (7,876)	1,293	0.0892%	620	1,913	(5,963)	(6,919)	3.25%	(19)	(5,981)
September	\$ (5,981)	1,360	0.0892%	616	1,976	(4,006)	(4,994)	3.25%	(14)	(4,019)
October	\$ (4,019)	1,741	0.0892%	899	2,640	(1,380)	(2,699)	3.25%	(7)	(1,387)
November	\$ (1,387)	2,803	0.0892%	(1,722)	1,082	(305)	(846)	3.25%	(2)	(307)
December	\$ (307)	4,329	0.0892%	(3,523)	807	499	96	3.25%	0	500
January 2022	\$ 500	6,076	0.0892%	(4,862)	1,214	1,714	1,107	3.25%	3	1,717
February	\$ 1,717	4,743	0.0892%	(4,275)	468	2,185	1,951	3.25%	5	2,190
March	\$ 2,190	3,523	0.0892%	(3,059)	463	2,654	2,422	3.25%	7	2,660
April	\$ 2,660	1,990	0.0892%	(2,009)	(19)	2,641	2,651	3.25%	7	2,648
May	\$ 2,648	1,619	0.0892%	(462)	1,156	3,805	3,227	3.25%	9	3,813
June	\$ 3,813	1,362	0.0892%	(116)	1,246	5,060	4,436	3.25%	12	5,072
July	\$ 5,072	1,432	0.1098%	(220)	1,212	6,283	5,677	4.00%	19	6,302
Estimated August	\$ 6,302	1,814	0.1098%	(1,100)	714	7,016	6,659	4.00%	22	7,038
Estimated September	\$ 7,038	1,996	0.1098%	(1,200)	796	7,834	7,436	4.00%	25	7,859
Estimated October	\$ 7,859	3,540	0.1400%	(2,200)	1,340	9,199	8,529	6.25%	44	9,243

(1) Working Capital Allowance calculated by taking monthly Total Gas Costs from Schedule 4, Page 2, and multiplying by (9.30/366)\* prime interest rate.

Winter Season Sales Percentage 80.46%  
Summer Season Sales Percentage 19.54%

Reconciliation Allocated to Winter Season \$ 7,437  
Reconciliation Allocated to Summer Season \$ 1,807

REVISED Attachment B

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
BAD DEBT EXPENSE - CALCULATION OF COLLECTION ALLOWANCE  
August 2021 - October 2022

ANNUAL BALANCE- Acct 173

	<u>BEGINNING BALANCE</u>	<u>ACUTAL BAD DEBT</u>	<u>BAD DEBT COLLECTIONS</u>	<u>DEFERRED BALANCE</u>	<u>ENDING BALANCE</u>	<u>AVE MO BALANCE</u>	<u>INTEREST RATE</u>	<u>INTEREST</u>	<u>END BAL W/ INTEREST</u>
	A	B	C	D = B + C	E = A + D	F = (A + E) / 2	G	H = (F * G) / 12	J = E + H + I
August 2021	(\$96,653)	28,289	(1,498)	26,791	(69,862)	(83,258)	3.25%	(225)	(70,088)
September	(\$70,088)	24,580	(1,487)	23,093	(46,995)	(58,541)	3.25%	(159)	(47,153)
October	(\$47,153)	5,278	(2,261)	3,017	(44,136)	(45,645)	3.25%	(124)	(44,260)
November	(\$44,260)	8,836	(8,894)	(58)	(44,318)	(44,289)	3.25%	(120)	(44,438)
December	(\$44,438)	14,798	(12,332)	2,465	(41,973)	(43,206)	3.25%	(117)	(42,090)
January 2022	(\$42,090)	(10,232)	(17,035)	(27,267)	(69,357)	(55,723)	3.25%	(151)	(69,508)
February	(\$69,508)	4,559	(14,971)	(10,412)	(79,920)	(74,714)	3.25%	(202)	(80,123)
March	(\$80,123)	10,087	(10,718)	(631)	(80,754)	(80,438)	3.25%	(218)	(80,972)
April	(\$80,972)	3,792	(7,032)	(3,240)	(84,212)	(82,592)	3.25%	(224)	(84,435)
May	(\$84,435)	3,982	835	4,817	(79,618)	(82,027)	3.25%	(222)	(79,840)
June	(\$79,840)	11,494	(3)	11,490	(68,350)	(74,095)	3.25%	(201)	(68,551)
July	(\$68,551)	15,551	50	15,601	(52,950)	(60,750)	4.00%	(203)	(53,152)
Estimated August	(\$53,152)	15,000	(850)	14,150	(39,002)	(46,077)	4.00%	(154)	(39,156)
Estimated September	(\$39,156)	15,000	(875)	14,125	(25,031)	(32,093)	4.00%	(107)	(25,138)
Estimated October	(\$25,138)	15,000	(1,000)	14,000	(11,138)	(18,138)	6.25%	(94)	(11,232)

Winter Season Allocation 95.00%  
Summer Season Allocation 5.00%

Reconciliation Allocated to Winter Season \$ (10,671)  
Reconciliation Allocated to Summer Season \$ (562)

**Attachment C**

**Northern Utilities, Inc. - New Hampshire Division  
Environmental Response Costs  
May 2021 - October 2022**

		<b>Beginning Balance</b>	<b>Firm Sales and Transportation (therms)</b>	<b>ERC Rate Recoveries /Passback</b>	<b>Current ERC Recoveries/ Passbacks</b>	<b>Ending Balance</b>
May 2021	(act)	\$ 124,683	4,655,705	\$ 0.0061	\$ 28,409	\$ 96,273.40
June 2021	(act)	\$ 96,273	2,985,287	\$ 0.0061	\$ 18,225	\$ 78,048.39
July 2021	(act)	\$ 78,048	2,992,333	\$ 0.0061	\$ 18,264	\$ 59,784.48
August 2021	(act)	\$ 59,784	2,739,797	\$ 0.0061	\$ 16,722	\$ 43,062.12
September 2021	(act)	\$ 43,062	2,699,225	\$ 0.0061	\$ 16,475	\$ 26,586.85
October 2021	(act)	\$ 26,587	3,205,050	\$ 0.0061	\$ 19,518	\$ 7,068.90
November 2021	(act)	\$ 439,663 <sup>(1)</sup>	5,403,127	\$ 0.0059 <sup>(2)</sup>	\$ 31,069	\$ 408,593.38
December 2021	(act)	\$ 408,593	8,703,876	\$ 0.0056	\$ 48,743	\$ 359,849.98
January 2022	(act)	\$ 359,850	11,396,267	\$ 0.0056	\$ 63,820	\$ 296,030.31
February 2022	(act)	\$ 296,030	11,590,946	\$ 0.0056	\$ 64,913	\$ 231,117.39
March 2022	(act)	\$ 231,117	9,836,237	\$ 0.0056	\$ 55,086	\$ 176,030.99
April 2022	(act)	\$ 176,031	6,649,114	\$ 0.0056	\$ 37,236	\$ 138,795.15
May 2022	(act)	\$ 138,795	4,690,240	\$ 0.0056	\$ 26,265	\$ 112,529.85
June 2022	(act)	\$ 112,530	2,964,732	\$ 0.0056	\$ 16,612	\$ 95,917.63
July 2022	(act)	\$ 95,918	2,992,333	\$ 0.0056	\$ 14,181	\$ 81,736.95
August 2022	(est)	\$ 81,737	2,844,678	\$ 0.0056	\$ 15,930	\$ 65,807
September 2022	(est)	\$ 65,807	2,905,960	\$ 0.0056	\$ 16,273	\$ 49,533
October 2022	(est)	\$ 49,533	3,974,739	\$ 0.0056	\$ 22,259	\$ 27,275

(1) November Beginning Balance includes \$421,540 amortization from all prior years at 1/7 of annual costs.  
(See Section 4.7 of Tariff.)

(2) November Current ERC Recoveries/Passbacks reflect an Average ERC Rate based on actual Firm Sales and Transportation (therms) at \$0.0056 and actual Firm Sales and Transportation (therms) at \$0.0061.

Attachment D

NORTHERN UTILITIES  
NEW HAMPSHIRE DIVISION  
RLIARA Reconciliation  
May 2021 - October 2022

		<u>Beginning Balance</u>	<u>Program Costs</u>	<u>Regulatory Assessments</u>	<u>RLIARA Recoveries</u>	<u>Ending Balance</u>	<u>Average Monthly Balance</u>	<u>Interest Rate</u>	<u>Interest</u>	<u>Ending Balance w/Interest</u>
		A	B	C	D	E = A+B+C-D	F = (A+E)/2	G	H = F*(G/12)	I = E+H
May 2021	Actual	\$ 46,388	\$ 16,330	\$ 6,893	\$ 20,483	\$ 49,127	\$ 47,757	3.25%	\$ 129	\$ 49,257
June 2021	Actual	\$ 49,257	\$ 756	\$ 6,893	\$ 13,128	\$ 43,777	\$ 46,517	3.25%	\$ 126	\$ 43,903
July 2021	Actual	\$ 43,903	\$ -	\$ 6,893	\$ 13,163	\$ 37,633	\$ 40,768	3.25%	\$ 110	\$ 37,744
August 2021	Actual	\$ 37,744	\$ -	\$ 6,893	\$ 12,052	\$ 32,585	\$ 35,164	3.25%	\$ 95	\$ 32,680
September 2021	Actual	\$ 32,680	\$ -	\$ 6,893	\$ 11,873	\$ 27,700	\$ 30,190	3.25%	\$ 82	\$ 27,782
October 2021	Actual	\$ 27,782	\$ -	\$ 6,893	\$ 14,187	\$ 20,488	\$ 24,135	3.25%	\$ 65	\$ 20,554
November 2021	Actual	\$ 20,554	\$ 6,085	\$ 6,893	\$ 29,823	\$ 3,709	\$ 12,131	3.25%	\$ 33	\$ 3,742
December 2021	Actual	\$ 3,742	\$ 49,453	\$ (17,524)	\$ 52,223	\$ (16,552)	\$ (6,405)	3.25%	\$ (17)	\$ (16,570)
January 2022	Actual	\$ (16,570)	\$ 59,907	\$ 15,279	\$ 68,394	\$ (9,778)	\$ (13,174)	3.25%	\$ (36)	\$ (9,813)
February 2022	Actual	\$ (9,813)	\$ 65,169	\$ 15,279	\$ 69,548	\$ 1,087	\$ (4,363)	3.25%	\$ (12)	\$ 1,075
March 2022	Actual	\$ 1,075	\$ 69,903	\$ 15,279	\$ 59,016	\$ 27,242	\$ 14,159	3.25%	\$ 38	\$ 27,280
April 2022	Actual	\$ 27,280	\$ 49,438	\$ 15,279	\$ 39,734	\$ 52,263	\$ 39,772	3.25%	\$ 108	\$ 52,371
May 2022	Actual	\$ 52,371	\$ 23,931	\$ -	\$ 19,779	\$ 56,523	\$ 54,447	3.25%	\$ 147	\$ 56,671
June 2022	Actual	\$ 56,671	\$ -	\$ -	\$ 9,792	\$ 46,879	\$ 51,775	3.25%	\$ 140	\$ 47,019
July 2022	Actual	\$ 47,019	\$ -	\$ -	\$ 8,335	\$ 38,684	\$ 42,852	4.00%	\$ 143	\$ 38,827
August 2022	Est.	\$ 38,827	\$ -	\$ (61,116)	\$ 9,387	\$ (31,677)	\$ 3,575	4.00%	\$ 12	\$ (31,665)
September 2022	Est.	\$ (31,665)	\$ -	\$ -	\$ 9,590	\$ (41,254)	\$ (36,460)	4.00%	\$ (122)	\$ (41,376)
October 2022	Est.	\$ (41,376)	\$ -	\$ -	\$ 13,117	\$ (54,493)	\$ (47,934)	4.00%	\$ (160)	\$ (54,652)

(1) RLIAP renamed GAPRA and subsequently renamed GAP when Regulatory Assessments were removed to the RAAM.



[illegible]

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
SALES VARIANCE ANALYSIS

	<u>NORMAL MMBtu</u>			<u>METERS</u>		
	2021-22 Forecast	2021-22 Actual	Difference	2021-22 Forecast	2021-22 Actual	Difference
Res Heat	2,006,153	1,809,996	(196,157)	315,704	329,377	13,673
Res General	23,230	24,270	1,039	15,014	15,472	458
Total Res	2,029,383	1,834,265	(195,117)	330,718	344,849	14,131
G-40	972,370	891,276	(81,093)	53,776	56,201	2,425
G-50	148,423	150,543	2,119	8,875	9,154	279
G-41	737,039	670,532	(66,506)	4,942	4,547	(395)
G-51	241,080	256,939	15,859	1,891	1,754	(137)
G-42	145,782	174,692	28,909	131	162	32
G-52	73,153	68,761	(4,392)	29	36	7
Total C & I	2,317,847	2,212,743	(105,104)	69,643	71,854	2,211
Total Company	4,347,230	4,047,008	(300,222)	400,361	416,703	16,342

	<u>NORMAL AVERAGE USE</u>			<u>Change in Sales Due to</u>		<u>Total Chg MMBtu</u>	<u>% Difference</u>
	2021-22 Forecast	2021-22 Actual	Difference	<u>Change In:</u>	<u>Meter Count Load Pattern</u>		
Res Heat	6.35	5.50	(0.86)	86,886	(283,042)	(196,157)	-9.78%
Res General	1.55	1.57	0.02	709	331	1,039	4.47%
Total Res	7.90	7.06	(0.84)	87,594	(282,712)	(195,117)	-9.61%
G-40	18.08	15.86	(2.22)	43,844	(124,937)	(81,093)	-8.34%
G-50	16.72	16.45	(0.28)	4,662	(2,542)	2,119	1.43%
G-41	149.14	147.47	(1.67)	(58,909)	(7,597)	(66,506)	-9.02%
G-51	127.52	146.49	18.97	(17,407)	33,265	15,859	6.58%
G-42	1,117.10	1,078.34	(38.76)	35,189	(6,279)	28,909	19.83%
G-52	2,544.45	1,910.03	(634.42)	18,447	(22,839)	(4,392)	-6.00%
Total C & I	33.28	30.79	(2.49)	25,825	(130,930)	(105,104)	-4.53%
Total Company	10.86	9.71	(1.15)	113,420	(413,641)	(300,222)	-6.91%

Northern Utilities, Inc.  
Winter and Summer Season Reconciliations

Section A

April 30, 2022 COG Balance - All components		
1 Actual	-\$5,786,471	Sum of Schedule 2, Atts A & B
2 Target Balance	-\$5,202,006	Table 3 - Monthly COG Reports
3		
4 Total Over-collection - All Components	-\$584,465	LN 2 - LN 1
5 Less Working Capital Balance	\$2,648	Attachment A
6 Less Bad Debt Balance	-\$84,435	Attachment B
7		
8 Demand & Commodity Over-collection	-\$502,678	LN 4 - Ln 5 - LN 6
9		
10 AMA Adjustment	-\$2,247,007	LN 26
11		
12 Interest	-\$7,490	LN 20 - Section B October
13		
14 Winter Demand & Commodity Balance	-\$2,757,176	LN 8 + LN 10 + LN 12
15		
16 Annual Reconciliation Balance	-\$2,663,062	Schedule 1
17		
18 Summer Reconciliation Balance	\$94,114	LN 16 - LN 14
19		
20 Monthly AMA Revenue		
21 April 21 to March 22	\$339,731	Annual Revenue / 12
22 April 22 to March 23	\$714,232	Annual Revenue / 12
23		
24 Monthly Increase in AMA Revenue	\$374,501	LN 22- LN 21
25		
26 AMA revenue impact May to Oct	\$2,247,007	LN 24 * 6

Section B

AMA Adjustment & Interest

	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Total
Starting balance	\$0.00	\$1,014.27	\$2,028.55	\$3,276.89	\$4,525.22	\$5,773.56	
AMA Adjustment	\$374,501	\$374,501	\$374,501	\$374,501	\$374,501	\$374,501	\$2,247,007
Interest Rate	3.25%	3.25%	4.00%	4.00%	4.00%	5.50%	
Monthly Interest	\$1,014.27	\$1,014.27	\$1,248.34	\$1,248.34	\$1,248.34	\$1,716.46	
Total interest	\$1,014.27	\$2,028.55	\$3,276.89	\$4,525.22	\$5,773.56	\$7,490.02	

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

Sales Revenues	Oct-22	Winter						Summer					
		(Forecast) Nov-22	(Forecast) Dec-22	(Forecast) Jan-23	(Forecast) Feb-23	(Forecast) Mar-23	(Forecast) Apr-23	(Forecast) May-23	(Forecast) Jun-23	(Forecast) Jul-23	(Forecast) Aug-23	(Forecast) Sep-23	(Forecast) Oct-23
Volumes													
Residential Heat & Non Heat		2,220,775	3,207,847	3,784,334	3,243,890	2,759,086	1,590,808	788,321	510,680	436,331	439,981	488,035	985,408
Sales HLF Classes		382,966	553,184	652,597	559,399	475,796	274,330	476,611	308,752	263,801	266,008	295,061	595,768
Sales LLF Classes		2,088,065	3,016,150	3,558,187	3,050,039	2,594,207	1,495,743	598,639	387,802	331,343	334,115	370,606	748,304
Total		4,691,806	6,777,181	7,995,118	6,853,328	5,829,089	3,360,882	1,863,572	1,207,233	1,031,474	1,040,103	1,153,702	2,329,480
Rates													
Residential Heat & Non Heat CGA		\$ 1.1289	\$ 1.1289	\$ 1.1289	\$ 1.1289	\$ 1.1289	\$ 1.1289	\$ 0.6916	\$ 0.6916	\$ 0.6916	\$ 0.6916	\$ 0.6916	\$ 0.6916
Sales HLF Classes CGA		\$ 1.0536	\$ 1.0536	\$ 1.0536	\$ 1.0536	\$ 1.0536	\$ 1.0536	\$ 0.6331	\$ 0.6331	\$ 0.6331	\$ 0.6331	\$ 0.6331	\$ 0.6331
Sales LLF Classes CGA		\$ 1.1428	\$ 1.1428	\$ 1.1428	\$ 1.1428	\$ 1.1428	\$ 1.1428	\$ 0.7383	\$ 0.7383	\$ 0.7383	\$ 0.7383	\$ 0.7383	\$ 0.7383
Revenues													
Residential Heat & Non Heat		\$ (2,507,033)	\$ (3,621,339)	\$ (4,272,134)	\$ (3,662,027)	\$ (3,114,733)	\$ (1,795,863)	\$ (545,203)	\$ (353,186)	\$ (301,766)	\$ (304,291)	\$ (337,525)	\$ (681,508)
Sales HLF Classes		\$ (403,493)	\$ (582,834)	\$ (687,576)	\$ (589,383)	\$ (501,299)	\$ (289,034)	\$ (301,743)	\$ (195,471)	\$ (167,012)	\$ (168,410)	\$ (186,803)	\$ (377,181)
Sales LLF Classes		\$ (2,386,240)	\$ (3,446,857)	\$ (4,066,296)	\$ (3,485,585)	\$ (2,964,660)	\$ (1,709,336)	\$ (441,975)	\$ (286,314)	\$ (244,630)	\$ (246,677)	\$ (273,619)	\$ (552,473)
Total Sales		\$ (5,296,767)	\$ (7,651,030)	\$ (9,026,007)	\$ (7,736,995)	\$ (6,580,691)	\$ (3,794,233)	\$ (1,288,921)	\$ (834,971)	\$ (713,409)	\$ (719,377)	\$ (797,947)	\$ (1,611,162)
Gas Costs and Credits	Oct-22	Winter						Summer					
		(Forecast) Nov-22	(Forecast) Dec-22	(Forecast) Jan-23	(Forecast) Feb-23	(Forecast) Mar-23	(Forecast) Apr-23	(Forecast) May-23	(Forecast) Jun-23	(Forecast) Jul-23	(Forecast) Aug-23	(Forecast) Sep-23	(Forecast) Oct-23
Demand Costs (net of Capacity Assignment)													
Pipeline		\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837
Storage		\$ 645,439	\$ 645,439	\$ 645,439	\$ 645,439	\$ 645,439	\$ 701,106	\$ 699,734	\$ 699,734	\$ 699,734	\$ 699,734	\$ 699,734	\$ 699,734
On-system Peaking		\$ 196,790	\$ 196,790	\$ 196,790	\$ 196,790	\$ 196,790	\$ 83,527	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Off-System Peaking		\$ 752,299	\$ 752,299	\$ 752,299	\$ 752,299	\$ 752,299	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Demand Costs		\$ 2,212,365	\$ 2,212,365	\$ 2,212,365	\$ 2,212,365	\$ 2,212,365	\$ 1,402,470	\$ 1,317,571	\$ 1,317,571	\$ 1,317,571	\$ 1,317,571	\$ 1,317,571	\$ 1,317,571
Asset Management and Capacity Release													
NUI AMA Revenue		\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)
NUI Capacity Release		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NUI AMA Rev & Cap. Release Subtotal		\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)
NH AMA Revenue		\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)
NH Capacity Release		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NH Total Asset Management and Capacity Release		\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)
Re-entry Rate & Conversion Rate Revenue		\$ (1,000)	\$ (1,000)	\$ (1,000)	\$ (1,000)	\$ (1,000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Demand Costs		\$ 1,497,133	\$ 1,497,133	\$ 1,497,133	\$ 1,497,133	\$ 1,497,133	\$ 688,238	\$ 603,339	\$ 603,339	\$ 603,339	\$ 603,339	\$ 603,339	\$ 603,339
NUI Commodity Costs													
NUI Total Pipeline Volumes		577,049	1,131,026	1,155,723	1,098,878	1,043,990	1,029,309	576,044	394,175	355,581	356,908	382,828	657,694
Pipeline Costs Modeled in Sendout™		\$ 4,653,001	\$ 10,571,190	\$ 13,045,845	\$ 12,266,039	\$ 8,070,275	\$ 5,398,884	\$ 2,798,684	\$ 1,860,832	\$ 1,715,991	\$ 1,710,505	\$ 1,714,809	\$ 3,185,675
NYMEX Price Used for Forecast		\$ 7.9010	\$ 8.0350	\$ 8.1150	\$ 7.8180	\$ 6.7050	\$ 5.3520	\$ 5.2190	\$ 5.2780	\$ 5.3400	\$ 5.3570	\$ 5.3450	\$ 5.4110
NYMEX Price Used for Update		\$ 7.9010	\$ 8.0350	\$ 8.1150	\$ 7.8180	\$ 6.7050	\$ 5.3520	\$ 5.2190	\$ 5.2780	\$ 5.3400	\$ 5.3570	\$ 5.3450	\$ 5.4110
Increase/(Decrease) NYMEX Price		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Increase/(Decrease) in Pipeline Costs		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Updated Pipeline Costs		\$ 4,653,001	\$ 10,571,190	\$ 13,045,845	\$ 12,266,039	\$ 8,070,275	\$ 5,398,884	\$ 2,798,684	\$ 1,860,832	\$ 1,715,991	\$ 1,710,505	\$ 1,714,809	\$ 3,185,675
New Hampshire Allocated Percentage		37.57%	38.38%	38.18%	37.58%	36.63%	32.91%	32.56%	30.79%	29.14%	29.27%	30.29%	35.66%
NH Updated Pipeline Costs		\$ 1,747,920	\$ 4,057,370	\$ 4,981,153	\$ 4,610,118	\$ 2,956,075	\$ 1,776,991	\$ 911,334	\$ 572,880	\$ 500,037	\$ 500,749	\$ 519,400	\$ 1,136,170
NH Peaking Volumes													
NH Peaking Costs Modeled in Sendout													
Change in NYMEX Price													
Change in Peaking Costs													
NH Updated Peaking Costs													
NH Commodity Costs													
Pipeline		\$ 1,747,920	\$ 4,057,370	\$ 4,981,153	\$ 4,610,118	\$ 2,956,075	\$ 1,776,991	\$ 911,334	\$ 572,880	\$ 500,037	\$ 500,749	\$ 519,400	\$ 1,136,170
Storage		\$ 1,899,820	\$ 1,819,825	\$ 2,116,343	\$ 2,008,342	\$ 1,530,128	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Peaking		\$ 12,665	\$ 207,187	\$ 1,492,494	\$ 374,558	\$ 38,253	\$ 31,486	\$ 28,957	\$ 26,294	\$ 25,718	\$ 25,837	\$ 25,362	\$ 30,741
Total Commodity Costs		\$ 3,660,406	\$ 6,084,382	\$ 8,589,990	\$ 6,993,018	\$ 4,524,456	\$ 1,808,478	\$ 940,290	\$ 599,174	\$ 525,755	\$ 526,586	\$ 544,761	\$ 1,166,911
Inventory Finance Charge		\$ 799	\$ 1,243	\$ 1,507	\$ 1,281	\$ 1,038	\$ 514	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Anticipated Direct Cost of Gas		\$ 5,158,338	\$ 7,582,758	\$ 10,088,629	\$ 8,491,433	\$ 6,022,627	\$ 2,497,230	\$ 1,543,629	\$ 1,202,513	\$ 1,129,093	\$ 1,129,924	\$ 1,148,100	\$ 1,770,249

**Northern Utilities**  
**NEW HAMPSHIRE (Over) / Undercollection Anal**

<b>Sales Revenues</b>				
Volumes	Winter	Summer	Prior Period	Total
Residential Heat & Non Heat				20,455,496
Sales HLF Classes				5,104,273
Sales LLF Classes				18,573,201
<b>Total</b>	<b>35,507,405</b>	<b>8,625,565</b>		<b>44,132,969</b>
Rates				
Residential Heat & Non Heat CGA				
Sales HLF Classes CGA				
Sales LLF Classes CGA				
Revenues				
Residential Heat & Non Heat				\$ (21,496,609)
Sales HLF Classes				\$ (4,450,239)
Sales LLF Classes				\$ (20,104,661)
<b>Total Sales</b>	<b>\$ (40,085,722)</b>	<b>\$ (5,965,786)</b>		<b>\$ (46,051,509)</b>
<b>Gas Costs and Credits</b>				
				Total
Demand Costs (net of Capacity Assignment)				
Pipeline	\$ 3,707,022	\$ 3,707,022		\$ 7,414,044
Storage	\$ 3,928,299	\$ 4,198,402		\$ 8,126,701
On-system Peaking	\$ 1,067,478	\$ -		\$ 1,067,478
Off-System Peaking	\$ 3,761,497	\$ -		\$ 3,761,497
<b>Total Demand Costs</b>	<b>\$ 12,464,296</b>	<b>\$ 7,905,424</b>		<b>\$ 20,369,720</b>
Asset Management and Capacity Release				
NUI AMA Revenue				\$ (20,934,600)
NUI Capacity Release				\$ -
NUI AMA Rev & Cap. Release Subtotal				\$ -
NH AMA Revenue				\$ (8,570,786)
NH Capacity Release				\$ -
<b>NH Total Asset Management and Capacity Release</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ (8,570,786)</b>
Re-entry Rate & Conversion Rate Revenue	\$ (5,000)	\$ -		\$ (5,000)
<b>Net Demand Costs</b>	<b>\$ 8,173,903</b>	<b>\$ 3,620,031</b>		<b>\$ 11,793,935</b>
NUI Commodity Costs				
NUI Total Pipeline Volumes				
Pipeline Costs Modeled in Sendout™				
NYMEX Price Used for Forecast				
NYMEX Price Used for Update				
Increase/(Decrease) NYMEX Price				
Increase/(Decrease) in Pipeline Costs				
Updated Pipeline Costs				
New Hampshire Allocated Percentage				
<b>NH Updated Pipeline Costs</b>				<b>\$ 24,270,196</b>
NH Peaking Volumes				
NH Peaking Costs Modeled in Sendout				
Change in NYMEX Price				
Change in Peaking Costs				
<b>NH Updated Peaking Costs</b>				<b>\$ -</b>
NH Commodity Costs				
Pipeline				\$ 24,270,196
Storage				\$ 9,374,458
Peaking				\$ 2,319,552
<b>Total Commodity Costs</b>	<b>\$ 31,660,730</b>	<b>\$ 4,303,477</b>		<b>\$ 35,964,206</b>
Inventory Finance Charge	\$ 6,382	\$ -		\$ 6,382
<b>Total Anticipated Direct Cost of Gas</b>	<b>\$ 39,841,015</b>	<b>\$ 7,923,508</b>		<b>\$ 47,764,523</b>

## Northern Utilities

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

	Oct-22	Winter						Summer					
		(Forecast) Nov-22	(Forecast) Dec-22	(Forecast) Jan-23	(Forecast) Feb-23	(Forecast) Mar-23	(Forecast) Apr-23	(Forecast) May-23	(Forecast) Jun-23	(Forecast) Jul-23	(Forecast) Aug-23	(Forecast) Sep-23	(Forecast) Oct-23
Working Capital													
Total Anticipated Direct Cost of Gas		\$ 5,158,338	\$ 7,582,758	\$ 10,088,629	\$ 8,491,433	\$ 6,022,627	\$ 2,497,230	\$ 1,543,629	\$ 1,202,513	\$ 1,129,093	\$ 1,129,924	\$ 1,148,100	\$ 1,770,249
Working Capital Percentage		0.1398%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%
Working Capital Allowance		\$ 7,209	\$ 10,597	\$ 14,099	\$ 11,867	\$ 8,417	\$ 3,490	\$ 2,157	\$ 1,681	\$ 1,578	\$ 1,579	\$ 1,605	\$ 2,474
Beginning Period Working Capital Balance		\$ 9,243	\$ 16,519	\$ 27,230	\$ 41,508	\$ 53,622	\$ 62,340	\$ 66,164	\$ 68,671	\$ 70,714	\$ 72,664	\$ 74,626	\$ 76,623
End of Period Working Capital Allowance		\$ 16,452	\$ 27,116	\$ 41,329	\$ 53,375	\$ 62,039	\$ 65,830	\$ 68,321	\$ 70,352	\$ 72,292	\$ 74,243	\$ 76,230	\$ 79,097
Interest		\$ 67	\$ 114	\$ 179	\$ 247	\$ 301	\$ 334	\$ 350	\$ 362	\$ 372	\$ 383	\$ 393	\$ 406
End of period with Interest	\$ 9,243	\$ 16,519	\$ 27,230	\$ 41,508	\$ 53,622	\$ 62,340	\$ 66,164	\$ 68,671	\$ 70,714	\$ 72,664	\$ 74,626	\$ 76,623	\$ 79,503
Bad Debt													
Projected Bad Debt	\$ -	\$ 20,260.65	\$ 20,260.65	\$ 20,260.65	\$ 20,260.65	\$ 20,260.65	\$ 20,260.65	\$ 2,846.52	\$ 2,846.52	\$ 2,846.52	\$ 2,846.52	\$ 2,846.52	\$ 2,846.52
Beginning Period Bad Debt Balance		\$ (11,232)	\$ 9,022	\$ 29,383	\$ 49,849	\$ 70,422	\$ 91,103	\$ 111,890	\$ 115,327	\$ 118,782	\$ 122,254	\$ 125,745	\$ 129,254
End of Period Bad Debt Balance		\$ 9,028	\$ 29,283	\$ 49,644	\$ 70,110	\$ 90,683	\$ 111,363	\$ 114,737	\$ 118,174	\$ 121,628	\$ 125,101	\$ 128,592	\$ 132,100
Interest		\$ (6)	\$ 100	\$ 206	\$ 312	\$ 420	\$ 527	\$ 590	\$ 608	\$ 626	\$ 644	\$ 662	\$ 681
End of Period Bad Debt Balance with Interest	\$ (11,232)	\$ 9,022	\$ 29,383	\$ 49,849	\$ 70,422	\$ 91,103	\$ 111,890	\$ 115,327	\$ 118,782	\$ 122,254	\$ 125,745	\$ 129,254	\$ 132,781
Local Production and Storage Capacity		\$ 35,756	\$ 35,756	\$ 35,756	\$ 35,756	\$ 35,756	\$ 35,756	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Miscellaneous Overhead		\$ 82,048	\$ 82,048	\$ 82,048	\$ 82,048	\$ 82,048	\$ 82,048	\$ 19,931	\$ 19,931	\$ 19,931	\$ 19,931	\$ 19,931	\$ 19,931
Gas Cost Other than Bad Debt and Working Capital Over/Under Collection													
Beginning Balance Over/Under Collection	\$ (2,663,062)	\$ (2,663,062)	\$ (2,697,610)	\$ (2,661,999)	\$ (1,492,362)	\$ (625,622)	\$ (1,070,287)	\$ (2,258,131)	\$ (1,994,537)	\$ (1,616,444)	\$ (1,188,113)	\$ (762,701)	\$ (395,626)
Net Costs - Revenues		\$ (20,624)	\$ 49,532	\$ 1,180,427	\$ 872,242	\$ (440,260)	\$ (1,179,199)	\$ 274,640	\$ 387,473	\$ 435,616	\$ 430,478	\$ 370,084	\$ 179,019
Ending Balance before Interest		\$ (2,683,686)	\$ (2,648,077)	\$ (1,481,572)	\$ (620,121)	\$ (1,065,882)	\$ (2,249,486)	\$ (1,983,491)	\$ (1,607,064)	\$ (1,180,828)	\$ (757,634)	\$ (392,617)	\$ (216,606)
Average Balance		\$ (2,673,374)	\$ (2,672,844)	\$ (2,071,785)	\$ (1,056,241)	\$ (845,752)	\$ (1,659,886)	\$ (2,120,811)	\$ (1,800,801)	\$ (1,398,636)	\$ (972,874)	\$ (577,659)	\$ (306,116)
Interest Rate		6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%
Interest Expense		\$ (13,924)	\$ (13,921)	\$ (10,791)	\$ (5,501)	\$ (4,405)	\$ (8,645)	\$ (11,046)	\$ (9,379)	\$ (7,285)	\$ (5,067)	\$ (3,009)	\$ (1,594)
Ending Balance Incl Interest Expense	\$ (2,663,062)	\$ (2,697,610)	\$ (2,661,999)	\$ (1,492,362)	\$ (625,622)	\$ (1,070,287)	\$ (2,258,131)	\$ (1,994,537)	\$ (1,616,444)	\$ (1,188,113)	\$ (762,701)	\$ (395,626)	\$ (218,201)
Total Over/Under Collection Ending Balance	\$ (2,665,051)	\$ (2,672,068)	\$ (2,605,386)	\$ (1,401,005)	\$ (501,578)	\$ (916,844)	\$ (2,080,077)	\$ (1,810,539)	\$ (1,426,948)	\$ (993,194)	\$ (562,331)	\$ (189,749)	\$ (5,917)
Total Indirect Cost of Gas	\$ (2,665,051)	\$ 131,411	\$ 134,954	\$ 141,758	\$ 144,990	\$ 142,797	\$ 133,771	\$ 14,830	\$ 16,049	\$ 18,070	\$ 20,317	\$ 22,429	\$ 24,744
Total Cost of Gas	\$ (2,665,051)	\$ 5,289,749	\$ 7,717,712	\$ 10,230,387	\$ 8,636,423	\$ 6,165,424	\$ 2,631,001	\$ 1,558,459	\$ 1,218,562	\$ 1,147,163	\$ 1,150,241	\$ 1,170,529	\$ 1,794,993
Total Interest	\$ -	\$ (13,863)	\$ (13,708)	\$ (10,406)	\$ (4,942)	\$ (3,684)	\$ (7,784)	\$ (10,105)	\$ (8,409)	\$ (6,286)	\$ (4,040)	\$ (1,953)	\$ (508)

**Northern Utilities**  
**NEW HAMPSHIRE (Over) / Undercollection Anal**

	Winter	Summer	Prior Period	Total
Working Capital				
Total Anticipated Direct Cost of Gas				\$ 47,764,523
Working Capital Percentage				
Working Capital Allowance	\$ 55,679	\$ 11,073	\$ 9,243	\$ 75,996
Beginning Period Working Capital Balance				
End of Period Working Capital Allowance				
Interest	\$ 1,241	\$ 2,266		\$ 3,507
End of period with Interest				
Bad Debt				
Projected Bad Debt	\$ 121,564	\$ 17,079	\$ (11,232)	\$ 127,411
Beginning Period Bad Debt Balance				
End of Period Bad Debt Balance				
Interest	\$ 1,559	\$ 3,811		\$ 5,370
End of Period Bad Debt Balance with Interest				
Local Production and Storage Capacity				\$ 214,538
				\$ -
Miscellaneous Overhead				\$ 611,875
Gas Cost Other than Bad Debt and Working Capital Over/U				
Beginning Balance Over/Under Collection				\$ (19,426,493)
Net Costs - Revenues				\$ 2,539,428
Ending Balance before Interest				\$ (16,887,065)
Average Balance				\$ (18,156,779)
Interest Rate				
Interest Expense				\$ (94,567)
Ending Balance Incl Interest Expense			\$ (2,663,062)	
<b>Total Over/Under Collection Ending Balance</b>				
<b>Total Indirect Cost of Gas</b>	\$ 829,682	\$ 116,438	\$ (2,665,051)	\$ (1,718,932)
<b>Total Cost of Gas</b>	\$ 40,670,697	\$ 8,039,946	\$ (2,665,051)	\$ 46,045,592
<b>Total Interest</b>	\$ (54,387)	\$ (31,303)		\$ (85,689)

Northern Utilities, Inc.  
New Hampshire Division  
Revised Attachment NUL-CAK-13  
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**N.H.P.U.C No. 12**  
**NORTHERN UTILITIES, INC.**

Anticipated Cost of Gas

New Hampshire Division  
Period Covered: November 1, 2022 - April 31, 2023

Column A	Column B	Column C
1 <b><u>ANTICIPATED DIRECT COST OF GAS</u></b>		
2 <b>Purchased Gas for Sales Service:</b>		
3 Demand Costs:	\$ 6,358,704	
4 Supply Costs:	\$ 20,129,627	
5		
6 <b>Storage &amp; Peaking Gas for Sales Service:</b>		
7 Demand, Capacity:	\$ 12,558,149	
8 Commodity Costs:	\$ 11,531,102	
9		
10 <b>Inventory Finance Charge</b>	\$ 6,382	
11		
12 <b>Capacity Release</b>	\$ (8,570,786)	
13		
14 <b>Re-entry Rate &amp; Conversion Rate Revenues</b>	\$ (5,000)	
15		
16 <b>Total Anticipated Direct Cost of Gas</b>		\$ 42,008,180
17		
18 <b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>		
19 <b>Adjustments:</b>		
20 Prior Period Under/(Over) Collection	\$ (2,757,176)	
21 Interest	\$ (54,387)	
22 Refunds	\$ -	
23 <u>Interruptible Margins</u>	\$ -	
24 Total Adjustments		\$ (2,811,562)
25		
26 <b>Working Capital:</b>		
27 Total Anticipated Direct Cost of Gas	\$ 42,008,180	
28 Working Capital Allowance Percentage (9.30 [lag days]/366* prime rate)	0.1588%	
29 Working Capital Allowance	\$ 66,714	
30		
31 Plus: Working Capital Reconciliation (Acct 173)	\$ 7,437	
32		
33 Total Working Capital Allowance		\$ 74,150
34		
35 <b>Bad Debt:</b>		
36 Bad Debt Allowance	\$ 121,564	
37 Plus: Bad Debt Reconciliation (Acct 173)	\$ (10,671)	
38 Total Bad Debt Allowance		\$ 110,893
39		
40 <b>Local Production and Storage Capacity</b>		\$ 214,538
41		
42 <b>Miscellaneous Overhead-80.46% Allocated to Winter Season</b>		\$ 492,287
43		
44 <b>Total Anticipated Indirect Cost of Gas</b>		\$ (1,919,694)
45		
46 <b>Total Cost of Gas</b>		\$ 40,088,486

(\*) Prime Rate is 6.25%



Northern Utilities, Inc.  
New Hampshire Division  
Revised Attachment NUI-CAK-13  
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**N.H.P.U.C No. 12  
NORTHERN UTILITIES, INC.**

**Summary**

Anticipated Cost of Gas

New Hampshire Division

Period Covered: November 1, 2022 - April 31, 2023

**Column A**

**Column D**

1	<b><u>ANTICIPATED DIRECT COST OF GAS</u></b>	
2	<b>Purchased Gas for Sales Service:</b>	
3	Demand Costs:	Attachment NUI-CAK-2, LN 71 + LN 75
4	Supply Costs:	Attachment NUI-CAK-6, LN 14
5		
6	<b>Storage &amp; Peaking Gas for Sales Service:</b>	
7	Demand, Capacity:	Attachment NUI-CAK-2, LN 73 + LN 74
8	Commodity Costs:	Attachment NUI-CAK-6, LN 15 + LN 16
9		
10	<b>Inventory Finance Charge</b>	Attachment NUI-CAK-6, LN 17
11		
12	<b>Capacity Release</b>	-(Attachment NUI-CAK-2, LN 77)
13		
14	<b>Re-entry Rate &amp; Conversion Rate Revenues</b>	Attachment NUI-CAK-2, LN 79
15		
16	<b>Total Anticipated Direct Cost of Gas</b>	Sum ( LN 3 : LN 14 )
17		
18	<b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>	
19	<b>Adjustments:</b>	
20	Prior Period Under/(Over) Collection	Attachment NUI-CAK-10, Page 1
21	Interest	Attachment NUI-CAK-12, LN 94: Total
22	Refunds	
23	Interruptible Margins	-(Attachment NUI-CAK-2, LN 78)
24	Total Adjustments	Sum ( LN 20 : LN 23 )
25		
26	<b>Working Capital:</b>	
27	Total Anticipated Direct Cost of Gas	LN 16
28	Working Capital Allowance Percentage (9.30 [lag days]/366* prime	Tariff - NHPUC No. 12 , Section 6.1
29	Working Capital Allowance	LN 27 * LN 28
30		
31	Plus: Working Capital Reconciliation (Acct 173)	Attachment NUI-CAK-10, Attachment A
32		
33	Total Working Capital Allowance	Sum ( LN 29 : LN 31 )
34		
35	<b>Bad Debt:</b>	
36	Bad Debt Allowance	Attachment NUI-CAK-11, LN 16
37	Plus: Bad Debt Reconciliation (Acct 173)	Schedule 10-CAK, Attachment B
38	Total Bad Debt Allowance	LN 36 + LN 37
39		
40	<b>Local Production and Storage Capacity</b>	Attachment NUI-CAK-2, LN 84
41		
42	<b>Miscellaneous Overhead-80.46% Allocated to Winter Season</b>	Attachment NUI-CAK-2, LN 83
43		
44	<b>Total Anticipated Indirect Cost of Gas</b>	Sum ( LN 24 : LN 42 )
45		
46	<b>Total Cost of Gas</b>	LN 44 + LN 16

(\*) Prime Rate is 6.25%

Northern Utilities, Inc.  
 New Hampshire Division  
 Revised Attachment NUI-CAK-13  
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48 CALCULATION OF FIRM SALES COST OF GAS RATE  
 49 Period Covered: November 1, 2022 - April 31, 2023

51	Column A	Column B	Column C
52			
53	Total Anticipated Direct Cost of Gas	\$ 42,008,180	
54	Projected Prorated Sales (11/01/22 - 04/30/23)	35,507,405	
55	<b>Direct Cost of Gas Rate</b>		\$ 1.1831 per therm
56			
57	<b>Demand Cost of Gas Rate</b>	\$ 10,341,068	\$ 0.2912 per therm
58	<b>Commodity Cost of Gas Rate</b>	\$ 31,667,112	\$ 0.8918 per therm
59	<b>Total Direct Cost of Gas Rate</b>	\$ 42,008,180	\$ 1.1830 per therm
60			
61	Total Anticipated Indirect Cost of Gas	\$ (1,919,694)	
62	Projected Prorated Sales (11/01/22 - 04/30/23)	35,507,405	
63	<b>Indirect Cost of Gas</b>		\$ (0.0541) per therm
64			
65			
66	<b>TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/22</b>		<b>\$ 1.1289 per therm</b>
67			
68	<b>RESIDENTIAL COST OF GAS RATE - 11/01/22</b>	<b>COGwr</b>	<b>\$ 1.1289 per therm</b>
69		Maximum (COG+25%)	<b>\$ 1.4111</b>
70			
71			
72	<b>COM/IND LOW WINTER USE COST OF GAS RATE - 11/01/22</b>	<b>COGwl</b>	<b>\$ 1.0536 per therm</b>
73		Maximum (COG+25%)	<b>\$ 1.3170</b>
74			
75	C&I HLF Demand Costs Allocated per SMBA	\$ 569,531	
76	PLUS: Residential Demand Reallocation to C&I HLF	\$ 8,570	
77	C&I HLF Total Adjusted Demand Costs	\$ 578,101	
78	C&I HLF Projected Prorated Sales (11/01/22 - 04/30/23)	2,898,272	
79	<b>Demand Cost of Gas Rate</b>	<b>\$ 0.1995</b>	
80			
81	C&I HLF Commodity Costs Allocated per SMBA	\$ 2,634,583	
82	PLUS: Residential Commodity Reallocation to C&I HLF	\$ (2,272)	
83	C&I HLF Total Adjusted Commodity Costs	\$ 2,632,312	
84	C&I HLF Projected Prorated Sales (11/01/22 - 05/30/23)	2,898,272	
85	<b>Commodity Cost of Gas Rate</b>	<b>\$ 0.9082</b>	
86			
87	<b>Indirect Cost of Gas</b>	<b>\$ (0.0541)</b>	
88			
89	<b>Total C&amp;I HLF Cost of Gas Rate</b>	<b>\$ 1.0536</b>	
90			
91			
92	<b>COM/IND HIGH WINTER USE COST OF GAS RATE - 11/01/22</b>	<b>COGwh</b>	<b>\$ 1.1428 per therm</b>
93		Maximum (COG+25%)	<b>\$ 1.4285</b>
94			
95	C&I LLF Demand Costs Allocated per SMBA	\$ 4,796,055	
96	PLUS: Residential Demand Reallocation to C&I LLF	\$ 72,168	
97	C&I LLF Total Adjusted Demand Costs	\$ 4,868,223	
98	C&I LLF Projected Prorated Sales (11/01/22 - 04/30/23)	15,802,392	
99	<b>Demand Cost of Gas Rate</b>	<b>\$ 0.3081</b>	
100			
101	C&I LLF Commodity Costs Allocated per SMBA	\$ 14,057,910	
102	PLUS: Residential Commodity Reallocation to C&I LLF	\$ (12,123)	
103	C&I LLF Total Adjusted Commodity Costs	\$ 14,045,788	
104	C&I LLF Projected Prorated Sales (11/01/22 - 04/30/23)	15,802,392	
105	<b>Commodity Cost of Gas Rate</b>	<b>\$ 0.8888</b>	
106			
107	<b>Indirect Cost of Gas</b>	<b>\$ (0.0541)</b>	
108			
109	<b>Total C&amp;I LLF Cost of Gas Rate</b>	<b>\$ 1.1428</b>	

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New Hampshire Division  
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48	CALCULATION OF FIRM SALES COST OF GAS RATE	
49	Period Covered: November 1, 2022 - April 31, 2023	
50		
51	<b>Column A</b>	<b>Column D</b>
52		
53	Total Anticipated Direct Cost of Gas	LN 16
54	Projected Prorated Sales (11/01/22 - 04/30/23)	Attachment NUI-CAK-3, LN 11
55	<b>Direct Cost of Gas Rate</b>	LN 53 / LN 54
56		
57	<b>Demand Cost of Gas Rate</b>	Column B : SUM ( LN 3 , LN 7 , LN 12 ) : COLUMN C: LN 5
58	<b>Commodity Cost of Gas Rate</b>	Column B : SUM ( LN 4 , LN 8 ) : COLUMN C: LN 58 / LN 5
59	<b>Total Direct Cost of Gas Rate</b>	SUM ( LN 57 : LN 58 )
60		
61	Total Anticipated Indirect Cost of Gas	Column B : LN 44
62	Projected Prorated Sales (11/01/22 - 04/30/23)	Column B : LN 54
63	<b>Indirect Cost of Gas</b>	LN 61 / LN 62
64		
65		
66	<b>TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/22</b>	LN 59 + LN 63
67		
68	<b>RESIDENTIAL COST OF GAS RATE - 11/01/22</b>	LN 66
69		LN 68 * 1.25
70		
71		
72	<b>COM/IND LOW WINTER USE COST OF GAS RATE - 11/01/22</b>	LN 89
73		LN 72 * 1.25
74		
75	C&I HLF Demand Costs Allocated per SMBA	Attachment NUI-CAK-4, LN 170
76	PLUS: Residential Demand Reallocation to C&I HLF	Attachment NUI-CAK-9, LN 16
77	C&I HLF Total Adjusted Demand Costs	Sum ( LN 75 : LN 76 )
78	C&I HLF Projected Prorated Sales (11/01/22 - 04/30/23)	Attachment NUI-CAK-3, LN 14
79	<b>Demand Cost of Gas Rate</b>	LN 77 / LN 78
80		
81	C&I HLF Commodity Costs Allocated per SMBA	Attachment NUI-CAK-8, LN 83
82	PLUS: Residential Commodity Reallocation to C&I HLF	Attachment NUI-CAK-9, LN 26
83	C&I HLF Total Adjusted Commodity Costs	Sum ( LN 81 : LN 82 )
84	C&I HLF Projected Prorated Sales (11/01/22 - 05/30/23)	LN 78
85	<b>Commodity Cost of Gas Rate</b>	LN 83 / LN 84
86		
87	<b>Indirect Cost of Gas</b>	LN 63
88		
89	<b>Total C&amp;I HLF Cost of Gas Rate</b>	Sum ( LN 79, LN 85, LN 87 )
90		
91		
92	<b>COM/IND HIGH WINTER USE COST OF GAS RATE - 11/01/22</b>	LN 109
93		LN 92 * 1.25
94		
95	C&I LLF Demand Costs Allocated per SMBA	Attachment NUI-CAK-4, LN 171
96	PLUS: Residential Demand Reallocation to C&I LLF	Attachment NUI-CAK-9, LN 17
97	C&I LLF Total Adjusted Demand Costs	Sum ( LN 95 : LN 96 )
98	C&I LLF Projected Prorated Sales (11/01/22 - 04/30/23)	Attachment NUI-CAK-3, LN 15
99	<b>Demand Cost of Gas Rate</b>	LN 97 / LN 98
100		
101	C&I LLF Commodity Costs Allocated per SMBA	Attachment NUI-CAK-8, LN 84
102	PLUS: Residential Commodity Reallocation to C&I LLF	Attachment NUI-CAK-9, LN 27
103	C&I LLF Total Adjusted Commodity Costs	Sum ( LN 101 : LN 102 )
104	C&I LLF Projected Prorated Sales (11/01/22 - 04/30/23)	LN 98
105	<b>Commodity Cost of Gas Rate</b>	LN 103 / LN 104
106		
107	<b>Indirect Cost of Gas</b>	LN 63
108		
109	<b>Total C&amp;I LLF Cost of Gas Rate</b>	Sum ( LN 99, LN 105, LN 107 )

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New Hampshire Division  
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**N.H.P.U.C No.12**  
**NORTHERN UTILITIES, INC.**

Anticipated Cost of Gas

**Summary Schedule**

New Hampshire Division  
Period Covered: May 1, 2023 - October 31, 2023

Column A	Column B	Column C
110 <b><u>ANTICIPATED DIRECT COST OF GAS</u></b>		
111 <b>Purchased Gas:</b>		
112 Demand Costs:	\$ 1,055,340	
113 Supply Costs:	\$ 4,140,569	
114		
115 <b>Storage &amp; Peaking Gas:</b>		
116 Demand, Capacity:	\$ 397,527	
117 Commodity Costs:	\$ 162,908	
118		
119 <b>Inventory Finance Charge</b>	\$ -	
120		
121 <b>Capacity Release</b>	\$ -	
122		
123 <b>Re-entry Rate &amp; Conversion Rate Revenues</b>	\$ -	
124		
125 <b>Total Anticipated Direct Cost of Gas</b>		\$ 5,756,344
126		
127 <b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>		
128 <b>Adjustments:</b>		
129 Prior Period Under/(Over) Collection	\$ 94,114	
130 Interest	\$ (31,303)	
131 Refunds	\$ -	
132 Interruptible Margins	\$ -	
133 Total Adjustments		\$ 62,811
134		
135 <b>Working Capital:</b>		
136 Total Anticipated Direct Cost of Gas	\$ 5,756,344	
137 Working Capital Allowance Percentage (9.30 [lag days]/366* prime rate)	0.159%	
138 Working Capital Allowance	\$ 9,142	
139 Plus: Working Capital Reconciliation (Acct. 173)	\$ 1,807	
140		
141 Total Working Capital Allowance		\$ 10,948
142		
143 <b>Bad Debt:</b>		
144 Projected Bad Debt	\$ 17,079	
145 Plus: Bad Debt Reconciliation (Acct 173)	\$ (562)	
146 Total Bad Debt Expense		\$ 16,517
147		
148 <b>Local Production and Storage Capacity</b>		\$ -
149		
150 <b>Miscellaneous Overhead-19.54% Allocated to Summer Season</b>		\$ 119,588
151		
152 <b>Total Anticipated Indirect Cost of Gas</b>		\$ 209,865
153		
154 <b>Total Cost of Gas</b>		\$ 5,966,208
155		

(\*) Prime Rate is 6.25%

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New Hampshire Division  
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**N.H.P.U.C No.12**  
**NORTHERN UTILITIES, INC.**

Anticipated Cost of Gas

New Hampshire Division  
Period Covered: May 1, 2023 - October 31, 2023

Column A	Column D
110 <b><u>ANTICIPATED DIRECT COST OF GAS</u></b>	
111 <b>Purchased Gas:</b>	
112 Demand Costs:	Attachment NUI-CAK-2, LN 71 + LN 75
113 Supply Costs:	Attachment NUI-CAK-6, LN 14
114	
115 <b>Storage &amp; Peaking Gas:</b>	
116 Demand, Capacity:	Attachment NUI-CAK-2, LN 73
117 Commodity Costs:	Attachment NUI-CAK-6, LN 15 + LN 16
118	
119 <b>Inventory Finance Charge</b>	- (Attachment NUI-CAK-6, LN 20)
120	
121 <b>Capacity Release</b>	- (Attachment NUI-CAK-2, LN 77)
122	
123 <b>Re-entry Rate &amp; Conversion Rate Revenues</b>	
124	
125 <b>Total Anticipated Direct Cost of Gas</b>	Sum ( LN 112 : LN 123 )
126	
127 <b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>	
128 <b>Adjustments:</b>	
129 Prior Period Under/(Over) Collection	Attachment NUI-CAK-10, Page 1
130 Interest	Attachment NUI-CAK-12, LN 92: Total
131 Refunds	Company Analysis
132 Interruptible Margins	- (Attachment NUI-CAK-2, LN 78)
133 Total Adjustments	Sum ( LN 129 : LN 132 )
134	
135 <b>Working Capital:</b>	
136 Total Anticipated Direct Cost of Gas	LN 125
137 Working Capital Allowance Percentage (9.30 [lag days]/366* prime	Tariff - NHPUC No. 12 , Section 6.1
138 Working Capital Allowance	LN 136 * LN 137
139 Plus: Working Capital Reconciliation (Acct. 173)	Attachment NUI-CAK-10, Attachment A
140	
141 Total Working Capital Allowance	Sum ( LN 138 : LN 139 )
142	
143 <b>Bad Debt:</b>	
144 Projected Bad Debt	Attachment NUI-CAK-11, LN 17
145 Plus: Bad Debt Reconciliation (Acct 173)	Schedule 10-CAK, Attachment B
146 Total Bad Debt Expense	Sum ( LN 144 : LN 145 )
147	
148 <b>Local Production and Storage Capacity</b>	Attachment NUI-CAK-2, LN 84
149	
150 <b>Miscellaneous Overhead-19.54% Allocated to Summer Season</b>	Attachment NUI-CAK-2, LN 83
151	
152 <b>Total Anticipated Indirect Cost of Gas</b>	Sum ( LN 133 : LN 150 )
153	
154 <b>Total Cost of Gas</b>	LN 152 + LN 125
155	

(\*) Prime Rate is 6.25%

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 New Hampshire Division  
 Revised Attachment NUI-CAK-13  
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**NORTHERN UTILITIES, INC.**

156  
 157 CALCULATION OF FIRM SALES COST OF GAS RATE  
 158 Period Covered: May 1, 2023 - October 31, 2023  
 159

Column A	Column B	Column C
161 Total Anticipated Direct Cost of Gas	\$ 5,756,344	
162 Projected Prorated Sales (05/01/23 - 10/31/23)	8,625,565	
164 <b>Direct Cost of Gas Rate</b>		\$ 0.6674 per therm
166 <b>Demand Cost of Gas Rate</b>	\$ 1,452,867	\$ 0.1684 per therm
167 <b>Commodity Cost of Gas Rate</b>	\$ 4,303,477	\$ 0.4989 per therm
168 <b>Total Direct Cost of Gas Rate</b>	\$ 5,756,344	\$ 0.6673 per therm
169		
170 Total Anticipated Indirect Cost of Gas	\$ 209,865	
171 Projected Prorated Sales (05/01/23 - 10/31/23)	8,625,565	
172 <b>Indirect Cost of Gas</b>		\$ 0.0243 per therm
173		
174		
175 <b>TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/23</b>		<b>\$ 0.6916 per therm</b>

177 <b>RESIDENTIAL COST OF GAS RATE - 05/01/23</b>	<b>COGwr</b>	<b>\$ 0.6916 per therm</b>
178	Maximum (COG+25%)	<b>\$ 0.8645</b>

181 <b>COM/IND LOW WINTER USE COST OF GAS RATE - 05/01/23</b>	<b>COGwl</b>	<b>\$ 0.6331 per therm</b>
182	Maximum (COG+25%)	<b>\$ 0.7914</b>

184 C&I HLF Demand Costs Allocated per SMBA	\$ 230,600
185 PLUS: Residential Demand Reallocation to C&I HLF	\$ 11,833
186 C&I HLF Total Adjusted Demand Costs	\$ 242,434
187 C&I HLF Projected Prorated Sales (05/01/23 - 10/31/23)	2,206,001
188 <b>Demand Cost of Gas Rate</b>	<b>\$ 0.1099</b>
189	
190 C&I HLF Commodity Costs Allocated per SMBA	\$ 1,100,620
191 PLUS: Residential Commodity Reallocation to C&I HLF	\$ 34
192 C&I HLF Total Adjusted Commodity Costs	\$ 1,100,655
193 C&I HLF Projected Prorated Sales (05/01/23 - 10/31/23)	2,206,001
194 <b>Commodity Cost of Gas Rate</b>	<b>\$ 0.4989</b>
195	
196 <b>Indirect Cost of Gas</b>	<b>\$ 0.0243</b>
197	
198 <b>Total C&amp;I HLF Cost of Gas Rate</b>	<b>\$ 0.6331</b>

201 <b>COM/IND HIGH WINTER USE COST OF GAS RATE - 05/01/23</b>	<b>COGwh</b>	<b>\$ 0.7383 per therm</b>
202	Maximum (COG+25%)	<b>\$ 0.9229</b>

204 C&I LLF Demand Costs Allocated per SMBA	\$ 566,892
205 PLUS: Residential Demand Reallocation to C&I LLF	\$ 29,091
206 C&I LLF Total Adjusted Demand Costs	\$ 595,983
207 C&I LLF Projected Prorated Sales (05/01/23 - 10/31/23)	2,770,809
208 <b>Demand Cost of Gas Rate</b>	<b>\$ 0.2151</b>
209	
210 C&I LLF Commodity Costs Allocated per SMBA	\$ 1,382,415
211 PLUS: Residential Commodity Reallocation to C&I LLF	\$ 43
212 C&I LLF Total Adjusted Commodity Costs	\$ 1,382,458
213 C&I LLF Projected Prorated Sales (05/01/23 - 10/31/23)	2,770,809
214 <b>Commodity Cost of Gas Rate</b>	<b>\$ 0.4989</b>
215	
216 <b>Indirect Cost of Gas</b>	<b>\$ 0.0243</b>
217	
218 <b>Total C&amp;I LLF Cost of Gas Rate</b>	<b>\$ 0.7383</b>

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 New Hampshire Division  
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**NORTHERN UTILITIES, INC.**

156		
157	CALCULATION OF FIRM SALES COST OF GAS RATE	
158	Period Covered: May 1, 2023 - October 31, 2023	
159		
160	<b>Column A</b>	<b>Column D</b>
161		
162	Total Anticipated Direct Cost of Gas	LN 125
163	Projected Prorated Sales (05/01/23 - 10/31/23)	Attachment NUI-CAK-3, LN 11
164	<b>Direct Cost of Gas Rate</b>	LN 162 / LN 163
165		
166	<b>Demand Cost of Gas Rate</b>	Column B : SUM ( LN 112 , LN 116 , LN 121 , LN 123 ) : Cc
167	<b>Commodity Cost of Gas Rate</b>	Column B : SUM ( LN 113 , LN 117 , LN 119 ) : COLUMN C
168	<b>Total Direct Cost of Gas Rate</b>	SUM ( LN 166 : LN 167 )
169		
170	Total Anticipated Indirect Cost of Gas	Column B : LN 152
171	Projected Prorated Sales (05/01/23 - 10/31/23)	Column B : LN 163
172	<b>Indirect Cost of Gas</b>	LN 170 / LN 171
173		
174		
175	<b>TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/23</b>	LN 168 + LN 172
176		
177	<b>RESIDENTIAL COST OF GAS RATE - 05/01/23</b>	LN 175
178		LN 177 * 1.25
179		
180		
181	<b>COM/IND LOW WINTER USE COST OF GAS RATE - 05/01/23</b>	LN 198
182		LN 181 * 1.25
183		
184	C&I HLF Demand Costs Allocated per SMBA	Attachment NUI-CAK-4, LN 170
185	PLUS: Residential Demand Reallocation to C&I HLF	Attachment NUI-CAK-9, LN 16
186	C&I HLF Total Adjusted Demand Costs	Sum ( LN 184 : LN 185 )
187	C&I HLF Projected Prorated Sales (05/01/23 - 10/31/23)	Attachment NUI-CAK-3, LN 14
188	<b>Demand Cost of Gas Rate</b>	LN 186 / LN 187
189		
190	C&I HLF Commodity Costs Allocated per SMBA	Attachment NUI-CAK-8, LN 83
191	PLUS: Residential Commodity Reallocation to C&I HLF	Attachment NUI-CAK-9, LN 26
192	C&I HLF Total Adjusted Commodity Costs	Sum ( LN 190 : LN 191 )
193	C&I HLF Projected Prorated Sales (05/01/23 - 10/31/23)	LN 187
194	<b>Commodity Cost of Gas Rate</b>	LN 192 / LN 193
195		
196	<b>Indirect Cost of Gas</b>	LN 172
197		
198	<b>Total C&amp;I HLF Cost of Gas Rate</b>	Sum ( LN 188, LN 194, LN 196 )
199		
200		
201	<b>COM/IND HIGH WINTER USE COST OF GAS RATE - 05/01/23</b>	LN 218
202		LN 201 * 1.25
203		
204	C&I LLF Demand Costs Allocated per SMBA	Attachment NUI-CAK-4, LN 171
205	PLUS: Residential Demand Reallocation to C&I LLF	Attachment NUI-CAK-9, LN 17
206	C&I LLF Total Adjusted Demand Costs	Sum ( LN 204 : LN 205 )
207	C&I LLF Projected Prorated Sales (05/01/23 - 10/31/23)	Attachment NUI-CAK-3, LN 15
208	<b>Demand Cost of Gas Rate</b>	LN 206 / LN 207
209		
210	C&I LLF Commodity Costs Allocated per SMBA	Attachment NUI-CAK-8, LN 84
211	PLUS: Residential Commodity Reallocation to C&I LLF	Attachment NUI-CAK-9, LN 27
212	C&I LLF Total Adjusted Commodity Costs	Sum ( LN 210 : LN 211 )
213	C&I LLF Projected Prorated Sales (05/01/23 - 10/31/23)	LN 207
214	<b>Commodity Cost of Gas Rate</b>	LN 212 / LN 213
215		
216	<b>Indirect Cost of Gas</b>	LN 172
217		
218	<b>Total C&amp;I LLF Cost of Gas Rate</b>	Sum ( LN 208, LN 214, LN 216 )

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New Hampshire Division  
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**NORTHERN UTILITIES, INC.**

**N.H.P.U.C No. 12  
NORTHERN UTILITIES, INC.**

Anticipated Cost of Gas

New Hampshire Division  
Period Covered: November 1, 2022 - October 31, 2023

	Column A	Column B	Column C
219	<b><u>ANTICIPATED DIRECT COST OF GAS</u></b>		
220	<b>Purchased Gas for Sales Service:</b>		
221	Demand Costs:	\$ 7,414,044	
222	Supply Costs:	\$ 24,270,196	
223			
224	<b>Storage &amp; Peaking Gas for Sales Service:</b>		
225	Demand, Capacity:	\$ 12,955,676	
226	Commodity Costs:	\$ 11,694,010	
227			
228	<b>Inventory Finance Charge</b>	\$ 6,382	
229			
230	<b>Capacity Release</b>	\$ (8,570,786)	
231			
232	<b>Re-entry Rate &amp; Conversion Rate Revenues</b>	\$ (5,000)	
233			
234	<b>Total Anticipated Direct Cost of Gas</b>		\$ 47,764,523
235			
236	<b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>		
237	<b>Adjustments:</b>		
238	Prior Period Under/(Over) Collection	\$ (2,663,062)	
239	Interest	\$ (85,689)	
240	Refunds	\$ -	
241	<u>Interruptible Margins</u>	\$ -	
242	Total Adjustments		\$ (2,748,751)
243			
244	<b>Working Capital:</b>		
245	Total Anticipated Direct Cost of Gas	\$ 47,764,523	
246	Working Capital Percentage	<u>0.1588%</u>	
247	Working Capital Allowance	\$ 75,856	
248			
249	Plus: Working Capital Reconciliation (Acct 173)	\$ 9,243	
250			
251	Total Working Capital Allowance		\$ 85,099
252			
253	<b>Bad Debt:</b>		
254	Bad Debt Allowance	\$ 138,643	
255	Plus: Bad Debt Reconciliation (Acct 173)	\$ (11,232)	
256	Total Bad Debt Allowance		\$ 127,411
257			
258	<b>Local Production and Storage Capacity</b>		\$ 214,538
259			
260	<b>Miscellaneous Overhead</b>		\$ 611,875
261			
262	<b>Total Anticipated Indirect Cost of Gas</b>		\$ (1,709,829)
263			
264	<b>Total Cost of Gas</b>		<u>\$ 46,054,694</u>



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**NORTHERN UTILITIES, INC.**

**N.H.P.U.C No. 12  
NORTHERN UTILITIES, INC.**

Anticipated Cost of Gas

New Hampshire Division  
Period Covered: November 1, 2022 - October 31, 2023

Column A	Column D
219 <b><u>ANTICIPATED DIRECT COST OF GAS</u></b>	
220 <b>Purchased Gas for Sales Service:</b>	
221 Demand Costs:	LN 3 + LN 112
222 Supply Costs:	LN 4 + LN 113
223	
224 <b>Storage &amp; Peaking Gas for Sales Service:</b>	
225 Demand, Capacity:	LN 7 + LN 116
226 Commodity Costs:	LN 8 + LN 117
227	
228 <b>Inventory Finance Charge</b>	LN 10 + LN 119
229	
230 <b>Capacity Release</b>	LN 12 + LN 121
231	
232 <b>Re-entry Rate &amp; Conversion Rate Revenues</b>	LN 14 + LN 123
233	
234 <b>Total Anticipated Direct Cost of Gas</b>	LN 16 + LN 125
235	
236 <b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>	
237 <b>Adjustments:</b>	
238 Prior Period Under/(Over) Collection	LN 20 + LN 129
239 Interest	LN 21 + LN 130
240 Refunds	LN 22 + LN 131
241 <u>Interruptible Margins</u>	LN 23 + LN 132
242 Total Adjustments	LN 24 + LN 133
243	
244 <b>Working Capital:</b>	
245 Total Anticipated Direct Cost of Gas	LN 27 + LN 136
246 Working Capital Percentage	LN 28 + LN 137
247 Working Capital Allowance	LN 29 + LN 138
248	
249 Plus: Working Capital Reconciliation (Acct 173)	LN 31 + LN 139
250	
251 Total Working Capital Allowance	LN 33 + LN 141
252	
253 <b>Bad Debt:</b>	
254 Bad Debt Allowance	LN 36 + LN 144
255 Plus: Bad Debt Reconciliation (Acct 173)	LN 37 + LN 145
256 Total Bad Debt Allowance	LN 38 + LN 146
257	
258 <b>Local Production and Storage Capacity</b>	LN 40 + LN 148
259	
260 <b>Miscellaneous Overhead</b>	LN 42 + LN 150
261	
262 <b>Total Anticipated Indirect Cost of Gas</b>	LN 44 + LN 152
263	
264 <b>Total Cost of Gas</b>	LN 46 + LN 154

Northern Utilities, Inc.  
 New Hampshire Division  
 Revised Attachment NUI-CAK-14  
 Page 1 of 1

Northern Utilities New Hampshire Division  
 Cost of Gas Rate Comparison - Residential Rate Classes  
 (rates per therm)

Proposed Rates	2021-2022 Actual Cost of Gas Rates						Average	Variance
November 2022 - April 2023	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	Winter 22-23	
\$1.1289	\$0.9392	\$0.9392	\$0.8975	\$0.9462	\$1.0547	\$1.0547	\$0.9719	\$0.1570
May 2023 - October 2023	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Summer 2022	
\$0.6916	\$0.6361	\$0.9126	\$0.9126	\$0.9126	\$1.1204	\$1.1204	\$0.9358	(\$0.2442)

Winter Period Re-Entry Surcharge Calculation  
(Applicable to Capacity Assigned Customers Returning to Sales Service)

Line	Item	HLF (50, 51, 52)	LLF (40, 41, 42)	Weighted Average	Reference
1	Winter Demand Cost of Gas Rate	\$ 0.1995	\$ 0.3081	\$ 0.2913	No Change from Page 3 - Lines 79 and 99 of CAK-13
2	Winter Commodity Cost of Gas Rate	\$ 0.9082	\$ 0.8888	\$ 0.8918	No Change from Page 3 - Lines 85 and 105 of CAK-13
3	Winter Indirect Cost of Gas	\$ 0.0251	\$ 0.0251	\$ 0.0251	Prior Period Over Collection removed from Page 3, Lines 87 and 107 of CAK-13
4	Winter Cost of Gas Rate (Exclusive of Credits)	\$ 1.1328	\$ 1.2220	\$ 1.2082	Sum Lines 1 through 3
5	Winter Cost of Gas Rate for Incumbent Sales Customers	\$ 1.0604	\$ 1.1496	\$ 1.1358	Page 3 - Lines 72 and 92 of CAK-13
6	<b>Winter Re-Entry Surcharge</b>	\$ 0.0724	\$ 0.0724	\$ 0.0724	<b>Positive Difference between Line 4 and Line 5</b>
7	Projected Sales (therms)	2,898,272	15,802,392	18,700,664	Page 3 - Lines 85 and 105 of Summary

Summer Period Re-Entry Surcharge & Conversion Surcharge Calculation  
(Applicable to Capacity Assigned & Capacity Exempt Customers Returning to Sales Service)

Line	Item	HLF (50, 51, 52)	LLF (40, 41, 42)	Weighted Average	Reference
8	Summer Demand Cost of Gas Rate	\$ 0.1099	\$ 0.2151	\$ 0.1988	No Change from Page 7 - Lines 188 and 208 of CAK-13
9	Summer Commodity Cost of Gas Rate	\$ 0.4989	\$ 0.4989	\$ 0.4989	No Change from Page 7 - Lines 194 and 214 of Summary
10	Summer Indirect Cost of Gas	\$ 0.0243	\$ 0.0243	\$ 0.0243	No Change from Page 7 - Lines 196 and 216 of Summary
11	Summer Cost of Gas Rate (Exclusive of Credits)	\$ 0.6331	\$ 0.7383	\$ 0.7220	Sum Lines 8 through 10
12	Summer Cost of Gas Rate for Incumbent Sales Customers	\$ 0.6331	\$ 0.7383	\$ 0.7220	Page 7 - Lines 181 and 201 of CAK-13
13	<b>Summer Re-Entry Surcharge</b>	\$ -	\$ -	\$ -	<b>Positive Difference between Line 11 and Line 12</b>
14	Projected Sales (therms)	2,206,001	2,770,809	4,976,810	Page 7 - Lines 193 and 213 of CAK-13

Winter Period Conversion Surcharge Calculation  
(Applicable to Capacity Exempt Customers Returning to Sales Service)

Line	Item	HLF (50, 51, 52)	LLF (40, 41, 42)	
1	LLF Winter Demand Cost of Gas Rate	\$ 0.3081	\$ 0.3081	No Change from Page 3 - Lines 79 and 99 of CAK-13
2	LLF Winter Commodity Cost of Gas Rate	\$ 0.8888	\$ 0.8888	No Change from Page 3 - Lines 85 and 105 of CAK-13
3	LLF Winter Indirect Cost of Gas	\$ 0.0251	\$ 0.0251	Prior Period Over Collection removed from Page 3, Lines 87 and 107 of CAK-13
4	Floor Price (LLF Winter Cost of Gas Rate, Exclusive of Credits)	\$ 1.2220	\$ 1.2220	Sum Lines 1 through 3.
5	Total Incremental Cost	\$ 2.7025	\$ 2.7025	See Line 15 of Incremental Commodity Price Worksheet
6	Total Conversion Rate	\$ 2.7025	\$ 2.7025	Maximum of Line 4 and Line 5
7	Winter Gas Adjustment Factor for Incumbent Sales Customers	\$ 1.0604	\$ 1.1496	Page 3 - Lines 85 and 105 of Summary
8	<b>Conversion Surcharge</b>	<b>\$ 1.6421</b>	<b>\$ 1.5529</b>	<b>Positive Difference between Line 6 and Line 7</b>

Incremental Commodity Price Worksheet  
Based on 9/7/2022 NYMEX and Algonquin Basis Settlement Prices

Line	Month	9/7/2022 NYMEX Settlement	Projected PNGTS Delivered Basis (9/7/2022 Algonquin Basis plus \$0.75 per Dth)	Projected FOM Index	Projected Non-Capacity Assigned Delivery Service Loads	Comments
1	Nov-22	\$ 7.901	\$ 6.015	\$ 13.916	220,579	
2	Dec-22	\$ 8.035	\$ 22.390	\$ 30.425	223,362	
3	Jan-23	\$ 8.115	\$ 33.423	\$ 41.538	238,274	
4	Feb-23	\$ 7.818	\$ 32.763	\$ 40.581	225,418	
5	Mar-23	\$ 6.705	\$ 10.908	\$ 17.613	235,373	
6	Apr-23	\$ 5.352	\$ 2.035	\$ 7.387	208,662	
7	Winter Period Weigthed Average Baseload Price (\$/Dth)			\$ 25.596	1,351,668	Average, Weighted by Loads, Lines 1 through 6
8	Load Shape Price Factor			1.034		See Load Shape Price Factor Worksheet
9	Winter Period Incremental Load Shape Price (\$/Dth)			\$ 26.466		Line 7 times Line 8
10	Granite Fuel			0.35%		Granite Tariff
11	Granite Variable Transport (\$/Dth)			\$ 0.2039		Granite Tariff (IT Daily Rate plus ACA)
12	Northern City-Gate Price (\$/Dth)			\$ 26.763		Line 9 times (1 plus Line 10) plus Line 11
13	New Hampshire Division City-Gate Sendout to Sales Ratio			1.0098		See Att 2 to Sch 10B
14	Northern Retail Meter Price (\$/Dth)			\$ 27.025		Line 12 times Line 13
15	Northern Retail Meter Price (\$/therm)			\$ 2.7025		Line 14 divided by 10

Load Shape Price Factor Worksheet

Month	Date	Historic Delivery Service Loads			Delivery Service Loads Not Subject to Capacity Assignment			2021-2022 Cost Analysis	
		Capacity Exempt	Capacity Assigned	Total	Capacity Exempt	Capacity Assigned	Total	AGT City-Gate Price	AGT City-Gate Cost
Nov-21	11/1/2021	7,747	5,075	12,822	7,747	-	7,747	\$ 4.905	\$ 37,999
Nov-21	11/2/2021	8,208	5,480	13,688	8,208	-	8,208	\$ 5.220	\$ 42,846
Nov-21	11/3/2021	8,807	6,672	15,479	8,807	-	8,807	\$ 5.715	\$ 50,332
Nov-21	11/4/2021	8,370	6,728	15,098	8,370	-	8,370	\$ 6.020	\$ 50,387
Nov-21	11/5/2021	8,202	6,786	14,988	8,202	-	8,202	\$ 5.750	\$ 47,162
Nov-21	11/6/2021	6,075	6,250	12,325	6,075	-	6,075	\$ 5.210	\$ 31,651
Nov-21	11/7/2021	5,728	6,078	11,806	5,728	-	5,728	\$ 5.210	\$ 29,843
Nov-21	11/8/2021	7,946	5,706	13,652	7,946	-	7,946	\$ 5.210	\$ 41,399
Nov-21	11/9/2021	7,659	4,385	12,044	7,659	-	7,659	\$ 4.920	\$ 37,682
Nov-21	11/10/2021	8,130	6,319	14,449	8,130	-	8,130	\$ 4.605	\$ 37,439
Nov-21	11/11/2021	7,419	5,269	12,688	7,419	-	7,419	\$ 4.135	\$ 30,678
Nov-21	11/12/2021	6,777	5,076	11,853	6,777	-	6,777	\$ 4.215	\$ 28,565
Nov-21	11/13/2021	6,196	5,240	11,436	6,196	-	6,196	\$ 5.170	\$ 32,033
Nov-21	11/14/2021	5,062	5,611	10,673	5,062	-	5,062	\$ 5.170	\$ 26,171
Nov-21	11/15/2021	7,722	7,068	14,790	7,722	-	7,722	\$ 5.170	\$ 39,923
Nov-21	11/16/2021	8,675	7,231	15,906	8,675	-	8,675	\$ 5.070	\$ 43,982
Nov-21	11/17/2021	8,025	6,341	14,366	8,025	-	8,025	\$ 4.900	\$ 39,323
Nov-21	11/18/2021	7,215	4,943	12,158	7,215	-	7,215	\$ 4.555	\$ 32,864
Nov-21	11/19/2021	8,253	6,747	15,000	8,253	-	8,253	\$ 5.035	\$ 41,554
Nov-21	11/20/2021	7,674	6,383	14,057	7,674	-	7,674	\$ 4.920	\$ 37,756
Nov-21	11/21/2021	4,879	5,187	10,066	4,879	-	4,879	\$ 4.920	\$ 24,005
Nov-21	11/22/2021	7,936	7,081	15,017	7,936	-	7,936	\$ 4.920	\$ 39,045
Nov-21	11/23/2021	9,152	8,841	17,993	9,152	-	9,152	\$ 9.640	\$ 88,225
Nov-21	11/24/2021	6,701	7,737	14,438	6,701	-	6,701	\$ 5.560	\$ 37,258
Nov-21	11/25/2021	4,122	5,507	9,629	4,122	-	4,122	\$ 6.885	\$ 28,380
Nov-21	11/26/2021	4,688	7,023	11,711	4,688	-	4,688	\$ 6.885	\$ 32,277
Nov-21	11/27/2021	5,370	8,055	13,425	5,370	-	5,370	\$ 6.885	\$ 36,972
Nov-21	11/28/2021	6,146	7,534	13,680	6,146	-	6,146	\$ 6.885	\$ 42,315
Nov-21	11/29/2021	9,118	8,653	17,771	9,118	-	9,118	\$ 6.885	\$ 62,777

Load Shape Price Factor Worksheet

Month	Date	Historic Delivery Service Loads			Delivery Service Loads Not Subject to Capacity Assignment			2021-2022 Cost Analysis	
		Capacity Exempt	Capacity Assigned	Total	Capacity Exempt	Capacity Assigned	Total	AGT City-Gate Price	AGT City-Gate Cost
Nov-21	11/30/2021	7,822	8,001	15,823	7,822	-	7,822	\$ 8.325	\$ 65,118
Dec-21	12/1/2021	6,307	7,529	13,836	6,307	-	6,307	\$ 7.855	\$ 49,541
Dec-21	12/2/2021	6,030	6,310	12,340	6,030	-	6,030	\$ 4.925	\$ 29,698
Dec-21	12/3/2021	6,370	8,479	14,849	6,370	-	6,370	\$ 7.745	\$ 49,336
Dec-21	12/4/2021	5,568	7,306	12,874	5,568	-	5,568	\$ 4.925	\$ 27,422
Dec-21	12/5/2021	5,329	6,431	11,760	5,329	-	5,329	\$ 4.925	\$ 26,245
Dec-21	12/6/2021	5,504	5,836	11,340	5,504	-	5,504	\$ 4.925	\$ 27,107
Dec-21	12/7/2021	6,865	8,173	15,038	6,865	-	6,865	\$ 7.565	\$ 51,934
Dec-21	12/8/2021	7,116	9,339	16,455	7,116	-	7,116	\$ 12.140	\$ 86,388
Dec-21	12/9/2021	7,254	8,743	15,997	7,254	-	7,254	\$ 8.615	\$ 62,493
Dec-21	12/10/2021	5,968	7,171	13,139	5,968	-	5,968	\$ 3.710	\$ 22,141
Dec-21	12/11/2021	4,591	5,337	9,928	4,591	-	4,591	\$ 3.885	\$ 17,836
Dec-21	12/12/2021	5,480	6,861	12,341	5,480	-	5,480	\$ 3.885	\$ 21,290
Dec-21	12/13/2021	5,956	6,419	12,375	5,956	-	5,956	\$ 3.885	\$ 23,139
Dec-21	12/14/2021	6,508	7,826	14,334	6,508	-	6,508	\$ 4.550	\$ 29,611
Dec-21	12/15/2021	5,679	7,217	12,896	5,679	-	5,679	\$ 3.520	\$ 19,990
Dec-21	12/16/2021	5,452	5,515	10,967	5,452	-	5,452	\$ 3.510	\$ 19,137
Dec-21	12/17/2021	5,123	6,091	11,214	5,123	-	5,123	\$ 3.860	\$ 19,775
Dec-21	12/18/2021	5,105	7,539	12,644	5,105	-	5,105	\$ 28.060	\$ 143,246
Dec-21	12/19/2021	5,966	9,136	15,102	5,966	-	5,966	\$ 28.060	\$ 167,406
Dec-21	12/20/2021	5,851	8,797	14,648	5,851	-	5,851	\$ 28.060	\$ 164,179
Dec-21	12/21/2021	5,708	8,133	13,841	5,708	-	5,708	\$ 7.660	\$ 43,723
Dec-21	12/22/2021	5,703	8,515	14,218	5,703	-	5,703	\$ 9.950	\$ 56,745
Dec-21	12/23/2021	5,692	9,461	15,153	5,692	-	5,692	\$ 14.580	\$ 82,989
Dec-21	12/24/2021	5,245	8,511	13,756	5,245	-	5,245	\$ 7.335	\$ 38,472
Dec-21	12/25/2021	4,767	7,724	12,491	4,767	-	4,767	\$ 7.335	\$ 34,966
Dec-21	12/26/2021	5,226	8,114	13,340	5,226	-	5,226	\$ 7.335	\$ 38,333
Dec-21	12/27/2021	7,936	8,269	16,205	7,936	-	7,936	\$ 7.335	\$ 58,211
Dec-21	12/28/2021	7,734	7,483	15,217	7,734	-	7,734	\$ 4.600	\$ 35,576

Load Shape Price Factor Worksheet

Month	Date	Historic Delivery Service Loads			Delivery Service Loads Not Subject to Capacity Assignment			2021-2022 Cost Analysis	
		Capacity Exempt	Capacity Assigned	Total	Capacity Exempt	Capacity Assigned	Total	AGT City-Gate Price	AGT City-Gate Cost
Dec-21	12/29/2021	7,064	7,451	14,515	7,064	-	7,064	\$ 4.115	\$ 29,068
Dec-21	12/30/2021	6,402	7,325	13,727	6,402	-	6,402	\$ 3.780	\$ 24,200
Dec-21	12/31/2021	4,093	6,467	10,560	4,093	-	4,093	\$ 3.780	\$ 15,472
Jan-22	1/1/2022	3,804	6,170	9,974	3,804	-	3,804	\$ 5.490	\$ 20,884
Jan-22	1/2/2022	4,505	7,825	12,330	4,505	-	4,505	\$ 5.490	\$ 24,732
Jan-22	1/3/2022	7,250	10,346	17,596	7,250	-	7,250	\$ 5.490	\$ 39,803
Jan-22	1/4/2022	7,734	9,368	17,102	7,734	-	7,734	\$ 10.570	\$ 81,748
Jan-22	1/5/2022	7,250	7,747	14,997	7,250	-	7,250	\$ 6.950	\$ 50,388
Jan-22	1/6/2022	6,610	8,117	14,727	6,610	-	6,610	\$ 11.560	\$ 76,412
Jan-22	1/7/2022	7,236	9,640	16,876	7,236	-	7,236	\$ 23.115	\$ 167,260
Jan-22	1/8/2022	6,595	9,377	15,972	6,595	-	6,595	\$ 21.960	\$ 144,826
Jan-22	1/9/2022	5,468	8,012	13,480	5,468	-	5,468	\$ 21.960	\$ 120,077
Jan-22	1/10/2022	8,385	11,091	19,476	8,385	-	8,385	\$ 21.960	\$ 184,135
Jan-22	1/11/2022	9,119	12,288	21,407	9,119	-	9,119	\$ 20.120	\$ 183,474
Jan-22	1/12/2022	8,220	8,273	16,493	8,220	-	8,220	\$ 16.330	\$ 134,233
Jan-22	1/13/2022	7,918	7,723	15,641	7,918	-	7,918	\$ 18.960	\$ 150,125
Jan-22	1/14/2022	8,135	10,300	18,435	8,135	-	8,135	\$ 25.000	\$ 203,375
Jan-22	1/15/2022	8,251	12,276	20,527	8,251	-	8,251	\$ 26.940	\$ 222,282
Jan-22	1/16/2022	5,767	8,886	14,653	5,767	-	5,767	\$ 26.940	\$ 155,363
Jan-22	1/17/2022	7,365	7,920	15,285	7,365	-	7,365	\$ 26.940	\$ 198,413
Jan-22	1/18/2022	8,985	11,048	20,033	8,985	-	8,985	\$ 26.940	\$ 242,056
Jan-22	1/19/2022	8,122	7,457	15,579	8,122	-	8,122	\$ 14.985	\$ 121,708
Jan-22	1/20/2022	8,748	10,964	19,712	8,748	-	8,748	\$ 22.690	\$ 198,492
Jan-22	1/21/2022	8,525	11,252	19,777	8,525	-	8,525	\$ 21.635	\$ 184,438
Jan-22	1/22/2022	6,124	10,000	16,124	6,124	-	6,124	\$ 21.595	\$ 132,248
Jan-22	1/23/2022	5,764	8,751	14,515	5,764	-	5,764	\$ 21.595	\$ 124,474
Jan-22	1/24/2022	7,988	8,990	16,978	7,988	-	7,988	\$ 21.595	\$ 172,501
Jan-22	1/25/2022	8,035	9,636	17,671	8,035	-	8,035	\$ 20.730	\$ 166,566
Jan-22	1/26/2022	8,701	11,863	20,564	8,701	-	8,701	\$ 24.615	\$ 214,175



Load Shape Price Factor Worksheet

Month	Date	Historic Delivery Service Loads			Delivery Service Loads Not Subject to Capacity Assignment			2021-2022 Cost Analysis	
		Capacity Exempt	Capacity Assigned	Total	Capacity Exempt	Capacity Assigned	Total	AGT City-Gate Price	AGT City-Gate Cost
Jan-22	1/27/2022	8,954	9,775	18,729	8,954	-	8,954	\$ 20.710	\$ 185,437
Jan-22	1/28/2022	8,096	8,763	16,859	8,096	-	8,096	\$ 23.380	\$ 189,284
Jan-22	1/29/2022	5,603	11,809	17,412	5,603	-	5,603	\$ 27.930	\$ 156,492
Jan-22	1/30/2022	6,530	11,244	17,774	6,530	-	6,530	\$ 27.930	\$ 182,383
Jan-22	1/31/2022	8,638	10,676	19,314	8,638	-	8,638	\$ 27.930	\$ 241,259
Feb-22	2/1/2022	9,105	8,774	17,879	9,105	-	9,105	\$ 22.655	\$ 206,274
Feb-22	2/2/2022	7,959	7,198	15,157	7,959	-	7,959	\$ 12.630	\$ 100,522
Feb-22	2/3/2022	7,711	7,191	14,902	7,711	-	7,711	\$ 14.860	\$ 114,585
Feb-22	2/4/2022	8,677	10,004	18,681	8,677	-	8,677	\$ 22.805	\$ 197,879
Feb-22	2/5/2022	8,732	11,083	19,815	8,732	-	8,732	\$ 21.335	\$ 186,297
Feb-22	2/6/2022	8,664	9,508	18,172	8,664	-	8,664	\$ 21.335	\$ 184,846
Feb-22	2/7/2022	7,917	7,718	15,635	7,917	-	7,917	\$ 21.335	\$ 168,909
Feb-22	2/8/2022	8,413	7,992	16,405	8,413	-	8,413	\$ 11.990	\$ 100,872
Feb-22	2/9/2022	8,038	8,024	16,062	8,038	-	8,038	\$ 10.825	\$ 87,011
Feb-22	2/10/2022	7,301	7,173	14,474	7,301	-	7,301	\$ 8.325	\$ 60,781
Feb-22	2/11/2022	6,719	5,915	12,634	6,719	-	6,719	\$ 4.210	\$ 28,287
Feb-22	2/12/2022	6,908	6,654	13,562	6,908	-	6,908	\$ 14.550	\$ 100,511
Feb-22	2/13/2022	6,006	9,557	15,563	6,006	-	6,006	\$ 14.550	\$ 87,387
Feb-22	2/14/2022	9,021	11,766	20,787	9,021	-	9,021	\$ 14.550	\$ 131,256
Feb-22	2/15/2022	9,167	10,562	19,729	9,167	-	9,167	\$ 22.475	\$ 206,028
Feb-22	2/16/2022	7,341	6,812	14,153	7,341	-	7,341	\$ 4.685	\$ 34,393
Feb-22	2/17/2022	6,363	4,104	10,467	6,363	-	6,363	\$ 4.130	\$ 26,279
Feb-22	2/18/2022	8,065	9,263	17,328	8,065	-	8,065	\$ 8.165	\$ 65,851
Feb-22	2/19/2022	8,522	9,573	18,095	8,522	-	8,522	\$ 9.665	\$ 82,365
Feb-22	2/20/2022	6,068	8,464	14,532	6,068	-	6,068	\$ 9.665	\$ 58,647
Feb-22	2/21/2022	7,194	6,822	14,016	7,194	-	7,194	\$ 9.665	\$ 69,530
Feb-22	2/22/2022	6,859	5,783	12,642	6,859	-	6,859	\$ 9.665	\$ 66,292
Feb-22	2/23/2022	6,954	7,880	14,834	6,954	-	6,954	\$ 4.695	\$ 32,649
Feb-22	2/24/2022	8,107	9,357	17,464	8,107	-	8,107	\$ 15.085	\$ 122,294

Load Shape Price Factor Worksheet

Month	Date	Historic Delivery Service Loads			Delivery Service Loads Not Subject to Capacity Assignment			2021-2022 Cost Analysis	
		Capacity Exempt	Capacity Assigned	Total	Capacity Exempt	Capacity Assigned	Total	AGT City-Gate Price	AGT City-Gate Cost
Feb-22	2/25/2022	7,689	10,726	18,415	7,689	-	7,689	\$ 23.745	\$ 182,575
Feb-22	2/26/2022	7,217	9,006	16,223	7,217	-	7,217	\$ 23.390	\$ 168,806
Feb-22	2/27/2022	5,968	9,573	15,541	5,968	-	5,968	\$ 23.390	\$ 139,592
Feb-22	2/28/2022	8,372	10,951	19,323	8,372	-	8,372	\$ 23.390	\$ 195,821
Mar-22	3/1/2022	8,227	8,197	16,424	8,227	-	8,227	\$ 7.930	\$ 65,240
Mar-22	3/2/2022	8,112	8,428	16,540	8,112	-	8,112	\$ 5.065	\$ 41,087
Mar-22	3/3/2022	9,120	10,282	19,402	9,120	-	9,120	\$ 21.545	\$ 196,490
Mar-22	3/4/2022	8,705	9,003	17,708	8,705	-	8,705	\$ 15.375	\$ 133,839
Mar-22	3/5/2022	7,283	6,954	14,237	7,283	-	7,283	\$ 4.730	\$ 34,449
Mar-22	3/6/2022	5,543	4,567	10,110	5,543	-	5,543	\$ 4.730	\$ 26,218
Mar-22	3/7/2022	7,112	6,592	13,704	7,112	-	7,112	\$ 4.730	\$ 33,640
Mar-22	3/8/2022	8,160	8,170	16,330	8,160	-	8,160	\$ 4.850	\$ 39,576
Mar-22	3/9/2022	8,096	8,172	16,268	8,096	-	8,096	\$ 5.295	\$ 42,868
Mar-22	3/10/2022	7,806	6,836	14,642	7,806	-	7,806	\$ 4.605	\$ 35,947
Mar-22	3/11/2022	6,697	6,088	12,785	6,697	-	6,697	\$ 4.590	\$ 30,739
Mar-22	3/12/2022	7,042	8,409	15,451	7,042	-	7,042	\$ 7.610	\$ 53,590
Mar-22	3/13/2022	6,062	8,205	14,267	6,062	-	6,062	\$ 7.610	\$ 46,132
Mar-22	3/14/2022	7,860	6,435	14,295	7,860	-	7,860	\$ 7.610	\$ 59,815
Mar-22	3/15/2022	7,885	6,420	14,305	7,885	-	7,885	\$ 4.400	\$ 34,694
Mar-22	3/16/2022	7,360	6,506	13,866	7,360	-	7,360	\$ 3.980	\$ 29,293
Mar-22	3/17/2022	6,943	5,410	12,353	6,943	-	6,943	\$ 4.005	\$ 27,807
Mar-22	3/18/2022	6,497	4,423	10,920	6,497	-	6,497	\$ 4.010	\$ 26,053
Mar-22	3/19/2022	6,157	5,568	11,725	6,157	-	6,157	\$ 4.030	\$ 24,813
Mar-22	3/20/2022	4,892	5,242	10,134	4,892	-	4,892	\$ 4.030	\$ 19,715
Mar-22	3/21/2022	8,035	6,567	14,602	8,035	-	8,035	\$ 4.030	\$ 32,381
Mar-22	3/22/2022	8,194	7,618	15,812	8,194	-	8,194	\$ 4.645	\$ 38,061
Mar-22	3/23/2022	7,606	6,677	14,283	7,606	-	7,606	\$ 4.985	\$ 37,916
Mar-22	3/24/2022	7,575	7,026	14,601	7,575	-	7,575	\$ 4.955	\$ 37,534
Mar-22	3/25/2022	6,686	5,029	11,715	6,686	-	6,686	\$ 4.655	\$ 31,123

Load Shape Price Factor Worksheet

Month	Date	Historic Delivery Service Loads			Delivery Service Loads Not Subject to Capacity Assignment			2021-2022 Cost Analysis	
		Capacity Exempt	Capacity Assigned	Total	Capacity Exempt	Capacity Assigned	Total	AGT City-Gate Price	AGT City-Gate Cost
Mar-22	3/26/2022	6,366	5,505	11,871	6,366	-	6,366	\$ 8.615	\$ 54,843
Mar-22	3/27/2022	5,985	7,160	13,145	5,985	-	5,985	\$ 8.615	\$ 51,561
Mar-22	3/28/2022	9,156	9,808	18,964	9,156	-	9,156	\$ 8.615	\$ 78,879
Mar-22	3/29/2022	9,147	8,530	17,677	9,147	-	9,147	\$ 12.725	\$ 116,396
Mar-22	3/30/2022	7,774	6,388	14,162	7,774	-	7,774	\$ 5.525	\$ 42,951
Mar-22	3/31/2022	6,894	4,868	11,762	6,894	-	6,894	\$ 4.790	\$ 33,022
Apr-22	4/1/2022	7,208	5,719	12,927	7,208	-	7,208	\$ 5.465	\$ 39,392
Apr-22	4/2/2022	7,240	5,740	12,980	7,240	-	7,240	\$ 5.375	\$ 38,915
Apr-22	4/3/2022	5,954	6,179	12,133	5,954	-	5,954	\$ 5.375	\$ 32,003
Apr-22	4/4/2022	7,517	5,930	13,447	7,517	-	7,517	\$ 5.375	\$ 40,404
Apr-22	4/5/2022	7,661	5,912	13,573	7,661	-	7,661	\$ 5.515	\$ 42,250
Apr-22	4/6/2022	7,624	6,058	13,682	7,624	-	7,624	\$ 5.875	\$ 44,791
Apr-22	4/7/2022	6,910	6,060	12,970	6,910	-	6,910	\$ 6.385	\$ 44,120
Apr-22	4/8/2022	6,620	5,102	11,722	6,620	-	6,620	\$ 5.890	\$ 38,992
Apr-22	4/9/2022	6,541	5,489	12,030	6,541	-	6,541	\$ 6.085	\$ 39,802
Apr-22	4/10/2022	6,804	5,673	12,477	6,804	-	6,804	\$ 6.085	\$ 41,402
Apr-22	4/11/2022	6,883	4,857	11,740	6,883	-	6,883	\$ 6.085	\$ 41,883
Apr-22	4/12/2022	7,146	4,856	12,002	7,146	-	7,146	\$ 6.000	\$ 42,876
Apr-22	4/13/2022	6,905	5,247	12,152	6,905	-	6,905	\$ 6.135	\$ 42,362
Apr-22	4/14/2022	6,648	5,859	12,507	6,648	-	6,648	\$ 6.285	\$ 41,783
Apr-22	4/15/2022	5,987	3,488	9,475	5,987	-	5,987	\$ 6.935	\$ 41,520
Apr-22	4/16/2022	6,106	4,833	10,939	6,106	-	6,106	\$ 6.935	\$ 42,345
Apr-22	4/17/2022	4,935	5,958	10,893	4,935	-	4,935	\$ 6.935	\$ 34,224
Apr-22	4/18/2022	6,938	6,102	13,040	6,938	-	6,938	\$ 6.935	\$ 48,115
Apr-22	4/19/2022	7,550	6,091	13,641	7,550	-	7,550	\$ 7.790	\$ 58,815
Apr-22	4/20/2022	8,072	6,114	14,186	8,072	-	8,072	\$ 7.745	\$ 62,518
Apr-22	4/21/2022	7,329	4,941	12,270	7,329	-	7,329	\$ 6.665	\$ 48,848
Apr-22	4/22/2022	7,180	4,899	12,079	7,180	-	7,180	\$ 7.290	\$ 52,342
Apr-22	4/23/2022	5,932	4,676	10,608	5,932	-	5,932	\$ 5.950	\$ 35,295

## Historic Delivery Service Loads

## 2021-2022 Cost Analysis

[illegible]

Month	Projected Delivery Service Loads			Delivery Service Loads Not Subject to Capacity Assignment		
	Capacity Exempt	Capacity Assigned	Total	Capacity Exempt	Capacity Assigned	Total
Nov-22	220,579	206,384	426,963	220,579	-	220,579
Dec-22	223,362	231,875	455,237	223,362	-	223,362
Jan-23	238,274	258,865	497,139	238,274	-	238,274
Feb-23	225,418	238,518	463,936	225,418	-	225,418
Mar-23	235,373	243,228	478,601	235,373	-	235,373
Apr-23	208,662	198,649	407,311	208,662	-	208,662
Winter	1,351,668	1,377,519	2,729,187	1,351,668	-	1,351,668

## NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION

Typical Residential Heating Bill - 706 therms/year  
Comparison of Winter 2022-2023 vs. Winter 2021-2022Northern Utilities, Inc.  
New Hampshire Division  
REVISED Attachment NUI-SED-3  
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		Nov	Dec	Jan	Feb	Mar	Apr	Winter	May	June	July	August	Sept	October	Summer	Annual
	Typical Usage: therms (*)	51	96	125	121	119	70	582	43	19	14	13	13	24	124	706
1																
2																
3	Winter 2022 - 2023															
4	Customer Charge units @	\$ 22.20						\$133.20								
5	All units @	\$0.9266						\$539.63								
6	COG 1	\$1.1289						\$57.05								
7	COG 2	\$1.1289	\$108.88					\$108.88								
8	COG 3	\$1.1289		\$141.53				\$141.53								
9	COG 4	\$1.1289			\$137.06			\$137.06								
10	COG 5	\$1.1289				\$134.27		\$134.27								
11	COG 6	\$1.1289					\$78.66	\$78.66								
12	LDAC	\$0.1845	\$9.32	\$17.80	\$23.13	\$22.40	\$21.94	\$12.86								
13	Summer 2023															
14	Customer Charge units @	\$ 22.20							\$ 22.20	\$22.20	\$22.20	\$22.20	\$ 22.20	\$22.20	\$133.20	
15	All units @	\$0.9266							\$39.60	\$17.16	\$12.52				\$69.28	
16	All eff. Aug 1, 2023 units @	\$0.9259										\$11.72	\$11.58	\$22.02	\$45.33	
17	COG 1	\$0.6916							\$29.56						\$29.56	
18	COG 2	\$0.6916								\$12.81					\$12.81	
19	COG 3	\$0.6916									\$9.35				\$9.35	
20	COG 4	\$0.6916										\$8.76			\$8.76	
21	COG 5	\$0.6916											\$8.65		\$8.65	
22	COG 6	\$0.6916												\$16.45	\$16.45	
23	Summer Period Weighted Avg. COG	\$0.6916														
24	LDAC	\$ 0.1845							\$7.88	\$3.42	\$2.49	\$2.34	\$2.31	\$4.39	\$22.83	
25	TOTAL		\$135.41	\$238.25	\$303.02	\$294.15	\$288.62	\$178.27	\$99.24	\$55.59	\$46.56	\$45.01	\$44.75	\$65.06	\$356.21	\$1,793.93
	Base Rate Change Winter \$ Change	\$8.40	\$16.04	\$20.85	\$20.19	\$19.78	\$11.59	\$96.85								
	% Change	7.55%	8.35%	8.75%	8.51%	7.98%	7.51%	8.20%								
	COG Change Winter \$ Change	\$9.59	\$18.30	\$29.01	\$22.18	\$8.83	\$5.17	\$93.07								
	% Change	8.62%	9.52%	12.17%	9.34%	3.56%	3.35%	7.88%								
	LDAC Change Winter \$ Change	\$6.14	\$11.71	\$14.88	\$14.41	\$12.24	\$7.17	\$66.54								
	% Change	5.51%	6.09%	6.25%	6.07%	4.94%	4.65%	5.63%								
26																
27	Typical Usage: therms	51	96	125	121	119	70	582	43	19	14	13	13	24	124	706
28	Winter 2021 - 2022															
29	Customer Charge units @	\$ 22.20						\$133.20								
30	First 50 units @	\$0.7603						\$228.09								
31	Over 50 units @	\$0.7603						\$214.69								
32	COG 1	\$0.9392						\$47.47								
33	COG 2	\$0.9392	\$90.59					\$90.59								
34	COG 3	\$0.8975		\$112.52				\$112.52								
35	COG 4	\$0.9462			\$114.87			\$114.87								
36	COG 5	\$1.0547				\$125.44		\$125.44								
37	COG 6	\$1.0547					\$73.49	\$73.49								
38	Winter Period Weighted Avg. COG	\$0.9691														
39	LDAC	\$ 0.0631	\$3.19	\$6.09				\$9.28								
40	LDAC 2, January 1	\$ 0.0658			\$8.25	\$7.99		\$16.24								
41	LDAC 3, March 1	\$ 0.0816				\$9.71	\$5.69	\$15.39								
42	Summer 2022															
43	Customer Charge units @	\$ 22.20							\$22.20	\$22.20	\$22.20	\$22.20	\$22.20	\$22.20	\$133.20	
44	First 50 units @	\$0.6782							\$28.98	\$12.56	\$9.17				\$50.71	
45	Over 50 units @	\$0.6782							\$0.00	\$0.00	\$0.00				\$0.00	
46	Eff. Aug 1, 2022 All @	\$0.8841										\$11.19			\$11.19	
47	Eff. Sept 1, 2022 All @	\$0.9266											\$11.59	\$22.04	\$33.63	
48	COG 1	\$0.6361							\$27.18						\$27.18	
49	COG 2	\$0.9126								\$16.90					\$16.90	
50	COG 3	\$0.9126									\$12.33				\$12.33	
51	COG 4	\$0.9126										\$11.55			\$11.55	
52	COG 5	\$1.1204											\$14.02		\$14.02	
53	COG 6	\$1.1204												\$26.65	\$26.65	
54	Summer Period Weighted Avg. COG	\$0.8781														
55	LDAC	\$ 0.0816							\$3.49	\$1.51	\$1.10	\$1.03	\$1.02	\$1.94	\$10.10	
56	TOTAL		\$111.28	\$192.20	\$238.28	\$237.37	\$247.78	\$154.35	\$81.85	\$53.17	\$44.80	\$45.98	\$48.83	\$72.83	\$347.47	\$1,528.73
57	Change		\$24.13	\$46.05	\$64.74	\$56.78	\$40.84	\$23.93	\$17.38	\$2.41	\$1.76	(\$0.97)	(\$4.09)	(\$7.77)	\$8.74	\$265.20
58	% Chg		21.68%	23.96%	27.17%	23.92%	16.48%	15.50%	21.24%	4.54%	3.93%	-2.10%	-8.37%	-10.67%	2.51%	17.35%

\*-Note- Weighted by usage. Most recent 12 months actual Weather Normalized.

## NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION

## Typical G-40 Commercial &amp; Industrial Bill - 2,099 therms/year

## Comparison of Winter 2022-2023 vs. Winter 2021-2022

Northern Utilities, Inc.  
New Hampshire Division  
REVISED Attachment NUI-SED-3  
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			Nov	Dec	Jan	Feb	Mar	Apr	Winter	May	June	July	August	Sept	October	Summer	Annual
1			138	290	401	397	373	213	1,812	111	40	26	26	26	59	287	2,099
2	Typical Usage: therms (*)																
3	<b>Winter 2022 - 2023</b>																
4	Customer Charge	units @	\$ 80.00	\$80.00	\$80.00	\$80.00	\$80.00	\$80.00	\$480.00								
5	All	units @	\$0.2556	\$35.33	\$74.09	\$102.44	\$101.49	\$95.33	\$463.03								
6		COG 1	\$1.1428	\$157.96					\$157.96								
7		COG 2	\$1.1428		\$331.26				\$331.26								
8		COG 3	\$1.1428		\$458.00				\$458.00								
9		COG 4	\$1.1428			\$453.76			\$453.76								
10		COG 5	\$1.1428				\$426.24		\$426.24								
11		COG 6	\$1.1428					\$243.03	\$243.03								
12		LDAC	\$0.0488	\$6.75	\$14.15	\$19.56	\$19.38	\$18.20	\$10.38								
13	<b>Summer 2023</b>																
14	Customer Charge	units @	\$ 80.00							\$ 80.00	\$80.00	\$80.00	\$80.00	\$ 80.00	\$80.00	\$480.00	
15	All	units @	\$0.2556							\$28.38	\$10.21	\$6.62				\$45.20	
16	All eff. Aug 1, 2023	units @	\$0.2554										\$6.62	\$6.56	\$15.04	\$28.21	
17		COG 1	\$0.7383							\$81.97						\$81.97	
18		COG 2	\$0.7383								\$29.48					\$29.48	
19		COG 3	\$0.7383									\$19.11				\$19.11	
20		COG 4	\$0.7383										\$19.13			\$19.13	
21		COG 5	\$0.7383											\$18.95		\$18.95	
22		COG 6	\$0.7383												\$43.47	\$43.47	
23	Summer Period Weighted Avg. COG		\$0.7383														
24	LDAC		\$ 0.0488							\$5.42	\$1.95	\$1.26	\$1.26	\$1.25	\$2.87	\$14.02	
25	<b>TOTAL</b>			\$280.03	\$499.49	\$659.99	\$654.62	\$619.78	\$387.77	\$195.77	\$121.64	\$106.99	\$107.02	\$106.76	\$141.38	\$779.55	\$3,881.23
	Base Rate Change Winter	\$ Change	\$11.35	\$18.42	\$23.59	\$23.41	\$22.29	\$14.82	\$113.88								
		% Change	5%	4%	4%	4%	4%	4%	4%								
	COG Change Winter	\$ Change	\$25.94	\$54.41	\$91.94	\$71.75	\$26.93	\$15.35	\$286.32								
		% Change	11%	13%	17%	13%	5%	4%	11%								
	LDAC Change Winter	\$ Change	\$1.77	\$3.71	\$1.60	\$1.59	-\$0.60	-\$0.34	\$7.73								
		% Change	0.7%	0.9%	0.3%	0.3%	-0.1%	-0.1%	0.3%								
26			Nov	Dec	Jan	Feb	Mar	Apr	Winter	May	June	July	August	Sept	October	Summer	Annual
27	Typical Usage: therms		138	290	401	397	373	213	1,812	111	40	26	26	26	59	287	2,099
28	<b>Winter 2021 - 2022</b>																
29	Customer Charge	units @	\$ 75.09	\$75.09	\$75.09	\$75.09	\$75.09	\$75.09	\$450.54								
30	First	75 units @	\$0.2090	\$15.68	\$15.68	\$15.68	\$15.68	\$15.68	\$94.05								
31	Over	75 units @	\$0.2090	\$13.21	\$44.91	\$68.09	\$67.31	\$62.28	\$284.56								
32		COG 1	\$0.9551	\$132.01					\$132.01								
33		COG 2	\$0.9551		\$276.85				\$276.85								
34		COG 3	\$0.9134		\$366.06				\$366.06								
35		COG 4	\$0.9621			\$382.01			\$382.01								
36		COG 5	\$1.0706				\$399.31		\$399.31								
37		COG 6	\$1.0706					\$227.68	\$227.68								
38	Winter Period Weighted Avg. COG		\$0.9847														
39	LDAC		\$ 0.0360	\$4.98	\$10.44				\$15.41								
40	LDAC 2, January 1		\$ 0.0448		\$17.95	\$17.79			\$35.74								
41	LDAC 3, March 1		\$ 0.0504				\$18.80	\$10.72	\$29.52								
42	<b>Summer 2022</b>																
43	Customer Charge**	units @	\$ 75.09							\$75.09	\$75.09	\$75.09	\$80.00	\$80.00	\$80.00	\$465.27	
44	First	75 units @	\$0.2090							\$15.68	\$8.35	\$5.41				\$29.43	
45	Over	75 units @	\$0.2090							\$7.53	\$0.00	\$0.00				\$7.53	
46	Eff. Aug. 1, 2022	All @	\$0.2320										\$6.01			\$6.01	
47	Eff. Sept. 1, 2022	All @	\$0.2556											\$6.56	\$15.05	\$21.61	
48		COG 1	\$0.6630							\$73.61						\$73.61	
49		COG 2	\$0.9395								\$37.51					\$37.51	
50		COG 3	\$0.9395									\$24.32				\$24.32	
51		COG 4	\$0.9395										\$24.35			\$24.35	
52		COG 5	\$1.1473											\$29.45		\$29.45	
53		COG 6	\$1.1473												\$67.55	\$67.55	
54	Summer Period Weighted Avg. COG		\$0.8938														
55	LDAC		\$ 0.0504							\$5.60	\$2.01	\$1.30	\$1.31	\$1.29	\$2.97	\$14.48	
56	<b>TOTAL</b>			\$240.97	\$422.96	\$542.86	\$557.87	\$571.15	\$357.93	\$177.50	\$122.96	\$106.13	\$111.67	\$117.31	\$165.57	\$801.13	\$3,494.88
57	Change			\$39.06	\$76.54	\$117.12	\$96.75	\$48.62	\$29.83	\$18.27	(\$1.33)	\$0.87	(\$4.65)	(\$10.55)	(\$24.19)	(\$21.58)	\$386.35
58	% Chg			16.21%	18.10%	21.58%	17.34%	8.51%	8.34%	10.29%	-1.08%	0.82%	-4.16%	-8.99%	-14.61%	-2.69%	11.05%

\*-Note- Weighted by usage. Actual Weather Normalized.

## NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION

Typical G-41 Commercial &amp; Industrial Bill - 22,095 therms/year

Comparison of Winter 2022-2023 vs. Winter 2021-2022

Northern Utilities, Inc.  
New Hampshire Division  
REVISED Attachment NUI-SED-3  
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		Nov	Dec	Jan	Feb	Mar	Apr	Winter	May	June	July	August	Sept	October	Summer	Annual
1		1,710	3,040	3,954	3,758	3,606	2,229	18,298	1,283	526	391	382	389	825	3,797	22,095
2	Typical Usage: therms (*)															
3	<b>Winter 2022 - 2023</b>															
4	Customer Charge units @	\$ 225.00	\$225.00	\$225.00	\$225.00	\$225.00	\$225.00	\$1,350.00								
5	All units @	\$0.2883	\$492.93	\$876.44	\$1,139.97	\$1,083.53	\$1,039.72	\$642.62	\$225.00	\$225.00	\$225.00	\$225.00	\$225.00	\$225.00	\$1,350.00	\$5,275.22
6	COG 1	\$1.1428	\$1,953.94					\$1,953.94								\$1,953.94
7	COG 2	\$1.1428		\$3,474.16				\$3,474.16								\$3,474.16
8	COG 3	\$1.1428			\$4,518.78			\$4,518.78								\$4,518.78
9	COG 4	\$1.1428				\$4,295.04		\$4,295.04								\$4,295.04
10	COG 5	\$1.1428					\$4,121.38	\$4,121.38								\$4,121.38
11	COG 6	\$1.1428						\$2,547.31								\$2,547.31
12	LDAC	\$0.0488	\$83.44	\$148.35	\$192.96	\$183.41	\$175.99	\$108.78	\$892.93							\$892.93
13	<b>Summer 2023</b>															
14	Customer Charge units @	\$ 225.00							\$ 225.00	\$225.00	\$225.00	\$225.00	\$ 225.00	\$225.00	\$1,350.00	\$1,350.00
15	All units @	\$0.2883							\$370.02	\$151.70	\$112.67					\$634.40
16	All eff. Aug 1, 2023 units @	\$0.2881										\$110.06	\$112.18	\$237.76		\$460.00
17	COG 1	\$0.7383							\$947.58							\$947.58
18	COG 2	\$0.7383								\$388.49						\$388.49
19	COG 3	\$0.7383									\$288.55					\$288.55
20	COG 4	\$0.7383										\$282.04				\$282.04
21	COG 5	\$0.7383											\$287.48			\$287.48
22	COG 6	\$0.7383												\$609.31		\$609.31
23	Summer Period Weighted Avg. COG	\$0.7383														
24	LDAC	\$ 0.0488							\$62.63	\$25.68	\$19.07	\$18.64	\$19.00	\$40.27	\$185.30	
25	<b>TOTAL</b>		\$2,755.30	\$4,723.96	\$6,076.71	\$5,786.98	\$5,562.10	\$3,523.70	\$1,605.24	\$790.88	\$645.29	\$635.73	\$643.67	\$1,112.35	\$5,433.15	\$33,861.91
	Base Rate Change Winter	\$ Change	\$42.20	\$73.19	\$94.49	\$89.93	\$86.39	\$54.30								\$440.50
	% Change		1.78%	1.81%	1.87%	1.80%	1.65%	1.64%								1.76%
	COG Change Winter	\$ Change	\$320.93	\$570.62	\$907.08	\$679.13	\$260.38	\$160.93								\$2,899.07
	% Change		13.54%	14.12%	17.93%	13.57%	4.99%	4.86%								11.59%
	LDAC Change Winter	\$ Change	\$21.89	\$38.91	\$15.82	\$15.03	-\$5.77	-\$3.57								\$82.31
	% Change		0.923%	0.963%	0.313%	0.300%	-0.111%	-0.108%								0.33%
26																
27	Typical Usage: therms		1,710	3,040	3,954	3,758	3,606	2,229	1,283	526	391	382	389	825	3,797	22,095
28	<b>Winter 2021 - 2022</b>															
29	Customer Charge units @	\$ 222.64	\$222.64	\$222.64	\$222.64	\$222.64	\$222.64	\$1,335.84								
30	All units @	\$0.2650	\$453.09	\$805.61	\$1,047.84	\$995.96	\$955.69	\$590.69	\$222.64	\$222.64	\$222.64	\$225.00	\$225.00	\$225.00	\$1,342.92	\$4,848.89
31	COG 1	\$0.9551	\$1,633.01					\$1,633.01								\$1,633.01
32	COG 2	\$0.9551		\$2,903.54				\$2,903.54								\$2,903.54
33	COG 3	\$0.9134			\$3,611.70			\$3,611.70								\$3,611.70
34	COG 4	\$0.9621				\$3,615.91		\$3,615.91								\$3,615.91
35	COG 5	\$1.0706					\$3,861.00	\$3,861.00								\$3,861.00
36	COG 6	\$1.0706						\$2,386.37								\$2,386.37
37	Winter Period Weighted Avg. COG	\$0.9844														
38	LDAC	\$ 0.0360	\$61.55	\$109.44				\$170.99								\$170.99
39	LDAC 2, January 1	\$ 0.0448			\$177.14	\$168.37		\$345.52								\$345.52
40	LDAC 3, March 1	\$ 0.0504				\$181.76	\$112.34	\$294.10								\$294.10
41	<b>Summer 2022</b>															
42	Customer Charge** units @	\$ 222.64							\$222.64	\$222.64	\$222.64	\$225.00	\$225.00	\$225.00	\$1,342.92	\$1,342.92
43	All units @	\$0.2120							\$272.09	\$111.55	\$82.85					\$466.50
44	Eff. Aug. 1, 2022 All @	\$0.2744										\$104.82				\$104.82
45	Eff. Sept. 1, 2022 All @	\$0.2883											\$112.26	\$237.93		\$350.19
46	COG 1	\$0.6630							\$850.94							\$850.94
47	COG 2	\$0.9395								\$494.37						\$494.37
48	COG 3	\$0.9395									\$367.18					\$367.18
49	COG 4	\$0.9395										\$358.90				\$358.90
50	COG 5	\$1.1473											\$446.74			\$446.74
51	COG 6	\$1.1473												\$946.85		\$946.85
52	Summer Period Weighted Avg. COG	\$0.9125														
53	LDAC	\$ 0.0504							\$64.69	\$26.52	\$19.70	\$19.25	\$19.62	\$41.59	\$191.38	
54	<b>TOTAL</b>		\$2,370.29	\$4,041.24	\$5,059.33	\$5,002.88	\$5,221.10	\$3,312.04	\$1,410.36	\$855.08	\$692.37	\$707.97	\$803.62	\$1,451.37	\$5,920.78	\$30,927.66
55	Change		\$385.01	\$682.72	\$1,017.38	\$784.10	\$341.00	\$211.66	\$194.88	(\$64.20)	(\$47.08)	(\$72.24)	(\$159.96)	(\$339.03)	(\$487.63)	\$2,934.25
56	% Chg		16.24%	16.89%	20.11%	15.67%	6.53%	6.39%	13.82%	-7.51%	-6.80%	-10.20%	-19.90%	-23.36%	-8.24%	9.49%

\*-Note- Weighted by usage. Actual Weather Normalized.



## NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION

Typical G-51 Commercial &amp; Industrial Bill - 19,136 therms/year

Comparison of Winter 2022-2023 vs. Winter 2021-2022

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			Nov	Dec	Jan	Feb	Mar	Apr	Winter		May	June	July	August	Sept	October	Summer	Annual
2	Typical Usage: therms (*)		1,484	1,967	2,180	2,139	2,117	1,720	11,606		1,465	1,237	1,134	1,220	1,164	1,310	7,530	19,136
3	Winter 2022 - 2023																	
4	Customer Charge	units @	\$ 225.00	\$225.00	\$225.00	\$225.00	\$225.00	\$225.00	\$1,350.00									
5	All	units @	\$0.1770	\$262.68	\$348.09	\$385.80	\$378.55	\$374.68	\$304.43									
6		COG 1	\$1.0536	\$1,563.64					\$1,563.64									
7		COG 2	\$1.0536	\$2,072.05					\$2,072.05									
8		COG 3	\$1.0536		\$2,296.50				\$2,296.50									
9		COG 4	\$1.0536			\$2,253.32			\$2,253.32									
10		COG 5	\$1.0536				\$2,230.31		\$2,230.31									
11		COG 6	\$1.0536					\$1,812.11	\$1,812.11									
12		LDAC	\$0.0488	\$72.42	\$95.97	\$106.37	\$104.37	\$103.30	\$83.93	\$566.37								
13	Summer 2023																	
14	Customer Charge	units @	\$ 225.00							\$ 225.00	\$225.00	\$225.00	\$225.00	\$ 225.00	\$225.00		\$1,350.00	
15	All	units @	\$0.1770							\$259.32	\$218.92	\$200.72					\$678.96	
16	All eff. Aug 1, 2023	units @	\$0.1763										\$215.09	\$205.27	\$230.98		\$651.34	
17		COG 1	\$0.6331							\$927.56							\$927.56	
18		COG 2	\$0.6331								\$783.04						\$783.04	
19		COG 3	\$0.6331									\$717.93					\$717.93	
20		COG 4	\$0.6331										\$772.40				\$772.40	
21		COG 5	\$0.6331											\$737.13			\$737.13	
22		COG 6	\$0.6331												\$829.47		\$829.47	
23		Summer Period Weighted Avg. COG	\$0.6331															
24		LDAC	\$ 0.0488							\$71.50	\$60.36	\$55.34	\$59.54	\$56.82	\$63.94		\$367.49	
25		TOTAL		\$2,123.75	\$2,741.11	\$3,013.67	\$2,961.24	\$2,933.29	\$2,425.47	\$16,198.53	\$1,483.38	\$1,287.31	\$1,198.99	\$1,272.03	\$1,224.22	\$1,349.39	\$7,815.31	\$24,013.85
	Base Rate Change Winter	\$ Change	-\$16.66	-\$9.62	-\$6.51	-\$7.11	-\$7.42	-\$13.22	-\$60.53									
		% Change	-0.92%	-0.42%	-0.26%	-0.28%	-0.27%	-0.58%	-0.43%									
	COG Change Winter	\$ Change	\$309.14	\$409.65	\$544.92	\$430.52	\$196.44	\$159.61	\$2,050.27									
		% Change	17.06%	17.69%	22.09%	17.02%	7.15%	6.99%	14.49%									
	LDAC Change Winter	\$ Change	\$19.00	\$25.17	\$8.72	\$8.55	-\$3.39	-\$2.75	\$55.30									
		% Change	1.05%	1.09%	0.35%	0.34%	-0.12%	-0.12%	0.39%									
26			Nov	Dec	Jan	Feb	Mar	Apr	Winter		May	June	July	August	Sept	October	Summer	Annual
27	Typical Usage: therms		1,484	1,967	2,180	2,139	2,117	1,720	11,606		1,465	1,237	1,134	1,220	1,164	1,310	7,530	19,136
28	Winter 2021 - 2022																	
29	Customer Charge	units @	\$ 222.64	\$222.64	\$222.64	\$222.64	\$222.64	\$222.64	\$1,335.84									
30	First 1,300	units @	\$0.1937	\$251.81	\$251.81	\$251.81	\$251.81	\$251.81	\$1,510.86									
31	Over 1,300	units @	\$0.1624	\$29.90	\$108.26	\$142.86	\$136.20	\$132.66	\$68.20									
32		COG 1	\$0.8453	\$1,254.50					\$1,254.50									
33		COG 2	\$0.8453		\$1,662.40				\$1,662.40									
34		COG 3	\$0.8036			\$1,751.58			\$1,751.58									
35		COG 4	\$0.8523				\$1,822.80		\$1,822.80									
36		COG 5	\$0.9608					\$2,033.87	\$2,033.87									
37		COG 6	\$0.9608						\$1,652.50									
38		Winter Period Weighted Avg. COG	\$0.8769															
39		LDAC	\$ 0.0360	\$53.43	\$70.80				\$124.23									
40		LDAC 2, January 1	\$ 0.0448			\$97.65	\$95.81		\$193.46									
41		LDAC 3, March 1	\$ 0.0504					\$106.69	\$193.37									
42	Summer 2022																	
43	Customer Charge**	units @	\$ 222.64							\$222.64	\$222.64	\$222.64	\$225.00	\$225.00	\$225.00		\$1,342.92	
44	First 1,000	units @	\$0.1562							\$156.20	\$156.20	\$156.20					\$468.60	
45	Over 1,000	units @	\$0.1312							\$61.02	\$31.07	\$17.58					\$109.67	
46	Eff. Aug. 1, 2022	All @	\$0.1656										\$202.04				\$202.04	
47	Eff. Sept. 1, 2022	All @	\$0.1770											\$206.08	\$231.90		\$437.98	
48		COG 1	\$0.5925							\$868.08							\$868.08	
49		COG 2	\$0.8690								\$1,074.80						\$1,074.80	
50		COG 3	\$0.8690									\$985.44					\$985.44	
51		COG 4	\$0.8690										\$1,060.21				\$1,060.21	
52		COG 5	\$1.0768											\$1,253.74			\$1,253.74	
53		COG 6	\$1.0768													\$1,410.79	\$1,410.79	
54		Summer Period Weighted Avg. COG	\$0.8835															
55		LDAC	\$ 0.0504							\$73.84	\$62.34	\$57.15	\$61.49	\$58.68	\$66.03		\$379.53	
56		TOTAL		\$1,812.28	\$2,315.91	\$2,466.54	\$2,529.27	\$2,747.66	\$2,281.83	\$14,153.49	\$1,381.78	\$1,547.05	\$1,439.01	\$1,548.73	\$1,743.50	\$1,933.72	\$9,593.80	\$23,747.29
57		Change		\$311.47	\$425.21	\$547.13	\$431.97	\$185.63	\$143.64	\$2,045.04	\$101.60	(\$259.74)	(\$240.03)	(\$276.70)	(\$519.28)	(\$584.34)	(\$1,778.49)	\$266.56
58		% Chg		17.19%	18.36%	22.18%	17.08%	6.76%	6.29%	14.45%	7.35%	-16.79%	-16.68%	-17.87%	-29.78%	-30.22%	-18.54%	1.12%

\*Note- Weighted by usage. Actual Weather Normalized.

**NORTHERN UTILITIES, INC. -- NEW HAMPSHIRE DIVISION****Impact of Rate Changes on Residential Heating Bills by Usage Level****Forecast Winter 2022-2023 vs. Actual Winter 2021-2022**

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 New Hampshire Division  
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<b><u>Residential Heating</u></b>		
	<b><u>Winter 2021- 2022</u></b>	<b><u>Winter 2022 2023</u></b>
Customer Charge	\$22.20	\$22.20
First 50 Therms	\$0.7603	\$0.9266
Over 50 therms	\$0.7603	\$0.9266
LDAC**	\$0.0702	\$0.1845
CGA	\$0.9691	\$1.1289

Usage (Therms)	Winter 2021-2022	Winter 2022-2023	Total Bill		Base Rate		CGA		LDAC		
	Bill Amount	Bill Amount									
5	\$31.20	\$33.40	\$2.20	7.1%	\$0.83	2.7%	\$0.80	2.6%	\$0.57	1.8%	
10	\$40.20	\$44.60	\$4.40	11.0%	\$1.66	4.1%	\$1.60	4.0%	\$1.14	2.8%	
20	\$58.19	\$67.00	\$8.81	15.1%	\$3.33	5.7%	\$3.20	5.5%	\$2.29	3.9%	
25	\$67.19	\$78.20	\$11.01	16.4%	\$4.16	6.2%	\$4.00	6.0%	\$2.86	4.3%	
30	\$76.19	\$89.40	\$13.21	17.3%	\$4.99	6.5%	\$4.79	6.3%	\$3.43	4.5%	
45	\$103.18	\$123.00	\$19.82	19.2%	\$7.48	7.2%	\$7.19	7.0%	\$5.14	5.0%	
50	\$112.18	\$134.20	\$22.02	19.6%	\$8.32	7.4%	\$7.99	7.1%	\$5.71	5.1%	
75	\$157.17	\$190.20	\$33.03	21.0%	\$12.48	7.9%	\$11.99	7.6%	\$8.57	5.5%	
Monthly*	125	\$247.15	\$302.20	\$55.05	22.3%	\$20.79	8.4%	\$19.98	8.1%	\$14.28	5.8%
	150	\$292.14	\$358.20	\$66.06	22.6%	\$24.95	8.5%	\$23.97	8.2%	\$17.14	5.9%
	200	\$382.13	\$470.20	\$88.07	23.0%	\$33.27	8.7%	\$31.96	8.4%	\$22.85	6.0%

\* Monthly amount for benchmarking purposes, does not represent the average monthly use of Northern's residential class.

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# **NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION**

## **Typical Residential Heating Bill - 124 therms/Summer**

### **Comparison of Summer 2023 vs. Summer 2022**

			May	June	July	August	Sept	October	Summer
1	Typical Usage: therms(*)		43	19	14	13	13	24	124
2									
3	<b>Summer 2023</b>								
4	Customer Charge	units @ \$22.20	\$22.20	\$22.20	\$22.20	\$22.20	\$22.20	\$22.20	\$133.20
5	All	units @ \$0.9266	\$39.60	\$17.16	\$12.52				\$69.28
6	All eff. Aug 1, 2023	units @ \$0.9259				\$11.72	\$11.58	\$22.02	\$45.33
7		COG 1 \$0.6916	\$29.56						\$29.56
8		COG 2 \$0.6916		\$12.81					\$12.81
9		COG 3 \$0.6916			\$9.35				\$9.35
10		COG 4 \$0.6916				\$8.76			\$8.76
11		COG 5 \$0.6916					\$8.65		\$8.65
12		COG 6 \$0.6916						\$16.45	\$16.45
13	Summer Period 2021 Avg. COG	\$0.6916 *							
14	LDAC	\$0.1845	\$7.88	\$3.42	\$2.49	\$2.34	\$2.31	\$4.39	\$22.83
15	<b>TOTAL</b>		\$99.24	\$55.59	\$46.56	\$45.01	\$44.75	\$65.06	<b>\$356.21</b>
	Base Rate Change	\$ Change	\$10.62	\$4.60	\$3.36	\$0.00	\$0.00	\$0.00	<b>\$18.57</b>
		% Change	12.97%	8.65%	7.49%	0.00%	0.00%	0.00%	<b>5.35%</b>
	COG Change	\$ Change	\$2.37	-\$4.09	-\$2.99	-\$2.80	-\$5.36	-\$10.20	<b>-\$23.07</b>
		% Change	2.90%	-7.70%	-6.67%	-6.09%	-10.99%	-14.00%	<b>-6.64%</b>
	LDAC Change	\$ Change	\$4.40	\$1.91	\$1.39	\$1.30	\$1.29	\$2.45	<b>\$12.73</b>
		% Change	5.37%	3.58%	3.10%	2.83%	2.64%	3.36%	<b>3.66%</b>
16									
17	Typical Usage: therms		43	19	14	13	13	24	124
18	<b>Summer 2022</b>								
19	Customer Charge	units @ \$22.20	\$22.20	\$22.20	\$22.20	\$22.20	\$22.20	\$22.20	\$133.20
20	First	50 units @ \$0.6782	\$28.98	\$12.56	\$9.17				\$50.71
21	Over	50 units @ \$0.6782	\$0.00	\$0.00	\$0.00				\$0.00
22	Eff. Aug 1, 2022	All @ \$0.8841				\$11.19			\$11.19
23	Eff. Sept 1, 2022	All @ \$0.9266					\$11.59	\$22.04	\$33.63
24		COG 1 \$0.6361	\$27.18						\$27.18
25		COG 2 \$0.9126		\$16.90					\$16.90
26		COG 3 \$0.9126			\$12.33				\$12.33
27		COG 4 \$0.9126				\$11.55			\$11.55
28		COG 5 \$1.1204					\$14.02		\$14.02
29		COG 6 \$1.1204						\$26.65	\$26.65
30	Summer Period 2020 Avg. COG	\$0.8781 *							
31	LDAC	\$0.0816	\$3.49	\$1.51	\$1.10	\$1.03	\$1.02	\$1.94	\$10.10
32	<b>TOTAL</b>		\$81.85	\$53.17	\$44.80	\$45.98	\$48.83	\$72.83	<b>\$347.47</b>
33	<b>Change</b>		\$17.38	\$2.41	\$1.76	-\$0.97	-\$4.09	-\$7.77	<b>\$8.74</b>
34	<b>% Chg</b>		21.24%	4.54%	3.93%	-2.10%	-8.37%	-10.67%	<b>2.51%</b>

\*-Note- Weighted by usage. Actual Weather Normalized.

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# **NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION**

## **Typical G-40 Commercial & Industrial Bill - 287 therms/Summer**

### **Comparison of Summer 2023 vs. Summer 2022**

			May	June	July	August	Sept	October	Summer
1									
2	Typical Usage: therms(*)		111	40	26	26	26	59	<b>287</b>
3	<b>Summer 2023</b>								
4	Customer Charge	units @	\$80.00	\$80.00	\$80.00	\$80.00	\$80.00	\$80.00	\$480.00
5	All	units @	\$0.2556	\$28.38	\$10.21	\$6.62			\$45.20
6	All eff. Aug 1, 2023	units @	\$0.2554			\$6.62	\$6.56	\$15.04	\$28.21
7		COG 1	\$0.7383	\$81.97					\$81.97
8		COG 2	\$0.7383	\$29.48					\$29.48
9		COG 3	\$0.7383		\$19.11				\$19.11
10		COG 4	\$0.7383			\$19.13			\$19.13
11		COG 5	\$0.7383				\$18.95		\$18.95
12		COG 6	\$0.7383					\$43.47	\$43.47
13	Summer Period 2021 Avg. COG		\$0.7383 *						
14	LDAC		\$0.0488	\$5.42	\$1.95	\$1.26	\$1.26	\$1.25	\$2.87
15	<b>TOTAL</b>			\$195.77	\$121.64	\$106.99	\$107.02	\$106.76	\$141.38
	Base Rate Change	\$ Change	\$10.08	\$6.77	\$6.12	\$11.53	\$11.47	\$19.95	\$65.91
		% Change	5.68%	5.51%	5.76%	10.80%	10.20%	12.42%	8.38%
	COG Change	\$ Change	\$8.36	-\$8.03	-\$5.21	-\$5.21	-\$10.50	-\$24.08	-\$44.68
		% Change	4.71%	-6.53%	-4.91%	-4.88%	-9.34%	-14.99%	-5.68%
	LDAC Change	\$ Change	-\$0.18	-\$0.06	-\$0.04	-\$0.04	-\$0.04	-\$0.09	-\$0.46
		% Change	-0.10%	-0.05%	-0.04%	-0.04%	-0.04%	-0.06%	-0.06%
16									
17	Typical Usage: therms		111	40	26	26	26	59	<b>287</b>
18	<b>Summer 2022</b>								
19	Customer Charge	units @	\$75.09	\$75.09	\$75.09	\$75.09	\$75.09	\$75.09	\$450.54
20	First	75 units @	\$0.2090	\$15.68	\$8.35	\$5.41			\$29.43
21	Over	75 units @	\$0.2090	\$7.53	\$0.00	\$0.00			\$7.53
22	Eff, Aug. 1, 2022	All @	\$0.2320			\$6.01			\$6.01
23	Eff, Sept. 1, 2022	All @	\$0.2556				\$6.56	\$15.05	\$21.61
24		COG 1	\$0.6630	\$73.61					\$73.61
25		COG 2	\$0.9395	\$37.51					\$37.51
26		COG 3	\$0.9395		\$24.32				\$24.32
27		COG 4	\$0.9395			\$24.35			\$24.35
28		COG 5	\$1.1473				\$29.45		\$29.45
29		COG 6	\$1.1473					\$67.55	\$67.55
30	Summer Period 2020 Avg. COG		\$0.8938 *						
31	LDAC		\$0.0504	\$5.60	\$2.01	\$1.30	\$1.31	\$1.29	\$2.97
32	<b>TOTAL</b>			\$177.50	\$122.96	\$106.13	\$106.76	\$112.40	\$160.66
33	<b>Change</b>			\$18.27	-\$1.33	\$0.87	\$0.26	-\$5.64	-\$19.28
34	<b>% Chg</b>			10.29%	-1.08%	0.82%	0.24%	-5.01%	-12.00%

\*-Note- Weighted by usage. Actual Weather Normalized.

# **NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION**

## **Typical G-41 Commercial & Industrial Bill - 3,797 therms/Summer**

### **Comparison of Summer 2023 vs. Summer 2022**

			May	June	July	August	Sept	October	Summer
1									
2	Typical Usage: therms(1)		1,283	526	391	382	389	825	<b>3,797</b>
3	<b>Summer 2023</b>								
4	Customer Charge	units @	\$222.64	\$222.64	\$222.64	\$222.64	\$222.64	\$222.64	\$1,335.84
5	All	units @	\$0.1895	\$243.22	\$99.72	\$74.06			\$416.99
6	All eff. Aug 1, 2023	units @	\$0.2881			\$110.06	\$112.18	\$237.76	\$460.00
7		COG 1	\$0.7383	\$947.58					\$947.58
8		COG 2	\$0.7383		\$388.49				\$388.49
9		COG 3	\$0.7383			\$288.55			\$288.55
10		COG 4	\$0.7383			\$282.04			\$282.04
11		COG 5	\$0.7383				\$287.48		\$287.48
12		COG 6	\$0.7383					\$609.31	\$609.31
13	Summer Period 2021 Avg. COG		\$0.7383 *						
14	LDAC		\$0.0488	\$62.63	\$25.68	\$19.07	\$18.64	\$19.00	\$40.27
15	<b>TOTAL</b>			\$1,476.07	\$736.53	\$604.32	\$633.37	\$641.31	\$1,109.99
									<b>\$5,201.58</b>
	Base Rate Change	\$ Change	-\$28.88	-\$11.84	-\$8.79	\$0.00	\$0.00	\$0.00	-\$49.51
		% Change	-2.05%	-1.38%	-1.27%	0.00%	0.00%	0.00%	-0.84%
	COG Change	\$ Change	\$96.64	-\$105.87	-\$78.63	-\$76.86	-\$159.26	-\$337.54	-\$661.52
		% Change	6.85%	-12.38%	-11.36%	-10.89%	-19.88%	-23.29%	-11.19%
	LDAC Change	\$ Change	-\$2.05	-\$0.84	-\$0.63	-\$0.61	-\$0.62	-\$1.32	-\$6.08
		% Change	-0.15%	-0.10%	-0.09%	-0.09%	-0.08%	-0.09%	-0.10%
16									
17	Typical Usage: therms		1,283	526	391	382	389	825	<b>3,797</b>
18	<b>Summer 2022</b>								
19	Customer Charge	units @	\$222.64	\$222.64	\$222.64	\$222.64	\$222.64	\$222.64	\$1,335.84
20	All	units @	\$0.2120	\$272.09	\$111.55	\$82.85			\$466.50
21	Eff, Aug. 1, 2022	All @	\$0.2744			\$104.82			\$104.82
22	Eff, Sept. 1, 2022	All @	\$0.2883				\$112.26	\$237.93	\$350.19
23		COG 1	\$0.6630	\$850.94					\$850.94
24		COG 2	\$0.9395		\$494.37				\$494.37
25		COG 3	\$0.9395			\$367.18			\$367.18
26		COG 4	\$0.9395				\$358.90		\$358.90
27		COG 5	\$1.1473				\$446.74		\$446.74
28		COG 6	\$1.1473					\$946.85	\$946.85
29	Summer Period 2020 Avg. COG		\$0.9125 *						
30	LDAC		\$0.0504	\$64.69	\$26.52	\$19.70	\$19.25	\$19.62	\$41.59
31	<b>TOTAL</b>			\$1,410.36	\$855.08	\$692.37	\$705.61	\$801.26	\$1,449.01
32	<b>Change</b>			\$65.71	-\$118.55	-\$88.05	-\$72.24	-\$159.96	-\$339.03
33	<b>% Chg</b>			4.66%	-13.86%	-12.72%	-10.24%	-19.96%	-23.40%

\*-Note- Weighted by usage. Actual Weather Normalized.

# **NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION**

## **Typical G-51 Commercial & Industrial Bill - 7,530 therms/Summer**

### **Comparison of Summer 2023 vs. Summer 2022**

			May	June	July	August	Sept	October	Summer
1									
2	Typical Usage: therms(1)		1,465	1,237	1,134	1,220	1,164	1,310	<b>7,530</b>
3	<b>Summer 2023</b>								
4	Customer Charge	units @ \$225.00	\$225.00	\$225.00	\$225.00	\$225.00	\$225.00	\$225.00	\$1,350.00
5	All	units @ \$0.1770	\$259.32	\$218.92	\$200.72				\$678.96
6	All eff. Aug 1, 2023	units @ \$0.1763				\$215.09	\$205.27	\$230.98	\$651.34
7		COG 1 \$0.6331	\$927.56						\$927.56
8		COG 2 \$0.6331		\$783.04					\$783.04
9		COG 3 \$0.6331			\$717.93				\$717.93
10		COG 4 \$0.6331				\$772.40			\$772.40
11		COG 5 \$0.6331					\$737.13		\$737.13
12		COG 6 \$0.6331						\$829.47	\$829.47
13	Summer Period 2021 Avg. COG	\$0.6331 *							
14	LDAC	\$0.0488	\$71.50	\$60.36	\$55.34	\$59.54	\$56.82	\$63.94	\$367.49
15	<b>TOTAL</b>		\$1,483.38	\$1,287.31	\$1,198.99	\$1,272.03	\$1,224.22	\$1,349.39	\$7,815.31
	Base Rate Change	\$ Change	\$44.46	\$34.01	\$29.30	\$2.36	\$2.36	\$2.36	<b>\$114.85</b>
		% Change	3.22%	2.20%	2.60%	0.20%	0.14%	0.12%	<b>1.29%</b>
	COG Change	\$ Change	\$59.48	-\$291.77	\$46.04	\$49.53	-\$516.61	-\$581.32	<b>-\$1,234.64</b>
		% Change	4.30%	-18.86%	4.09%	4.10%	-29.67%	-30.10%	<b>-13.82%</b>
	LDAC Change	\$ Change	-\$2.34	-\$1.98	-\$1.81	-\$1.95	-\$1.86	-\$2.10	<b>-\$12.05</b>
		% Change	-0.17%	-0.13%	-0.16%	-0.16%	-0.11%	-0.11%	<b>-0.13%</b>
16									
17	Typical Usage: therms		1,465	1,237	1,134	1,220	1,164	1,310	<b>7,530</b>
18	<b>Summer 2022</b>								
19	Customer Charge	units @ \$222.64	\$222.64	\$222.64	\$222.64	\$222.64	\$222.64	\$222.64	\$1,335.84
20	First	1,000 units @ \$0.1562	\$156.20	\$156.20	\$156.20				\$468.60
21	Over	1,000 units @ \$0.1312	\$61.02	\$31.07	\$17.58				\$109.67
22	Eff. Aug. 1, 2022	All @ \$0.1656				\$202.04			\$202.04
23	Eff. Sept. 1, 2022	All @ \$0.1770					\$206.08	\$231.90	\$437.98
24		COG 1 \$0.5925	\$868.08						\$868.08
25		COG 2 \$0.8690		\$1,074.80					\$1,074.80
26		COG 3 \$0.5925			\$671.89				\$671.89
27		COG 4 \$0.5925				\$722.87			\$722.87
28		COG 5 \$1.0768					\$1,253.74		\$1,253.74
29		COG 6 \$1.0768						\$1,410.79	\$1,410.79
30	Summer Period 2020 Avg. COG	\$0.7971 *							
31	LDAC	\$0.0504	\$73.84	\$62.34	\$57.15	\$61.49	\$58.68	\$66.03	\$379.53
32	<b>TOTAL</b>		\$1,381.78	\$1,547.05	\$1,125.46	\$1,209.03	\$1,741.14	\$1,931.36	<b>\$8,935.83</b>
33	<b>Change</b>		\$101.60	-\$259.74	\$73.52	\$63.00	-\$516.92	-\$581.98	<b>-\$1,120.52</b>
34	<b>% Chg</b>		7.35%	-16.79%	6.53%	5.21%	-29.69%	-30.13%	<b>-12.54%</b>

\*-Note- Weighted by usage.

**NORTHERN UTILITIES, INC. -- NEW HAMPSHIRE DIVISION****Impact of Rate Changes on Residential Heating Bills by Usage Level****Forecast Summer 2023 vs. Actual Summer 2022**

Northern Utilities, Inc.  
 New Hampshire Division  
 REVISED Attachment NUI-SED-3  
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<b>Residential Heating</b>		
	<u>Summer 2022</u>	<u>Summer 2023</u>
Customer Charge	\$22.20	\$22.20
First 50 Therms**	\$0.7629	\$0.9264
Over 50 therms**	\$0.7629	\$0.9264
LDAC	\$0.0816	\$0.1845
CGA	\$0.8781	\$0.6916

	Usage (Therms)	Summer 2022 Bill Amount	Summer 2023 Bill Amount	Total Bill		Base Rate		COG		LDAC	
	5	\$30.81	\$31.21	\$0.40	1.3%	\$0.82	2.7%	(\$0.93)	-3.0%	\$0.51	1.7%
	10	\$39.43	\$40.23	\$0.80	2.0%	\$1.64	4.2%	(\$1.86)	-4.7%	\$1.03	2.6%
	20	\$56.65	\$58.25	\$1.60	2.8%	\$3.27	5.8%	(\$3.73)	-6.6%	\$2.06	3.6%
<b>Monthly*</b>	25	\$65.26	\$67.26	\$2.00	3.1%	\$4.09	6.3%	(\$4.66)	-7.1%	\$2.57	3.9%
	30	\$73.88	\$76.28	\$2.40	3.2%	\$4.91	6.6%	(\$5.59)	-7.6%	\$3.09	4.2%
	45	\$99.71	\$103.31	\$3.60	3.6%	\$7.36	7.4%	(\$8.39)	-8.4%	\$4.63	4.6%
	50	\$108.33	\$112.33	\$4.00	3.7%	\$8.18	7.6%	(\$9.32)	-8.6%	\$5.15	4.8%
	75	\$151.39	\$157.39	\$6.00	4.0%	\$12.27	8.1%	(\$13.98)	-9.2%	\$7.72	5.1%
	125	\$237.52	\$247.51	\$9.99	4.2%	\$20.44	8.6%	(\$23.31)	-9.8%	\$12.86	5.4%
	150	\$280.58	\$292.58	\$11.99	4.3%	\$24.53	8.7%	(\$27.97)	-10.0%	\$15.44	5.5%
	200	\$366.71	\$382.70	\$15.99	4.4%	\$32.71	8.9%	(\$37.29)	-10.2%	\$20.58	5.6%

\* Monthly amount for benchmarking purposes, does not represent the average monthly use of Northern's residential class.

\*\* Average distribution rates.