

REDACTED

**STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION**

Docket No. DG 22-XXX

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division
Winter 2022/2023 Cost of Gas

DIRECT TESTIMONY

OF

DEBORAH M. GILBERTSON

AND

HEATHER M. TEBBETTS

September 15, 2022



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Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division
Docket No. DG 22-XXX
Winter 2022/2023 Cost of Gas
Direct Testimony of D. Gilbertson and H. Tebbetts
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1 **I. INTRODUCTION**

2 **Q. Please state your full name, business address, and position.**

3 A. (DG) My name is Deborah M. Gilbertson. My business address is 15 Buttrick Road,
4 Londonderry, New Hampshire. My title is Senior Manager, Energy Procurement.

5 (HT) My name is Heather M. Tebbetts. My business address is 15 Buttrick Road,
6 Londonderry, New Hampshire. My title is Director, Business Development.

7 **Q. By whom are you employed?**

8 A. We are employed by Liberty Utilities Service Corp. (“LUSC”). LUSC provides local
9 utility management, shared services, and support to Liberty Utilities (EnergyNorth
10 Natural Gas) Corp. d/b/a Liberty (“Liberty” or “the Company”) and its regulated water,
11 wastewater, natural gas, and electric utility affiliates.

12 **Q. On whose behalf are you testifying?**

13 A. We are testifying on behalf of Liberty’s Keene Division.

14 **Q. Ms. Gilbertson, please summarize your educational background and your business
15 and professional experience.**

16 A. I graduated from Bentley College in Waltham, Massachusetts, in 1996 with a Bachelor of
17 Science in Management. In 1997, I was hired by Texas Ohio Gas where I was employed
18 as a Transportation Analyst. In 1999, I joined Reliant Energy, located in Burlington,
19 Massachusetts, as an Operations Analyst. From 2000 to 2003, I was employed by Smart
20 Energy as a Sr. Energy Analyst. In 2004, I joined Keyspan Energy Trading as a Sr.
21 Resource Management Analyst, and from 2008 to 2011, I was employed by National

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1 Grid as a Lead Analyst in the Project Management Office. In 2011, I was hired by LUSC
2 as a Natural Gas Scheduler and was promoted to Manager of Retail Choice in 2012. In
3 2016, I was promoted to Sr. Manager of Energy Procurement. In this capacity, I provide
4 gas procurement services to Liberty.

5 **Q. Have you previously testified in regulatory proceedings before the New Hampshire**
6 **Public Utilities Commission (the “Commission”)?**

7 A. Yes, I have.

8 **Q. Ms. Tebbetts, please describe your educational background and your business and**
9 **professional experience.**

10 A. I graduated from Franklin Pierce University in 2004 with a Bachelor of Science degree in
11 Finance. I received a Master’s of Business Administration from Southern New
12 Hampshire University in 2007. I joined Liberty in October 2014. Prior to my
13 employment at Liberty, I was employed by PSNH as a Senior Analyst in NH Revenue
14 Requirements from 2010 to 2014. Prior to my position in NH Revenue Requirements, I
15 was a Staff Accountant in PSNH’s Property Tax group from 2007 to 2010 and a
16 Customer Service Representative III in PSNH’s Customer Service Department from 2004
17 to 2007.

18 **Q. Have you previously testified in regulatory proceedings before the Commission?**

19 A. Yes, I have.

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1 **Q. What is the purpose of your testimony?**

2 A. The purpose of our testimony is to explain the Company's proposed cost of gas rates for
3 its Keene Division for the 2022/2023 winter (peak) period to be effective beginning on
4 November 1, 2022. Our testimony will also address bill comparisons and other items
5 related to the winter period.

6 **II. WINTER 2022/2023 COST OF GAS FACTOR**

7 **Q. What is the proposed firm winter cost of gas rate?**

8 A. The Company proposes a firm cost of gas rate of \$2.2194 per therm for the Keene
9 Division as shown on Eighth Revised Page 97.

10 **Q. Please explain the calculation of the Cost of Gas rate on tariff page Eighth Revised**
11 **Page 97.**

12 A. Eighth Revised Page 97 contains the calculation of the 2022/2023 Winter Period Cost of
13 Gas Rate ("COG") and summarizes the Company's forecast of propane and compressed
14 natural gas ("CNG") sales and propane and CNG costs. The total anticipated cost of the
15 gas sendout from November 1, 2022, through April 30, 2023, is \$2,301,888. The
16 information presented on the tariff page is supported by Schedules A through J which are
17 described later in this testimony.

18 To derive the Total Anticipated Cost of Gas, the following adjustments have been made:

19 1) The prior period under-collection of \$192,310 is added from the anticipated cost
20 of gas sendout; and

1 2) Interest of \$3,065 is added to the anticipated cost of gas sendout for the period of
2 May 2022 through October 2022. Schedule H shows this forecasted interest
3 calculation for the period May 2022 through April 2023. Interest is accrued using
4 the monthly prime lending rate as reported by the Federal Reserve Statistical
5 Release of Selected Interest Rates.

6 The Non-Fixed Price Option (“Non-FPO”) cost of gas rate of \$2.2194 per therm was
7 calculated by dividing the Total Anticipated Cost of Gas of \$2,301,888 by the Projected
8 Gas Sales of 1,25,173 therms. The Fixed Price Option (“FPO”) rate of \$2.2394 per therm
9 was established by adding a \$0.02 per therm premium to the Non-FPO rate

10 **Q. Please describe Schedule A.**

11 A. Schedule A converts the gas volumes and unit costs from gallons to therms. The
12 1,195,022 therms represent sendout as detailed on Schedule B, line 3 and line 9. The
13 blended unit cost of those supplies is \$ [REDACTED] per therm which represents the weighted
14 average cost per therm for the winter period gas sendout as detailed on Schedule F, line
15 55.

16 **Q. What is Schedule B?**

17 A. Schedule B presents the anticipated (over)/under collection calculation for the winter
18 2022/2023 period based on the forecasted volumes, the cost of gas, and applicable
19 interest amounts. The forecasted total propane sendout on line 3, plus total CNG sendout
20 on line 9, is the sum of the weather normalized 2022/2023 winter period firm sendout and
21 company use. The forecasted Firm Sales on line 1 represent weather normalized

1 2022/2023 winter period firm sales. The weather normalization calculations for sendout
2 and sales are found in Schedules I and J, respectively.

3 **Q. Are CNG demand charges included in this filing?**

4 A. Yes, CNG demand charges are included in Schedule B on line 12.

5 Schedule B, line 12, includes 75% of the 2022/2023 demand charges. These charges are
6 [REDACTED] per month or [REDACTED] for the season and represent the portion attributable to the
7 winter period.

8 **Q. Are incremental costs for prior winter periods related to the use of CNG vs.
9 propane included in this filing?**

10 A. Yes, prior winter period incremental costs are included at a rate of 50% for the winter of
11 2019/2020 and winter of 2020/2021, per Section 7.1 of the Settlement Agreement in
12 Docket No. DG 20-105. The calculation can be found on Schedule O. Projected savings
13 for winter 2021/2022 of \$37,737 are included at 100% because that amount does not
14 exceed the 50% of accumulated incremental CNG costs from prior periods.

15 **Q. What prior incremental costs are included in this filing?**

16 A. The net incremental costs included in this filing are \$60,995. These items can be found
17 on Schedule B, line 13.

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1 **Q. Are unaccounted-for gas volumes included in the filing?**

2 A. Unaccounted-for gas is included in the firm sendout on Schedule B, lines 1 and 9. The
3 Company actively monitors its level of unaccounted-for volumes, which amounted to
4 2.11% for the twelve months ended June 30, 2022.

5 **Q. Please describe Schedules C, D, and E.**

6 A. Schedule C presents the calculation of the total forecasted cost of gas purchases in the
7 2022/2023 winter period, segregated by Propane Purchasing Stabilization Plan (“PPSP”)
8 purchases, available storage deliveries from Liberty’s Amherst facility, CNG deliveries,
9 and spot purchases.

10 Schedule D presents the structure of PPSP pre-purchases for the winter period, monthly
11 average rates for the pre-purchases, and the resulting weighted average contract price for
12 the winter period as used in Schedule C, line 5.

13 Schedule E presents the forecasted market spot prices of propane. Column 1 of the
14 Schedule represents the Mont Belvieu propane futures quotations as of August 25, 2022,
15 followed by projected broker fees, pipeline fees, PERC fees, supplier charges, and
16 trucking charges. Together, the pricing and fees make up the expected cost of spot
17 propane purchases as represented in Schedule C, line 32.

18 **Q. Please describe the Propane Purchasing Stabilization Plan (PPSP).**

19 A. The PPSP, as approved in Order No. 24,617 in Docket No. DG 06-037, was again
20 implemented for the winter of 2022/2023. As shown on Schedule D, the Company pre-
21 purchased 700,000 gallons of propane between April and September at a weighted

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1 average price of \$1.5099 per gallon (\$1.6501 per therm), inclusive of broker, pipeline,
2 Propane Education & Research Council (“PERC”), and trucking charges in effect at the
3 time of the supplier’s bid.

4 **Q. Have the pre-purchased volumes in the PPSP changed since 2021/2022?**

5 A. No. The volume remains at 700,000 gallons or 640,500 therms. The Keene Division
6 maintains a pre-purchase hedge of approximately 65%.

7 **Q. How was the cost of CNG purchases determined?**

8 A. The CNG costs are shown in Schedule C, lines 20 through 27. These costs reflect the
9 contractual agreement between the Company and its supplier, Xpress Natural Gas, LLC.

10 **Q. Please describe Schedule F.**

11 A. Schedule F contains the calculation of the weighted average cost of inventory for each
12 month through April 2023. The unit cost of projected gas to be sent out each month
13 utilizes this weighted average inventory cost, which is inclusive of all PPSP purchases,
14 spot purchases, Amherst storage withdrawals, and CNG deliveries. Note that the CNG
15 deliveries are shown in separate columns from the propane-weighted cost but are
16 included in the average winter rate, which is established on line 55 of Schedule F. This
17 mix of supply purchases is also itemized on Schedule C.

18 **Q. What is shown on Schedule G?**

19 A. Schedule G shows the under-collected balance for the prior winter 2021/2022 period,
20 including interest calculated in a manner consistent with prior years. The under-collected
21 balance of \$67,057 is shown on line 52.

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1 **Q. How is the information in Schedule H represented in the cost of gas calculation?**

2 A. Schedule H presents the interest calculation and adjustments on (over)/under-collected
3 balances through April 2022. The prior period under-collection of \$223,755 plus the
4 adjustments total \$192,310, the anticipated balance on October 31, 2022, plus interest of
5 \$3,065, for a total under-collection from winter 2021/2022 of \$195,375.

6 **III. FIXED PRICE OPTION PROGRAM**

7 **Q. Please describe the FPO program that will be in place for the winter period.**

8 A. The Company will offer the FPO program for the upcoming winter period to provide
9 customers the opportunity to lock in their cost of gas rate. Enrollment in the program is
10 limited to 50% of forecasted winter sales, with allotments made available to both
11 residential and commercial customers on a first-come, first-served basis. The Company
12 is forecasting that 12.4% of total sales volumes will enroll in the FPO program. The
13 12.4% is the five-year average FPO participation rate from winter 2016/2017 through the
14 winter of 2020/2021.

15 **Q. Will a premium be applied to the FPO rate?**

16 A. Yes. As approved in Order No. 24,516 in Docket No. DG 05-144, the Company has
17 added a \$0.02 per therm premium to the \$2.2194 per therm Non-FPO cost of gas rate, to
18 derive the FPO rate of \$2.2394 per therm.

19 **Q. How will customers be notified of the availability of the FPO program?**

20 A. A letter will be mailed to all customers by October 1 advising them of the program, the
21 FPO rate, and the procedure to enroll.

1 **IV. COST OF GAS RATE AND BILL COMPARISONS**

2 **Q. How do the proposed Winter 2022/2023 cost of gas rates compare with the previous**
3 **winter's rates?**

4 A. The proposed Non-FPO COG rate of \$2.2194 per therm is an increase of \$0.3453 or 18%
5 from the winter 2021/2022 approved rate of \$1.8741 per therm, in Docket No. DG 21-
6 132, which approved interim Cost of Gas rates.

7 The proposed FPO rate is \$2.2394 per therm, representing an increase of \$0.3453 per
8 therm or 18% from last winter's interim fixed rate of \$1.8941.

9 **Q. What are the primary reasons for the change in rates?**

10 A. The main reason for the \$0.3453 increase is due to the increase in supply costs because of
11 market futures.

12 **Q. What is the impact of the Winter 2022/2023 COG rate on the typical residential heat**
13 **and hot water customer participating in the FPO program?**

14 A. As shown on Schedule K-1, Column 7, lines 33 and 34, the typical residential heat and
15 hot water FPO customer would experience an increase of \$154.37 or 18.2% in the gas
16 component of their bills compared to the prior winter period.

1 **Q. What is the impact of the Winter 2022/2023 COG rate on the typical residential heat**
2 **and hot water customer choosing the Non-FPO program?**

3 A. As shown on Schedule K-2, Column 7, lines 30 and 31, the typical residential heat and
4 hot water Non-FPO customer is projected to see an increase of \$110.14 or 12.5% in the
5 gas component of their bills compared to the prior winter period.

6 **Q. Please describe the impact of the Winter 2022/2023 COG rate on the typical**
7 **commercial customer compared to the prior winter period.**

8 A. Schedule L-1 illustrates that the typical commercial FPO customer would see a \$594.27
9 or 18.2% increase in the gas component of their bill and a 13.5% increase in their total
10 bill. Schedule L-2 shows that the typical commercial Non-FPO customer would see
11 increases of \$590.65 or an 18.3% increase in the gas component of their bill and a 13.5%
12 increase in their total bill.

13 **V. OTHER ITEMS**

14 **Q. What is the status of CNG currently?**

15 A. The Company began serving customers with CNG in October 2019. Customers
16 experienced a smooth transition from propane service to CNG service. The service
17 territory for CNG is exclusive to the Monadnock Marketplace and several customers on
18 Key Road at this time. After an RFP process, the Company entered into a new contract
19 with Xpress Natural Gas (XNG), which went into effect July 1, 2021. The Company will
20 otherwise follow the guidelines from the most recent rate case settlement and order to
21 continue the conversion of the Keene Division to natural gas.

1 **Q. What is the price differential between the cost of spot propane and the cost of CNG?**

2 A. For the upcoming peak period, spot propane is [REDACTED] cents per therm less expensive than
3 CNG. The calculation is Spot Purchases cost per therm found on Schedule C, line 31 less
4 the CNG Deliveries cost per therm found on Schedule C, line 24.

5 **Q. Does that comparison include the CNG demand charge?**

6 A. Yes.

7 **Q. Has there been any change to the allocation of the demand charge between the
8 summer and winter as compared to last year?**

9 A. No, the Company has allocated 75% of the demand charge to the winter period, and 25%
10 of the demand charge to the summer period. In Order No. 26,505 (July 30, 2021), the
11 Commission approved the Settlement Agreement in the Company's distribution service
12 rate case, which adjusted this allocation to 75% in the winter period and 25% in the
13 summer.

14 **Q. Can you comment on energy prices for the upcoming heating season?**

15 A. According to the U.S. Energy Information Administration's (EIA) short-term energy
16 outlook, energy prices including propane, natural gas, coal, and electricity will remain
17 historically high throughout 2023. There are a variety of contributing factors including
18 geopolitical uncertainties and tight inventories. The Company has been and continues to
19 seek the lowest cost solutions for both propane and CNG by locking in supply early using
20 physical hedging, refilling storage in off-peak periods, and using price optionality as
21 outlined in our CNG contract to obtain the least cost option in both winter and summer.

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1 **Q. When does the existing CNG contract expire?**

2 A. The current CNG contract will expire at the end of June 2024; it is a three-year contract
3 that went into effect on July 1, 2021.

4 **Q. Please describe how the Company will meet its 7-day on-site storage requirement.**

5 A. The Company has a net storage capacity at its plant in Keene of approximately 75,000
6 gallons of propane. Additionally, Liberty has approximately 129,800 gallons of propane
7 at the Amherst storage facility located approximately 50 miles from the Keene plant.
8 This storage facility is shared between the Keene Division and EnergyNorth. In addition,
9 the Company will arrange its standard trucking commitment with Northern Gas
10 Transport, Inc. for transportation from this storage facility to the Keene plant. Further,
11 the Company has contracted for CNG deliveries to provide service to a section of its
12 system. The firm trucking arrangement coupled with onsite CNG trailers is more than
13 enough to meet the 7-day demand requirement for the 2022/2023 peak period.

14 **Q. Does this conclude your testimony?**

15 A. Yes, it does.

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION

COST OF GAS RATE FILING - DOCKET NO. DG 22-XXX

WINTER PERIOD 2022 – 2023

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23 FIRM RATE SCHEDULES - KEENE CUSTOMERS

Rates Effective November 1, 2022 - April 30, 2023
Winter Period

Rates Effective September 1, 2022 - October 31, 2022
Summer Period

	<u>Delivery Charge</u>	<u>Cost of Gas Rate Page 97</u>	<u>LDAC Page 101</u>	<u>Total Rate</u>	<u>Delivery Charge</u>	<u>Cost of Gas Rate Page 93</u>	<u>LDAC Page 101</u>	<u>Total Rate</u>
<u>Residential Non Heating - R-1</u>								
Customer Charge per Month per Meter	\$ 15.39			\$ 15.39	\$ 15.39			\$ 15.39
All therms	\$ 0.5129	\$ 2.2194	\$ 0.1318	\$2.7069	\$ 0.5129	\$ 2.0114	\$ 0.1318	\$ 2.6561
<u>Residential Heating - R-3</u>								
Customer Charge per Month per Meter	\$ 15.39			\$ 15.39	\$ 15.39			\$ 15.39
All therms over the first block per month at	\$ 0.6519	\$ 2.2194	\$ 0.1318	\$2.8459	\$ 0.6519	\$ 2.0114	\$ 0.1318	\$ 2.7951
<u>Residential Heating - R-4</u>								
Customer Charge per Month per Meter	\$ 11.01			\$ 8.47	\$ 8.47			\$ 8.47
All therms over the first block per month at	\$ 0.3585	\$ 1.2207	\$ 0.1318	\$2.5525	\$ 0.6519	\$ 2.0114	\$ 0.1318	\$ 2.7951
<u>Commercial/Industrial - G-41</u>								
Customer Charge per Month per Meter	\$ 63.30			\$ 63.30	\$ 63.30			\$ 63.30
Size of the first block	100 therms				20 therms			
Therms in the first block per month at	\$ 0.4634	\$ 2.2194	\$ 0.0991	\$2.6247	\$ 0.4634	\$ 2.0114	\$ 0.0991	\$ 2.5739
All therms over the first block per month at	\$ 0.3212	\$ 2.2194	\$ 0.0991	\$2.4825	\$ 0.3212	\$ 2.0114	\$ 0.0991	\$ 2.4317
<u>Commercial/Industrial - G-42</u>								
Customer Charge per Month per Meter	\$ 189.84			\$189.84	\$ 189.84			\$ 189.84
Size of the first block	1000 therms				400 therms			
Therms in the first block per month at	\$ 0.4634	\$ 2.2194	\$ 0.0991	\$2.6247	\$ 0.4634	\$ 2.0114	\$ 0.0991	\$ 2.5739
All therms over the first block per month at	\$ 0.3212	\$ 2.2194	\$ 0.0991	\$2.4825	\$ 0.3212	\$ 2.0114	\$ 0.0991	\$ 2.4317
<u>Commercial/Industrial - G-43</u>								
Customer Charge per Month per Meter	\$ 811.98			\$811.98	\$ 811.98			\$ 811.98
All therms over the first block per month at	\$ 0.2863	\$ 2.2194	\$ 0.0991	\$2.4476	\$ 0.1441	\$ 2.0114	\$ 0.0991	\$ 2.2546
<u>Commercial/Industrial - G-51</u>								
Customer Charge per Month per Meter	\$ 63.38			\$ 63.38	\$ 63.38			\$ 63.38
Size of the first block	100 therms				100 therms			
Therms in the first block per month at	\$ 0.3070	\$ 2.2194	\$ 0.0991	\$2.4683	\$ 0.3070	\$ 2.0114	\$ 0.0991	\$ 2.4175
All therms over the first block per month at	\$ 0.2084	\$ 2.2194	\$ 0.0991	\$2.3697	\$ 0.2084	\$ 2.0114	\$ 0.0991	\$ 2.3189
<u>Commercial/Industrial - G-52</u>								
Customer Charge per Month per Meter	\$ 189.57			\$189.57	\$ 189.57			\$ 189.57
Size of the first block	1000 therms				1000 therms			
Therms in the first block per month at	\$ 0.2647	\$ 2.2194	\$ 0.0991	\$2.4260	\$ 0.1978	\$ 2.0114	\$ 0.0991	\$ 2.3083
All therms over the first block per month at	\$ 0.1836	\$ 2.2194	\$ 0.0991	\$2.3449	\$ 0.1219	\$ 2.0114	\$ 0.0991	\$ 2.2324
<u>Commercial/Industrial - G-53</u>								
Customer Charge per Month per Meter	\$ 838.52			\$838.52	\$ 838.52			\$ 838.52
All therms over the first block per month at	\$ 0.1851	\$ 2.2194	\$ 0.0991	\$2.3464	\$ 0.0968	\$ 2.0114	\$ 0.0991	\$ 2.2073
<u>Commercial/Industrial - G-54</u>								
Customer Charge per Month per Meter	\$ 839.19			\$839.19	\$ 839.19			\$ 839.19
All therms over the first block per month at	\$ 0.0705	\$ 2.2194	\$ 0.0991	\$2.2318	\$ 0.0409	\$ 2.0114	\$ 0.0991	\$ 2.1514

DATED: XX XX, 2022

ISSUED BY: /s/ Neil Proudman

EFFECTIVE: November 1, 2022

Neil Proudman
TITLE: President

Authorized by NHPUC Order No. ____, dated ____ in Docket No. ____

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LIBERTY UTILITIES

Sixteenth Seventeenth Revised Page 88
Superseding Fifteenth Sixteenth Revised Page 88

23 FIRM RATE SCHEDULES - KEENE CUSTOMERS

Rates Effective March 1, 2022 – April 30, 2022
Rates Effective November 1, 2022 - April 30, 2023
Winter Period

Rates Effective July 1, 2020 – October 31, 2020
Rates Effective September 1, 2022 - October 31, 2022
Summer Period

	<u>Delivery Charge</u>	<u>Cost of Gas Rate Page 97</u>	<u>LDAC Page 101</u>	<u>Total Rate</u>	<u>Delivery Charge</u>	<u>Cost of Gas Rate Page 93</u>	<u>LDAC Page 101</u>	<u>Total Rate</u>
<u>Residential Non Heating - R-1</u>								
Customer Charge per Month per Meter	\$ 15.39			\$ 15.39	\$ 15.39			\$ 15.39
All therms	\$ 0.5129	\$ 2.2194	\$ 0.1318	\$ 2.7069	\$ 0.5129	\$ 2.0114	\$ 0.1318	\$ 2.6561
		\$ 2.4835		\$ 2.5156				
<u>Residential Heating - R-3</u>								
Customer Charge per Month per Meter	\$ 15.39	\$ -	\$ -	\$ 15.39	\$ 15.39			\$ 15.39
All therms over the first block per month at	\$ 0.6519	\$ 2.2194	\$ 0.1318	\$ 2.8459	\$ 0.6519	\$ 2.0114	\$ 0.0660	\$ 2.7293
		\$ 2.4835		\$ 2.6944				
<u>Residential Heating - R-4</u>								
Customer Charge per Month per Meter	\$ 11.01	\$ -	\$ -	\$ 11.01	\$ 15.39			\$ 8.47
All therms over the first block per month at	\$ 0.3585	\$ 1.2207	\$ 0.1318	\$ 2.5525	\$ 0.6519	\$ 2.0114	\$ 0.1318	\$ 2.7951
		\$ 2.4835		\$ 2.4410				
<u>Commercial/Industrial - G-41</u>								
Customer Charge per Month per Meter	\$ 63.38			\$ 63.38	\$ 63.38			\$ 63.30
Size of the first block	100 therms				20 therms			
Therms in the first block per month at	\$ 0.3070	\$ 2.2194	\$ 0.0991	\$ 2.4683	\$ 0.3070	\$ 2.0114	\$ 0.0991	\$ 2.5739
		\$ 2.4835		\$ 2.5434				
All therms over the first block per month at	\$ 0.2084	\$ 2.2194	\$ 0.0991	\$ 2.3697	\$ 0.2084	\$ 2.0114	\$ 0.0991	\$ 2.4317
		\$ 2.4835		\$ 2.3895				
<u>Commercial/Industrial - G-42</u>								
Customer Charge per Month per Meter	\$ 189.57			\$ 189.57	\$ 189.57			\$ 189.84
Size of the first block	1000 therms				400 therms			
Therms in the first block per month at	\$ 0.4634	\$ 2.2194	\$ 0.0991	\$ 2.6247	\$ 0.4634	\$ 2.0114	\$ 0.0991	\$ 2.5739
		\$ 2.4835		\$ 2.5007				
All therms over the first block per month at	\$ 0.3212	\$ 2.2194	\$ 0.0991	\$ 2.4825	\$ 0.3212	\$ 2.0114	\$ 0.0991	\$ 2.4317
		\$ 2.4835		\$ 2.3585				
<u>Commercial/Industrial - G-43</u>								
Customer Charge per Month per Meter	\$ 811.98			\$ 811.98	\$ 811.98			\$ 811.98
All therms over the first block per month at	\$ 0.2863	\$ 2.2194	\$ 0.0991	\$ 2.4476	\$ 0.1441	\$ 2.0114	\$ 0.0991	\$ 2.2546
		\$ 2.4835		\$ 2.3366				
<u>Commercial/Industrial - G-51</u>								
Customer Charge per Month per Meter	\$ 63.38			\$ 63.38	\$ 63.38			\$ 63.38
Size of the first block	100 therms				100 therms			
Therms in the first block per month at	\$ 0.3070	\$ 2.2194	\$ 0.0991	\$ 2.4683	\$ 0.3070	\$ 2.0114	\$ 0.0991	\$ 2.4175
		\$ 2.4835		\$ 2.3565				
All therms over the first block per month at	\$ 0.2084	\$ 2.2194	\$ 0.0991	\$ 2.3697	\$ 0.2084	\$ 2.0114	\$ 0.0991	\$ 2.3189
		\$ 2.4835		\$ 2.2579				
<u>Commercial/Industrial - G-52</u>								
Customer Charge per Month per Meter	\$ 189.57			\$ 189.57	\$ 189.57			\$ 189.57
Size of the first block	1000 therms				1000 therms			
Therms in the first block per month at	\$ 0.2647	\$ 2.2194	\$ 0.0991	\$ 2.4260	\$ 0.1978	\$ 2.0114	\$ 0.0991	\$ 2.3083
		\$ 2.4835		\$ 2.3174				
All therms over the first block per month at	\$ 0.1836	\$ 2.2194	\$ 0.0991	\$ 2.3449	\$ 0.1219	\$ 2.0114	\$ 0.0991	\$ 2.2324
		\$ 2.4835		\$ 2.2363				
<u>Commercial/Industrial - G-53</u>								
Customer Charge per Month per Meter	\$ 838.52			\$ 838.52	\$ 838.52			\$ 838.52
All therms over the first block per month at	\$ 0.1851	\$ 2.2194	\$ 0.0991	\$ 2.3464	\$ 0.0968	\$ 2.0114	\$ 0.0991	\$ 2.2073
		\$ 2.4835		\$ 2.2443				
<u>Commercial/Industrial - G-54</u>								
Customer Charge per Month per Meter	\$ 839.19			\$ 839.19	\$ 839.19			\$ 839.19
All therms over the first block per month at	\$ 0.0705	\$ 2.2194	\$ 0.0991	\$ 2.2318	\$ 0.0409	\$ 2.0114	\$ 0.0991	\$ 2.1514
		\$ 2.4835						

DATED: XX XX, 2022

ISSUED BY: /s/ Neil Proudman

EFFECTIVE: November 1, 2022

Neil Proudman
TITLE: President

Authorized by NHPUC Order No. ____, dated ____ in Docket No. ____

NHPUC No.11 GAS
LIBERTY UTILITIES

Eighth Revised Page 97
Superseding Seventh Revised Page 97

31. CALCULATION OF FIRM SALES AND FIXED WINTER PERIOD COST OF GAS RATE KEENE CUSTOMERS

Calculation of the Cost of Gas Rate

Period Covered: Winter Period November 1, 2022 through April 30, 2023

Projected Gas Sales - therms	\$	1,125,173
Total Calculated Cost of Gas Sendout	\$	2,075,967
Indirect Costs from DG 20-105	\$	208,129
Return on Inventory	\$	15,323
Interest	\$	2,468
Total Anticipated Cost of Gas Sendout	\$	2,301,887

Add:	Prior Period Deficiency Uncollected Interest	\$	192,310
		\$	3,065

Deduct:	Prior Period Excess Collected Interest	\$	-
		\$	-

Prior Period Adjustments and Interest \$ 195,375

Total Anticipated Cost \$ 2,497,262

<u>Cost of Gas Rate</u>	Excluding Gas Assistance Program	
	Gas Assistance Program	Gas Assistance Program
Non-Fixed Price Option Cost of Gas Rate - Beginning Period (per therm)	\$ 2.2194	\$ 1.2207
Fixed Price Option Cost of Gas Rate (per therm) November 2022-April 2023	\$ 2.2394	\$ 1.2317

Pursuant to tariff section 17(d), the Company may adjust the approved cost of gas rate upward on a monthly basis to the following rate:

Maximum Cost of Gas Rate - Non-Fixed Price Option (per therm) \$ 2.7743 \$ 1.5259

DATED: XX XX, 2022

ISSUED BY: /s/ Neil Proudman
Neil Proudman

EFFECTIVE: November 1, 2022

TITLE: President

Authorized by NHPUC Order No. ____, dated ____ in Docket No. ____

NHPUC No.11 GAS
LIBERTY UTILITIES

Seventh Eighth Revised Page 97
Superseding Sixth Seventh Revised Page 97

31. CALCULATION OF FIRM SALES AND FIXED WINTER PERIOD COST OF GAS RATE KEENE CUSTOMERS

Calculation of the Cost of Gas Rate

Period Covered: ~~Winter Period November 1, 2021 through April 30, 2022~~
Period Covered: Winter Period November 1, 2022 through April 30, 2023

Projected Gas Sales - therms	\$ 1,092,113	\$ 1,125,173
Total Calculated Cost of Gas Sendout	\$ 1,881,054	\$ 2,075,967
Indirect Costs from DG 20-105	\$ 208,129	\$ 208,129
Return on Inventory	\$ 10,377	\$ 15,323
Interest	\$ _____	\$ 2,468
Total Anticipated Cost of Gas Sendout	\$ 2,099,557	\$ 2,301,887

Add: Prior Period Deficiency Uncollected Interest \$ 192,310
\$ 3,065

Deduct: Prior Period Excess Collected Interest \$ -
\$ -

Prior Period Adjustments and Interest \$ ~~70,236~~ \$ 195,375

Total Anticipated Cost ~~\$ 2,169,793~~ \$ 2,497,262

<u>Cost of Gas Rate</u>	<u>Excluding Gas Assistance Program</u>		<u>Excluding Gas Assistance Program</u>	
	<u>Gas Assistance Program</u>	<u>Gas Assistance Program</u>	<u>Gas Assistance Program</u>	<u>Gas Assistance Program</u>
Non-Fixed Price Option Cost of Gas Rate - Beginning Period (per therm)	\$ 1.9868	\$ 1.0927	\$ 2.2194	\$ 1.2207
Fixed Price Option Cost of Gas Rate (per therm) November 2022 - April 2023	\$ 1.8941	\$ 1.0418	\$ 2.2394	\$ 1.2317
Pursuant to tariff section 17(d), the Company may adjust the approved cost of gas rate upward on a monthly basis to the following rate:				
Maximum Cost of Gas Rate - Non-Fixed Price Option (per therm)	\$ 2.4835	\$ 1.3659	\$ 2.7743	\$ 1.5259

DATED: XX XX, 2022

EFFECTIVE: November 1, 2022

ISSUED BY: /s/ Neil Proudman
Neil Proudman
TITLE: President

Authorized by NHPUC Order No. ____, dated ____ in Docket No. ____

REDACTED
SCHEDULE A
Winter 2022/2023 COG Filing

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION

CONVERSION OF COSTS - GALLONS TO THERMS
WINTER PERIOD 2022 – 2023

	(1)	(2)	(3)	(4)	(5)	(6)
			<u>VOLUMES</u>		<u>UNIT COST</u>	
	<u>UNIT</u>	<u>CONVERSION FACTOR</u>	<u>GALLONS</u>	<u>THERMS</u>	<u>PER GALLON</u>	<u>PER THERM</u>
1 GAS FROM PROPANE	GALLONS	0.91502	████████████████████	████████████████████	\$1.5179	\$1.6589
2 GAS FROM CNG	THERMS	N/A	N/A	████████████████████	N/A	████████████████████
3 TOTAL				<u>1,195,022</u>		

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION

CALCULATION OF COST OF GAS RATE
SUPPLY / DEMAND BALANCE
WINTER PERIOD 2022 - 2023

	PRIOR	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	TOTAL	REFERENCE
PROPANE COSTS									
1 PROPANE FIRM SENDOUT (therms)									Sch. I Col. 138 - Ln 2
2 COMPANY USE (therms)									Sch I Col. M
3 TOTAL PROPANE SENDOUT (therms)									Ln 1 + Ln 2
4 COST PER THERM (WACOG)	\$1,6487	\$1,6523	\$1,6536	\$1,6527	\$1,6975	\$1,6437			Sch F, Col. 2
5 TOTAL CALCULATED COST OF PROPANE	\$205,406	\$300,509	\$387,663	\$319,673	\$278,324	\$154,742	\$1,646,317		Ln 3 * Ln 4
6 INDIRECT COSTS FROM DG 20-105	\$34,688	\$34,688	\$34,688	\$34,688	\$34,688	\$34,688	\$208,129		DG 20-105, Section 11.2 (\$206,248 + 1,881)
7 PROPANE ADJUSTMENTS	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
8 TOTAL COST OF PROPANE	\$240,094	\$335,197	\$422,351	\$354,361	\$313,012	\$189,430	\$1,854,446		Ln 5 + Ln 6 + Ln 7
CNG COSTS									
9 CNG SENDOUT (therms)									Sch C, Ln 20
10 COST PER THERM (WACOG)									Sch C, Ln 21
11 TOTAL CALCULATED COST OF CNG									Ln 9 * Ln 10
12 CNG DEMAND CHARGES									Sch C, Ln 26
13 INCREMENTAL COSTS WINTER 2022-2023									Sch. O Ln
14 PROJECTED INCREMENTAL COSTS Winter 2022-2023									Sch. N Ln 7, Ln. 25
15 NET INCREMENTAL COSTS									Ln 13 + Ln 14
16 TOTAL CNG COSTS									Ln 11 + Ln 12 + Ln 13 + Ln 14
17 ACCOUNTING ADJUSTMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
18 FPO PREMIUM	\$344	\$516	\$661	\$546	\$459	\$264	\$2,790		Ln 30 * 02
19 TOTAL COSTS OF GAS									Ln 8 + Ln 16 + Ln 17 + Ln 18
20 RETURN ON INVENTORY	\$2,554	\$2,554	\$2,554	\$2,554	\$2,554	\$2,554	\$15,323		Company calculation
REVENUES									
21 BILLED FPO SALES (therms)	0	0	0	0	0	0	0		
22 COG FPO RATE	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
23 BILLED FPO REVENUE - CURRENT MONTH	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
24 BILLED NON-FPO SALES PRIOR MONTH (therms)	0	0	0	0	0	0	0		
25 COG NON-FPO RATE PRIOR MONTH	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
26 BILLED FPO REVENUE - PRIOR MONTH	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
27 BILLED NON-FPO SALES CURRENT MONTH (therms)	138,513	208,215	266,567	220,235	185,001	106,642	1,125,173		Sch. J
28 COG NON-FPO RATE CURRENT MONTH	\$2,2194	\$2,2194	\$2,2194	\$2,2194	\$2,2194	\$2,2194	\$2,2194		(Ln 39 + Ln 19 + Ln 20 + Ln 37) / Ln 33
29 BILLED NON-FPO REVENUE - CURRENT MONTH	\$307,422	\$462,122	\$591,631	\$488,800	\$410,600	\$236,686	\$2,497,263		Ln 27 * Ln 28
30 BILLED SALES OTHER PRIOR PERIODS	0	0	0	0	0	0	0		
31 COG OTHER PRIOR PERIODS BLENDED RATE	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
32 BILLED OTHER BLENDED REVENUE - PRIOR PERIODS	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
33 TOTAL SALES	138,513	208,215	266,567	220,235	185,001	106,642	1,125,173		Sch. J
34 TOTAL BILLED REVENUES	\$307,422	\$462,122	\$591,631	\$488,800	\$410,600	\$236,686	\$2,497,261		Ln 23 + Ln 26 + Ln 29 + Ln 32
35 UNBILLED REVENUES (NET)	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
36 TOTAL REVENUES	\$307,422	\$462,122	\$591,631	\$488,800	\$410,600	\$236,686	\$2,497,261		Ln 34 + Ln 35
37 (OVER)/UNDER COLLECTION	(\$5,189)	(\$46,439)	(\$69,125)	(\$48,436)	(\$28,466)	(\$185)	(\$2,466)		Ln 19 + Ln 20 - Ln 36
38 INTEREST AMOUNT	\$884	\$769	\$508	\$241	\$66	\$0	\$2,468		Sch. H
39 FINAL (OVER)/UNDER COLLECTION	\$195,375	\$191,070	\$145,399	\$76,782	\$28,587	\$187	\$2		Prior Mo Ln 39 + Ln 37 + Ln 38

L BERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION

CALCULATION OF PURCHASED GAS COSTS
W NTER PERIOD 2022 – 2023

LINE NO.		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	TOTAL
1	TOTAL REQUIRED PURCHASES							
2	PROPANE PURCHASE STABILIZATION PLAN DELIVERIES							
3	THERMS	84,182	128,103	150,978	123,528	96,077	57,646	640,514
4	RATES - from Schedule D							
5	Contract Price	\$1.6501	\$1.6501	\$1.6501	\$1.6501	\$1.6501	\$1.6501	
6	Broker Fee	incl.	incl.	incl.	incl.	incl.	incl.	
7	Pipeline Fee	incl.	incl.	incl.	incl.	incl.	incl.	
8	PERC Fee	incl.	incl.	incl.	incl.	incl.	incl.	
9	Trucking Fee	incl.	incl.	incl.	incl.	incl.	incl.	
10	COST PER THERM	\$1.6501	\$1.6501	\$1.6501	\$1.6501	\$1.6501	\$1.6501	\$1.6501
11	TOTAL COST - Propane Purchase Stabilization Plan Deliveries	\$138,911	\$211,386	\$249,134	\$203,837	\$158,540	\$95,124	\$1,056,932
12	AMHERST STORAGE PROPANE DELIVERIES							
13	Therms	-	24,948	47,520	33,264	9,504	3,564	118,800
14	RATES - from Schedule F							
15	WACOG Price	\$0.0000	\$1.6000	\$1.6000	\$1.6000	\$1.6000	\$1.6000	
16	Trucking Fee	\$0.0000	\$0.0650	\$0.0650	\$0.0650	\$0.0650	\$0.0650	
17	COST PER THERM	\$0.0000	\$1.6650	\$1.6650	\$1.6650	\$1.6650	\$1.6650	\$1.6650
18	TOTAL COST - Amherst Storage Propane Deliveries	\$0	\$41,538	\$79,121	\$55,385	\$15,824	\$5,934	\$197,802
19	CNG DELIVERIES							
20	THERMS							
21	RATE							
22								
23	COST PER THERM							
24								
25	COST - CNG							
26								
27	TOTAL CNG							
28	SPOT PURCHASES							
29	THERMS							
30	From Schedule E							
31	COST PER THERM	\$1.6827	\$1.6814	\$1.6732	\$1.6595	\$1.6083	\$1.5591	\$1.6413
32	TOTAL COST - Spot Purchases							
33	OTHER ITEMS							
34	Storage	\$0	\$0	\$0	\$0	\$0	\$0	\$0
35	Refund of Deferred Revenue Surcharge over collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0
36	TOTAL OTHER ITEMS	\$0	\$0	\$0	\$0	\$0	\$0	\$0
37	TOTAL							
38	THERMS FROM PROPANE							
39	COST							
40	THERMS FROM CNG							
41	COST							
42	COST PER THERM	\$1.7418	\$1.7144	\$1.7021	\$1.7031	\$1.6761	\$1.6737	\$1.7025

SCHEDULE D
Winter 2022/2023 COG Filing

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION

PROPANE PURCHASING STABILIZATION PLAN
WINTER PERIOD 2022 – 2023

LINE
NO.

1	2 Delivery Month	Hedging Schedule & Volume (Gallons)						Total
		Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	
3	Nov-22	18,400	13,800	13,800	18,400	13,800	13,800	92,000
4	Dec-22	28,000	21,000	21,000	28,000	21,000	21,000	140,000
5	Jan-23	33,000	24,750	24,750	33,000	24,750	24,750	165,000
6	Feb-23	27,000	20,250	20,250	27,000	20,250	20,250	135,000
7	Mar-23	21,000	15,750	15,750	21,000	15,750	15,750	105,000
8	Apr-23	12,600	9,450	9,450	12,600	9,450	9,450	63,000
9	Total Volume	140,000	105,000	105,000	140,000	105,000	105,000	700,000
10	Monthly %	20.0%	15.0%	15.0%	20.0%	15.0%	15.0%	

11	Delivery Price per Gallon	\$1.5433	\$1.5417	\$1.5352	\$1.5163	\$1.4569	\$1.3985	
12	Total Cost	\$141,985	\$215,833	\$253,307	\$204,699	\$152,973	\$88,105	\$1,056,902
13	Weighted Average Winter Contract Price per gallon							\$1.5099
14	Weighted Average Winter Contract Price per therm							\$1.6501

SCHEDULE E
Winter 2022/2023 COG Filing

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION

PROPANE SPOT MARKET PURCHASE COST ANALYSIS
WINTER PERIOD 2022 – 2023

		(1) Mt. Belvieu		(2) Broker Fee		(3) Pipeline Rate		(4) PERC Fee		(5) Supplier Charge		(6) Cost @ Selkirk		(7) Trucking to Keene		(8) \$ per Gal.		(9) \$ per Therm
1	NOV	1.1044	+	0.0100	+	0.2579	+	0.0050	+	0.0500	=	1.4272	+	0.1125	=	1.5397	=	1.6827
2	DEC	1.1031	+	0.0100	+	0.2579	+	0.0050	+	0.0500	=	1.4260	+	0.1125	=	1.5385	=	1.6814
3	JAN	1.0956	+	0.0100	+	0.2579	+	0.0050	+	0.0500	=	1.4185	+	0.1125	=	1.5310	=	1.6732
4	FEB	1.0831	+	0.0100	+	0.2579	+	0.0050	+	0.0500	=	1.4060	+	0.1125	=	1.5185	=	1.6595
5	MAR	1.0363	+	0.0100	+	0.2579	+	0.0050	+	0.0500	=	1.3591	+	0.1125	=	1.4716	=	1.6083
6	APR	0.9913	+	0.0100	+	0.2579	+	0.0050	+	0.0500	=	1.3141	+	0.1125	=	1.4266	=	1.5591

1. Propane futures market quotations (cmegroup.com) on 8/25/22 close. See Appendix 1.
2. A generally accepted standard broker fee
3. Pipeline rate from Mt. Belvieu to Selkirk
4. Propane Education Research Council (propanecouncil.org)
5. A generally accepted standard supplier charge
6. Selkirk Cost - all fees plus propane cost
7. Northern Gas Transport trucking rate including diesel fuel surcharge. See Appendix 3A & 3B.
8. Delivered Price per Gallon
9. Delivered Price per therm as converted using per gallon price / .91502

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION

INVENTORY & WEIGHTED AVERAGE COST OF GAS CALCULATION
WINTER PERIOD 2022 – 2023

LINE NO.		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		<u>Therms</u>	<u>Cost</u>	<u>Therm</u>	<u>Rate</u> <u>Gal.</u>	<u>CNG therms</u>	<u>Cost</u>	<u>Total Sendout</u>	<u>Total Cost</u>		<u>Therm Rate</u>
1	August 2022 (Actual)										
2	Beginning Balance	47,654	\$78,129	\$1.6395	\$1.5002						
3	Purchases Received	149,650	\$237,450	\$1.5867	\$1.4519						
4	Total Available	197,304	\$315,578	\$1.5995	\$1.4635						
5	Less Sendout	34,858	\$55,754	\$1.5995	\$1.4635						
6	Ending Balance	162,446	\$259,824	\$1.5995	\$1.4635						
7	September 2022 (Estimated)										
8	Beginning Balance	162,446	\$259,824	\$1.5995	\$1.4635						
9	Purchases Received	40,000	\$68,109	\$1.7027	\$1.5580						
10	Total Available	202,446	\$327,933	\$1.6199	\$1.4822						
11	Less Sendout	39,316	\$63,686	\$1.6198	\$1.4822						
12	Ending Balance	163,130	\$264,247	\$1.6199	\$1.4822						
13	October 2022 (Estimated)										
14	Beginning Balance	163,130	\$264,247	\$1.6199	\$1.4822						
15	Purchases Received	55,000	\$93,349	\$1.6973	\$1.5530						
16	Total Available	218,130	\$357,596	\$1.6394	\$1.5001						
17	Less Sendout	58,108	\$95,261	\$1.6394	\$1.5001						
18	Ending Balance	160,022	\$262,335	\$1.6394	\$1.5001						
19	November 2022 (Forecasted)										
20	Beginning Balance	160,022	\$262,335	\$1.6394	\$1.5001						
21	Purchases Received	124,586	\$206,901	\$1.6607	\$1.5196						
22	Total Available	284,608	\$469,236	\$1.6487	\$1.5086						
23	Less Sendout	124,586	\$205,406	\$1.6487	\$1.5086						\$1.732
24	Ending Balance	160,022	\$263,830	\$1.6487	\$1.5086						
25	December 2022 (Forecasted)										
26	Beginning Balance	160,022	\$263,830	\$1.6487	\$1.5086						
27	Purchases Received	156,930	\$259,855	\$1.6559	\$1.5152						
28	Total Available	316,952	\$523,685	\$1.6523	\$1.5118						
29	Less Sendout	181,878	\$300,509	\$1.6523	\$1.5118						\$1.710
30	Ending Balance	135,074	\$223,176	\$1.6523	\$1.5118						
31	January 2023 (Forecasted)										
32	Beginning Balance	135,074	\$223,176	\$1.6523	\$1.5118						
33	Purchases Received	186,917	\$309,266	\$1.6546	\$1.5140						
34	Total Available	321,991	\$532,442	\$1.6536	\$1.5131						
35	Less Sendout	234,437	\$387,663	\$1.6536	\$1.5131						\$1.699
36	Ending Balance	87,554	\$144,779	\$1.6536	\$1.5131						
37	February 2023 (Forecasted)										
38	Beginning Balance	87,554	\$144,779	\$1.6536	\$1.5131						
39	Purchases Received	160,156	\$264,622	\$1.6523	\$1.5119						
40	Total Available	247,710	\$409,401	\$1.6527	\$1.5123						
41	Less Sendout	193,420	\$319,673	\$1.6527	\$1.5123						\$1.702
42	Ending Balance	54,290	\$89,728	\$1.6528	\$1.5123						
43	March 2023 (Forecasted)										
44	Beginning Balance	54,290	\$89,728	\$1.6528	\$1.5123						
45	Purchases Received	154,453	\$264,622	\$1.7133	\$1.5677						
46	Total Available	208,743	\$354,350	\$1.6975	\$1.5533						
47	Less Sendout	163,957	\$278,324	\$1.6975	\$1.5533						\$1.727
48	Ending Balance	44,786	\$76,026	\$1.6975	\$1.5533						
49	April 2023 (Forecasted)										
50	Beginning Balance	44,786	\$76,026	\$1.6975	\$1.5533						
51	Purchases Received	90,580	\$146,471	\$1.6170	\$1.4796						
52	Total Available	135,366	\$222,497	\$1.6437	\$1.5040						
53	Less Sendout	94,144	\$154,742	\$1.6437	\$1.5040						\$1.694
54	Ending Balance	41,222	\$67,755	\$1.6437	\$1.5040						
55	AVERAGE WINTER RATE - SENDOUT										
56							FPO Premium (Sch. B, Line 15)		\$2,790		
57											

REDACTED
SCHEDULE G
Winter 2022/2023 COG Filing

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION

RECONCILIATION OF COST OF GAS
SUPPLY / DEMAND BALANCE
WINTER PERIOD 2021 - 2022

LINE NO.	PRIOR	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	TOTAL
		Actual	Actual	Actual	Actual	Actual	Actual	
PROPANE COSTS								
1	PROPANE FIRM SENDOUT (therms)							
2	COMPANY USE (therms)							
3	TOTAL PROPANE SENDOUT (therms)							
4	COST PER THERM (WACOG)	\$1,5560	\$1,5088	\$1,5183	\$1,5806	\$1,6173	\$1,4992	
5	TOTAL CALCULATED COST OF PROPANE	\$172,752	\$210,440	\$320,267	\$248,069	\$212,884	\$120,072	\$1,284,483
6	PROPANE ADJUSTMENTS	\$30,635	\$50,196	\$69,787	\$56,018	\$46,000	\$25,474	\$278,111
7	INDIRECT COSTS FROM DG 20-105	\$34,688	\$34,688	\$34,688	\$34,688	\$34,688	\$34,688	\$208,129
8	TOTAL COST OF PROPANE	\$238,075	\$295,324	\$424,742	\$338,775	\$293,572	\$180,234	\$1,770,723
CNG COSTS								
9	CNG SENDOUT (therms)							
10	COMPANY USE (therms)							
11	TOTAL CNG SENDOUT (therms)							
12	COST PER THERM (WACOG)							
13	TOTAL CALCULATED COST OF CNG							
14	CNG ADJUSTMENT	\$2,199	(\$2,835)	\$467	(\$970)	(\$38,006)	\$25	(\$39,120)
15	CNG DEMAND CHARGES							
16	TOTAL COST OF CNG INCLUDING DEMAND CHARGES	\$43,378	\$47,860	\$64,189	\$60,373	\$6,875	\$29,541	\$252,216
17	COST PER THERM INCLUDING DEMAND CHARGES	\$1.6338	\$1.3489	\$1.2229	\$1.4764	\$0.2071	\$1.3935	\$1.2021
18	INCREMENTAL COSTS WINTER 2019-2020 PER Order # 26,505 in DG 20-105							
19	INCREMENTAL COSTS WINTER 2020-2021 PER Order # 26,505 in DG 20-105							
20	ACTUAL INCREMENTAL CNG COST SAVINGS Winter 2021-2022							
21	NET INCREMENTAL COSTS							
22	GAS ASSISTANCE PLAN (GAP)	(1,667.82)	(4,694.35)	(5,920.72)	(6,381.51)	(7,765.36)	(4,724.75)	(\$31,155)
23	TOTAL COSTS OF GAS							
24	RETURN ON INVENTORY	\$1,603	\$1,603	\$1,603	\$1,603	\$1,603	\$1,603	\$ 9,616
REVENUES								
25	BILLED FPO SALES (therms) - CURRENT MONTH	9,650	21,640	26,786	26,243	23,678	14,940	122,937
26	COG FPO RATE	\$2,0068	\$2,0068	\$2,0068	\$2,0068	\$2,0068	\$2,0068	
27	BILLED FPO REVENUE - CURRENT MONTH	\$19,366	\$43,427	\$53,754	\$52,664	\$47,517	\$29,982	\$246,710
28	BILLED FPO GAP SALES (therms) - CURRENT MONTH	127	345	927	1,436	730	491	4,056
29	COG FPO GAP RATE R-4	\$1,1037	\$1,1037	\$1,1037	\$1,1037	\$1,1037	\$1,1037	
30	BILLED FPO GAP RATE R-4 REVENUE - CURRENT MONTH	\$140.17	\$380.78	\$1,023.13	\$1,584.91	\$805.70	\$541.92	\$4,476.61
31	BILLED NON-FPO NON-GAP SALES (therms) - CURRENT MONTH	64,267	109,322	155,698	126,532	116,905	118,291	691,015
32	COG NON-FPO NON GAP RATE CURRENT MONTH	\$1,9868	\$1,8972	\$1,5090	\$1,6493	\$2,4835	\$2,4835	
33	BILLED NON-FPO NON-GAP REVENUE - CURRENT MONTH	\$127,686	\$207,406	\$234,948	\$208,689	\$290,334	\$293,776	\$1,362,838
34	BILLED NON-FPO NON GAP SALES (therms) - PRIOR MONTH	0	58,212	61,777	86,685	63,054	0	269,728
35	COG NON-FPO NON GAP RATE PRIOR MONTH	\$0.0000	\$1,9868	\$1,8972	\$1,5090	\$1,6493	\$2,4835	
36	BILLED NON-FPO NON-GAP REVENUE - PRIOR MONTH	\$0	\$115,656	\$117,203	\$130,808	\$103,995	\$0	\$467,662
37	BILLED NON-FPO GAP SALES (therms) - CURRENT MONTH	1,737	3,251	4,922	4,088	4,032	3,831	21,861
38	COG NON-FPO GAP RATE R-4 - CURRENT MONTH	\$1,0927	\$1,0434	\$0,8299	\$0,9071	\$1,3659	\$1,3659	
39	BILLED NON-FPO GAP RATE R-4 REVENUE - CURRENT MONTH	\$1,898	\$3,392	\$4,085	\$3,708	\$5,507	\$5,233	\$23,823
40	BILLED NON-FPO GAP SALES (therms) - PRIOR MONTH	0	1,798	1,996	2,912	2,460	0	9,166
41	COG NON-FPO GAP RATE R-4 - PRIOR MONTH	\$0.0000	\$1,0927	\$1,0434	\$0,8299	\$0,9071	\$1,3659	
42	BILLED NON-FPO GAP RATE R-4 REVENUE - PRIOR MONTH	\$0	\$1,965	\$2,083	\$2,417	\$2,232	\$0	\$8,695
43	BILLED SALES OTHER - PRIOR PERIODS	1	0	0	0	0	0	
44	COG OTHER PRIOR PERIODS BLENDED RATE	\$0.4100	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	
45	BILLED OTHER BLENDED REVENUE - PRIOR PERIODS	\$0	\$0	\$0	\$0	\$0	\$0	\$0
46	TOTAL SALES	75,782	194,568	252,106	247,896	210,859	137,553	1,118,764
47	TOTAL BILLED REVENUES	\$149,090	\$372,226	\$413,096	\$399,871	\$450,390	\$329,532	\$2,114,206
48	UNBILLED REVENUES (NET)	157,177.29	(11,484.82)	52,205.97	(88,748.47)	(6,578.42)	(61,089.93)	\$41,482
49	TOTAL REVENUES	\$306,267	\$360,741	\$465,302	\$311,123	\$443,812	\$268,442	\$2,155,687
50	(OVER)/UNDER COLLECTION	(\$62,589)	(\$14,067)	\$25,892	\$89,829	(\$142,946)	(\$55,208)	\$64,666
51	INTEREST AMOUNT (Attachments CAM-1-6)	\$505	\$400	\$399	\$486	\$445	\$157	\$2,391
52	FINAL (OVER)/UNDER COLLECTION	\$ 223,755	\$ 161,671	\$ 148,004	\$ 174,294	\$ 264,609	\$ 122,108	\$ 67,057
								\$ 67,057

SCHEDULE H
Winter 2022/2023 COG Filing

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION

INTEREST CALCULATION
WINTER PERIOD 2022 – 2023

LINE NO.	MONTH	(1) BEG. OF MONTH BALANCE	(2) (OVER) UNDER COLLECT	(3) ADJUSTMENTS	(4) REFUNDS	(5) END OF MONTH BALANCE (COL.1+2+3)	(6) AVERAGE BALANCE COL. (COL. [1+4]/2)	(7) ANNUAL INTEREST RATE	(8) INTEREST AMOUNT	(9) MONTH END BAL. WITH INTEREST (COL. 4+7)
1	MAY 2022	\$ 223,755	-	(72,222)	\$0	\$151,533	\$187,644	3.50%	192	\$151,725
2	JUN	151,725	0	34,131	0	\$185,856	168,791	4.00%	136	185,992
3	JUL	185,992	0	6,646	0	\$192,639	189,315	4.75%	75	192,714
4	AUG	192,714	0	0	0	\$192,714	192,714	5.50%	883	193,597
5	SEP	193,597	0	0	0	\$193,597	193,597	5.50%	887	194,484
6	OCT	194,484	0	0	0	\$194,484	194,484	5.50%	891	195,375
7	NOV	195,375	(5,189)	0	0	\$190,186	192,780	5.50%	884	191,070
8	DEC	191,070	(46,439)	0	0	\$144,630	167,850	5.50%	769	145,399
9	JAN 2023	145,399	(69,125)	0	0	\$76,274	110,837	5.50%	508	76,782
10	FEB	76,782	(48,436)	0	0	\$28,346	52,564	5.50%	241	28,587
11	MAR	28,587	(28,466)	0	0	\$121	14,354	5.50%	66	187
12	APR	187	(185)	0	0	\$2	94	5.50%	0	2
13										
14									<u>\$5,533</u>	

	BEGINNING BALANCE MAY 2022	ADJUSTMENTS MAY-OCT 2022	INTEREST MAY-OCT 2022	ENDING BALANCE w/ INTEREST OCTOBER 2022
15	= COL. 1, LINE 1	+ COL. 3 LINES 1 TO 6	+ COL. 8, LINES 1 TO 6	COL 9, LINE 6
16	= 223,755	+ (\$31,445)	+ 3,065	= <u>195,375</u> (TRANSFER TO SCHEDULE B, LINE 35)

L BERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A L BERTY - KEENE DIVISION													
Weather Normalization - Firm Sendout (Therms)													
Period	Actual Firm Sendout	Base Use	Heat Use	Actual Calendar Month Degree Days	Normal Calendar Month Degree Days	Colder (Warmer) Than Normal	Actual Unit Heat Load Therm/DD	Weather Adjustment	Normal Heat Load	Normalized Firm Sendout	Actual Company Use	Unaccounted For 2.11%	Total Firm Sendout
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
			(1) - (2)			(4) - (5)	(3) / (4)	(6) X (7)	(3) + (8)	(1) - (3) + (9)		(10 - 11) * 2.11%	(10) - (11) + (12)
1 Nov-22	157,405	43,883	113,522	917	833	84	123.80	(10,399)	103,123	147,006	6,863	2,955	143,098
2 Dec-22	207,846	43,883	163,963	1,079	1,117	(38)	151.96	5,774	169,737	213,620	2,214	4,457	215,864
3 Jan-23	309,651	43,883	265,768	1,461	1,279	182	181.91	(33,107)	232,661	276,544	6,527	5,693	275,710
4 Feb-23	233,055	43,883	189,172	1,108	1,084	24	170.73	(4,098)	185,074	228,957	5,451	4,712	228,219
5 Mar-23	192,421	43,883	148,538	981	982	(1)	151.41	151	148,689	192,572	4,751	3,960	191,781
6 Apr-23	118,246	43,883	74,363	659	606	53	112.84	(5,981)	68,382	112,265	4,207	2,278	110,337
7													
8 Total	1,218,624	263,298	955,326	6,205	5,901	304		(47,659)	907,667	1,170,965	30,013	24,055	1,165,009

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LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION											
Weather Normalization - Sales (Therms) - Rate Residential											
Period	Customers	Sales	Base Load	Heating Load	Monthly Actual Degree Days	Monthly Normal Degree Days	Colder (Warmer) Than Normal	Actual Unit Heat Load Therm/DD	Weather Adjustment	Normal Heat Load	Normal Firm Billing Cycle Therms
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
				(1) - (2)			(4) - (5)	(3) / (4)	(6) X (7)	(3) + (8)	(1) - (3) + (9)
Nov-22	901	35,572	6,520	29,052	917	833	84	31.68	(2,661)	26,391	32,910
Dec-22	931	48,436	6,520	41,916	1,079	1,117	(38)	38.85	1,476	43,392	49,912
Jan-23	931	72,942	6,520	66,422	1,461	1,279	182	45.46	(8,274)	58,148	64,667
Feb-23	841	56,016	6,520	49,496	1,108	1,084	24	44.67	(1,072)	48,424	54,943
Mar-23	929	45,136	6,520	38,617	981	982	(1)	39.36	39	38,656	45,176
Apr-23	893	25,230	6,520	18,710	659	606	53	28.39	(1,505)	17,205	23,725
Total		283,331	39,118	244,212	6,205	5,901	304	39.46	(11,997)	232,215	271,333

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION											
Weather Normalization - Sales (Therms) - Rate Commercial											
Period	Customers	Sales	Base Load	Heating Load	Monthly Actual Degree Days	Monthly Normal Degree Days	Colder (Warmer) Than Normal	Actual Unit Heat Load Therm/DD	Weather Adjustment	Normal Heat Load	Normal Firm Billing Cycle Therms
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
				(1) - (3)			(4) - (5)	(3) / (4)	(6) X (7)	(3) + (8)	(1) - (3) + (9)
Nov-22	326	112,712	35,103	77,609	917	833	84	84.63	(7,109)	70,500	105,603
Dec-22	333	154,112	35,103	119,009	1,079	1,117	(38)	110.30	4,191	123,200	158,303
Jan-23	330	225,635	35,103	190,532	1,461	1,279	182	130.41	(23,735)	166,797	201,900
Feb-23	299	168,174	35,103	133,072	1,108	1,084	24	120.10	(2,882)	130,189	165,292
Mar-23	329	139,719	35,103	104,616	981	982	(1)	106.64	107	104,722	139,825
Apr-23	313	87,099	35,103	51,996	659	606	53	78.90	(4,182)	47,814	82,917
Total		887,451	210,618	676,834	6,205	5,901	304	110.56	(33,611)	643,223	853,840

Summary - Total Winter Season Sales		
	Actual 2021-2022	Normalized
November	148,284	138,513
December	202,548	208,215
January	298,577	266,567
February	224,190	220,235
March	184,855	185,001
April	112,328	106,642
Total	1,170,782	1,125,173

SCHEDULE K-1
Winter 2022/2023 COG Filing

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION
Typical Residential Heating Bill - Fixed Price Option Program
Forecasted 2022-2023 Winter Period vs. Actual 2021-2022 Winter Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
12 MONTHS ENDED 10/31/2022	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	Winter Nov-Apr	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Summer May-Oct	Total Nov-Oct
Typical Usage - therms (1)	39	69	81	103	89	66	447	35	18	9	7	8	12	89	536
Residential Heating R-3															
08/01/21															
Customer Charge \$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34	\$184.68
Delivery Charge: All therms @ \$0.3834	\$14.95	\$26.45	\$31.06	\$39.49	\$34.12	\$25.30	\$171.38	\$13.42	\$6.90	\$3.45				\$23.77	\$195.15
8/1/2022 \$0.6337											\$4.44			\$4.44	\$4.44
9/1/2022 0.6519												\$5.22	\$7.82	\$13.04	\$13.04
Base Delivery Revenue Total	\$30.34	\$41.84	\$46.45	\$54.88	\$49.51	\$40.69	\$263.72	\$28.81	\$22.29	\$18.84	\$19.83	\$20.61	\$23.21	\$133.58	\$397.30
Deferred Revenue Surcharge Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
Deferred Revenue Surcharge Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COG Rates	\$1.8941	\$1.8941	\$1.8941	\$1.8941	\$1.8941	\$1.8941	\$1.8941	\$2.4835	\$1.6220	\$2.0198	\$1.8336	\$2.0114	\$2.0114	\$2.1053	
Cost of Gas Total	\$73.87	\$130.69	\$153.42	\$195.09	\$168.57	\$125.01	\$846.65	\$86.92	\$29.20	\$18.18	\$12.84	\$16.09	\$24.14	\$187.37	\$1,034.02
LDAC Rates	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	
LDAC Total	\$5.14	\$9.09	\$10.68	\$13.58	\$11.73	\$8.70	\$58.92	\$4.61	\$2.37	\$1.19	\$0.92	\$1.05	\$1.58	\$11.72	\$70.64
Total Bill	\$109	\$182	\$211	\$264	\$230	\$174	\$1,169	\$120	\$54	\$38	\$34	\$38	\$49	\$333	\$1,502
12 MONTHS ENDED 10/31/2023	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Summer May-Oct	Total Nov-Oct
Typical Usage - therms (1)	39	69	81	103	89	66	447	35	18	9	7	8	12	89	536
Residential Heating R-3															
08/01/21															
Customer Charge \$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34	\$184.68
Delivery Charge: All therms @ \$0.3834	\$14.95	\$26.45	\$31.06	\$39.49	\$34.12	\$25.30	\$171.37	\$13.42	\$6.90	\$3.45				\$2.68	\$174.05
8/1/2022 \$0.6337											\$2.68			\$2.68	\$174.05
9/1/2022 \$0.6519												\$3.07	\$4.60		
Base Delivery Revenue Total	\$30.34	\$41.84	\$46.45	\$54.88	\$49.51	\$40.69	\$263.71	\$28.81	\$22.29	\$18.84	\$18.07	\$18.46	\$19.99	\$95.02	\$358.73
Seasonal Base Delivery Difference from previous year							-\$0.01							-\$38.56	-\$38.57
Seasonal Percent Change from previous year							0.0%							-28.9%	-9.7%
Deferred Revenue Surcharge Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
Deferred Revenue Surcharge Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COG Rates	\$2.2394	\$2.2394	\$2.2394	\$2.2394	\$2.2394	\$2.2394	\$2.2394	\$2.0114	\$2.0114	\$2.0114	\$2.0114	\$2.0114	\$2.0114	\$2.0115	
Cost of Gas Total	\$87.34	\$154.52	\$181.39	\$230.66	\$199.31	\$147.80	\$1,001.02	\$70.40	\$36.21	\$18.10	\$14.08	\$16.09	\$24.14	\$179.02	\$1,180.04
Seasonal COG Difference from previous year							\$154.37							-\$8.35	\$146.02
Seasonal Percent Change from previous year							18.2%							-4.5%	14.1%
LDAC Rates	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	
LDAC Total	\$5.14	\$9.09	\$10.68	\$13.58	\$11.73	\$8.70	\$58.92	\$4.61	\$2.37	\$1.19	\$0.92	\$1.05	\$1.58	\$11.72	\$70.64
Seasonal LDAC Difference from previous year							\$0.00							\$0.00	\$0.00
Seasonal Percent Change from previous year							0.0%							0.0%	0.0%
Total Bill	\$123	\$205	\$239	\$299	\$261	\$197	\$1,324	\$104	\$61	\$38	\$33	\$36	\$46	\$317	\$1,641
Seasonal Total Bill Difference from previous year							\$154.36							-\$15.47	\$138.89
Seasonal Percent Change from previous year							13.2%							-4.7%	9.2%
Seasonal Percent Change resulting from Base Rates (incl. Def. Revenue Surch.)							0.0%							-11.6%	-2.6%
Seasonal Percent Change resulting from COG							13.2%							-2.5%	9.7%
Seasonal Percent Change resulting from LDAC							0.0%							0.0%	0.0%

(1) Residential Heating Typical Usage: Residence using gas for heat, hot water and cooking.

SCHEDULE K-2
Winter 2022/2023 COG Filing

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION
Typical Residential Heating Bill - Non-Fixed Price Option Program
Forecasted 2022-2023 Winter Period vs. Actual 2021-2022 Winter Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
12 MONTHS ENDED 10/31/2022	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	Winter Nov-Apr	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Summer May-Oct	Total Nov-Oct
Typical Usage - therms (1)	39	69	81	103	89	66	447	35	18	9	7	8	12	89	536
Residential Heating R-3															
08/01/21															
Customer Charge \$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34	\$184.68
Delivery Charge: All therms @ \$0.3834	\$14.95	\$26.45	\$31.06	\$39.49	\$34.12	\$25.30	\$171.38	\$13.42	\$6.90	\$3.45				\$23.77	\$195.15
8/1/2022 \$0.6337											\$4.44			\$4.44	\$4.44
9/1/2022 \$0.6519												\$5.22	\$7.82	\$13.04	\$13.04
Base Delivery Revenue Total	\$30.34	\$41.84	\$46.45	\$54.88	\$49.51	\$40.69	\$263.72	\$28.81	\$22.29	\$18.84	\$19.83	\$20.61	\$23.21	\$133.58	\$397.30
Deferred Revenue Surcharge Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
Deferred Revenue Surcharge Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COG Rates	\$1.8968	\$1.8972	\$1.5090	\$1.6493	\$2.4835	\$2.4835	\$1.9730	\$2.4835	\$1.6220	\$2.0198	\$1.8336	\$2.0114	\$2.0114	\$2.1053	
Cost of Gas Total	\$73.98	\$130.91	\$122.23	\$169.88	\$221.03	\$163.91	\$881.94	\$86.92	\$29.20	\$18.18	\$12.84	\$16.09	\$24.14	\$187.37	\$1,069.31
LDAC Rates	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1317	
LDAC Total	\$5.14	\$9.09	\$10.68	\$13.58	\$11.73	\$8.70	\$58.92	\$4.61	\$2.37	\$1.19	\$0.92	\$1.05	\$1.58	\$11.72	\$70.64
Total Bill	\$109	\$182	\$179	\$238	\$282	\$213	\$1,205	\$120	\$54	\$38	\$34	\$38	\$49	\$333	\$1,537
12 MONTHS ENDED 10/31/2023	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Summer May-Oct	Total Nov-Oct
Typical Usage - therms (1)	39	69	81	103	89	66	447	35	18	9	7	8	12	89	536
Residential Heating R-3															
08/01/21															
Customer Charge \$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34	\$184.68
Delivery Charge: All therms @ \$0.3834	\$14.95	\$26.45	\$31.06	\$39.49	\$34.12	\$25.30	\$171.38	\$13.42	\$6.90	\$3.45				\$23.77	\$195.15
8/1/2022 \$0.6337											\$4.44			\$4.44	\$4.44
9/1/2022 \$0.6519												\$5.22	\$7.82	\$13.04	\$13.04
Base Delivery Revenue Total	\$30.34	\$41.84	\$46.45	\$54.88	\$49.51	\$40.69	\$263.72	\$28.81	\$22.29	\$18.84	\$19.83	\$20.61	\$23.21	\$133.58	\$397.30
Seasonal Base Delivery Difference from previous year							\$0.00							\$0.00	\$0.00
Seasonal Percent Change from previous year							0.0%							0.0%	0.0%
Deferred Revenue Surcharge Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
Deferred Revenue Surcharge Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
COG Rates	\$2.2194	\$2.2194	\$2.2194	\$2.2194	\$2.2194	\$2.2194	\$2.2194	\$2.0114	\$2.0114	\$2.0114	\$2.0114	\$2.0114	\$2.0114	\$2.0115	
Cost of Gas Total	\$86.56	\$153.14	\$179.77	\$228.60	\$197.53	\$146.48	\$992.08	\$70.40	\$36.21	\$18.10	\$14.08	\$16.09	\$24.14	\$179.02	\$1,171.10
Seasonal COG Difference from previous year							\$110.14							-\$8.35	\$101.79
Seasonal Percent Change from previous year							12.5%							-4.5%	9.5%
LDAC Rates	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.13	
LDAC Total	\$5.14	\$9.09	\$10.68	\$13.58	\$11.73	\$8.70	\$58.92	\$4.61	\$2.37	\$1.19	\$0.92	\$1.05	\$1.58	\$11.72	\$70.64
Seasonal LDAC Difference from previous year							\$0.00							\$0.00	-\$70.64
Seasonal Percent Change from previous year							0.0%							0.0%	-6.6%
Total Bill	\$122	\$204	\$237	\$297	\$259	\$196	\$1,315	\$104	\$61	\$38	\$35	\$38	\$49	\$324	\$1,639
Seasonal Total Bill Difference from previous year							\$110.14							-\$8.35	\$101.79
Seasonal Percent Change from previous year							9.1%							-2.5%	6.6%
Seasonal Percent Change resulting from Base Rates (incl. Def. Revenue Surch.)							0.0%							0.0%	0.0%
Seasonal Percent Change resulting from COG							9.1%							-2.5%	6.6%
Seasonal Percent Change resulting from LDAC							0.0%							0.0%	-4.6%

(1) Residential Heating Typical Usage: Residence using gas for heat, hot water and cooking.

SCHEDULE L-1
Winter 2022/2023 COG Filing

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION
Typical Commercial Bill - Fixed Price Option Program
Forecasted 2022-2023 Winter Period vs. Actual 2021-2022 Winter Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
12 MONTHS ENDED 10/31/2022	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	Winter Nov-Apr	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Summer May-Oct	Total Nov-Oct
Typical Usage - therms	133	249	307	403	367	262	1,721	128	56	22	16	18	26	266	1,987
Commercial G-41															
Customer Charge 08/01/21	\$57.06	\$57.06	\$57.06	\$57.06	\$57.06	\$57.06	\$342.36	\$57.06	\$57.06	\$57.06				\$171.18	\$513.54
Delivery Charge: First 100 therms @	\$0.4688	\$46.88	\$46.88	\$46.88	\$46.88	\$46.88	\$281.28	\$9.38	\$9.38	\$9.38				\$28.14	\$309.42
Over 100 therms @	\$0.3149	\$10.39	\$46.92	\$65.18	\$95.41	\$84.08	\$352.99	\$34.01	\$11.34	\$0.63				\$45.98	\$398.97
8/1/2022 Customer Charge	\$62.03										\$62.03			\$62.03	\$62.03
8/1/2022 First 20 therms @	\$0.5007										\$8.01			\$8.01	\$8.01
8/1/2022 Over 20 therms @	\$0.3469										\$0.00			\$0.00	\$0.00
9/1/2022 Customer Charge	\$63.30											\$63.30	\$63.30	\$126.60	\$126.60
9/1/2022 First 20 therms @	\$0.5088											\$9.16	\$10.18	\$19.34	\$19.34
9/1/2022 Over 20 therms @	\$0.3550											\$0.00	\$2.13	\$2.13	\$2.13
Base Delivery Revenue Total	\$114.33	\$150.86	\$169.12	\$199.35	\$188.02	\$154.95	\$976.63	\$100.45	\$77.78	\$67.07	\$70.04	\$0.00	\$0.00	\$315.34	\$1,440.04
Deferred Revenue Surcharge Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
Deferred Revenue Surcharge Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00						
COG Rates	\$1.8941	\$1.8941	\$1.8941	\$1.8941	\$1.8941	\$1.8941	\$1.8941	\$2.4835	\$1.6220	\$2.0198	\$1.8336	\$2.0114	\$2.0114	\$2.1467	
Cost of Gas Total	\$251.92	\$471.63	\$581.49	\$763.32	\$695.13	\$496.25	\$3,259.74	\$317.89	\$90.83	\$44.44	\$29.34	\$36.21	\$52.30	\$571.01	\$3,830.75
LDAC Rates	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	0.09910
LDAC Total	\$13.18	\$24.68	\$30.42	\$39.94	\$36.37	\$25.96	\$170.55	\$12.68	\$5.55	\$2.18	\$1.59	\$1.78	\$2.58	\$26.36	\$196.91
Total Bill	\$379	\$647	\$781	\$1,003	\$920	\$677	\$4,407	\$431	\$174	\$114	\$101	\$38	\$55	\$913	\$5,320
12 MONTHS ENDED 10/31/2023	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Summer May-Oct	Total Nov-Oct
Typical Usage - therms	133	249	307	403	367	262	1,721	128	56	22	16	18	26	266	1,987
Commercial G-41															
Customer Charge 08/01/21	\$57.06	\$57.06	\$57.06	\$57.06	\$57.06	\$57.06	\$342.36	\$57.06	\$57.06	\$57.06	\$57.06	\$57.06	\$57.06	\$342.36	\$684.72
Delivery Charge: First 100 therms @	\$0.4688	\$46.88	\$46.88	\$46.88	\$46.88	\$46.88	\$281.28	\$60.01	\$26.25	\$10.31				\$96.57	\$377.85
Over 100 therms @	\$0.3149	\$10.39	\$46.92	\$65.18	\$95.41	\$84.08	\$352.99	\$8.82	\$0.00	\$0.00				\$8.82	\$361.81
8/1/2022 Customer Charge	\$62.03										\$62.03			\$62.03	\$62.03
8/1/2022 First 20 therms @	\$0.5007										\$8.01			\$8.01	\$8.01
8/1/2022 Over 20 therms @	\$0.3469										\$12.86			\$12.86	\$12.86
9/1/2022 Customer Charge	\$63.30											\$63.30	\$63.30	\$126.60	\$126.60
9/1/2022 First 20 therms @	\$0.5088											\$9.16	\$10.18	\$19.34	\$19.34
9/1/2022 Over 20 therms @	\$0.3550											\$0.00	\$2.13	\$2.13	\$2.13
Base Delivery Revenue Total	\$114.33	\$150.86	\$169.12	\$199.35	\$188.02	\$154.95	\$976.63	\$125.89	\$83.31	\$67.37	\$119.09	\$57.06	\$57.06	\$517.79	\$1,655.35
Seasonal Base Delivery Difference from previous year							\$0.00							\$202.45	\$215.31
Seasonal Percent Change from previous year							0.0%							64.2%	15.0%
Deferred Revenue Surcharge Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
Deferred Revenue Surcharge Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00						
COG Rates	\$2.2394	\$2.2394	\$2.2394	\$2.2394	\$2.2394	\$2.2394	\$2.2394	\$2.0114	\$2.0114	\$2.0114	\$2.0114	\$2.0114	\$2.0114	\$2.0114	
Cost of Gas Total	\$297.84	\$557.61	\$687.50	\$902.48	\$821.86	\$586.72	\$3,854.01	\$257.46	\$112.64	\$44.25	\$32.18	\$36.21	\$52.30	\$535.04	\$4,389.05
Seasonal COG Difference from previous year							\$594.27							-\$35.97	\$558.30
Seasonal Percent Change from previous year							18.2%							-6.3%	14.6%
LDAC Rates	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	0.09910
LDAC Total	\$13.18	\$24.68	\$30.42	\$39.94	\$36.37	\$25.96	\$170.55	\$12.68	\$5.55	\$2.18	\$1.59	\$1.78	\$2.58	\$26.36	\$196.91
Seasonal LDAC Difference from previous year							\$0.00							\$0.00	\$558.30
Seasonal Percent Change from previous year							0.0%							0.0%	14.6%
Total Bill	\$425	\$733	\$887	\$1,142	\$1,046	\$768	\$5,001	\$396	\$202	\$114	\$153	\$95	\$112	\$1,071	\$6,072
Seasonal Total Bill Difference from previous year							\$594.27							\$158.47	\$752.74
Seasonal Percent Change from previous year							13.5%							17.4%	14.2%
Seasonal Percent Change resulting from Base Rates (incl. Def. Revenue Surch.)							0.0%							22.2%	4.0%
Seasonal Percent Change resulting from COG							13.5%							-3.9%	10.5%
Seasonal Percent Change resulting from LDAC							0.0%							0.0%	10.5%

SCHEDULE L-2
Winter 2022/2023 COG Filing

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION
Typical Commercial Bill - Non Fixed Price Option Program
Forecasted 2022-2023 Winter Period vs. Actual 2021-2022 Winter Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
12 MONTHS ENDED 10/31/2022	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	Winter Nov-Apr	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Summer May-Oct	Total Nov-Oct
Typical Usage - therms	133	249	307	403	367	262	1,721	128	56	22	16	18	26	266	1,987
Commercial G-41															
Customer Charge 08/01/21							\$342.36	\$57.06	\$57.06	\$57.06				\$171.18	\$513.54
Delivery Charge: First 100 therms @ \$0.4688	\$46.88	\$46.88	\$46.88	\$46.88	\$46.88	\$46.88	\$281.28	\$9.38	\$9.38	\$9.38				\$28.14	\$309.42
Over 100 therms @ \$0.3149	\$10.39	\$46.92	\$65.18	\$95.41	\$84.08	\$51.01	\$352.99	\$34.01	\$11.34	\$0.63				\$45.98	\$398.97
8/1/2022 Customer Charge \$62.03											\$62.03			\$62.03	\$62.03
8/1/2022 First 20 therms @ \$0.5007											\$8.01			\$8.01	\$8.01
8/1/2022 Over 20 therms @ \$0.3469											\$0.00			\$0.00	\$0.00
9/1/2022 Customer Charge \$63.30											\$63.30	\$63.30		\$126.60	\$126.60
9/1/2022 First 20 therms @ \$0.5088											\$9.16	\$10.18		\$19.34	\$19.34
9/1/2022 Over 20 therms @ \$0.3550											\$0.00	\$2.13		\$2.13	\$2.13
Base Delivery Revenue Total	\$114.33	\$150.86	\$169.12	\$199.35	\$188.02	\$154.95	\$976.63	\$100.45	\$77.78	\$67.07	\$70.04	\$0.00	\$0.00	\$315.34	\$1,440.04
Deferred Revenue Surcharge Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
Deferred Revenue Surcharge Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00						
COG Rates	\$1.8741	\$1.8741	\$1.8741	\$1.8741	\$1.8741	\$1.8741	\$1.8741	\$2.4835	\$1.6220	\$2.0198	\$1.8336	\$2.0114	\$2.0114	\$2.1467	
Cost of Gas Total	\$249.26	\$466.65	\$575.35	\$755.26	\$687.79	\$491.01	\$3,225.32	\$317.89	\$90.83	\$44.44	\$29.34	\$36.21	\$52.30	\$571.01	\$3,796.33
LDAC Rates	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	0.09910
LDAC Total	\$13.18	\$24.68	\$30.42	\$39.94	\$36.37	\$25.96	\$170.55	\$12.68	\$5.55	\$2.18	\$1.59	\$1.78	\$2.58	\$26.36	\$196.91
Total Bill	\$377	\$642	\$775	\$995	\$912	\$672	\$4,373	\$431	\$174	\$114	\$101	\$38	\$55	\$913	\$5,285
12 MONTHS ENDED 10/31/2023	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Summer May-Oct	Total Nov-Oct
Typical Usage - therms	133	249	307	403	367	262	1,721	128	56	22	16	18	26	266	1,987
Commercial G-41															
Customer Charge 08/01/21							\$342.36	\$57.06	\$57.06	\$57.06	\$57.06	\$57.06	\$57.06	\$342.36	\$684.72
Delivery Charge: First 100 therms @ \$0.4688	\$46.88	\$46.88	\$46.88	\$46.88	\$46.88	\$46.88	\$281.28	\$60.01	\$26.25	\$10.31				\$96.57	\$377.85
Over 100 therms @ \$0.3149	\$10.39	\$46.92	\$65.18	\$95.41	\$84.08	\$51.01	\$352.99	\$8.82	\$0.00	\$0.00				\$8.82	\$361.81
8/1/2022 Customer Charge \$62.03											\$62.03			\$62.03	\$62.03
8/1/2022 First 20 therms @ \$0.5007											\$8.01			\$8.01	\$8.01
8/1/2022 Over 20 therms @ \$0.3469											\$12.86			\$12.86	\$12.86
9/1/2022 Customer Charge \$63.30											\$63.30	\$63.30		\$126.60	\$126.60
9/1/2022 First 20 therms @ \$0.5088											\$9.16	\$10.18		\$19.34	\$19.34
9/1/2022 Over 20 therms @ \$0.3550											\$0.00	\$2.13		\$2.13	\$2.13
Base Delivery Revenue Total	\$114.33	\$150.86	\$169.12	\$199.35	\$188.02	\$154.95	\$976.63	\$125.89	\$83.31	\$67.37	\$119.09	\$57.06	\$57.06	\$517.79	\$1,655.35
Seasonal Base Delivery Difference from previous year							\$0.00							\$202.45	\$215.31
Seasonal Percent Change from previous year							0.0%							64.2%	15.0%
Deferred Revenue Surcharge Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
Deferred Revenue Surcharge Total	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00						
COG Rates	\$2.2173	\$2.2173	\$2.2173	\$2.2173	\$2.2173	\$2.2173	\$2.2173	\$2.0114	\$2.0114	\$2.0114	\$2.0114	\$2.0114	\$2.0114	\$2.0114	
Cost of Gas Total	\$294.90	\$552.11	\$680.71	\$893.57	\$813.75	\$580.93	\$3,815.97	\$267.46	\$112.64	\$44.25	\$32.18	\$36.21	\$52.30	\$535.04	\$4,351.01
Seasonal COG Difference from previous year							\$590.65							-\$35.97	\$554.68
Seasonal Percent Change from previous year							18.3%							-6.3%	14.6%
LDAC Rates	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	0.09910
LDAC Total	\$13.18	\$24.68	\$30.42	\$39.94	\$36.37	\$25.96	\$170.55	\$12.68	\$5.55	\$2.18	\$1.59	\$1.78	\$2.58	\$26.36	\$196.91
Seasonal LDAC Difference from previous year							\$0.00							\$0.00	\$554.68
Seasonal Percent Change from previous year							0.0%							0.0%	14.6%
Total Bill	\$422	\$728	\$880	\$1,133	\$1,038	\$762	\$4,963	\$396	\$202	\$114	\$153	\$95	\$112	\$1,071	\$6,034
Seasonal Total Bill Difference from previous year							\$590.65							\$158.47	\$749.12
Seasonal Percent Change from previous year							13.5%							17.4%	14.2%
Seasonal Percent Change resulting from Base Rates (incl. Def. Revenue Surch.)							0.0%							22.2%	4.1%
Seasonal Percent Change resulting from COG							13.5%							-3.9%	10.5%
Seasonal Percent Change resulting from LDAC							0.0%							0.0%	10.5%

SCHEDULE M
Winter 2022/2023 COG Filing

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION									
Historical COG Comparison - FPO vs. Non-FPO Bill									
Winter Period	FPO Rate	Amount of Premium	Percent Participation (therms)	Actual FPO Volumes	Premium Revenue	Typical Residential FPO bill	Average Non-FPO Rate	Typical Residential Non-FPO bill	Cost/(Savings) to FPO Customers
1 2021-2022	\$1.8941	\$0.02	11.35%	126,993	\$2,540	\$847	\$1.9452	\$869	(\$23)
2 2020-2021	\$2.0068	\$0.02	10.99%	122,937	\$2,459	\$897	\$1.9053	\$852	\$45
3 2019-2020	\$0.9692	\$0.02	7.08%	74,930	\$1,499	\$433	\$0.9085	\$406	\$27
4 2018-2019	\$1.3743	(\$0.01)	15.64%	181,485	-\$1,071	\$614	\$1.4301	\$639	(\$25)
5 2017-2018	\$1.2408	\$0.02	20.14%	221,383	\$4,428	\$527	\$1.4053	\$597	(\$70)
6 2016-2017	\$1.5352	\$0.02	19.32%	201,959	\$4,039	\$863	\$1.5247	\$900	(\$37)
7 2015-2016	\$0.8988	\$0.02	24.54%	224,981	\$4,500	\$480	\$0.6620	\$354	\$126
8 2014-2015	\$1.7269	\$0.02	32.16%	384,297	\$7,686	\$929	\$1.4213	\$765	\$164
9 2013-2014	\$1.6985	\$0.02	17.94%	206,379	\$4,128	\$914	\$2.0092	\$1,081	(\$167)
10 2012-2013	\$1.5217	\$0.02	20.81%	207,298	\$4,146	\$819	\$1.5002	\$807	\$12
11 2011-2012	\$2.2357	\$0.02	18.21%	152,560	\$3,051	\$1,203	\$2.1253	\$1,143	\$59
12 2010-2011	----- FPO not offered due to Selkirk terminal embargo -----								
13 2009-2010	\$1.3402	\$0.02	17.12%	163,486	\$3,270	\$721	\$1.4900	\$802	(\$81)
14 2008-2009	\$2.2408	\$0.02	21.08%	205,970	\$4,119	\$1,206	\$1.7347	\$933	\$272
15 2007-2008	\$1.5212	\$0.02	28.01%	266,419	\$5,328	\$818	\$1.7646	\$949	(\$131)
16 2006-2007	\$1.4741	\$0.02	21.86%	206,686	\$4,134	\$793	\$1.5397	\$828	(\$35)
17 2005-2006	\$1.5260	\$0.02	42.91%	348,849	\$6,977	\$821	\$1.3742	\$739	\$82
18 2004-2005	\$1.2323	n/a	39.44%	340,315	n/a	\$663	\$1.2647	\$680	(\$17)
19 2003-2004	\$0.8877	n/a	38.78%	316,300	n/a	\$478	\$1.0325	\$555	(\$78)
20 Average						\$790		\$785	\$5

REDACTED
SCHEDULE N
Winter 2022/2023 COG Filing

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION
PROJECTED INCREMENTAL COSTS CNG VS. SPOT PROPANE Winter 2022-2023

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Projected	Projected	Projected	Projected	Projected	Projected	
	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	
1 CNG PURCHASES							
2 CNG Volumes (Schedule C Filing)							
3							
4 CNG Costs (Schedule C Filing)							
5 Total Cost per Actual CNG Costs (Schedule C Filing)							
6							
7 CNG Cost Per Therm Actual							
8							
9 SPOT PROPANE PURCHASES							
10 Spot Propane Volumes (Schedule C Reconciliation)							
11							
12 Total Costs Spot Propane							
13 Total Cost Spot Propane							
14							
15 Spot Propane Cost Per Therm Actual	\$ 1.6827	\$ 1.6814	\$ 1.6732	\$ 1.6595	\$ 1.6083	\$ 1.5591	
16							
17							
18							
19 CNG Volumes							
20 Price difference CNG vs Spot Propane							
21 Adj. for rounding							\$0.0000
22 Incremental Costs Propane							\$62,665
23							
24							
25							
						50%	
						Allowed Recoverable Costs	\$ 31,332

SCHEDULE O
Winter 2022/2023 COG Filing

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION
CNG Incremental Cost/Saving Risk Sharing - 50% Shareholder/Customers
Incremental CNG Supply Costs - Winter 2021 – Winter 2022

	COG Period	Year	Actual / Estimate	Amount	50% Recovery	Deferred	(Refund)/Charge
1	Winter	2021-22	Actuals	-\$121,989	-\$60,995	\$0	\$60,995
2	Total Costs						\$60,995
3	Included in Winter 2022-2023 filing						\$60,995

REDACTED
SCHEDULE P
Winter 2022/2023 COG Filing

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION
INCREMENTAL COSTS CNG VS. SPOT PROPANE WINTER 2021-2022
ACTUALS

	Actual Nov-21	Actual Dec-21	Actual Jan-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Total
1 CNG PURCHASES							
2 CNG Volumes (Schedule C Reconciliation)							
3							
4 CNG Costs (Schedule C Reconciliation)							
5 Total Cost per Actual CNG Costs (Schedule C Reconciliation)							
6							
7 CNG Cost Per Therm Actual							
8							
9 SPOT PROPANE PURCHASES							
10 Spot Propane Volumes (Schedule C Reconciliation)							
11							
12 Total Costs Spot Propane							
13 Total Cost Spot Propane							
14							
15 Spot Propane Cost Per Therm Actual	\$1.6307	\$1.5583	\$1.7863	\$1.9256	\$1.9350	\$1.7709	\$1.8004
16							
17							
18							
19 CNG Volumes							
20							
21 Price difference CNG vs Spot Propane							
22 Adj. for rounding							
23 Incremental Costs Propane							
24							
25							
26							
						Divided by 2	2
						Allowed Recoverable Costs \$	(60,995)

MONT BELVIEU PROPANE FUTURES - 8/25/22 CLOSE

MONT BELVIEU LDH PROPANE (OPIS) FUTURES - SETTLEMENTS

TRADE DATE THURSDAY 25 AUG 2022 ▾

FINAL DATA ●

Last Updated 26 Aug 2022 11:45:00 AM CT

ESTIMATED VOLUME TOTALS	14,080	PRIOR DAY OPEN INTEREST TOTALS	12
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MONTH	OPEN	HIGH	LOW	LAST	CHANGE	SETTLE	EST. VOLUME
AUG 22	-	-	-	-	-.00331	1.09215	0
SEP 22	-	-	-	-	-.01687	1.10938	2,232
OCT 22	-	-	1.11500A	1.11500A	-.01687	1.10438	2,217
NOV 22	-	-	-	-	-.01625	1.10438	1,014
DEC 22	-	-	-	-	-.01562	1.10313	1,904
JAN 23	-	-	-	-	-.01500	1.09563	1,393
FEB 23	-	-	-	-	-.01250	1.08313	1,268
MAR 23	-	-	-	-	-.01063	1.03625	1,253

ENTERPRISE TE PRODUCTS PIPELINE FERC TARIFF 54.68.0 - EFFECTIVE 7/1/22

RATES (In Cents-per-bbl.)

[1] All rates are increased.

ITEM NO. 135

Non-Incentive Rates for Propane

Destination	Origin		
	Floreffe Junction (Allegheny Co., PA)	Mont Belvieu (Chambers Co., TX)	Tappan Lake (Harrison Co., OH), Todhunter (Butler Co., OH) & Follansbee (Brooke Co., West Virginia)
Coshocton (Coshocton Co., OH)	--	796.08	--
Dexter (Stoddard Co., MO)	--	378.26	--
Du Bois (Clearfield Co., PA)	427.60 (1)(2)	883.77 (1)	427.60 (1)
Fontaine (Green Co., AR)	--	355.36	--
Greensburg (Westmoreland Co., PA)	427.60 (1)(2)	834.05 (1)	427.60 (1)
Harford Mills (Cortland Co., NY)	600.82 (1)	942.62 (1)	625.52 (1)
Lebanon (Boone Co., IN)	--	446.09 (4)	--
Oneonta (Otsego Co., NY)	650.39	1018.54 (1)	671.38 (1)
Princeton (Gibson Co., IN)	--	485.59	--
Schaefferstown (Lebanon Co., PA)	630.46 (2)	952.75	622.11
Selkirk (Albany Co., NY)	705.66	1083.00 (1)	707.50 (1)
Seymour (Jackson Co., IN)	--	423.90	--
Sinking Spring (Berks Co., PA)	630.46 (2)	952.75	622.11
Todhunter Truck Terminal (Butler Co., OH)	--	713.33	--
Watkins Glen (Schuyler Co., NY)	578.31 (1)	894.42 (1)	604.58 (1)
West Memphis (Crittenden Co., AR)	--	378.26 (4)	--

Northern Gas Transport, Inc.
Box 106
Lyndonville, VT 05851-0106
1-800-648-1075
FAX: 802-626-5039

August 16, 2022

To: All Customers

Re: Fuel Surcharge Notice

As of Monday August 15, 2022, the Department of Energy New England average price per gallon of diesel fuel was \$5.175. All deliveries invoiced from Sunday, August 21, 2022 through Saturday, August 27, 2022 will be line item assessed at 30% fuel surcharge. Thank you and should you have any questions, please contact Renee Young at 1-800-648-1075 extension 221.

Best Regards,

APPENDIX 3B
Winter 2022/2023 COG Filing

Northern Gas Transport Inc. - Selkirk to Keene

Gallons	Base Rate	Base Charge	Fuel Surcharge Rate	Fuel Surcharge	Total Charge	Total Rate Per Gallon
9,200	\$0.0865	\$795.80	1.00%	\$7.96	\$803.76	\$0.0874
9,200	\$0.0865	\$795.80	2.00%	\$15.92	\$811.72	\$0.0882
9,200	\$0.0865	\$795.80	2.50%	\$19.90	\$815.70	\$0.0887
9,200	\$0.0865	\$795.80	3.00%	\$23.87	\$819.67	\$0.0891
9,200	\$0.0865	\$795.80	3.50%	\$27.85	\$823.65	\$0.0895
9,200	\$0.0865	\$795.80	4.00%	\$31.83	\$827.63	\$0.0900
9,200	\$0.0865	\$795.80	4.50%	\$35.81	\$831.61	\$0.0904
9,200	\$0.0865	\$795.80	5.00%	\$39.79	\$835.59	\$0.0908
9,200	\$0.0865	\$795.80	5.50%	\$43.77	\$839.57	\$0.0913
9,200	\$0.0865	\$795.80	6.00%	\$47.75	\$843.55	\$0.0917
9,200	\$0.0865	\$795.80	6.50%	\$51.73	\$847.53	\$0.0921
9,200	\$0.0865	\$795.80	7.00%	\$55.71	\$851.51	\$0.0926
9,200	\$0.0865	\$795.80	7.50%	\$59.69	\$855.49	\$0.0930
9,200	\$0.0865	\$795.80	8.00%	\$63.66	\$859.46	\$0.0934
9,200	\$0.0865	\$795.80	8.50%	\$67.64	\$863.44	\$0.0939
9,200	\$0.0865	\$795.80	9.00%	\$71.62	\$867.42	\$0.0943
9,200	\$0.0865	\$795.80	9.50%	\$75.60	\$871.40	\$0.0947
9,200	\$0.0865	\$795.80	10.00%	\$79.58	\$875.38	\$0.0952
9,200	\$0.0865	\$795.80	10.50%	\$83.56	\$879.36	\$0.0956
9,200	\$0.0865	\$795.80	11.00%	\$87.54	\$883.34	\$0.0960
9,200	\$0.0865	\$795.80	11.50%	\$91.52	\$887.32	\$0.0964
9,200	\$0.0865	\$795.80	12.00%	\$95.50	\$891.30	\$0.0969
9,200	\$0.0865	\$795.80	12.50%	\$99.48	\$895.28	\$0.0973
9,200	\$0.0865	\$795.80	13.00%	\$103.45	\$899.25	\$0.0977
9,200	\$0.0865	\$795.80	13.50%	\$107.43	\$903.23	\$0.0982
9,200	\$0.0865	\$795.80	14.00%	\$111.41	\$907.21	\$0.0986
9,200	\$0.0865	\$795.80	14.50%	\$115.39	\$911.19	\$0.0990
9,200	\$0.0865	\$795.80	15.00%	\$119.37	\$915.17	\$0.0995
9,200	\$0.0865	\$795.80	15.50%	\$123.35	\$919.15	\$0.0999
9,200	\$0.0865	\$795.80	16.00%	\$127.33	\$923.13	\$0.1003
9,200	\$0.0865	\$795.80	16.50%	\$131.31	\$927.11	\$0.1008
9,200	\$0.0865	\$795.80	17.00%	\$135.29	\$931.09	\$0.1012
9,200	\$0.0865	\$795.80	17.50%	\$139.27	\$935.07	\$0.1016
9,200	\$0.0865	\$795.80	18.00%	\$143.24	\$939.04	\$0.1021
9,200	\$0.0865	\$795.80	18.50%	\$147.22	\$943.02	\$0.1025
9,200	\$0.0865	\$795.80	19.00%	\$151.20	\$947.00	\$0.1029
9,200	\$0.0865	\$795.80	19.50%	\$155.18	\$950.98	\$0.1034
9,200	\$0.0865	\$795.80	20.00%	\$159.16	\$954.96	\$0.1038
9,200	\$0.0865	\$795.80	20.50%	\$163.14	\$958.94	\$0.1042
9,200	\$0.0865	\$795.80	21.00%	\$167.12	\$962.92	\$0.1047
9,200	\$0.0865	\$795.80	21.50%	\$171.10	\$966.90	\$0.1051
9,200	\$0.0865	\$795.80	22.00%	\$175.08	\$970.88	\$0.1055
9,200	\$0.0865	\$795.80	22.50%	\$179.06	\$974.86	\$0.1060
9,200	\$0.0865	\$795.80	23.00%	\$183.03	\$978.83	\$0.1064
9,200	\$0.0865	\$795.80	23.50%	\$187.01	\$982.81	\$0.1068
9,200	\$0.0865	\$795.80	24.00%	\$190.99	\$986.79	\$0.1073
9,200	\$0.0865	\$795.80	24.50%	\$194.97	\$990.77	\$0.1077
9,200	\$0.0865	\$795.80	25.00%	\$198.95	\$994.75	\$0.1081
9,200	\$0.0865	\$795.80	25.50%	\$202.93	\$998.73	\$0.1086
9,200	\$0.0865	\$795.80	26.00%	\$206.91	\$1,002.71	\$0.1090
9,200	\$0.0865	\$795.80	26.50%	\$210.89	\$1,006.69	\$0.1094
9,200	\$0.0865	\$795.80	27.00%	\$214.87	\$1,010.67	\$0.1099
9,200	\$0.0865	\$795.80	27.50%	\$218.85	\$1,014.65	\$0.1103
9,200	\$0.0865	\$795.80	28.00%	\$222.82	\$1,018.62	\$0.1107
9,200	\$0.0865	\$795.80	28.50%	\$226.80	\$1,022.60	\$0.1112
9,200	\$0.0865	\$795.80	29.00%	\$230.78	\$1,026.58	\$0.1116
9,200	\$0.0865	\$795.80	29.50%	\$234.76	\$1,030.56	\$0.1120
9,200	\$0.0865	\$795.80	30.00%	\$238.74	\$1,034.54	\$0.1125
9,200	\$0.0865	\$795.80	30.50%	\$242.72	\$1,038.52	\$0.1129
9,200	\$0.0865	\$795.80	31.00%	\$246.70	\$1,042.50	\$0.1133
9,200	\$0.0865	\$795.80	31.50%	\$250.68	\$1,046.48	\$0.1137
9,200	\$0.0865	\$795.80	32.00%	\$254.66	\$1,050.46	\$0.1142
9,200	\$0.0865	\$795.80	32.50%	\$258.64	\$1,054.44	\$0.1146
9,200	\$0.0865	\$795.80	33.00%	\$262.61	\$1,058.41	\$0.1150
9,200	\$0.0865	\$795.80	33.50%	\$266.59	\$1,062.39	\$0.1155
9,200	\$0.0865	\$795.80	34.00%	\$270.57	\$1,066.37	\$0.1159
9,200	\$0.0865	\$795.80	34.50%	\$274.55	\$1,070.35	\$0.1163
9,200	\$0.0865	\$795.80	35.00%	\$278.53	\$1,074.33	\$0.1168
9,200	\$0.0865	\$795.80	35.50%	\$282.51	\$1,078.31	\$0.1172
9,200	\$0.0865	\$795.80	36.00%	\$286.49	\$1,082.29	\$0.1176
9,200	\$0.0865	\$795.80	36.50%	\$290.47	\$1,086.27	\$0.1181
9,200	\$0.0865	\$795.80	37.00%	\$294.45	\$1,090.25	\$0.1185
9,200	\$0.0865	\$795.80	37.50%	\$298.43	\$1,094.23	\$0.1189
9,200	\$0.0865	\$795.80	38.00%	\$302.40	\$1,098.20	\$0.1194
9,200	\$0.0865	\$795.80	38.50%	\$306.38	\$1,102.18	\$0.1198
9,200	\$0.0865	\$795.80	39.00%	\$310.36	\$1,106.16	\$0.1202
9,200	\$0.0865	\$795.80	39.50%	\$314.34	\$1,110.14	\$0.1207
9,200	\$0.0865	\$795.80	40.00%	\$318.32	\$1,114.12	\$0.1211