

REDACTED

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

Docket No. DG 22-015

Liberty Utilities (EnergyNorth Natural Gas) Corp.
d/b/a Liberty–Keene Division

Updated Summer 2022 Cost of Gas

DIRECT TESTIMONY

OF

DEBORAH M. GILBERTSON

AND

CATHERINE A. McNAMARA

May 10, 2022



THIS PAGE INTENTIONALLY LEFT BLANK

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 1 of 19

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 (CM) My name is Catherine A. McNamara. My business address is 15 Buttrick Road,
6 Londonderry, New Hampshire. My title is Rates Analyst II, Rates and Regulatory
7 Affairs.

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

9 A. We are employed by Liberty Utilities Service Corp. (“LUSC”), which provides services
10 to Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty (“Liberty” or the
11 “Company”) and Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty.

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

13 A. We are testifying on behalf of the Company.

14 **Q. Have you previously submitted testimony in this proceeding?**

15 A. Yes. We submitted testimony as part of the Company’s March 15, 2022, initial filing in
16 this docket. Our educational backgrounds, professional backgrounds, and qualifications
17 are contained in that prior testimony.

18 **Q. What is the purpose of your updated testimony?**

19 A. The purpose of our updated testimony is to explain the Company’s proposed Cost of Gas
20 (“COG”) rates for its Keene Division for the 2022 summer (off-peak) period to be

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 2 of 19

1 effective beginning June 1, 2022, and to explain why the Company is proposing the
2 summer period rate to begin June 1, rather than the customary May 1. Our testimony will
3 also address bill comparisons and other items related to the summer period.

4 **II. PROCEDURAL HISTORY**

5 **Q. Why is the Company proposing that the summer cost of gas rate go into effect on**
6 **June 1, rather than the customary May 1?**

7 A. The Company's proposal for a June 1, 2022, effective date and related variations in this
8 filing arise from the following sequence of events in this docket.

9 Liberty made its initial Summer 2022 Cost of Gas filing on March 15, 2022, in
10 compliance with the previously established schedule for these dockets. That filing
11 proposed a summer cost of gas rate of \$1.6643. The Commission held a prehearing
12 conference on April 4, 2022, following which the Commission issued an April 6, 2022,
13 procedural order directing the Company to file by April 15, 2022, the live Excel file of
14 the 2021 Summer Cost of Gas Reconciliation and the audit report of the 2021 Summer
15 COG reconciliation prepared by the Department of Energy's (DOE) Audit Division.

16 The Company had ready access to the Excel file, but the audit report was authored by
17 DOE and the DOE had marked the entire report as confidential. DOE and the Company
18 began a conversation to determine what redactions DOE thought were necessary prior to
19 Liberty being able to file the report. Those conversations were delayed by the absence of
20 a key DOE employee who was on vacation.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 3 of 19

1 Unfortunatly, this delay led to the Company losing track of the April 15 due date. The
2 Company and DOE agreed to the appropriate redactions late on April 19, and the
3 Company filed the Excel and the audit report on April 21.

4 Because of this late filing, the Commission issued Order No. 26,615 (Apr. 22, 2022)
5 which suspended the proposed tariff pages that contained the proposed summer 2022 cost
6 of gas rates and rescheduled the hearing in this docket for May 17, 2022.

7 Liberty filed a motion on April 25 asking the Commission to clarify what COG rate the
8 Company should charge beginning May 1, 2022, and until the Commission issues an
9 order following the May 17 hearing. DOE also filed a motion related to the rate that
10 should be charged beginning May 1.

11 In response to those pleadings, the Commission issued Order No. 26,618 (April 28, 2022)
12 which ordered that “the previously-approved Winter 2021–2022 COG rate for April 2022
13 currently in effect ... shall continue to apply,” that the Company “shall file tariff pages
14 incorporating this extension by the close of business on May 2, 2022,” and that the
15 Company shall “provide an updated Summer 2022 COG rate calculation and proposed
16 tariff pages to incorporate the Summer 2022 COG season of May 1, 2022–October 31,
17 2022.” Order No. 26,618 at 4.

18 **Q. Is the Company billing the April COG rate of \$2.4835 during the month of May**
19 **2022?**

20 **A. Yes.**

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 4 of 19

1 **Q. Did the Company file compliance tariff pages confirming that it is billing the above**
2 **rate?**

3 A. Yes, the Company filed tariff pages that continued the \$2.4835 April rate into May.

4 **Q. Did the Company “provide an updated Summer 2022 COG rate calculation and**
5 **proposed tariff pages to incorporate the Summer 2022 COG season of May 1, 2022 –**
6 **October 31, 2022”?**

7 A. Yes, this filing represents the Company’s updated Summer 2022 COG rate calculation
8 that incorporates the \$2.4835 being charged in May and calculates the COG rate through
9 October 31, 2022.

10 The higher COG revenues that the Company estimates it will receive in May due to the
11 \$2.4835 COG rate had a downward effect on the otherwise typical calculation of the
12 COG rate for the balance of the summer period. The Company also updated the
13 projected market prices, which had an upward impact on the proposed rate. The result of
14 this updated calculation is a proposed COG rate of \$1.6220 for the period June 1, 2022,
15 through October 31, 2022, as described in detail below.

16 **III. SUMMER 2022 COST OF GAS FACTOR**

17 **Q. What is the proposed firm summer cost of gas rate?**

18 A. The Company proposes an updated firm cost of gas rate of \$1.6220 per therm for the
19 Keene Division, to begin June 1, 2022, as shown on Proposed Third Revised Page 93.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty-Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 5 of 19

1 **Q. Please explain the calculation of the Cost of Gas rate on tariff page Proposed Third**
2 **Revised Page 93.**

3 A. Proposed Third Revised Page 93 contains the calculation of the 2022 Summer Period
4 COG and summarizes the Company's forecast of propane and compressed natural gas
5 ("CNG") sales and propane and CNG costs. The total anticipated cost of the gas sendout
6 from May 1 through October 31, 2022, is \$554,874. The information presented on the
7 tariff page is supported by Schedules A through N which are described later in this
8 testimony.

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

- 10 1) The prior period under-collection of \$18,017 is added to the anticipated cost of
11 gas sendout; and
- 12 2) Interest of \$274 is added to the anticipated cost of gas sendout. Schedule F shows
13 this forecasted interest calculation for the period November 2021 through April
14 2022. Interest is accrued using the monthly prime lending rate as reported by the
15 Federal Reserve Statistical Release of Selected Interest Rates.

16 The Non-Fixed Price Option ("Non-FPO") cost of gas rate of \$1.7865 per therm was
17 calculated by dividing the Total Anticipated Cost of Gas of \$573,165 by the Projected
18 Gas Sales of 320,838 therms. There is no Fixed Price Option for the summer period.

19 **Q. Please describe Schedule A.**

20 A. Schedule A converts the propane gas volumes and unit costs from gallons to therms. The
21 321,744 therms represent sendout as detailed on Schedule B, lines 3 and 8. The blended

1 unit cost of those supplies is \$1.6701 per therm which represents the weighted average
2 cost per therm for the summer period gas sendout as detailed on Schedule D, line 37.

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

4 A. Schedule B presents the final (over)/under collection calculation for the summer 2022
5 period based on the prior period (over)/under collection, forecasted volumes, the cost of
6 gas, and applicable interest amounts. The forecasted total propane sendout of [REDACTED]
7 therms on line 3, plus total CNG sendout of [REDACTED] therms on line 8, is the sum of the
8 forecasted summer 2022 total firm sendout. The forecasted Firm Sales on line 26
9 represent weather normalized 2022 summer period firm sales. The weather
10 normalization calculations for sendout and sales are found in Schedules G and H,
11 respectively.

12 **Q. Is the May 2022 rate of \$2.4835 included in Schedule B?**

13 A. Yes, in column 2, lines 26–28. This shows that based on projected sales of 64,616 therms
14 in May 2022, the revenue collected is projected to be \$160,474, column 2, line 28.

15 **Q. How was the proposed cost of gas rate for June 1, through October 31, 2022,
16 calculated?**

17 A. See below for the proposed cost of gas rate calculation for June 1 through October 31,
18 2022.

REDACTED

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty-Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 7 of 19

Proposed Cost of Gas Rate June 1 through October 31, 2022	
Total Projected Propane Costs (Sch. B, Line 7, Column 8)	\$416,218.00
Total Projected CNG Costs (Sch. B, Line 17, Column 8)	\$141,953.05
O/U Collection @ 4/30/21 (Sch. B Line 38, Column 1)	\$18,291.00
Projected Interest Cost (Sch. B, Line 37, Column 8)	(\$392.00)
Total COG Revenue Requirement	\$576,070.05
Less Projected Revenue May 2022	(\$160,473.84)
Remaining Costs to be Collected June - October 2022	\$415,596.21
Total Projected Therm Sales June-October 2022	256,222.00
Calculated Rate/Therm June - October 2022	\$1.6220

1

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

3 A. Yes, CNG demand charges are included in Schedule B on line 11.

4 Schedule B, line 11, includes 25% of the 2022 demand charges. These charges are
5 \$ [REDACTED] per month or \$ [REDACTED] for the season and represent the portion attributable to
6 the summer period.

7 **Q. Is this an approved allocation of summer demand charges?**

8 A. Yes, in Order No. 26,505 (July 30, 2021), the Commission approved the Settlement
9 Agreement in the Company's recent distribution service rate case, which fixed the
10 allocation of Keene CNG demand charges to be 75% in the winter period and 25% in the
11 summer period. The total demand charge for the summer period is thus the total annual
12 demand charge of \$ [REDACTED] times 25%, or \$ [REDACTED].

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 8 of 19

1 **Q. Are incremental costs/savings for prior summer periods related to the use of CNG**
2 **vs. propane included in this filing?**

3 A. Yes, the calculation of prior summer period incremental costs/savings between propane
4 and CNG have been calculated for the summer of 2019, 2020, and 2021, per Section 7.1
5 of the Settlement Agreement in Docket No. DG 20-105, which states, in part, as follows:

6 The Company shall recover one-half of the incrementally higher CNG
7 supply costs as compared to the propane supply cost,⁸ incurred from the
8 commencement of CNG service through October 31, 2021, to be recovered
9 through inclusion over one year in the next Keene cost of gas during the
10 winter or summer periods consistent with the season in which the
11 incremental costs were originally incurred. The Company shall provide the
12 supporting calculations in the Winter 2021-2022 Keene Cost of Gas filing.
13 Incremental CNG supply costs through the 2020-2021 winter period are
14 provided in Appendix 4.

15 (a) Beginning November 1, 2021, if the CNG supply cost is higher than
16 the propane supply cost as described in footnote 8, the Company
17 shall recover one-half of the incrementally higher CNG supply cost,
18 as determined through the cost of gas reconciliation process. If the
19 CNG supply cost is lower than the propane supply cost, the
20 Company shall recover and retain the full amount of the
21 incrementally lower CNG supply cost up to the amount of
22 incrementally higher CNG costs accrued since the commencement
23 of CNG service, which has not then been recovered from customers,
24 at which point the Company shall recover and retain one-half of the
25 incrementally lower CNG supply costs. Reconciliation of the
26 incremental CNG supply costs shall occur semi-annually in the
27 Winter and Summer Cost of Gas filings, as applicable.

28 Settlement Agreement in Docket No. DG 20-105, Exhibit 49 (“Settlement Agreement”),
29 at Bates 13–14. Footnote 8 described the calculation:

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 9 of 19

1 Incremental CNG supply cost/savings shall be calculated by multiplying the
2 CNG therm purchases by the difference between the average per therm
3 CNG supply cost and the propane supply costs for the applicable
4 summer/winter period. Average CNG supply costs shall include all CNG
5 supplier charges properly allocated between summer and winter periods.
6 Average propane supply costs shall include Mont Belvieu propane pricing,
7 transportation costs, and Broker Fee.

8 *Id.* at 14. The above calculations for the summers of 2019 and 2020 were included in the
9 Settlement Agreement and have been applied here. *Id.* at Bates 33. The above
10 calculation for the summer of 2021 was also included in the Settlement Agreement, *id.*,
11 but it was based on projected numbers since the Settlement Agreement was signed during
12 that summer period. The Summer 2021 calculations have been updated with actual
13 numbers in this filing. The calculations for all three summer periods can be found on
14 Schedule M.

15 **Q. Can you itemize the previous years' incremental costs/savings which are included in**
16 **this filing?**

17 A. Yes, the previous periods' incremental costs/savings calculations can be found on
18 Schedule N. For the summer of 2019, the Company had collected 100% of the
19 incrementally higher CNG costs, which totaled \$5,048. In light of the Settlement
20 Agreement authorizing the Company to recover only 50% of the incrementally higher
21 CNG costs, \$2,524 will be returned to customers over the Summer 2022 period through
22 the rates proposed in this filing.

23 For the summer of 2020, CNG costs were \$16,214 higher than propane costs. Over the
24 course of the 2020 summer the Company deferred 100% of those incremental costs, that

REDACTED

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 10 of 19

1 is, the Company did not collect any of the \$16,214. The Settlement Agreement now
2 authorizes the Company to collect 50% of those charges, and thus the rate proposed here
3 includes recovery of \$8,107 of the incrementally higher CNG costs. Again, these exact
4 calculations for the 2019 and 2020 summers were specifically included in the Settlement
5 Agreement.

6 For the summer of 2021, CNG costs were \$ [REDACTED] less expensive than propane. The
7 Company again deferred, i.e., did not include, these savings in the 2020 COG rates. The
8 Settlement Agreement allows the Company to recover 100% of these savings “up to the
9 amount of incrementally higher CNG costs accrued since the commencement of CNG
10 service, which has not then been recovered from customers,” and thereafter shares any
11 remaining savings with customers equally. Settlement Agreement at Bates 14. The
12 amount of the “incrementally higher COG costs accrued since the commencement of
13 CNG service” that the Company did not recover is \$10,631. The rates proposed here thus
14 include recovery of that amount, leaving \$2,395 in savings to be addressed. The
15 Settlement Agreement states that this remaining amount of CNG savings is to be shared
16 equally with customers and, since the 2021 rates did not include recovery of any of the
17 remaining \$2,395 of incremental CNG savings, the rates proposed here include recovery
18 of one-half of this remaining amount, or \$1,197. This is included on Schedule M, in the
19 \$9,434, the summer 2021 savings.

20 The net incremental costs/savings for all three periods included in this filing are \$15,017.
21 These items are included in Schedule B, lines 12–14.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 11 of 19

1 **Q. Do the incremental costs/savings from above reconcile with Appendix 4 of the**
2 **Settlement Agreement?**

3 A. No. As mentioned above, the summer 2021 incremental costs of \$3,577 reported in
4 Appendix 4 of the Settlement Agreement were estimated. This filing contains the actual
5 incremental savings for 2021. The amounts used above include the actual incremental
6 cost calculations which can be found on Schedule N.

7 **Q. Are projected 2022 incremental cost/savings included in this filing?**

8 A. Yes. Over the summer of 2022, the Company projects CNG to be \$11,641 less than
9 propane costs over the summer of 2022 resulting in a savings for customers. The
10 proposed rates in this filing include 50% of those savings in accordance with the
11 Settlement Agreement in DG 20-105, Section 7.1(a). The calculated incremental
12 projected savings are 50% of \$11,641, or \$5,821. This can be found on line 15 of
13 Schedule B. The detailed calculation can be found on Schedule L.

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

15 A. Unaccounted-for gas is included in the firm sendout on Schedule B, lines 1 and 8. The
16 Company actively monitors its level of unaccounted-for volumes, which amounted to
17 0.19% for the twelve months ended June 30, 2021.

18 **Q. Please describe Schedules C and K.**

19 A. Schedule C presents the forecasted market spot prices of propane. Column 1 shows the
20 Mont Belvieu propane futures quotations as of March 2, 2022. Subsequent columns
21 show expected broker/supplier fees, pipeline fees, and Propane Education & Research

1 Council (PERC) fees. These prices when added together represent a forecasted summer
2 price of propane. This price is also represented in Schedule K, line 40. Note that as
3 actual prices are realized, they will replace estimate pricing. The reconciliation of actual
4 costs to estimated costs is continued throughout the summer as the actual data becomes
5 available.

6 **IV. PROPANE PURCHASING STABILIZATION PLAN**

7 **Q. Please describe the Propane Purchasing Stabilization Plan (“PPSP”).**

8 A. The Propane Purchasing Stabilization Plan is a Commission-approved strategy that the
9 Company undertakes to provide stability in the winter COG rate and to facilitate the
10 offering of a Fixed Price Option. Under this strategy, the Company systematically
11 hedges supply purchases over the off-peak period to be utilized and called upon in the
12 peak period. The strategy is intended to provide price stability rather than to secure lower
13 prices. The PPSP was approved in Order No. 24,617 (Apr. 28, 2006), and has been
14 discussed and authorized repeatedly in Keene’s cost of gas proceedings ever since.

15 **Q. Has the Company performed any analysis regarding its Propane Purchasing**
16 **Stabilization Plan?**

17 A. Yes. The Company performed two analyses. In Schedule J-1, the Company evaluated
18 the premium/discount associated with securing the pre-purchased volumes for delivery in
19 the winter of 2021–2022 relative to securing a floating price at Mont Belvieu. The
20 comparison reflects the net premium/discount results of the Company’s competitive RFP
21 process. In Schedule J-2, the Company performed a comparison of propane purchase

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 13 of 19

1 costs under the contract versus representative spot prices had the Company not
2 implemented the Plan. The analysis shows that the cost of the pre-purchased gallons was
3 18% lower than the average representative spot purchase cost for the first four months of
4 the current winter period, reflecting an increase in spot propane prices over the pre-
5 purchased volumes.

6 **Q. Has the Company issued a Request for Proposals (“RFP”) to potential suppliers for**
7 **the 2022–2023 Plan?**

8 A. Yes. The Company issued the RFP for the 2022–2023 Plan on February 22, 2022. The
9 RFP process was the same as the process used last summer. The RFP was sent to thirteen
10 suppliers. Once a winning bidder has been selected, they will be notified.

11 **Q. Is the Company proposing any changes to the 2022–2023 Plan?**

12 A. No. The Plan structure specified in the RFP, as detailed on Schedule J-3, has not
13 changed from the design that was used for the previous winter. The Company will
14 purchase 700,000 gallons to maintain a consistent ratio of hedged volumes to expected
15 sales – approximately 65%, which also includes storage at the Amherst facility.

16 **V. FIXED PRICE OPTION PROGRAM**

17 **Q. Will there be a Fixed Price Option (“FPO”) rate offered for the summer period?**

18 A. No, there will not be an FPO rate offered for the summer period. The FPO program is
19 only offered during the winter (peak) period.

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

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

3 A. The CNG costs are shown in Schedule K, lines 21 through 29. These costs reflect the
4 contractual agreement between the Company and its supplier, Xpress Natural Gas, LLC.

5 **Q. Please describe Schedule D.**

6 A. Schedule D contains the calculation of the expected weighted average cost of inventory
7 for each month through October 2022. The unit cost of projected gas to be sent out each
8 month includes CNG deliveries. Note that the CNG deliveries are shown in separate
9 columns from the propane-weighted cost but are included in the average summer rate,
10 which is shown on line 37 of Schedule D.

11 **Q. What is shown on Schedule E?**

12 A. Schedule E shows the under-collected balance for the prior summer 2021 period,
13 including interest calculated in a manner consistent with prior years. The under-collected
14 balance of \$16,078 (line 36) is shown on Schedule E, line 1, Column 8.

15 **Q. How is the information in Schedule F represented in the cost of gas calculation?**

16 A. Schedule F presents the interest calculation and adjustments on (over)/under-collected
17 balances through October 2022. This is represented in the cost of gas calculation on
18 Schedule B, line 37. The prior Period Balance is calculated below and found on
19 Schedule B, Column 1, line 38.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 15 of 19

Prior Period GL Balance at 10/31/2021, Sched F, Col 1, Ln 1	\$ 16,080.00
Adjustments, Schedule F, Column 3	\$ 1,937.00
Interest November 2021 - April 2022, Sched F Col 8, Ln 1-6	\$ 274.00
<u>Prior Period Ending Balance at 4/30/2022, Schedule B Column 1, Line 38</u>	<u>\$ 18,291.00</u>

1

2

The forecasted (over)/under collection from Schedule F, Column 2, lines 7–12 is included in Schedule B, Columns 2–7, line 36

3

4 **Q. What is included in the Adjustments, Column 3 of Schedule F?**

5 A. The total \$1,936.89 included in the adjustments column is listed below.

November 2021 - January 2022 Demand charges to the summer deferral in winter months	\$ 6,875.01
Revenue appropriately booked to the summer deferral in winter months	\$ (43,266.68)
<u>Reversal of the October 2021 Summer Accrual in November 2021</u>	<u>\$ 38,328.56</u>
Total Adjustments	<u>\$ 1,936.89</u>

6

7 **Q. How does the proposed June 1 through October 31, 2022 cost of gas rates compare**
8 **with the previous summer’s rates?**

9 A. The proposed Non-FPO COG rate of \$1.6220 per therm is an increase of \$0.4399 or
10 37.2% from the summer 2021 approved rate of \$1.1821 per therm, per Order No. 26,475
11 (April 30, 2021).

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

13 A. The main reason for the \$0.4399 increase is the increase in projected market supply costs.
14 This accounts for approximately 80% of the price increase. The remaining 20% of the
15 increase is due to having started the Summer 2021 period with an over-collection versus
16 starting the Summer 2022 period with an under-collection.

1 **Q. What is the impact of the Summer 2022 COG rate on the typical residential heat**
2 **and hot water customer?**

3 A. As shown on Schedule I-1, Column 14, lines 50 and 51, the typical residential heat and
4 hot water customer would experience an increase of \$39.27 or 46.9% in the gas
5 component of their bills compared to the prior summer period. When the monthly
6 customer charge, therm delivery charge, and LDAC are factored into the analysis, the
7 typical residential customer would see a total bill increase of \$43.50 or 20.1%, as shown
8 on lines 54 and 55.

9 **Q. Please describe the impact of the Summer 2022 COG rate on the typical commercial**
10 **customer compared to the prior summer period.**

11 A. As shown on Schedule I-2, Column 14, lines 50 and 51, the typical commercial customer
12 would experience an increase of \$125.34 or 47.3% in the gas component of their bills
13 compared to the prior summer period. When the monthly customer charge, therm
14 delivery charge, and LDAC are factored into the analysis, the typical commercial
15 customer would see a total bill increase of \$138.20 or 19.6%, as shown on lines 54 and
16 55.

17 **VII. OTHER ITEMS**

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

19 A. The Company began serving customers with CNG in October 2019. At present, the
20 service territory for CNG is limited to the Monadnock Marketplace and a small portion of
21 Key Road. The Company's short-term plan involves adding/converting more customers

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty-Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 17 of 19

1 and expanding the natural gas footprint in this limited area as contemplated in the
2 Settlement Agreement.¹ Since the fall, the Company has added two new commercial
3 customers and extended the main by approximately 700 feet. There are plans to add a
4 couple of other customers in the area, but likely not until later this year. The Company is
5 considering a path forward to the transition to partial renewable fuel (RNG) and has
6 retained a contractor to help determine what is possible and at what cost.

7 **Q. When does the current CNG contract expire?**

8 A. The current CNG contract expires on June 30, 2024.

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

10 A. For the upcoming off-peak period, spot propane is anticipated to be seventeen cents per
11 therm more expensive than CNG. The calculation of Spot Purchases cost per therm is
12 found on Schedule K, line 40, less the CNG Deliveries cost per therm found on Schedule
13 K, line 28.

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

15 A. Yes.

¹ “Phase 1 of the Keene conversion to natural gas shall consist of: (1) installation of the existing temporary CNG facility; (2) conversion of the propane-air customers’ premises at the Monadnock Marketplace to natural gas as of the date of this Settlement; and (3) acquisition of customers at any additional premises not currently physically connected to the gas utility system in Keene after the date of this settlement who would be served CNG from both the existing CNG temporary facility and through existing mains.” Settlement Agreement at Bates 14 (emphasis added).

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division
Docket No. DG 22-015
Updated Summer 2022 Cost of Gas
Direct Testimony of D. Gilbertson and C. McNamara
Page 18 of 19

1 **Q. Can you comment on market price conditions as compared to last summer?**

2 A. Yes, as compared to this time last summer, the commodity prices have increased
3 substantially. Global influences have continued to impact national markets as
4 competition for supply increases in places such as Europe and Asia. These influences are
5 impacting prices in all energy sectors across the US. For example, last year at this time,
6 Mont Belvieu was forecasted to average 79 cents per gallon for the 2021 summer period.
7 This year it is expected to average at \$1.28 per gallon for 2022 summer – a 62% increase.
8 As for natural gas benchmark prices, NYMEX at this time last year was averaging \$2.89
9 per dekatherm (“Dth”) whereas today it is averaging \$8.23 per Dth – a 185% increase
10 over last year. These costs directly impact the customer rates.

11 **Q. What changes have been made since the original filing on March 15, 2022?**

12 A. As described above, the Settlement Agreement defined how incremental costs or savings
13 associated with CNG and propane costs are to be shared with customers. In its initial
14 filing, the Company incorrectly presented the difference between the CNG and propane
15 costs as a benefit to customers resulting in an overall reduction in the cost of gas. The
16 updated filing on April 27, 2022, revised that calculation to show a benefit to the
17 Company resulting in an overall increase in the cost of gas as defined in the risk-sharing
18 mechanism in Section 7.1(a) of the Settlement Agreement of DG 20-105 where
19 customers bear 50% of the incremental savings. To share these savings, the Company
20 passes on the incremental savings to customers and therefore needed to increase the cost
21 by \$19,592, not decrease as indicated in the original filing.

1 Additionally, the LDAC rates used in the commercial bill impact schedule I-2 were
2 incorrect. The company used the residential LDAC rates and should have used the
3 commercial LDAC rates. This did not impact the rates in any way.

4 This second revised filing reflects the extension of the April 2022 through May 2022 of
5 \$2.4835 and provides a revised COG rate calculation for the months of June through
6 October 2022 per Order No. 26,218 (April 28, 2022).

7 **Q. Have projected market prices changed from the time the original filing was**
8 **submitted on March 15, 2022?**

9 A. Yes, forward market prices have changed. The Company updated pricing as of May 4,
10 2022. Since the March 15 filing, the projected cost of CNG increased thirty-three cents
11 and the projected cost of propane decreased by six cents. This update also changed the
12 delta between the two, of which the Company is allowed to keep 50% of the benefit
13 because the price of CNG is less than the price of propane. This change lessened the gap
14 between the two, thus reducing the chargeback to customers from approximately \$19,000
15 as seen on Schedule B, line 15 to \$██████.

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

17 A. Yes, it does.

THIS PAGE INTENTIONALLY LEFT BLANK

LIBERTY UTILITIES-KEENE DIVISION
COST OF GAS RATE FILING – DG 22-015
SUMMER PERIOD 2022
UPDATED FILING

CONTENTS

1.	TARIFF PAGE - COST OF GAS RATE	
2.	MARKED TARIFF PAGE - COST OF GAS RATE	
3.	CONVERSION OF GAS COSTS - GALLONS TO THERMS	SCHEDULE A
4.	CALCULATION OF COST OF GAS RATE	SCHEDULE B
5.	PROPANE SPOT MARKET PURCHASE COST ANALYSIS	SCHEDULE C
6.	PROPANE INVENTORY & WACOG CALCULATION	SCHEDULE D
7.	PRIOR PERIOD (OVER)/UNDER COLLECTION	SCHEDULE E
8.	INTEREST CALCULATION	SCHEDULE F
9.	WEATHER NORMALIZATION - SENDOUT	SCHEDULE G
10.	WEATHER NORMALIZATION - SALES	SCHEDULE H
	<u>BILL IMPACT ANALYSES:</u>	
11.	RESIDENTIAL FPO	SCHEDULE I-1
12.	RESIDENTIAL NON-FPO	SCHEDULE I-2
	<u>PROPANE PURCHASING STABILIZATION PLAN:</u>	
13.	PREMIUM FOR PRE-PURCHASED VOLUMES	SCHEDULE J-1
14.	COMPARISON OF CONTRACT COST TO HYPOTHETICAL SPOT COST	SCHEDULE J-2
15.	PRE-PURCHASES AND DELIVERY SCHEDULE	SCHEDULE J-3
16.	WEIGHTED AVERAGE COST OF GAS CALCULATION	SCHEDULE K
17.	PROJECTED INCREMENTAL SAVINGS CNG VS. SPOT PROPANE	SCHEDULE L
18.	CNG INCREMENTAL COSTS/SAVINGS RISK SHARING	SCHEDULE M
19.	HISTORICAL INCREMENTAL COSTS/SAVINGS CNG VS. SPOT PROPANE	SCHEDULE N
	<u>APPENDIXES:</u>	
20.	MONT BELVIEU PROPANE FUTURES PRICES	APPENDIX 1
21.	ENTERPRISE TE PRODUCTS PIPELINE FERC TARIFF - EFF. 01/01/21	APPENDIX 2
22.	TRUCKING FUEL SURCHARGE NOTIFICATION	APPENDIX 3A
23.	TRUCKING FUEL SURCHARGE RATE PER GALLON	APPENDIX 3B

NHPUC No.11 GAS
LIBERTY UTILITIES

Twelfth Revised Page 88
~~Second Revised Page 88~~
Superseding Eleventh Page 88
~~Superseding First Revised Page 88~~

Rates Effective March 1, 2022 - April 30, 2022
Winter Period Period

~~Rate Effective October 1, 2021 - October 31, 2021~~
Rates Effective June 1, 2022 - October 31, 2022
Summer Period

	Delivery Charge	Cost of Gas Rate Page 97	LDAC Page 101	Total Rate	Delivery Charge	Cost of Gas Rate Page 93	LDAC Page 101	Total Rate
Residential Non Heating - R-1								
Customer Charge per Month per Meter	\$15.39			\$15.39	\$15.39			\$15.39
All therms	\$0.3844	\$2.4835	\$0.1318	\$2.9997	\$0.3844	\$1.6220	\$0.1318	\$2.1382
								\$1.6822
Residential Heating - R-3								
Customer Charge per Month per Meter	\$15.39			\$15.39	\$15.39			\$15.39
All therms over the first block per month at	\$0.5632	\$2.4835	\$0.1318	\$3.1785	\$0.5632	\$1.6220	\$0.1318	\$2.3170
								\$1.8610
Residential Heating - R-4								
Customer Charge per Month per Meter	\$8.47			\$8.47	\$15.39			\$15.39
All therms over the first block per month at	\$0.3098	\$1.3659	\$0.1318	\$1.8075	\$0.5632	\$1.6220	\$0.1318	\$2.3170
								\$1.8610
Commercial/Industrial - G-41								
Customer Charge per Month per Meter	\$57.06			\$57.06	\$57.06			\$57.06
Size of the first block	100 therms				20 therms			
Therms in the first block per month at	\$0.4688	\$2.4835	\$0.0991	\$3.0514	\$0.4688	\$1.6220	\$0.0991	\$2.1899
All therms over the first block per month at	\$0.3149	\$2.4835	\$0.0991	\$2.8975	\$0.4688	\$1.6220	\$0.0991	\$2.0360
								\$1.6093
Commercial/Industrial - G-42								
Customer Charge per Month per Meter	\$171.19			\$171.19	\$171.19			\$171.19
Size of the first block	1000 therms				400 therms			
Therms in the first block per month at	\$0.4261	\$2.4835	\$0.0991	\$3.0087	\$0.4261	\$1.6220	\$0.0991	\$2.1472
All therms over the first block per month at	\$0.2839	\$2.4835	\$0.0991	\$2.8665	\$0.4261	\$1.6220	\$0.0991	\$1.7205
								\$2.0050
Commercial/Industrial - G-43								
Customer Charge per Month per Meter	\$734.69			\$734.69	\$734.69			\$734.69
All therms over the first block per month at	\$0.2620	\$2.4835	\$0.0991	\$2.8446	\$0.1198	\$1.6220	\$0.0991	\$1.8409
								\$1.4442
Commercial/Industrial - G-51								
Customer Charge per Month per Meter	\$57.06			\$57.06	\$57.06			\$57.06
Size of the first block	100 therms				100 therms			
Therms in the first block per month at	\$0.2819	\$2.4835	\$0.0991	\$2.8645	\$0.2819	\$1.6220	\$0.0991	\$2.0030
All therms over the first block per month at	\$0.1833	\$2.4835	\$0.0991	\$2.7659	\$0.2819	\$1.6220	\$0.0991	\$1.9044
								\$1.4777
Commercial/Industrial - G-52								
Customer Charge per Month per Meter	\$171.19			\$171.19	\$171.19			\$171.19
Size of the first block	1000 therms				1000 therms			
Therms in the first block per month at	\$0.2428	\$2.4835	\$0.0991	\$2.8254	\$0.1749	\$1.6220	\$0.0991	\$1.8960
All therms over the first block per month at	\$0.1617	\$2.4835	\$0.0991	\$2.7443	\$0.1750	\$1.6220	\$0.0991	\$1.4703
								\$1.8211
Commercial/Industrial - G-53								
Customer Charge per Month per Meter	\$756.10			\$756.10	\$756.10			\$756.10
All therms over the first block per month at	\$0.1697	\$2.4835	\$0.0991	\$2.7523	\$0.0814	\$1.6220	\$0.0991	\$1.8025
								\$1.3758
Commercial/Industrial - G-54								
Customer Charge per Month per Meter	\$756.10			\$756.10	\$756.10			\$756.10
All therms over the first block per month at	\$0.0648	\$2.4835	\$0.0991	\$2.6474	\$0.0352	\$1.6220	\$0.0991	\$1.7563
								\$1.3296

DATED: May XX, 2022
~~DATED: September 24, 2021~~
EFFECTIVE: June 1, 2022
~~EFFECTIVE: October 1, 2021~~

ISSUED BY: Neil Proudman
Neil Proudman
TITLE: President

Authorized by NHPUC Order No. xx.xxx dated April xx, 2022, in Docket No. DG 22-xxx
~~Authorized by NHPUC Order No. 26.475 dated April 30, 2021, in Docket No. DG 21-050~~

NHPUC No.11 GAS
LIBERTY UTILITIES

Twelfth Revised Page 88
Superseding Eleventh Page 88

	Rates Effective March 1, 2022 - April 30, 2022 Winter Period				Rates Effective June 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	\$0.3844	\$2.4835	\$0.1318	\$2.9997	\$0.3844	\$1.6091	\$0.1318	\$2.1253
<u>Residential Heating - R-3</u>								
Customer Charge per Month per Meter	\$15.39			\$15.39	\$15.39			\$15.39
All therms	\$0.5632	\$2.4835	\$0.1318	\$3.1785	\$0.5632	\$1.6091	\$0.1318	\$2.3041
<u>Residential Heating - R-4</u>								
Customer Charge per Month per Meter	\$8.47			\$8.47	\$15.39			\$15.39
All therms	\$0.3098	\$2.4835	\$0.1318	\$2.9251	\$0.5632	\$1.6091	\$0.1318	\$2.3041
<u>Commercial/Industrial - G-41</u>								
Customer Charge per Month per Meter	\$57.06			\$57.06	\$57.06			\$57.06
Size of the first block	100 therms				20 therms			
Therms in the first block per month at	\$0.4688	\$2.4835	\$0.0991	\$3.0514	\$0.4688	\$1.6091	\$0.0991	\$2.1770
All therms over the first block per month at	\$0.3149	\$2.4835	\$0.0991	\$2.8975	\$0.3149	\$1.6091	\$0.0991	\$2.0231
<u>Commercial/Industrial - G-42</u>								
Customer Charge per Month per Meter	\$0.00			\$0.00	\$171.19			\$171.19
Size of the first block	1000 therms				400 therms			
Therms in the first block per month at	\$0.4261	\$2.4835	\$0.0991	\$3.0087	\$0.4261	\$1.6091	\$0.0991	\$2.1343
All therms over the first block per month at	\$0.2839	\$2.4835	\$0.0991	\$2.8665	\$0.2839	\$1.6091	\$0.0991	\$1.9921
<u>Commercial/Industrial - G-43</u>								
Customer Charge per Month per Meter	\$734.69			\$734.69	\$734.69			\$734.69
All therms over the first block per month at	\$0.2620	\$2.4835	\$0.0991	\$2.8446	\$0.1198	\$1.6091	\$0.0991	\$1.8280
<u>Commercial/Industrial - G-51</u>								
Customer Charge per Month per Meter	\$57.06			\$57.06	\$57.06			\$57.06
Size of the first block	100 therms				100 therms			
Therms in the first block per month at	\$0.2819	\$2.4835	\$0.0991	\$2.8645	\$0.2819	\$1.6091	\$0.0991	\$1.9901
All therms over the first block per month at	\$0.1833	\$2.4835	\$0.0991	\$2.7659	\$0.1833	\$1.6091	\$0.0991	\$1.8915
<u>Commercial/Industrial - G-52</u>								
Customer Charge per Month per Meter	\$171.19			\$171.19	\$171.19			\$171.19
Size of the first block	1000 therms				1000 therms			
Therms in the first block per month at	\$0.2428	\$2.4835	\$0.0991	\$2.8254	\$0.1759	\$1.6091	\$0.0991	\$1.8841
All therms over the first block per month at	\$0.1617	\$2.4835	\$0.0991	\$2.7443	\$0.1000	\$1.6091	\$0.0991	\$1.8082
<u>Commercial/Industrial - G-53</u>								
Customer Charge per Month per Meter	\$756.10			\$756.10	\$756.10			\$756.10
All therms over the first block per month at	\$0.1697	\$2.4835	\$0.0991	\$2.7523	\$0.0814	\$1.6091	\$0.0991	\$1.7896
<u>Commercial/Industrial - G-54</u>								
Customer Charge per Month per Meter	\$756.10			\$756.10	\$756.10			\$756.10
All therms over the first block per month at	\$0.0648	\$2.4835	\$0.0991	\$2.6474	\$0.0352	\$1.6091	\$0.0991	\$1.7434

DATED: May XX, 2022
EFFECTIVE: June 1, 2022

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

Authorized by NHPUC Order No. xx,xxx dated April xx, 2022, in Docket No. DG 22-xxx

NHPUC NO. 11 - GAS DELIVERY
LIBERTY UTILITIES - KEENE DIVISION

Fourth Revised Page 93
~~Second Revised Page 93~~
Superseding Third Revised Page 93
~~Superseding First Revised Page 93~~

CALCULATION OF THE SUMMER COST OF GAS RATE

Period Covered: ~~Summer Period May 1, 2021, through October 31, 2021~~
Summer Period May 1, 2022, through October 31, 2022

Projected Gas Sales - therms		311,740	320,838
Total Anticipated Cost of Sendout		\$391,714	\$554,874
Add: Prior Period Deficiency Uncollected Interest	\$0	\$18,017	
	\$0	\$274	
Deduct: Prior Period Excess Collected Interest	(\$23,223)	\$0	
	<u>\$18</u>	\$0	
Prior Period Adjustments and Interest		(\$23,205)	\$18,291
Total Anticipated Cost		<u>\$368,509</u>	\$573,165
Cost of Gas Rate - Beginning Period (per therm)		\$1.1824	<u>\$1.6220</u>
Mid Period Adjustment - May 1, 2021		\$0.0000	
Mid Period Adjustment - June 1, 2021		\$0.0844	
Mid Period Adjustment - July 1, 2021		\$0.2015	
Mid Period Adjustment - August 1, 2021		\$0.0000	
Mid Period Adjustment - September 1, 2021		(\$0.1240)	
Mid Period Adjustment - October 1, 2021		(\$0.1051)	
Revised Cost of Gas Rate - Effective October 1, 2021 (per therm)		<u>\$1.2389</u>	

Pursuant to tariff section 16.2(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 (per therm)	<u>\$1.4776</u>	\$2.0275
--------------------------------------	-----------------	----------

DATED: May XX, 2022
DATED: ~~September 24, 2021~~
EFFECTIVE: June 1, 2022
EFFECTIVE: ~~October 1, 2021~~

ISSUED BY: Neil Proudman
Neil Proudman
TITLE: President

Authorized by NHPUC Order No. xx,xxx dated April xx, 2022, in Docket No. DG 22-xxx
~~Authorized by NHPUC Order No. 26,475 dated April 30, 2021, in Docket No. DG 21-050~~

NHPUC NO. 11 - GAS DELIVERY
LIBERTY UTILITIES - KEENE DIVISION

Fourth Revised Page 93
Superseding Third Revised Page 93

CALCULATION OF THE SUMMER COST OF GAS RATE

Period Covered: May 1, 2022, through October 31, 2022

Projected Gas Sales - therms 320,838

Total Anticipated Cost of Sendout \$554,874

Add: Prior Period Deficiency Uncollected \$18,017
Interest \$274

Deduct: Prior Period Excess Collected \$0
Interest \$0

Prior Period Adjustments and Interest \$18,291

Total Anticipated Cost \$573,165

Cost of Gas Rate May 1, 2022 -May 31, 2022, Per Order No. 26,618 in Docket No. DG 22-015 \$2.4835

Proposed Cost of Gas Rate June 1, 2022 - October 31, 2022 \$1.6220

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:

Proposed Maximum Cost of Gas Rate (per therm) June 1, 2022 through October 31, 2022 \$2.0114

Dated: April XX, 2022
Effective: May 1, 2022

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

Authorized by NHPUC Order No. xx,xxx dated April xx, 2022, in Docket No. DG 22-xxx

REDACTED
SCHEDULE A

LIBERTY UTILITIES-KEENE DIVISION

CONVERSION OF COSTS - GALLONS TO THERMS
SUMMER PERIOD 2022

	(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>
GAS FROM INVENTORY	GALLONS	0.91502			\$1.5142	\$1.6549
GAS FROM CNG	THERMS	N/A	N/A		N/A	
TOTAL				321,744		

THIS PAGE HAS BEEN REDACTED

LIBERTY UTILITIES-KEENE DIVISION

CALCULATION OF COST OF GAS RATE
SUPPLY / DEMAND BALANCE
SUMMER PERIOD 2022

	(1) PRIOR	(2) May-22	(3) Jun-22	(4) Jul-22	(5) Aug-22	(6) Sep-22	(7) Oct-22	(8) TOTAL
PROPANE COSTS								
1 PROPANE FIRM SENDOUT (therms)								
2 COMPANY USE (therms)								
3 TOTAL PROPANE SENDOUT (therms)								
4 COST PER THERM (WACOG)		\$1,2454	\$1,5882	\$1,7016	\$1,7722	\$1,8202	\$1,8527	
5 TOTAL CALCULATED COST OF PROPANE		\$63,672	\$56,745	\$59,110	\$61,776	\$67,260	\$107,655	\$416,218
6 PROPANE ADJUSTMENTS		\$0	\$0	\$0	\$0	\$0	\$0	\$0
7 TOTAL COST OF PROPANE		\$63,672	\$56,745	\$59,110	\$61,776	\$67,260	\$107,655	\$416,218
CNG COSTS								
8 CNG SENDOUT (therms)								
9 COST PER THERM (WACOG)								
10 TOTAL CALCULATED COST OF CNG								
11 CNG DEMAND CHARGES								
12 INCREMENTAL COSTS SUMMER 2019 PER Order # 26,505 in DG 20-105								
13 INCREMENTAL COSTS SUMMER 2020 PER Order # 26,505 in DG 20-105								
14 INCREMENTAL COSTS SUMMER 2021								
15 PROJECTED INCREMENTAL COSTS SUMMER 2022								
16 NET INCREMENTAL COSTS								
17 TOTAL CNG COSTS								
18 ACCOUNTING ADJUSTMENT		\$0	\$0	\$0	\$0	\$0	\$0	\$0
19 FPO PREMIUM		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000
20 TOTAL COSTS OF GAS								
21 RETURN ON INVENTORY		\$0	\$0	\$0	\$0	\$0	\$0	\$0
REVENUES								
22 BILLED FPO SALES (therms)		0	0	0	0	0	0	
23 COG FPO RATE		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0
24 BILLED NON-FPO SALES PRIOR MONTH (therms)		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
26 BILLED NON-FPO SALES CURRENT MONTH (therms)		64,616	46,386	45,099	44,423	48,068	72,246	320,838
27 COG NON-FPO RATE CURRENT MONTH		\$2,4835	\$1,6220	\$1,6220	\$1,6220	\$1,6220	\$1,6220	
28		\$160,474	\$75,239	\$73,151	\$72,055	\$77,967	\$117,184	\$576,070
29 BILLED SALES OTHER PRIOR PERIODS		0	0	0	0	0	0	
30 COG OTHER PRIOR PERIODS BLENDED RATE		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0
31		\$0	\$0	\$0	\$0	\$0	\$0	\$0
32 TOTAL SALES		64,616	46,386	45,099	44,423	48,068	72,246	320,838
33 TOTAL BILLED REVENUES		\$160,474	\$75,239	\$73,151	\$72,055	\$77,967	\$117,184	\$576,070
34 UNBILLED REVENUES (NET)		\$0	\$0	\$0	\$0	\$0	\$0	\$0
35 TOTAL REVENUES		\$160,474	\$75,239	\$73,151	\$72,055	\$77,967	\$117,184	\$576,070
36 (OVER)/UNDER COLLECTION		(\$58,189)	\$1,451	\$5,070	\$7,929	\$9,735	\$16,106	(\$17,899)
37 INTEREST AMOUNT		(\$29)	(\$106)	(\$98)	(\$80)	(\$57)	(\$22)	(\$392)
38 FINAL (OVER)/UNDER COLLECTION		\$18,291	(\$58,218)	\$1,345	\$4,972	\$7,849	\$16,084	\$0

THIS PAGE HAS BEEN REDACATED

REDACTED
SCHEDULE C

LIBERTY UTILITIES-KEENE DIVISION

PROPANE SPOT MARKET PURCHASE COST ANALYSIS
SUMMER PERIOD 2022

	(1) <u>Mt. Belvieu</u>	(2) <u>Broker Fee</u>	(3) <u>Pipeline Rate</u>	(4) <u>PERC Fee</u>	(5) <u>Supplier Charge</u>	(6) <u>Cost @ Selkirk</u>	(7) <u>Trucking to Keene</u>	(8) <u>\$ per Gal.</u>	(9) <u>\$ per Therm</u>
1 MAY	[REDACTED]								
2 JUN	[REDACTED]								
3 JUL	[REDACTED]								
4 AUG	[REDACTED]								
5 SEP	[REDACTED]								
6 OCT	[REDACTED]								

1. Propane futures market quotations (cmegroup.com) on 5/4/2022 close. See Appendix 1.
2. A generally accepted broker fee
3. Pipeline rate from Mont Belvieu, TX to Selkirk, NY
4. Propane Education Research Council (propanecouncil.org)
5. A generally accepted 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

THIS PAGE HAS BEEN REDACTED

LIBERTY UTILITIES-KEENE DIVISION

PROPANE INVENTORY & WEIGHTED AVERAGE COST OF PROPANE CALCULATION
SUMMER PERIOD 2022

LINE NO.		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
		<u>Therms</u>	<u>Cost</u>	<u>Therm</u>	<u>Gal.</u>	<u>CNG therms</u>	<u>Cost</u>	<u>Total Sendout</u>	<u>Total Cost</u>	<u>Therm Rate</u>	
								(1)+(5)	(2)+(6)	(8) / (7)	
1	May 2022 (forecasted)										
2	Beginning Balance	45,222	\$69,089	\$1.5278	\$1.3979						
3	Purchases Received	50,000	\$49,501	\$1.8902	\$1.7296						
4	Total Available	95,222	\$118,590	\$1.2454	\$1.1396						
5	Less Sendout	51,125	\$63,672	\$1.2454	\$1.1396						
6	Ending Balance	44,097	\$54,918	\$1.2454	\$1.1396						
7	June 2022 (forecasted)										
8	Beginning Balance	44,097	\$54,918	\$1.2454	\$1.1396						
9	Purchases Received	50,000	\$94,529	\$1.8906	\$1.7299						
10	Total Available	94,097	\$149,447	\$1.5882	\$1.4533						
11	Less Sendout	35,729	\$56,745	\$1.5882	\$1.4533						
12	Ending Balance	58,368	\$92,702	\$1.5882	\$1.4533						
13	July 2022 (forecasted)										
14	Beginning Balance	58,368	\$92,702	\$1.5882	\$1.4533						
15	Purchases Received	35,000	\$66,171	\$1.8906	\$1.7299						
16	Total Available	93,368	\$158,873	\$1.7016	\$1.5570						
17	Less Sendout	34,738	\$59,110	\$1.7016	\$1.5570						
18	Ending Balance	58,630	\$99,763	\$1.7016	\$1.5570						
19	August 2022 (forecasted)										
20	Beginning Balance	58,630	\$99,763	\$1.7016	\$1.5570						
21	Purchases Received	35,000	\$66,171	\$1.8906	\$1.7299						
22	Total Available	93,630	\$165,934	\$1.7722	\$1.6216						
23	Less Sendout	34,858	\$61,776	\$1.7722	\$1.6216						
24	Ending Balance	58,772	\$104,158	\$1.7722	\$1.6216						
25	September 2022 (forecasted)										
26	Beginning Balance	58,772	\$104,158	\$1.7722	\$1.6216						
27	Purchases Received	40,000	\$75,623	\$1.8906	\$1.7299						
28	Total Available	98,772	\$179,781	\$1.8202	\$1.6655						
29	Less Sendout	36,952	\$67,260	\$1.8202	\$1.6655						
30	Ending Balance	61,819	\$112,521	\$1.8202	\$1.6655						
31	October 2022 (forecasted)										
32	Beginning Balance	61,819	\$112,521	\$1.8202	\$1.6655						
33	Purchases Received	55,000	\$103,907	\$1.8892	\$1.7287						
34	Total Available	116,819	\$216,428	\$1.8527	\$1.6952						
35	Less Sendout	58,108	\$107,655	\$1.8527	\$1.6952						
36	Ending Balance	58,712	\$108,773	\$1.8527	\$1.6952						
37	AVERAGE SUMMER RATE - SENDOUT										

THIS PAGE HAS BEEN REDACTED

L BERTY UT LIT ES-KEENE DIVISION

CALCULATION OF COST OF GAS RATE
SUPPLY / DEMAND BALANCE
SUMMER PERIOD 2021

	(1) PRIOR	(2) May-21	(3) Jun-21	(4) Jul-21	(5) Aug-21	(6) Sep-21	(7) Oct-21	(8) TOTAL
		Actual	Actual	Actual	Actual	Actual	Actual	
PROPANE COSTS								
1	PROPANE F RM SENDOUT (therms)							
2	COMPANY USE (therms)							
3	TOTAL PROPANE SENDOUT (therms)							
4	COST PER THERM (WACOG)	\$1,1069	\$1,1869	\$1,3619	\$1,4048	\$1,4683	\$1,6086	
5	TOTAL CALCULATED COST OF PROPANE	\$62,060	\$44,436	\$48,722	\$51,179	\$56,747	\$91,851	\$354,995
6	PROPANE ADJUSTMENTS	(\$0)	(\$150)	\$149	\$0	(\$0)	\$0	(\$1)
7	TOTAL COST OF PROPANE	\$62,060	\$44,286	\$48,871	\$51,179	\$56,747	\$91,851	\$354,993
CNG COSTS								
8	CNG SENDOUT (therms)							
9	COMPANY USE (therms)							
10	TOTAL CNG SENDOUT (therms)							
11	COST PER THERM (WACOG)							
12	TOTAL CALCULATED COST OF CNG							
13	ACCOUNTING ADJUSTMENT	\$52	\$71	\$728	(\$569)	\$45	\$22	\$350
14	CNG DEMAND CHARGES							
15	TOTAL CALCULATED COST OF CNG							
	FPO PREMIUM	\$0 0000	\$0 0000	\$0.0000	\$0 0000	\$0.0000	\$0.0000	\$0.0000
16	TOTAL COSTS OF GAS							
17	RETURN ON NVENTORY	\$0	\$0	\$0	\$0	\$0	\$0	\$0
REVENUES								
18	B LLED FPO SALES (therms)	0	0	0	0	0	0	
19	COG FPO RATE	\$0 0000	\$0 0000	\$0.0000	\$0 0000	\$0.0000	\$0.0000	
20	TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0
21	B LLED NON-FPO SALES CURRENT MONTH (therms)	48,984	35,352	35,014	42,924	33,670	36,773	232,717
22	COG NON-FPO RATE CURRENT MONTH	\$1,1821	\$1,2665	\$1,4680	\$1,4680	\$1,3440	\$1,2389	
23	TOTAL	\$57,904	\$44,773	\$51,401	\$63,012	\$45,252	\$45,558	\$307,900
24	B LLED NON-FPO SALES PRIOR MONTH (therms)	0	20,254	10,455	0	11,164	13,695	
25	COG NON-FPO RATE PRIOR MONTH	\$0 0000	\$1,1821	\$1,2665	\$1,4680	\$1,4680	\$1,3440	
26	TOTAL	\$0	\$23,942	\$13,241	\$0	\$16,389	\$18,406	\$71,978
27	B LLED SALES OTHER PRIOR PERIODS	0	(1)	546	13	(31)	8	
28	COG OTHER PRIOR PERIODS BLENDED RATE	\$0 0000	\$0 8000	\$1,1821	\$1 2300	\$0.0000	\$1,3057	
29	TOTAL	\$0	(\$1)	\$645	\$16	(\$33)	\$11	\$638
30	TOTAL SALES	48,984	55,605	46,015	42,937	44,803	50,475	288,819
31	TOTAL B LLED REVENUES	\$57,904	\$68,715	\$65,287	\$63,028	\$61,608	\$63,974	\$380,517
32	UNBILLED REVENUES (NET)	\$18,316	(\$10,435)	\$6,034	\$2,302	\$3,649	\$18,461	\$38,328
33	TOTAL REVENUES	\$76,220	\$58,280	\$71,322	\$65,330	\$65,257	\$82,435	\$418,845
34	(OVER)/UNDER COLLECTION	\$483	(\$2,247)	(\$9,055)	(\$3,938)	\$4,508	\$26,904	\$16,653
35	INTEREST AMOUNT		(\$1)	(\$3)	(\$19)	(\$37)	\$7	(\$87)
36	F NAL (OVER)/UNDER COLLECTION	(\$488)	\$482	(\$2,250)	(\$9,074)	(\$3,975)	\$4,473	\$16,078

THIS PAGE REDACTED

SCHEDULE F

LIBERTY UTILITIES-KEENE DIVISION

INTEREST CALCULATION
SUMMER PERIOD 2022

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	NOV 2021	16,080	\$0	(\$2,600)	\$0	\$13,480	\$14,780	3.25%	39	\$13,519
2	DEC	13,519	0	2,226	0	\$15,745	14,632	3.25%	40	15,785
3	JAN 2022	15,785	0	2,311	0	\$18,096	16,941	3.25%	47	18,143
4	FEB	18,143	0	0	0	\$18,143	18,143	3.25%	49	18,192
5	MAR	18,192	0	0	0	\$18,192	18,192	3.25%	49	18,241
6	APR	18,241	0	0	0	\$18,241	18,241	3.25%	49	18,290
7	MAY	18,290	(58,189)	0	0	(\$39,899)	(10,805)	3.25%	(29)	(39,928)
8	JUN	(39,928)	1,451	0	0	(\$38,478)	(39,203)	3.25%	(106)	(38,584)
9	JUL	(38,584)	5,070	0	0	(\$33,514)	(36,049)	3.25%	(98)	(33,612)
10	AUG	(33,612)	7,929	0	0	(\$25,683)	(29,647)	3.25%	(80)	(25,763)
11	SEP	(25,763)	9,735	0	0	(\$16,028)	(20,895)	3.25%	(57)	(16,085)
12	OCT	(16,085)	16,106	0	0	\$21	(8,032)	3.25%	(22)	(1)
13										
14									<u>(\$118)</u>	
15	=	COL. 1, LINE 1			+	COL. 7, LINES 1 TO 6				
16	=	16,080			+	274	=	<u>16,353</u>	@ MAY 1, 2022	

(TRANSFER TO SCHEDULE B, LINE 13)
(UNLESS ADJUSTMENTS UNDER COLUMN 3 LINES 1-6)

SCHEDULE G

LIBERTY UTILITIES-KEENE DIVISION													
Weather Normalization - Firm Sendout													
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 0.19%	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)		(11 - 14) * 0.19%	(10) - (11) +(12)
May-21	70,282	46,620	23,662	346	301	45	68.39	(3,077)	20,585	67,205	2,566	128	64,766
Jun-21	47,998	46,620	1,378	80	102	(22)	17.23	379	1,757	48,377	1,880	92	46,589
Jul-21	47,069	46,620	449	79	27	52	5.68	(296)	153	46,773	1,884	89	44,978
Aug-21	46,171	46,620	0	25	43	(18)	0.00	0	0	46,171	1,701	88	44,558
Sep-21	50,096	46,620	3,476	201	195	6	17.29	(104)	3,372	49,992	1,834	95	48,253
Oct-21	70,902	46,620	24,282	464	537	(73)	52.33	3,820	28,102	74,722	2,265	142	72,599
Total	332,518	279,720	53,247	1,195	1,205	(10)		722	53,969	333,240	12,130	633	321,744

SCHEDULE H

LIBERTY UTILITIES-KEENE DIVISION											
Weather Normalization - Sales Rate Residential											
Period	Calendar Customers	Calendar Sales	Base Load	Heating Load	Calendar Monthly Actual Degree Days	Calendar Monthly Normal Degree Days	Colder (Warmer) Than Normal	Actual Unit Heat Load Therm/DD	Weather Adjustment	Normal Heat Load	Normal Firm Sales 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)
May-21	910	13,321	6,393	6,928	346	301	45	20.02	(901)	6,027	12,420
Jun-21	873	7,338	6,393	945	80	102	(22)	11.81	260	1,204	7,598
Jul-21	901	6,341	6,393	0	79	27	52		0	0	6,341
Aug-21	894	6,446	6,393	52	25	43	(18)	2.10	38	90	6,484
Sep-21	865	7,361	6,393	968	201	195	6	4.82	(29)	939	7,332
Oct-21	897	13,733	6,393	7,340	464	537	(73)	15.82	1,155	8,494	14,888
Total		54,540	38,360	16,233	1,195	1,205	(10)	52.24	522	16,755	55,063

LIBERTY UTILITIES-KEENE DIVISION											
Weather Normalization - Sales Rate Commercial											
Period	Calendar Customers	Calendar Sales	Base Load	Heating Load	Calendar Monthly Actual Degree Days	Calendar Monthly Normal Degree Days	Colder (Warmer) Than Normal	Actual Unit Heat Load Therm/DD	Weather Adjustment	Normal Heat Load	Normal Firm Sales 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)
May-21	318	54,266	38,349	15,917	346	301	45	46.00	(2,070)	13,847	52,196
Jun-21	307	38,693	38,349	345	80	102	(22)	4.31	95	440	38,788
Jul-21	314	38,758	38,349	410	79	27	52		0	410	38,758
Aug-21	310	37,939	38,349	0	25	43	(18)	0.00	0	0	37,939
Sep-21	300	40,809	38,349	2,461	201	195	6	12.24	(73)	2,387	40,736
Oct-21	320	54,774	38,349	16,425	464	537	(73)	35.40	2,584	19,009	57,358
Total		265,239	230,091	35,558	1,195	1,205	(10)	53.53	535	36,093	265,775

Summary - Total Summer Season Sales

	Actual 2021	Normalized
May	67,587	64,616
June	46,031	46,386
July	45,099	45,099
August	44,385	44,423
September	48,170	48,068
October	68,507	72,246
Total	319,779	320,838

LIBERTY UTILITIES-KEENE DIVISION

Typical Residential Heating Bill
Forecasted 2022 Summer Period vs. Actual 2021 Summer Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
12 MONTHS ENDED 10/2021	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	Winter Nov-Apr	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Summer May-Oct	Total Nov-Oct
Typical Usage - therms (1)	39	67	83	101	70	35	395	21	10	7	7	8	12	65	460
Residential Heating R-3	Nov-20 - Apr-21	May-21 - Jul-21	Aug-21 - Oct-21												
Customer Charge	Winter \$15.50	Summer \$15.50	Summer \$15.39				\$93.00	\$15.50	\$15.50	\$15.50	\$15.39	\$15.39	\$15.39	\$92.67	\$185.67
Delivery Charge:															
All therms @	\$0.5678	\$0.5678	\$0.5632				\$224.27	\$11.92	\$5.68	\$3.97	\$3.94	\$4.51	\$6.76	\$36.78	\$261.05
Base Delivery Revenue Total	\$37.64	\$53.54	\$62.63	\$72.85	\$55.24	\$35.37	\$317.27	\$27.42	\$21.18	\$19.47	\$19.33	\$19.90	\$22.15	\$129.45	\$446.72
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	\$1.0253	\$1.0253	\$1.0277	\$0.9928	\$0.9928	\$1.2816	\$1.0345	\$1.1821	\$1.2665	\$1.4680	\$1.4680	\$1.3440	\$1.2389	\$1.2872	\$1.0702
Cost of Gas Total	\$39.99	\$68.70	\$85.30	\$100.27	\$69.50	\$44.86	\$408.62	\$24.82	\$12.67	\$10.28	\$10.28	\$10.75	\$14.87	\$83.67	\$492.29
LDAC Rate	\$0.0589	\$0.0589	\$0.0589	\$0.0589	\$0.0589	\$0.0589		\$0.0589	\$0.0589	\$0.0589	\$0.0589	\$0.0589	\$0.0589		
LDAC Total	\$2.30	\$3.95	\$4.89	\$5.95	\$4.12	\$2.06	\$23.27	\$1.24	\$0.59	\$0.41	\$0.41	\$0.47	\$0.71	\$3.83	\$27.09
Total Bill	\$79.93	\$126.19	\$152.82	\$179.07	\$128.86	\$82.29	\$749.16	\$53.48	\$34.44	\$30.16	\$30.02	\$31.12	\$37.73	\$216.95	\$966.10
12 MONTHS ENDED 10/2022	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	67	83	101	70	35	395	21	10	7	7	8	12	65	460
Residential Heating R-3	Nov-21 - Apr-22	May-22 - Oct-22													
Customer Charge	Winter \$15.39	Summer \$15.39					\$92.34	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34	\$184.68
Delivery Charge:															
All therms @	\$0.5632	\$0.5632					\$222.45	\$11.83	\$5.63	\$3.94	\$3.94	\$4.51	\$6.76	\$36.61	\$259.06
Base Delivery Revenue Total	\$37.35	\$53.12	\$62.14	\$72.27	\$54.81	\$35.10	\$314.79	\$27.22	\$21.02	\$19.33	\$19.33	\$19.90	\$22.15	\$128.95	\$443.74
Seasonal Base Delivery Difference from previous year							(\$2.48)							(\$0.50)	(\$2.98)
Seasonal Percent Change from previous year							-0.8%							-0.4%	-0.7%
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						
COG Rates	\$1.9868	\$1.8972	\$1.5090	\$1.6493	\$2.4835	\$2.4835	\$1.9170	\$2.4835	\$1.6091	\$1.6091	\$1.6091	\$1.6091	\$1.6091	\$1.8914	\$1.9133
Cost of Gas Total	\$77.49	\$127.11	\$125.25	\$166.58	\$173.85	\$86.92	\$757.20	\$52.15	\$16.09	\$11.26	\$11.26	\$12.87	\$19.31	\$122.94	\$880.14
LDAC Rate	\$0.1397	\$0.1012	\$0.1154	\$0.1154	\$0.1318	\$0.1318		\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318		
LDAC Total	\$5.45	\$6.78	\$9.58	\$11.66	\$9.23	\$4.61	\$47.31	\$2.77	\$1.32	\$0.92	\$0.92	\$1.05	\$1.58	\$8.56	\$55.87
Seasonal COG Difference from previous year							\$348.58							\$39.27	\$387.85
Seasonal Percent Change from previous year							85.3%							46.9%	78.8%
Total Bill	\$120.29	\$187.01	\$196.97	\$250.51	\$237.89	\$126.63	\$1,119.30	\$82.14	\$38.43	\$31.51	\$31.51	\$33.82	\$43.04	\$260.45	\$1,379.75
Seasonal Total Bill Difference from previous year							\$370.14							\$43.50	\$413.65
Seasonal Percent Change from previous year							49.4%							20.1%	42.8%
Seasonal Percent Change resulting from Base Rates (incl. Def. Revenue Surch.)							-3.4%							-2.0%	-3.1%
Seasonal Percent Change resulting from COG							46.5%							18.1%	40.1%
Seasonal Percent Change resulting from LDAC							3.2%							2.2%	3.0%

(1) Residential Heating Typical Usage: Single family detached home using gas for heat, hot water, and cooking.

LIBERTY UTILITIES-KEENE DIVISION

Typical Commercial Heating Bill
Forecasted 2022 Summer Period vs. Actual 2021 Summer Period

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
12 MONTHS ENDED 10/2021	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	Winter Nov-Apr	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Summer May-Oct	Total Nov-Oct
Typical Usage - therms (1)	153	276	327	404	251	140	1,551	67	30	22	20	27	40	206	1,757
Commercial G-41	Nov-20 - Apr-21	May-21 - Jul-21	Aug-21 - Oct-21												
Customer Charge	\$57.46	\$57.46	\$57.46	\$57.46	\$57.46	\$57.46	\$344.76	\$57.46	\$57.46	\$57.46	\$57.06	\$57.06	\$57.06	\$343.56	\$688.32
Delivery Charge:															
Summer 20 therms @	\$0.4711	\$0.4711	\$0.4688	\$47.11	\$47.11	\$47.11	\$282.86	\$9.42	\$9.42	\$9.42	\$9.38	\$9.38	\$9.38	\$56.40	\$339.06
Winter 100	\$0.3165	\$0.3165	\$0.3149	\$16.77	\$55.70	\$71.85	\$300.99	\$14.88	\$3.17	\$0.63	\$0.00	\$2.20	\$6.30	\$27.18	\$328.17
Base Delivery Revenue Total	\$121.34	\$160.27	\$176.42	\$200.79	\$152.36	\$117.23	\$928.41	\$81.76	\$70.05	\$67.51	\$66.44	\$68.64	\$72.74	\$427.14	\$1,355.55
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	1.0253	1.0253	0.9970	0.9928	0.9928	1.2816	1.0287	1.1821	1.2665	1.4680	1.4680	1.3440	1.2389	1.2850	1.0588
Cost of Gas Total	\$156.87	\$282.98	\$326.02	\$401.09	\$249.19	\$179.42	\$1,595.57	\$79.20	\$38.00	\$32.30	\$29.36	\$36.29	\$49.56	\$264.71	\$1,860.28
LDAC Rate	\$0.0589	\$0.0589	\$0.0589	\$0.0589	\$0.0589	\$0.0589		\$0.0589	\$0.0589	\$0.0589	\$0.0589	\$0.0589	\$0.0589		
LDAC Total	\$9.01	\$16.26	\$19.26	\$23.80	\$14.78	\$8.25	\$91.35	\$3.95	\$1.77	\$1.30	\$1.18	\$1.59	\$2.36	\$12.13	\$103.49
Total Bill	\$287	\$460	\$522	\$626	\$416	\$305	\$2,615	\$165	\$110	\$101	\$97	\$107	\$125	\$704	\$3,319
12 MONTHS ENDED 10/2022	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)	153	276	327	404	251	140	1,551	67	30	22	20	27	40	206	1,757
Commercial G-41	Nov-21 - Apr-22	May-22 - Oct-22													
Customer Charge	\$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:															
Summer 20 therms @	\$0.4688	\$0.4688	\$46.88	\$47.11	\$47.11	\$47.11	\$282.43	\$9.38	\$9.38	\$9.38	\$9.38	\$9.38	\$9.38	\$56.28	\$338.71
Winter 100	\$0.3149	\$0.3149	\$16.69	\$55.70	\$71.85	\$96.22	\$300.91	\$14.80	\$4.69	\$0.94	\$0.00	\$3.28	\$9.38	\$33.08	\$333.99
Base Delivery Revenue Total	\$120.63	\$159.87	\$176.02	\$200.39	\$151.96	\$116.83	\$925.70	\$81.24	\$71.13	\$67.38	\$66.44	\$69.72	\$75.82	\$431.72	\$1,357.42
Seasonal Base Delivery Difference from previous year							(\$2.71)							\$4.59	\$1.87
Seasonal Percent Change from previous year							-0.3%							1.1%	0.1%
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	\$1.9868	\$1.8972	\$1.5090	\$1.6493	\$2.4835	\$2.4835	\$1.9074	\$2.4835	\$1.6091	\$1.6091	\$1.6091	\$1.6091	\$1.6091	\$1.8934	\$1.9058
Cost of Gas Total	\$303.98	\$523.63	\$493.44	\$666.32	\$623.36	\$347.69	\$2,958.42	\$166.39	\$48.27	\$35.40	\$32.18	\$43.45	\$64.36	\$390.05	\$3,348.47
LDAC Rate	\$0.0831	\$0.0749	\$0.0891	\$0.0891	\$0.0991	\$0.0991		\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991		
LDAC Total	\$12.71	\$20.67	\$29.14	\$36.00	\$24.87	\$13.87	\$137.26	\$6.64	\$2.97	\$2.18	\$1.98	\$2.68	\$3.96	\$20.41	\$157.67
Seasonal COG Difference from previous year							\$1,362.85							\$125.34	\$1,488.19
Seasonal Percent Change from previous year							85.4%							47.3%	80.0%
Total Bill	\$437	\$704	\$699	\$903	\$800	\$478	\$4,021	\$254	\$122	\$105	\$101	\$116	\$144	\$842	\$4,864
Seasonal Total Bill Difference from previous year							\$1,406.04							\$138.20	\$1,544.25
Seasonal Percent Change from previous year							53.8%							19.6%	46.5%
Seasonal Percent Change resulting from Base Rates (incl. Def. Revenue Surch.)							-3.6%							-1.1%	-3.1%
Seasonal Percent Change resulting from COG							52.1%							17.8%	44.8%
Seasonal Percent Change resulting from LDAC							1.8%							1.2%	1.6%

REDACTED
SCHEDULE J-1

LIBERTY UTILITIES-KEENE DIVISION

BID PREMIUM FOR PRE-PURCHASED GALLONS - PRIOR YEAR

	Mt. Belvieu Price		Pipeline Rate	Broker + Supplier					Keene Div. Price	Contract Volumes	Keene Div. Cost	Fixed Basis Bid	Plan Price	Contract Volumes	Plan Cost	Cost Premium	Per Gallon Premium
				Fee	PERC		Trucking										
Apr-21	\$1.1296	+	\$0.2396	+	\$0.1000	+	\$0.0050	+	\$0.1065	=	\$1.5806	140,000	\$221,290	140,000			-\$0.0881
May-21	\$1.1433	+	\$0.2396	+	\$0.1000	+	\$0.0050	+	\$0.1065	=	\$1.5944	105,000	\$167,408	105,000			-\$0.0881
Jun-21	\$1.2753	+	\$0.2396	+	\$0.1000	+	\$0.0050	+	\$0.1065	=	\$1.7264	105,000	\$181,269	105,000			-\$0.0881
Jul-21	\$1.3962	+	\$0.2396	+	\$0.1000	+	\$0.0050	+	\$0.1065	=	\$1.8473	140,000	\$258,620	140,000			-\$0.0881
Aug-21	\$1.3925	+	\$0.2396	+	\$0.1000	+	\$0.0050	+	\$0.1065	=	\$1.8435	105,000	\$193,573	105,000			-\$0.0881
Sep-21	\$1.5172	+	\$0.2396	+	\$0.1000	+	\$0.0050	+	\$0.1065	=	\$1.9683	105,000	\$206,670	105,000			-\$0.0881
Total														700,000	\$1,167,176	(\$61,652)	-\$0.0881

THIS PAGE HAS BEEN REDACTED

LIBERTY UTILITIES-KEENE DIVISION

COMPARISON OF CONTRACT COST TO HYPOTHETICAL SPOT COST
WINTER SEASON 2021-2022 TO DATE

Delivery Month	Contract Price (1)	Contract Volumes (2)	Contract Cost (3)	Average Spot Price (4)	Contract Volumes (5)	Hypothetical Spot Cost (6)	Incremental Cost / (Savings) of Plan (7)
			(1) x (2)			(4) x (5)	(3) - (6)
Nov-21	\$1.3044	92,000	\$120,005	\$1.4921	92,000	\$137,273	(\$17,268)
Dec-21	\$1.3044	140,000	\$182,616	\$1.4259	140,000	\$199,626	(\$17,010)
Jan-22	\$1.3044	165,000	\$215,226	\$1.6340	165,000	\$269,610	(\$54,384)
Feb-22	\$1.3044	135,000	\$176,094	\$1.7619	135,000	\$237,857	(\$61,763)
Total			\$693,941			\$844,366	(\$150,425)

-17.8%

LIBERTY UTILITIES-KEENE DIVISION

PROPANE PURCHASING STABILIZATION PLAN
PRE-PURCHASES AND DELIVERY SCHEDULE

Delivery Month	Pre-Purchases (Gallons)						
	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Total
Nov-22	18,400	13,800	13,800	18,400	13,800	13,800	92,000
Dec-22	28,000	21,000	21,000	28,000	21,000	21,000	140,000
Jan-23	33,000	24,750	24,750	33,000	24,750	24,750	165,000
Feb-23	27,000	20,250	20,250	27,000	20,250	20,250	135,000
Mar-23	21,000	15,750	15,750	21,000	15,750	15,750	105,000
Apr-23	12,600	9,450	9,450	12,600	9,450	9,450	63,000
Total	140,000	105,000	105,000	140,000	105,000	105,000	700,000
Monthly %	20.0%	15.0%	15.0%	20.0%	15.0%	15.0%	

REDACTED
SCHEDULE K

LIBERTY UTILITIES-KEENE DIVISION
CALCULATION OF PURCHASED GAS COSTS
SUMMER PERIOD 2022

LINE NO.		May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	TOTAL
1	TOTAL SENDOUT (therms)	[REDACTED]						
2	CHANGE TO ENDING INVENTORY BALANCE (therms)	[REDACTED]						
3	TOTAL REQUIRED PURCHASES (therms)	64,766	46,589	44,978	44,558	48,253	72,599	321,744
4	PROPANE PURCHASE STABILIZATION PLAN DELIVERIES							
5	Therms	-	-	-	-	-	-	-
6	RATES - from Schedule D							
7	Contract Price	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	
8	Broker Fee	incl.	incl.	incl.	incl.	incl.	incl.	
9	Pipeline Fee	incl.	incl.	incl.	incl.	incl.	incl.	
10	PERC Fee	incl.	incl.	incl.	incl.	incl.	incl.	
11	Trucking Fee	incl.	incl.	incl.	incl.	incl.	incl.	
12	COST PER GALLON	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	
13	TOTAL COST - Propane Purchase Stabilization Plan Deliveries	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14	AMHERST STORAGE PROPANE DELIVERIES							
15	Therms	-	-	-	-	-	-	-
16	RATES - from Schedule F							
17	WACOG Price	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	
18	Trucking Fee	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	
19	COST PER GALLON	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	
20	TOTAL COST - Amherst Storage Propane Deliveries	\$0	\$0	\$0	\$0	\$0	\$0	\$0
21	CNG DELIVERIES							
22	Therms	[REDACTED]						
23	RATE	[REDACTED]						
24	PRICE	[REDACTED]						
25	COST PER Therm	[REDACTED]						
26	COST - CNG	[REDACTED]						
27	DEMAND FIXED	[REDACTED]						
28	COST PER Therm	[REDACTED]						
29	TOTAL CNG	[REDACTED]						
30	SPOT PURCHASES							
31	Therms	51,125	35,729	34,738	34,858	36,952	58,108	251,510
32	RATES - from Schedule C							
33	Mont Belvieu	[REDACTED]						
34	Broker Fee	[REDACTED]						
35	Pipeline Fee	[REDACTED]						
36	PERC Fee	[REDACTED]						
37	Supplier Charge	[REDACTED]						
38	Trucking Fee	[REDACTED]						
39	COST PER GALLON - Market Quotes	[REDACTED]						
40	COST PER THERM - Market Quotes	[REDACTED]						
41	TOTAL COST - Spot Purchases	[REDACTED]						
42	OTHER ITEMS							
43	Storage - Winter Period 2019-2020	\$0	\$0	\$0	\$0	\$0	\$0	\$0
44	Refund of Deferred Revenue Surcharge over collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0
45	TOTAL OTHER ITEMS	\$0	\$0	\$0	\$0	\$0	\$0	\$0
46	TOTAL							
47	THERMS	64,766	46,589	44,978	44,558	48,253	72,599	321,744
48	SENDOUT THERMS	64,766	46,589	44,978	44,558	48,253	72,599	321,744
49	COST	\$118,046	\$86,904	\$84,539	\$83,979	\$89,382	\$133,671	\$596,520
50	COST PER THERM	\$1.8226	\$1.8653	\$1.8795	\$1.8847	\$1.8523	\$1.8412	\$1.8540

THIS PAGE HAS BEEN REDACTED

REDACTED
SCHEDULE L

LIBERTYUTILITIES-KEENE DIVISION

PROJECTED INCREMENTAL SAVINGS CNG VS. SPOT PROPANE SUMMER 2022

	Projected May-22	Projected Jun-22	Projected Jul-22	Projected Aug-22	Projected Sep-22	Projected Oct-22	
CNG PURCHASES							
CNG Volumes (Schedule K)	[REDACTED]						
CNG Costs (Schedule K)	[REDACTED]						
Total Cost per Actual CNG Costs (Schedule K)	[REDACTED]						
CNG Cost Per Therm Actual	[REDACTED]						
SPOT PROPANE PURCHASES							
Spot Propane Volumes (Schedule K)	51,125	35,729	34,738	34,858	36,952	58,108	251,510
Total Costs Spot Propane	\$ 96,637	\$ 67,548	\$ 65,676	\$ 65,902	\$ 69,862	\$ 109,779	\$ 475,404
Total Cost Spot Propane	\$ 96,637	\$ 67,548	\$ 65,676	\$ 65,902	\$ 69,862	\$ 109,779	\$ 475,404
Spot Propane Cost Per Therm Actual	\$ 1.8902	\$ 1.8906	\$ 1.8906	\$ 1.8906	\$ 1.8906	\$ 1.8892	
CNG Volumes	[REDACTED]						
Price difference CNG vs Spot Propane	[REDACTED]						
Adj. for rounding	[REDACTED]						
Incremental Costs Propane	[REDACTED]						
						Divided by 2	<u>2</u>
						Allowed Recoverable Costs \$	(5,821)

THIS PAGE HAS BEEN REDACTED

SCHEDULE M

CNG Incremental Cost/Saving Risk Sharing - 50% Shareholder/Customers						
Incremental CNG Supply Costs/Savings - Winter 2019–Winter 2021						
COG Period	Year	Actual / Estimate	Amount	Recovery	Deferred	(Refund)/Charge
Summer-Costs	2019	Actuals	\$5,048	\$2,524	\$0	-\$2,524
Summer-Costs	2020	Actuals	\$16,214	\$8,107	\$16,214	\$8,107
Total Costs			\$21,262	\$10,631	\$16,214	\$5,583
Summer-Savings	2021	Actuals	-\$13,026	\$9,434	\$0	\$9,434
Total Savings			-\$13,026	\$9,434	\$0	\$9,434
Included in Summer 2022 filing						\$15,017

REDACTED
SCHEDULE N

LIBERTY UTILITIES-KEENE DIVISION
INCREMENTAL SAVINGS CNG VS. SPOT PROPANE SUMMER 2021
ACTUALS

	Actual May-21	Actual Jun-21	Actual Jul-21	Actual Aug-21	Actual Sep-21	Actual Oct-21	
CNG PURCHASES							
CNG Volumes (Schedule K Reconciliation)							
CNG Costs (Schedule C Reconciliation)							
Total Cost per Actual CNG Costs (Schedule K Reconciliation)							
CNG Cost Per Therm Actual							
SPOT PROPANE PURCHASES							
Spot Propane Volumes (Schedule K Reconciliation)	61,089	27,477	52,962	27,462	27,473	60,516	256,979
Total Costs Spot Propane (Schedule K Reconciliation)	\$71,350	\$36,339	\$78,543	\$40,888	\$46,122	\$118,525	\$391,767
Total Cost Spot Propane	\$71,350	\$36,339	\$78,543	\$40,888	\$46,122	\$118,525	\$ 391,767
Spot Propane Cost Per Therm Actual	\$1.1680	\$1.3225	\$1.4830	\$1.4889	\$1.6788	\$1.9586	\$1.5245
CNG Volumes							
Price difference CNG vs Spot Propane Adj. for rounding							
Incremental Savings Propane							
Allowed Recoverable Costs							\$ 9,434

LIBERTY UTILITIES-KEENE DIVISION
ACTUAL INCREMENTAL COSTS CNG VS. SPOT PROPANE SUMMER 2020

	Actual May-20	Actual Jun-20	Actual Jul-20	Actual Aug-20	Actual Sep-20	Actual Oct-20	
CNG PURCHASES							
CNG Volumes (Schedule K Reconciliation)							
CNG Costs (Schedule K Reconciliation)							
Total Cost per Actual CNG Costs (Schedule K Reconciliation)							
CNG Cost Per Therm Actual							
SPOT PROPANE PURCHASES							
Spot Propane Volumes (Schedule K Reconciliation)	55,502	18,314	36,564	36,624	59,967	64,729	271,700
Total Costs Spot Propane	\$ 49,501	\$ 15,366	\$ 29,895	\$ 30,354	\$ 46,040	\$ 63,162	\$ 234,318
Total Cost Spot Propane	\$ 49,501	\$ 15,366	\$ 29,895	\$ 30,354	\$ 46,040	\$ 63,162	\$ 234,318
Spot Propane Cost Per Therm Actual	\$ 0.8919	\$ 0.8391	\$ 0.8176	\$ 0.8288	\$ 0.7678	\$ 0.9758	
CNG Volumes							
Price difference CNG vs Spot Propane Adj. for rounding							\$ -
Incremental Costs Propane	\$ 2,444	\$ 2,769	\$ 2,732	\$ 3,324	\$ 3,762	\$ 1,183	\$16,214
Allowed Recoverable Costs							\$ 8,107

LIBERTY UTILITIES-KEENE DIVISION
ACTUAL INCREMENTAL COSTS CNG VS. SPOT PROPANE OCTOBER 2019 GO LIVE WITH CNG

	Actual MAY-19	Actual JUN-19	Actual JUL-19	Actual AUG-19	Actual SEP-19	Actual OCT-19	
CNG PURCHASES							
CNG Volumes (Schedule K Reconciliation)							
CNG Costs (Schedule K Reconciliation)							
Total Cost per Actual CNG Costs (Schedule K Reconciliation)							
CNG Cost Per Therm Actual							
SPOT PROPANE PURCHASES							
Spot Propane Volumes (Schedule K Reconciliation)						66,261	66,261
Total Costs Spot Propane						\$46,932	\$ 46,932
Total Cost Spot Propane	\$ -	\$ -	\$ -	\$ -	\$ -	\$46,932	\$ 46,932
Spot Propane Cost Per Therm Actual	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	\$0.7083	
CNG Volumes							
Price difference CNG vs Spot Propane Adj. for rounding							\$ -
Incremental Costs Propane	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,048	\$ 5,048
Allowed Recoverable Costs							\$ 2,524

THIS PAGE HAS BEEN REDACTED

REVISED MONT BELVIEU PROPANE FUTURES - 3/2/2022 CLOSE

MONT BELVIEU LDH PROPANE (OPIS) FUTURES - SETTLEMENTS

TRADE DATE WEDNESDAY 02 MAR 2022 ▾

FINAL DATA ●

Last Updated 03 Mar 2022 11:45:00 AM CT

ESTIMATED VOLUME TOTALS 20,281						PRIOR DAY OPEN INTEREST TOTALS	
MONTH	OPEN	HIGH	LOW	LAST	CHANGE	SETTLE	EST. VOLUME
FEB 22	-	-	-	-	UNCH	1.31510	0
MAR 22	-	-	-	-	+.06620	1.52870	0
APR 22	-	-	-	-	+.06542	1.49417	4,574
MAY 22	-	-	-	-	+.06520	1.42208	3,623
JUN 22	-	-	-	-	+.05104	1.35917	2,111
JULY 22	-	-	-	-	+.04708	1.31833	1,676
AUG 22	-	-	-	-	+.04312	1.30000	1,391
SEP 22	-	-	-	-	+.03979	1.29292	1,136
OCT 22	-	-	-	-	+.03937	1.28750	1,086
NOV 22	-	-	-	-	+.03958	1.28083	961
DEC 22	-	-	-	-	+.03812	1.27000	1,422

ENTERPRISE TE PRODUCTS PIPELINE FERC TARIFF 54.64.0 - RATES EFFECTIVE 3/1/2022

RATES (In Cents-per-bbl.)

[D] All rates are decreased.

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)	--	732.29	--	
Dexter (Stoddard Co., MO)	--	347.95	--	
Du Bois (Clearfield Co., PA)	393.34 (1)(2)	812.96 (1)	393.34 (1)	
Fontaine (Green Co., AR)	--	326.89	--	
Greensburg (Westmoreland Co., PA)	393.34 (1)(2)	767.22 (1)	393.34 (1)	
Harford Mills (Cortland Co., NY)	552.68 (1)	867.09 (1)	575.40 (1)	
Lebanon (Boone Co., IN)	--	410.35 (4)	--	
Oneonta (Otsego Co., NY)	598.28	936.93 (1)	617.58 (1)	
Princeton (Gibson Co., IN)	--	446.68	--	
Schaefferstown (Lebanon Co., PA)	579.94 (2)	876.41	572.26	
Selkirk (Albany Co., NY)	649.12	996.22 (1)	650.81 (1)	
Seymour (Jackson Co., IN)	--	389.93	--	
Sinking Spring (Berks Co., PA)	579.94 (2)	876.41	572.26	
Todhunter Truck Terminal (Butler Co., OH)	--	656.17	--	
Twin Oaks (Delaware Co., PA)	713.74 (2) (3)	--	713.74 (3)	
Watkins Glen (Schuyler Co., NY)	531.97 (1)	822.75 (1)	556.14 (1)	
West Memphis (Crittenden Co., AR)	--	347.95 (4)	--	
Monee (Will Co., IL)		1476.04 (7)		

APPENDIX 3A

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

March 1, 2022

To: All Customers

Re: Fuel Surcharge Notice

As of Monday February 28, 2022, the Department of Energy New England average price per gallon of diesel fuel was \$4.158. All deliveries invoiced from Sunday, March 6, 2022 through Saturday, March 12, 2022 will be line item assessed at 19.5% fuel surcharge. Thank you and should you have any questions, please contact Susan Noyes at 1-800-648-1075 extension 223.

Best Regards,

APPENDIX 3B

Northern Gas Transport Inc. - Selkirk to Keene

Northern Gas Transport Inc. - Selkirk to Keene

Gallons	BaseRate	BaseCharge	Fuel Surcharge Ra	Surcharge	TotalCharge	Total Rate Per Gallon
9,200	\$0.0891	\$819.72	1.00%	\$8.20	\$827.92	\$0.0900
9,200	\$0.0891	\$819.72	2.00%	\$16.39	\$836.11	\$0.0909
9,200	\$0.0891	\$819.72	3.00%	\$24.59	\$844.31	\$0.0918
9,200	\$0.0891	\$819.72	3.50%	\$28.69	\$848.41	\$0.0922
9,200	\$0.0891	\$819.72	4.00%	\$32.79	\$852.51	\$0.0927
9,200	\$0.0891	\$819.72	4.50%	\$36.89	\$856.61	\$0.0931
9,200	\$0.0891	\$819.72	5.00%	\$40.99	\$860.71	\$0.0936
9,200	\$0.0891	\$819.72	5.50%	\$45.08	\$864.80	\$0.0940
9,200	\$0.0891	\$819.72	6.00%	\$49.18	\$868.90	\$0.0944
9,200	\$0.0891	\$819.72	6.50%	\$53.28	\$873.00	\$0.0949
9,200	\$0.0891	\$819.72	7.00%	\$57.38	\$877.10	\$0.0953
9,200	\$0.0891	\$819.72	7.50%	\$61.48	\$881.20	\$0.0958
9,200	\$0.0891	\$819.72	8.00%	\$65.58	\$885.30	\$0.0962
9,200	\$0.0891	\$819.72	8.50%	\$69.68	\$889.40	\$0.0967
9,200	\$0.0891	\$819.72	9.00%	\$73.77	\$893.49	\$0.0971
9,200	\$0.0891	\$819.72	9.50%	\$77.87	\$897.59	\$0.0976
9,200	\$0.0891	\$819.72	10.00%	\$81.97	\$901.69	\$0.0980
9,200	\$0.0891	\$819.72	10.50%	\$86.07	\$905.79	\$0.0985
9,200	\$0.0891	\$819.72	11.00%	\$90.17	\$909.89	\$0.0989
9,200	\$0.0891	\$819.72	11.50%	\$94.27	\$913.99	\$0.0993
9,200	\$0.0891	\$819.72	12.00%	\$98.37	\$918.09	\$0.0998
9,200	\$0.0891	\$819.72	12.50%	\$102.47	\$922.19	\$0.1002
9,200	\$0.0891	\$819.72	13.00%	\$106.56	\$926.28	\$0.1007
9,200	\$0.0891	\$819.72	13.50%	\$110.66	\$930.38	\$0.1011
9,200	\$0.0891	\$819.72	14.00%	\$114.76	\$934.48	\$0.1016
9,200	\$0.0891	\$819.72	14.50%	\$118.86	\$938.58	\$0.1020
9,200	\$0.0891	\$819.72	15.00%	\$122.96	\$942.68	\$0.1025
9,200	\$0.0891	\$819.72	15.50%	\$127.06	\$946.78	\$0.1029
9,200	\$0.0891	\$819.72	16.00%	\$131.16	\$950.88	\$0.1034
9,200	\$0.0891	\$819.72	16.50%	\$135.25	\$954.97	\$0.1038
9,200	\$0.0891	\$819.72	17.00%	\$139.35	\$959.07	\$0.1042
9,200	\$0.0891	\$819.72	17.50%	\$143.45	\$963.17	\$0.1047
9,200	\$0.0891	\$819.72	18.00%	\$147.55	\$967.27	\$0.1051
9,200	\$0.0891	\$819.72	18.50%	\$151.65	\$971.37	\$0.1056
9,200	\$0.0891	\$819.72	19.00%	\$155.75	\$975.47	\$0.1060
9,200	\$0.0891	\$819.72	19.50%	\$159.85	\$979.57	\$0.1065
9,200	\$0.0891	\$819.72	20.00%	\$163.94	\$983.66	\$0.1069
9,200	\$0.0891	\$819.72	20.50%	\$168.04	\$987.76	\$0.1074
9,200	\$0.0891	\$819.72	21.00%	\$172.14	\$991.86	\$0.1078
9,200	\$0.0891	\$819.72	21.50%	\$176.24	\$995.96	\$0.1083
9,200	\$0.0891	\$819.72	22.00%	\$180.34	\$1,000.06	\$0.1087
9,200	\$0.0891	\$819.72	22.50%	\$184.44	\$1,004.16	\$0.1091
9,200	\$0.0891	\$819.72	23.00%	\$188.54	\$1,008.26	\$0.1096
9,200	\$0.0891	\$819.72	23.50%	\$192.63	\$1,012.35	\$0.1100
9,200	\$0.0891	\$819.72	24.00%	\$196.73	\$1,016.45	\$0.1105
9,200	\$0.0891	\$819.72	24.50%	\$200.83	\$1,020.55	\$0.1109
9,200	\$0.0891	\$819.72	25.00%	\$204.93	\$1,024.65	\$0.1114
9,200	\$0.0891	\$819.72	25.50%	\$209.03	\$1,028.75	\$0.1118
9,200	\$0.0891	\$819.72	26.00%	\$213.13	\$1,032.85	\$0.1123
9,200	\$0.0891	\$819.72	26.50%	\$217.23	\$1,036.95	\$0.1127
9,200	\$0.0891	\$819.72	27.00%	\$221.32	\$1,041.04	\$0.1132
9,200	\$0.0891	\$819.72	27.50%	\$225.42	\$1,045.14	\$0.1136
9,200	\$0.0891	\$819.72	28.00%	\$229.52	\$1,049.24	\$0.1140
9,200	\$0.0891	\$819.72	28.50%	\$233.62	\$1,053.34	\$0.1145
9,200	\$0.0891	\$819.72	29.00%	\$237.72	\$1,057.44	\$0.1149
9,200	\$0.0891	\$819.72	29.50%	\$241.82	\$1,061.54	\$0.1154
9,200	\$0.0891	\$819.72	30.00%	\$245.92	\$1,065.64	\$0.1158
9,200	\$0.0891	\$819.72	30.50%	\$250.01	\$1,069.73	\$0.1163
9,200	\$0.0891	\$819.72	31.00%	\$254.11	\$1,073.83	\$0.1167
9,200	\$0.0891	\$819.72	31.50%	\$258.21	\$1,077.93	\$0.1172
9,200	\$0.0891	\$819.72	32.00%	\$262.31	\$1,082.03	\$0.1176
9,200	\$0.0891	\$819.72	32.50%	\$266.41	\$1,086.13	\$0.1181
9,200	\$0.0891	\$819.72	33.00%	\$270.51	\$1,090.23	\$0.1185
9,200	\$0.0891	\$819.72	33.50%	\$274.61	\$1,094.33	\$0.1189
9,200	\$0.0891	\$819.72	34.00%	\$278.70	\$1,098.42	\$0.1194
9,200	\$0.0891	\$819.72	34.50%	\$282.80	\$1,102.52	\$0.1198
9,200	\$0.0891	\$819.72	35.00%	\$286.90	\$1,106.62	\$0.1203
9,200	\$0.0891	\$819.72	35.50%	\$291.00	\$1,110.72	\$0.1207
9,200	\$0.0891	\$819.72	36.00%	\$295.10	\$1,114.82	\$0.1212
9,200	\$0.0891	\$819.72	36.50%	\$299.20	\$1,118.92	\$0.1216
9,200	\$0.0891	\$819.72	37.00%	\$303.30	\$1,123.02	\$0.1221
9,200	\$0.0891	\$819.72	37.50%	\$307.40	\$1,127.12	\$0.1225
9,200	\$0.0891	\$819.72	38.00%	\$311.49	\$1,131.21	\$0.1230
9,200	\$0.0891	\$819.72	38.50%	\$315.59	\$1,135.31	\$0.1234
9,200	\$0.0891	\$819.72	39.00%	\$319.69	\$1,139.41	\$0.1238
9,200	\$0.0891	\$819.72	39.50%	\$323.79	\$1,143.51	\$0.1243
9,200	\$0.0891	\$819.72	40.00%	\$327.89	\$1,147.61	\$0.1247
9,200	\$0.0891	\$819.72	41.00%	\$336.09	\$1,155.81	\$0.1256
9,200	\$0.0891	\$819.72	41.50%	\$340.18	\$1,159.90	\$0.1261

0.0515 Prior to 4/5/05
0.0649 Prior to 5/2/06
0.0516 Prior to 5/1/07
0.0558 Prior to 5/1/08
0.0575 5/1/2008

Difference 0.0375