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March 15, 2022

Via Electronic Mail Only

Daniel Goldner, Chairman
New Hampshire Public Utilities Commission
21 South Fruit Street, Suite 10
Concord, New Hampshire 03301-2429

**Re: Docket No. DG 22-XXX; Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty-Keene Division
Summer 2022 Cost of Gas**

Dear Chairman Goldner:

On behalf of Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty-Keene Division, enclosed for filing are a redacted public version and a confidential version of Liberty's Keene Division Summer 2022 Cost of Gas, which includes the Direct Testimony of Deborah Gilbertson and Catherine McNamara, with attachments. The confidential material consists of pricing and other information that is presumed confidential pursuant Puc 201.06(a)(11).

Consistent with the December 27, 2021, Joint Report filed by the Company and the Department of Energy (DOE) in the Keene Division's most recent cost of gas docket, Docket No. DG 21-132, and with the assent of DOE, the Company proposes the following procedural schedule:

- 3/15 Liberty Keene Summer 2022 COG filing
- 3/23 Initial Data Requests ("DR") from DOE/OCA/Intervenors to Liberty-Keene
- 3/29 Liberty-Keene responses
- 4/4 Initial tech session, 10:00 a.m. to 2:00 p.m.
- 4/7 Deadline for revised COG filing, if necessary
- 4/8 DOE/OCA/Intervenor second set of DRs
- 4/18 Liberty responses to 2nd Set of DRs.
- 4/20 Liberty to file any updates to DR Responses

Chairman Daniel Goldner
March 15, 2022

- 4/21 Second Tech Session, 10:00 a.m. to 2:00 p.m.
- 4/22 Exhibit List, Witness List, and Exhibits to be filed (based on proposed Hearing Date)
- 4/26 Proposed Hearing Date
- 5/1 Order to issue for May 1 rates

The Company and DOE respectfully request a prehearing conference in this docket as soon as one can be scheduled.

Please include the following on the service list in this matter:

- Deborah Gilbertson Deborah.Gilbertson@libertyutilities.com
- Catherine McNamara Catherine.McNamara@libertyutilities.com
- Erica Menard Erica.Menard@libertyutilities.com
- Maureen Karpf Maureen.Karpf@libertyutilities.com
- KarenAnne Sinville KarenAnne.Sinville@libertyutilities.com

Pursuant to the Commission's March 17, 2020, secretarial letter, only an electronic version of this filing will be provided. Thank you.

Sincerely,



Michael J. Sheehan

Enclosures

Cc: Donald M. Kreis, Consumer Advocate
Mary E. Schwarzer, Esq.
OCA Litigation
Energy Litigation

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

Summer 2022 Cost of Gas

DIRECT TESTIMONY

OF

DEBORAH M. GILBERTSON

AND

CATHERINE A. McNAMARA

March 15, 2022



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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 (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. Ms. Gilbertson, please describe 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 Senior Energy Analyst. I joined Keyspan Energy Trading Services in 2004
21 as a Senior Resource Management Analyst following which I was employed by National

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1 Grid from 2008 through 2011 as a Lead Analyst in the Project Management Office. In
2 2011, I was hired by LUSC as a Natural Gas Scheduler and was promoted to Manager of
3 Retail Choice in 2012. In October 2016, I was promoted to Senior Manager of Energy
4 Procurement. In this capacity, I provide gas procurement services to Liberty.

5 **Q. Ms. McNamara, please describe your educational background, and your business
6 and professional experience.**

7 A. I graduated from the University of Massachusetts, Boston, in 1993 with a Bachelor of
8 Science in Management with a concentration in Accounting. In November 2017, I joined
9 LUSC as an Analyst in Rates and Regulatory Affairs. Prior to my employment at LUSC,
10 I was employed by Eversource as a Senior Analyst in the Investment Planning group
11 from 2015 to 2017. From 2008 to 2015, I was a Supervisor in the Plant Accounting
12 department. Prior to my position in Plant Accounting, I was a Financial Analyst/General
13 Ledger System Administrator within the Accounting group from 2000 to 2008.

14 **Q. Ms. Gilbertson, and Ms. McNamara, have you previously testified in regulatory
15 proceedings before the New Hampshire Public Utilities Commission (the
16 “Commission”)?**

17 A. Yes, we have.

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

19 A. The purpose of our 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

1 effective beginning May 1, 2022. Our testimony will also address bill comparisons and
2 other items related to the summer period.

3 **II. SUMMER 2022 COST OF GAS FACTOR**

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

5 A. The Company proposes a firm cost of gas rate of \$1.6643 per therm for the Keene
6 Division as shown on Proposed Third Revised Page 93.

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

9 A. Proposed Third Revised Page 93 contains the calculation of the 2022 Summer Period
10 COG and summarizes the Company's forecast of propane and compressed natural gas
11 (“CNG”) sales and propane and CNG costs. The total anticipated cost of the gas sendout
12 from May 1 through October 31, 2022, is \$515,676. The information presented on the
13 tariff page is supported by Schedules A through N that are described later in this
14 testimony.

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

- 16 1) The prior period under-collection of \$18,016 is added to the anticipated cost of
17 gas sendout; and
- 18 2) Interest of \$274 is added to the anticipated cost of gas sendout. Schedule F shows
19 this forecasted interest calculation for the period November 2021 through April
20 2022. Interest is accrued using the monthly prime lending rate as reported by the
21 Federal Reserve Statistical Release of Selected Interest Rates.

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1 The Non-Fixed Price Option (“Non-FPO”) cost of gas rate of \$1.6643 per therm was
2 calculated by dividing the Total Anticipated Cost of Gas of \$533,966 by the Projected
3 Gas Sales of 320,838 therms. There is no Fixed Price Option for the summer period.

4 **Q. Please describe Schedule A.**

5 A. Schedule A converts the propane gas volumes and unit costs from gallons to therms. The
6 321,744 therms represent sendout as detailed on Schedule B, line 3 and line 8. The
7 blended unit cost of those supplies is \$1.6170 per therm which represents the weighted
8 average cost per therm for the summer period gas sendout as detailed on Schedule D, line
9 37.

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

11 A. Schedule B presents the Final (over)/under collection calculation for the summer 2022
12 period based on the prior period (over)/under collection, forecasted volumes, the cost of
13 gas, and applicable interest amounts. The forecasted total propane sendout of 251,510
14 therms on line 3, plus total CNG sendout of 70,233 therms on line 8, is the sum of the
15 forecasted summer 2022 total firm sendout. The forecasted Firm Sales on line 26
16 represent weather normalized 2022 summer period firm sales. The weather
17 normalization calculations for sendout and sales are found in Schedules G and H,
18 respectively.

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

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

1 Schedule B, line 11, includes 25% of the 2022 demand charges. These charges are
2 [REDACTED] per month or [REDACTED] for the season and represent the portion attributable to
3 the summer period.

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

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

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

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

16 The Company shall recover one-half of the incrementally higher CNG
17 supply costs as compared to the propane supply cost,⁸ incurred from the
18 commencement of CNG service through October 31, 2021, to be recovered
19 through inclusion over one year in the next Keene cost of gas during the
20 winter or summer periods consistent with the season in which the
21 incremental costs were originally incurred. The Company shall provide the
22 supporting calculations in the Winter 2021-2022 Keene Cost of Gas filing.
23 Incremental CNG supply costs through the 2020-2021 winter period are
24 provided in Appendix 4.

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1 (a) Beginning November 1, 2021, if the CNG supply cost is higher than
2 the propane supply cost as described in footnote 8, the Company
3 shall recover one-half of the incrementally higher CNG supply cost,
4 as determined through the cost of gas reconciliation process. If the
5 CNG supply cost is lower than the propane supply cost, the
6 Company shall recover and retain the full amount of the
7 incrementally lower CNG supply cost up to the amount of
8 incrementally higher CNG costs accrued since the commencement
9 of CNG service, which has not then been recovered from customers,
10 at which point the Company shall recover and retain one-half of the
11 incrementally lower CNG supply costs. Reconciliation of the
12 incremental CNG supply costs shall occur semi-annually in the
13 Winter and Summer Cost of Gas filings, as applicable.

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

16 Incremental CNG supply cost/savings shall be calculated by multiplying the
17 CNG therm purchases by the difference between the average per therm
18 CNG supply cost and the propane supply costs for the applicable
19 summer/winter period. Average CNG supply costs shall include all CNG
20 supplier charges properly allocated between summer and winter periods.
21 Average propane supply costs shall include Mont Belvieu propane pricing,
22 transportation costs, and Broker Fee.

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

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

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

9 For the summer of 2020, CNG costs were \$16,214 higher than propane costs. Over the
10 course of the 2020 summer the Company deferred 100% of those incremental costs, that
11 is, the Company did not collect any of the \$16,214. The Settlement Agreement now
12 authorizes the Company to collect 50% of those charges, and thus the rate proposed here
13 includes recovery of \$8,107 of the incrementally higher CNG costs. Again, these exact
14 calculations for the 2019 and 2020 summers were specifically included in the Settlement
15 Agreement.

16 For the summer of 2021, CNG costs were \$13,026 less expensive than propane. The
17 Company again deferred, i.e., did not include, these savings in the 2020 COG rates. The
18 Settlement Agreement allows the Company to recover 100% of these savings "up to the
19 amount of incrementally higher CNG costs accrued since the commencement of CNG
20 service, which has not then been recovered from customers," and thereafter shares any
21 remaining savings with customers equally. Settlement Agreement at Bates 14. The

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1 amount of the “incrementally higher COG costs accrued since the commencement of
2 CNG service” that the Company did not recover is \$10,631. The rates proposed here thus
3 include recovery of that amount, leaving \$2,395 in savings to be addressed. The
4 Settlement Agreement states that this remaining amount of CNG savings is to be shared
5 equally with customers and, since the 2021 rates did not include recovery of any of the
6 remaining \$2,395 of incremental CNG savings, the rates proposed here include recovery
7 of one-half of this remaining amount, or \$1,197.

8 The net incremental costs/savings for all three periods included in this filing are \$15,017.

9 These items can also be found on Schedule B, lines 12–14.

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

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

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

17 A. Yes. The Company projects CNG costs to be \$39,183 less than propane costs over the
18 summer of 2022. The proposed rates in this filing include 50% of those savings. The
19 calculated incremental projected savings are 50% of \$39,183, or \$19,592. This can be
20 found on line 15 of Schedule B. The detailed calculation can be found on Schedule L.

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 8. The
3 Company actively monitors its level of unaccounted-for volumes, which amounted to
4 0.19% for the twelve months ended June 30, 2021.

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

6 A. Schedule C presents the forecasted market spot prices of propane. Column 1 shows the
7 Mont Belvieu propane futures quotations as of March 2, 2022. Subsequent columns
8 show expected broker/supplier fees, pipeline fees, and Propane Education & Research
9 Council (PERC) fees. These prices when added together represent a forecasted summer
10 price of propane. This price is also represented in Schedule K, line 40. Note: as actual
11 prices are realized, they will replace estimate pricing. The reconciliation of actual costs
12 to estimated costs is continued throughout the summer as the actual data becomes
13 available.

14 **III. PROPANE PURCHASING STABILIZATION PLAN**

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

16 A. The Propane Purchasing Stabilization Plan is a Commission-approved strategy that the
17 Company undertakes to provide stability in the winter COG rate and to facilitate the
18 offering of a Fixed Price Option. Under this strategy, the Company systematically
19 hedges supply purchases over the off-peak period, to be utilized and called upon in the
20 peak period. The strategy is intended to provide price stability rather than to secure lower

1 prices. The PPSP was approved in Order No. 24,617 (Apr. 28, 2006), and has been
2 discussed repeatedly in Keene's cost of gas proceedings ever since.

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

5 A. Yes. The Company performed two analyses. In Schedule J-1, the Company evaluated
6 the premium/discount associated with securing the pre-purchased volumes for delivery in
7 the winter of 2021-2022 relative to securing a floating price at Mont Belvieu. The
8 comparison reflects the net premium/discount results of the Company's competitive RFP
9 process. In Schedule J-2, the Company performed a comparison of propane purchase
10 costs under the contract versus representative spot prices had the Company not
11 implemented the Plan. The analysis shows that the cost of the pre-purchased gallons was
12 18% lower than the average representative spot purchase cost for the first four months of
13 the current winter period, reflecting an increase in spot propane prices over the pre-
14 purchased volumes.

15 **Q. Has the Company issued a Request for Proposals ("RFP") to potential suppliers for**
16 **the 2022-2023 Plan?**

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

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

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

6 **IV. FIXED PRICE OPTION PROGRAM**

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

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

10 **V. COST OF GAS RATE AND BILL COMPARISONS**

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

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

14 **Q. Please describe Schedule D.**

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

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

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

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

6 A. Schedule F presents the interest calculation and adjustments on (over)/under-collected
7 balances through October 2022. This is represented in the cost of gas calculation on
8 Schedule B. The prior Period Balance is calculated below and found on Schedule B,
9 Column 1, Line 369.

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
Prior Period Ending Balance at 4/30/2022, Schedule B Column 1, Line 36	<u>\$ 18,291.00</u>

10

11 The forecasted over/under collection from Schedule F, Column 2, is included in Schedule
12 B, Columns 2-7, Line 36.

13 **Q. What is included in the Adjustments, column (3) of Schedule F?**

14 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	\$ 1,936.89

15

1 **Q. How does the proposed Summer 2022 cost of gas rates compare with the previous**
2 **summer's rates?**

3 A. The proposed Non-FPO COG rate of \$1.6643 per therm is an increase of \$0.4822 or
4 40.8% from the summer 2021 approved rate of \$1.1821 per therm, per Order No. 26,475
5 (April 30, 2021).

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

7 A. The main reason for the \$0.4822 increase is the increase in projected market supply costs.
8 This accounts for approximately 74.8% of the price increase. The remaining 25.1% of
9 the increase is due to having started the Summer 2021 period with an over-collection
10 versus starting the Summer 2022 period with an under-collection.

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

13 A. As shown on Schedule I-1, Column 14, lines 50 and 51, the typical residential heat and
14 hot water customer would experience an increase of \$24.50 or 29.3% in the gas
15 component of their bills compared to the prior summer period. When the monthly
16 customer charge, therm delivery charge, and LDAC are factored into the analysis, the

1 typical residential customer would see a total bill increase of \$28.73 or 13.2%, as shown
2 on lines 54 and 55.

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

5 A. As shown on Schedule I-2, Column 14, lines 50 and 51, the typical commercial customer
6 would experience an of \$78.14 or 29.5% in the gas component of their bills compared to
7 the prior summer period. When the monthly customer charge, therm delivery charge, and
8 LDAC are factored into the analysis, the typical commercial customer would see a total
9 bill increase of \$ 97.74 or 13.9%, as shown on lines 54 and 55.

10 **VI. OTHER ITEMS**

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

12 A. The Company began serving customers with CNG in October 2019. At present, the
13 service territory for CNG is limited to the Monadnock Marketplace and a small portion of
14 Key Road. The Company's short-term plan involves adding/converting more customers
15 and expanding the natural gas footprint in this limited area as contemplated in the
16 Settlement Agreement.¹ Since the fall, the Company has added two new commercial
17 customers and extended the main by approximately 700 feet. There are plans to add a

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).

1 couple of other customers in the area, but likely not until later this year. The Company is
2 considering a path forward to the transition to partial renewable fuel (RNG) and has
3 retained a contractor to help determine what is possible and at what cost.

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

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

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

7 A. For the upcoming off-peak period, spot propane is anticipated to be 56 cents per therm
8 more expensive than CNG. The calculation of Spot Purchases cost per therm found on
9 Schedule K, line 40, less the CNG Deliveries cost per therm found on Schedule K, line
10 29.

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

12 A. Yes.

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

14 A. Yes, as compared to this time last summer, the commodity prices have increased
15 substantially. Global influences have continued to impact national markets as
16 competition for supply increases in places such as Europe and Asia. These influences are
17 impacting prices in all energy sectors across the US. For example, last year at this time,
18 Mont Belvieu was forecasted to average 79 cents per gallon for the 2021 summer period.
19 This year it is expected to average at 1.33 per gallon for 2022 summer – a 68% increase.
20 As for natural gas benchmark prices, NYMEX at this time last year was averaging \$2.89

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1 per dekatherm (“Dth”) whereas today it is averaging \$4.85 per Dth’s – a 68% increase
2 over last year. These costs directly impact the customer rates.

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

4 **A.** Yes, it does.

LIBERTY UTILITIES - KEENE DIVISION
COST OF GAS RATE FILING - DG 22-xxx
SUMMER PERIOD 2022
ORIGINAL FILING

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LIBERTY UTILITIES

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Rates Effective May 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>
Residential Non Heating - R-1	\$45.50			\$45.50	\$45.30			\$45.30
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	\$1.6643	\$0.1318	\$2.1805
	\$0.3860	\$1.2816	\$0.0589	\$1.7265	\$0.3844	\$1.2389	\$0.0589	\$1.6822
Residential Heating - R-3	\$45.50			\$45.50	\$45.30			\$45.30
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	\$1.6643	\$0.1318	\$2.3593
	\$0.5678	\$1.2816	\$0.0589	\$1.9083	\$0.5632	\$1.2389	\$0.0589	\$1.8610
Residential Heating - R-4	\$8.53			\$8.53	\$15.39			\$15.39
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	\$1.6643	\$0.1318	\$2.3593
	\$0.3123	\$0.7048	\$0.0589	\$1.0760	\$0.5632	\$1.2389	\$0.0589	\$1.8610
Commercial/Industrial - G-41	\$57.46			\$57.46	\$57.06			\$57.06
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	\$1.6643	\$0.0991	\$2.2322
	\$0.4714	\$1.2816	\$0.0555	\$1.8082	\$0.4688	\$1.2389	\$0.0555	\$1.7632
All therms over the first block per month at	\$0.3149	\$2.4835	\$0.0991	\$2.8975	\$0.3149	\$1.6643	\$0.0991	\$2.0783
	\$0.3165	\$1.2816	\$0.0555	\$1.6536	\$0.3149	\$1.2389	\$0.0555	\$1.6093
Commercial/Industrial - G-42	\$172.39			\$172.39	\$171.19			\$171.19
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	\$1.6643	\$0.0991	\$2.1895
	\$0.4284	\$1.2816	\$0.0555	\$1.7655	\$0.4261	\$1.2389	\$0.0555	\$1.7295
All therms over the first block per month at	\$0.2839	\$2.4835	\$0.0991	\$2.8665	\$0.2839	\$1.6643	\$0.0991	\$2.0473
	\$0.2855	\$1.2816	\$0.0555	\$1.6226	\$0.2839	\$1.2389	\$0.0555	\$1.5783
Commercial/Industrial - G-43	\$739.83			\$739.83	\$734.69			\$734.69
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	\$1.6643	\$0.0991	\$1.8832
	\$0.2633	\$1.2816	\$0.0555	\$1.6004	\$0.1198	\$1.2389	\$0.0555	\$1.4142
Commercial/Industrial - G-51	\$57.46			\$57.46	\$57.06			\$57.06
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	\$1.6643	\$0.0991	\$2.0453
	\$0.2839	\$1.2816	\$0.0555	\$1.6210	\$0.2819	\$1.2389	\$0.0555	\$1.5763
All therms over the first block per month at	\$0.1833	\$2.4835	\$0.0991	\$2.7659	\$0.1833	\$1.6643	\$0.0991	\$1.9467
	\$0.1846	\$1.2816	\$0.0555	\$1.5217	\$0.1833	\$1.2389	\$0.0555	\$1.4777
Commercial/Industrial - G-52	\$172.39			\$172.39	\$171.19			\$171.19
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	\$1.6643	\$0.0991	\$1.9383
	\$0.2439	\$1.2816	\$0.0555	\$1.5810	\$0.1759	\$1.2389	\$0.0555	\$1.4793
All therms over the first block per month at	\$0.1617	\$2.4835	\$0.0991	\$2.7443	\$0.1000	\$1.6643	\$0.0991	\$1.8634
	\$0.1624	\$1.2816	\$0.0555	\$1.4995	\$0.1000	\$1.2389	\$0.0555	\$1.3944
Commercial/Industrial - G-53	\$761.39			\$761.39	\$756.10			\$756.10
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	\$1.6643	\$0.0991	\$1.8448
	\$0.1705	\$1.2816	\$0.0555	\$1.5076	\$0.0814	\$1.2389	\$0.0555	\$1.3758
Commercial/Industrial - G-54	\$761.39			\$761.39	\$756.10			\$756.10

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

Third Revised Page 93
~~First Revised Page 93~~
Second Revised Page 93
~~Superseding Original 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		<u>\$391,714</u>	\$515,676
Add: Prior Period Deficiency Uncollected Interest	\$0	\$18,017	
	\$0	\$274	
Deduct: Prior Period Excess Collected Interest	(\$23,223)	\$0	
	<u>\$48</u>	\$0	
Prior Period Adjustments and Interest		(\$23,205)	\$18,291
Total Anticipated Cost		<u>\$368,509</u>	\$533,966
Cost of Gas Rate - Beginning Period (per therm)		<u>\$1.1821</u>	<u>\$1.6643</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><u>\$1.2389</u></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><u>\$1.4776</u></u>	<u>\$2.0804</u>

DATED: April XX, 2022
DATED: ~~September 24, 2021~~
EFFECTIVE: May 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~~

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	████████████████████	████████████████████	\$1.5379	\$1.6807
GAS FROM CNG	THERMS	N/A	N/A	████████████████████	N/A	████████████████████
TOTAL				321,744		

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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	\$1,6335	\$1,7450	\$1,8071	\$1,8489	\$1,8715	
5 TOTAL CALCULATED COST OF PROPANE		\$63,672	\$58,362	\$60,620	\$62,992	\$68,320	\$108,747	\$422,713
6 PROPANE ADJUSTMENTS		\$0	\$0	\$0	\$0	\$0	\$0	\$0
7 TOTAL COST OF PROPANE		\$63,672	\$58,362	\$60,620	\$62,992	\$68,320	\$108,747	\$422,713
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		\$1,6643	\$1,6643	\$1,6643	\$1,6643	\$1,6643	\$1,6643	
		\$107,540	\$77,200	\$75,058	\$73,933	\$79,999	\$120,238	\$533,967
28 BILLED SALES OTHER PRIOR PERIODS		0	0	0	0	0	0	
29 COG OTHER PRIOR PERIODS BLENDED RATE		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0
30 TOTAL SALES		64,616	46,386	45,099	44,423	48,068	72,246	320,838
31 TOTAL BILLED REVENUES		\$107,540	\$77,200	\$75,058	\$73,933	\$79,999	\$120,238	\$533,967
32 UNBILLED REVENUES (NET)		\$0	\$0	\$0	\$0	\$0	\$0	\$0
33 TOTAL REVENUES		\$107,540	\$77,200	\$75,058	\$73,933	\$79,999	\$120,238	\$533,967
34 (OVER)/UNDER COLLECTION		(\$15,757)	(\$6,379)	(\$1,558)	\$1,696	\$784	\$2,934	(\$18,280)
35 INTEREST AMOUNT		\$28	(\$2)	(\$12)	(\$12)	(\$9)	(\$4)	(\$11)
36 FINAL (OVER)/UNDER COLLECTION		\$18,291	(\$15,729)	(\$6,381)	(\$1,570)	\$1,684	\$2,930	(\$0)

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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 3/2/2022 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

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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	\$2.0445	\$1.8708					
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	\$98,787	\$1.9757	\$1.8078					
10	Total Available	94,097	\$153,705	\$1.6335	\$1.4947					
11	Less Sendout	35,729	\$58,362	\$1.6335	\$1.4947					
12	Ending Balance	58,368	\$95,343	\$1.6335	\$1.4947					
13	July 2022 (forecasted)									
14	Beginning Balance	58,368	\$95,343	\$1.6335	\$1.4947					
15	Purchases Received	35,000	\$67,589	\$1.9311	\$1.7670					
16	Total Available	93,368	\$162,932	\$1.7451	\$1.5968					
17	Less Sendout	34,738	\$60,620	\$1.7450	\$1.5968					
18	Ending Balance	58,630	\$102,312	\$1.7451	\$1.5968					
19	August 2022 (forecasted)									
20	Beginning Balance	58,630	\$102,312	\$1.7451	\$1.5968					
21	Purchases Received	35,000	\$66,888	\$1.9111	\$1.7487					
22	Total Available	93,630	\$169,200	\$1.8071	\$1.6536					
23	Less Sendout	34,858	\$62,992	\$1.8071	\$1.6535					
24	Ending Balance	58,772	\$106,208	\$1.8071	\$1.6536					
25	September 2022 (forecasted)									
26	Beginning Balance	58,772	\$106,208	\$1.8071	\$1.6536					
27	Purchases Received	40,000	\$76,408	\$1.9102	\$1.7479					
28	Total Available	98,772	\$182,616	\$1.8489	\$1.6918					
29	Less Sendout	36,952	\$68,320	\$1.8489	\$1.6917					
30	Ending Balance	61,819	\$114,296	\$1.8489	\$1.6918					
31	October 2022 (forecasted)									
32	Beginning Balance	61,819	\$114,296	\$1.8489	\$1.6918					
33	Purchases Received	55,000	\$104,328	\$1.8969	\$1.7357					
34	Total Available	116,819	\$218,624	\$1.8715	\$1.7124					
35	Less Sendout	58,108	\$108,747	\$1.8715	\$1.7124					
36	Ending Balance	58,712	\$109,877	\$1.8715	\$1.7124					
37	AVERAGE SUMMER RATE - SENDOUT									

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LIBERTY UTILITIES - 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 FIRM 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 INVENTORY	\$0	\$0	\$0	\$0	\$0	\$0	\$0
REVENUES								
18	BILLED 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	BILLED 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	BILLED 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	BILLED 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 BILLED 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)	(\$35)	\$7	(\$87)
36	FINAL (OVER)/UNDER COLLECTION	(\$488)	\$482	(\$2,250)	(\$9,074)	\$4,473	\$26,911	\$16,078

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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	(15,757)	0	0	\$2,533	10,411	3.25%	28	2,561
8	JUN	2,561	(6,379)	0	0	(\$3,818)	(629)	3.25%	(2)	(3,820)
9	JUL	(3,820)	(1,558)	0	0	(\$5,378)	(4,599)	3.25%	(12)	(5,390)
10	AUG	(5,390)	1,696	0	0	(\$3,694)	(4,542)	3.25%	(12)	(3,706)
11	SEP	(3,706)	784	0	0	(\$2,922)	(3,314)	3.25%	(9)	(2,931)
12	OCT	(2,931)	2,934	0	0	\$3	(1,464)	3.25%	(4)	(1)
13										
14									<u>\$263</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 Winter	May-21 - Jul-21 Summer	Aug-21 - Oct-21 Summer												
Customer Charge	\$15.50	\$15.50	\$15.50	\$15.50	\$15.50	\$15.50	\$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	\$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	\$1.0253	\$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
								\$78.46	\$49.29	\$29.52	\$25.60	\$25.46	\$29.91	\$238.25	1080.563948
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 Winter	May-22 - Oct-22 Summer													
Customer Charge	\$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 @	\$0.5632	\$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	\$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	\$1.9868	\$1.8972	\$1.5090	\$1.6493	\$2.4835	\$2.4835	\$1.9170	\$1.6643	\$1.6643	\$1.6643	\$1.6643	\$1.6643	\$1.6643	\$1.6642	\$1.8812
Cost of Gas Total	\$77.49	\$127.11	\$125.25	\$166.58	\$173.85	\$86.92	\$757.20	\$34.95	\$16.64	\$11.65	\$11.65	\$13.31	\$19.97	\$108.17	\$865.37
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							\$24.50	\$373.08
Seasonal Percent Change from previous year							85.3%							29.3%	75.8%
Total Bill	\$120.29	\$187.01	\$196.97	\$250.51	\$237.89	\$126.63	\$1,119.30	\$64.94	\$38.98	\$31.90	\$31.90	\$34.26	\$43.70	\$245.68	\$1,364.98
Seasonal Total Bill Difference from previous year							\$370.14							\$28.73	\$398.88
Seasonal Percent Change from previous year							49.4%							13.2%	41.3%
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%							11.3%	38.6%
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	\$282.66	\$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	\$0.00	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.00	\$0.00
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	\$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	\$0.4688	\$46.88	\$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	\$0.3149	\$16.69	\$55.70	\$71.85	\$300.91	\$14.80	\$4.69	\$0.94	\$0.00	\$3.28	\$9.38	\$33.08	\$339.99
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	\$0.00	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.00	\$0.00
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	\$1.6643	\$1.6643	\$1.6643	\$1.6643	\$1.6643	\$1.6643	\$1.6643	\$1.8789
Cost of Gas Total	\$303.98	\$523.63	\$493.44	\$666.32	\$623.36	\$347.69	\$2,958.42	\$111.51	\$49.93	\$36.61	\$33.29	\$44.94	\$66.57	\$342.85	\$3,301.27
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	\$0.1318	\$0.1318	\$0.1318
LDAC Total	\$21.37	\$27.93	\$37.74	\$46.62	\$33.06	\$18.45	\$185.19	\$8.83	\$3.95	\$2.90	\$2.64	\$3.56	\$5.27	\$27.15	\$212.34
Seasonal COG Difference from previous year							\$1,362.85							\$78.14	\$1,440.99
Seasonal Percent Change from previous year							85.4%							29.5%	77.5%
Total Bill	\$446	\$711	\$707	\$913	\$808	\$483	\$4,069	\$202	\$125	\$107	\$102	\$118	\$148	\$802	\$4,871
Seasonal Total Bill Difference from previous year							\$1,453.97							\$97.74	\$1,551.72
Seasonal Percent Change from previous year							55.6%							13.9%	46.7%
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%							11.1%	43.4%
Seasonal Percent Change resulting from LDAC							3.6%							2.1%	3.3%

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

REDACTED
SCHEDULE J-1

LIBERTY UTILITIES - KEENE DIVISION
BID PREMIUM FOR PRE-PURCHASED GALLONS - PRIOR YEAR

	Mt. Belvieu Price		Pipeline Rate		Broker + Supplier Fee		PERC		Trucking		Keene Div. Price	Contract Volumes	Keene Div. Cost	Fixed Basis Bid	Plan Price	Contract Volumes	Plan Cost	Cost Premium	Per Gallon Premium
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	\$1,228,829			700,000	\$1,167,176	(\$61,652)	-\$0.0881

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SCHEDULE J-2

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%

SCHEDULE J-3

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%	

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)	-	-	-	-	-	-	-
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	<u>RATES</u> - 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	<u>RATES</u> - 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	<u>RATES</u> - 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	\$122,552	\$86,049	\$82,262	\$81,219	\$86,091	\$129,003	\$587,177
50	COST PER THERM	\$1.8922	\$1.8470	\$1.8289	\$1.8228	\$1.7842	\$1.7769	\$1.8250

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SCHEDULE L

LIBERTY - 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)	[REDACTED]					251,510
Total Costs Spot Propane	[REDACTED]					
Total Cost Spot Propane	[REDACTED]					
Spot Propane Cost Per Therm Actual	\$ 2.0445	\$ 1.9758	\$ 1.9311	\$ 1.9111	\$ 1.9102	\$ 1.8969
CNG Volumes	[REDACTED]					
Price difference CNG vs Spot Propane	[REDACTED]					
Adj. for rounding	[REDACTED]					\$0.0000
Incremental Costs Propane	[REDACTED]					(\$39,183)
						Divided by 2
						Allowed Recoverable Costs \$ (19,592)

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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

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)						
Total Costs Spot Propane (Schedule K Reconciliation)						
Total Cost Spot Propane						
Spot Propane Cost Per Therm Actual	\$1.1680	\$1.3225	\$1.4830	\$1.4889	\$1.6788	\$1.9586
CNG Volumes						
Price difference CNG vs Spot Propane Adj. for rounding						
Incremental Savings Propane						
						Allowed Recoverable Costs \$ 9,434

Keene
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
Total Costs Spot Propane	\$49,501	\$15,366	\$29,895	\$30,354	\$46,040	\$63,162
Total Cost Spot Propane	\$49,501	\$15,366	\$29,895	\$30,354	\$46,040	\$63,162
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
						Divided by 2 2
						Allowed Recoverable Costs \$ 8,107

Keene
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
Total Costs Spot Propane						\$46,932
Total Cost Spot Propane	\$ -	\$ -	\$ -	\$ -	\$ -	\$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
						Divided by 2 2
						Allowed Recoverable Costs \$ 2,524

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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
JLY 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)	

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 Rat	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	14.50%	\$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