

REDACTED

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

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

Winter 2022–2023 Cost of Gas

Docket No. DG 22-057

Technical Statement of Heather M. Tebbetts

October 7, 2022

**A. Purpose of Technical Statement**

On September 15, 2022, Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty–Keene Division (“Liberty” or “the Company”) submitted a winter 2022/2023 cost of gas (“COG”) filing outlining its proposed COG for the winter period (November 1, 2022, through April 30, 2023). The Company requested rates to be approved for effect on November 1, 2022. As part of the procedural schedule in this docket, the Company provides the following updates as discussed below.

The purpose of this technical statement is to update market pricing for the COG.

**B. COG**

The Company’s September 15, 2022, filing proposed firm sales winter COG rates of \$2.2194 per therm for all customers. That filing included market pricing as of August 25, 2022. The NYMEX pricing has been updated with clearing pricing as of October 4, 2022. The table below provides a comparison of the prices used in the initial and updated filings.

The proposed winter COG rate using updated clearing prices is \$2.1216 per therm. The FPO rates remain unchanged from the original September 15, 2022, filing at \$2.2394 per therm. The FPO rate is unchanged because the FPO opt-in letters were mailed out to customers on October 1, 2022.

Table 1 – Pricing Change

	Pricing Average by Filing			
	9/15/2022 filing	10/7/2022 filing	\$ Change	% Change
Propane	\$1.6589	\$1.6134	(\$0.0455)	-3%
CNG	████████	████████	(\$0.2050)	-10%

**C. Bill Impacts**

The table below provides the change in rates from the initial filing made on September 15, 2022, to this October 7, 2022, update filing.

Table 2 – Rate Changes

Winter COG Rates Comparison

Rate Class	9/2/22 filing (\$/therm)	10/7/22 filing (\$/therm)	\$ Change	% Change
Res/C&I	\$2.2194	\$2.1216	(\$0.0978)	-4%
Low Income	\$1.2207	\$1.1669	(\$0.0538)	-4%

FPO Winter Rate Comparison

Rate Class	FPO	10/7/22 filing (\$/therm)	\$ Difference	% Difference
Res/C&I	\$2.2394	\$2.1216	(\$0.1178)	-5%
Low Income	\$1.2427	\$1.1669	(\$0.0758)	-6%

Winter Bill Impact (Nov-Apr)

Rate Class	2022-2023	2021-2022	\$ Change	% Change
Residential	\$1,381.71	\$1,199.76	(\$181.95)	-13%
C&I	\$4,842.17	\$4,357.25	(\$484.92)	-10%

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

COST OF GAS RATE FILING - DOCKET NO. DG 22-057

WINTER PERIOD 2022 – 2023

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NHPUC No.11 GAS  
LIBERTY UTILITIES

Seventeenth Revised Page 88  
Superseding Sixteenth Revised Page 88

Rates Effective November 1, 2022 - April 30, 2023 Winter Period Period Rates Effective May 1, 2023 - October 31, 2023 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>
<b><u>Residential Non Heating - R-1</u></b>								
Customer Charge per Month per Meter	\$ 15.39			\$ 15.39	\$ 15.39			\$ 15.39
All therms	\$ 0.5129	\$ 2.1216	\$ 0.1110	\$2.7069	\$ 0.5129	\$ 2.0114	\$ 0.1110	\$ 2.6561
<b><u>Residential Heating - R-3</u></b>								
Customer Charge per Month per Meter	\$ 15.39			\$ 15.39	\$ 15.39			\$ 15.39
All therms over the first block per month at	\$ 0.6519	\$ 2.1216	\$ 0.1110	\$2.8459	\$ 0.6519	\$ 2.0114	\$ 0.1110	\$ 2.7951
<b><u>Residential Heating - R-4</u></b>								
Customer Charge per Month per Meter	\$ 8.47			\$ 8.47	\$ 15.39			\$ 8.47
All therms over the first block per month at	\$ 0.3585	\$ 1.1669	\$ 0.1110	\$2.5525	\$ 0.6519	\$ 2.0114	\$ 0.1110	\$ 2.7951
<b><u>Commercial/Industrial - G-41</u></b>								
Customer Charge per Month per Meter	\$ 63.30			\$ 63.30	\$ 63.30			\$ 63.30
Size of the first block	100 therms				20 therms			
Therms in the first block per month at	\$ 0.5088	\$ 2.1216	\$ 0.0888	\$2.6247	\$ 0.5088	\$ 2.0114	\$ 0.0888	\$ 2.5739
All therms over the first block per month at	\$ 0.3550	\$ 2.1216	\$ 0.0888	\$2.4825	\$ 0.3550	\$ 2.0114	\$ 0.0888	\$ 2.4317
<b><u>Commercial/Industrial - G-42</u></b>								
Customer Charge per Month per Meter	\$ 189.84			\$189.84	\$ 189.84			\$ 189.84
Size of the first block	1000 therms				400 therms			
Therms in the first block per month at	\$ 0.4634	\$ 2.1216	\$ 0.0888	\$2.6247	\$ 0.4634	\$ 2.0114	\$ 0.0888	\$ 2.5739
All therms over the first block per month at	\$ 0.3212	\$ 2.1216	\$ 0.0888	\$2.4825	\$ 0.3212	\$ 2.0114	\$ 0.0888	\$ 2.4317
<b><u>Commercial/Industrial - G-43</u></b>								
Customer Charge per Month per Meter	\$ 811.98			\$811.98	\$ 811.98			\$ 811.98
All therms over the first block per month at	\$ 0.2863	\$ 2.1216	\$ 0.0888	\$2.4476	\$ 0.1441	\$ 2.0114	\$ 0.0888	\$ 2.2546
<b><u>Commercial/Industrial - G-51</u></b>								
Customer Charge per Month per Meter	\$ 63.38			\$ 63.38	\$ 63.38			\$ 63.38
Size of the first block	100 therms				100 therms			
Therms in the first block per month at	\$ 0.3070	\$ 2.1216	\$ 0.0888	\$2.4683	\$ 0.3070	\$ 2.0114	\$ 0.0888	\$ 2.4175
All therms over the first block per month at	\$ 0.2084	\$ 2.1216	\$ 0.0888	\$2.3697	\$ 0.2084	\$ 2.0114	\$ 0.0888	\$ 2.3189
<b><u>Commercial/Industrial - G-52</u></b>								
Customer Charge per Month per Meter	\$ 189.57			\$189.57	\$ 189.57			\$ 189.57
Size of the first block	1000 therms				1000 therms			
Therms in the first block per month at	\$ 0.2647	\$ 2.1216	\$ 0.0888	\$2.4260	\$ 0.1978	\$ 2.0114	\$ 0.0888	\$ 2.3083
All therms over the first block per month at	\$ 0.1836	\$ 2.1216	\$ 0.0888	\$2.3449	\$ 0.1219	\$ 2.0114	\$ 0.0888	\$ 2.2324
<b><u>Commercial/Industrial - G-53</u></b>								
Customer Charge per Month per Meter	\$ 838.52			\$838.52	\$ 838.52			\$ 838.52
All therms over the first block per month at	\$ 0.1851	\$ 2.1216	\$ 0.0888	\$2.3464	\$ 0.0968	\$ 2.0114	\$ 0.0888	\$ 2.2073
<b><u>Commercial/Industrial - G-54</u></b>								
Customer Charge per Month per Meter	\$ 839.19			\$839.19	\$ 839.19			\$ 839.19
All therms over the first block per month at	\$ 0.0705	\$ 2.1216	\$ 0.0888	\$2.2318	\$ 0.0409	\$ 2.0114	\$ 0.0888	\$ 2.1514

DATED:

EFFECTIVE: November 1, 2022

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

NHPUC No.11 GAS  
LIBERTY UTILITIES

Sixteenth Seventeenth Revised Page 88  
Superseding Fifteenth Sixteenth Revised Page 88

	Rates Effective November 1, 2022 - April 30, 2023				Rates Effective May 1, 2023 - October 31, 2023			
	Winter Period				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
<b>Residential Non Heating - R-1</b>								
Customer Charge per Month per Meter	\$ 15.39			\$ 15.39	\$ 15.39			\$ 15.39
All therms	\$ 0.5129	\$ 2.1216	\$ 0.1110	\$ 2.7069	\$ 0.5129	\$ 2.0114	\$ 0.1110	\$ 2.6561
		<del>\$ 2.4835</del>	<del>\$ 0.1444</del>	<del>\$ 2.5166</del>		<del>\$ 0.7908</del>	<del>\$ 0.0310</del>	<del>\$ 1.2004</del>
<b>Residential Heating - R-3</b>								
Customer Charge per Month per Meter	\$ 15.39			\$ 15.39	\$ 15.39			\$ 15.39
All therms over the first block per month at	\$ 0.6519	\$ 2.1216	\$ 0.1110	\$ 2.8459	\$ 0.6519	\$ 2.0114	\$ 0.1110	\$ 2.7293
		<del>\$ 2.4835</del>	<del>\$ 0.1444</del>	<del>\$ 2.6944</del>		<del>\$ 0.7908</del>	<del>\$ 0.0310</del>	<del>\$ 1.3787</del>
<b>Residential Heating - R-4</b>								
Customer Charge per Month per Meter	\$ 8.47			\$ 8.47	\$ 15.39			\$ 8.47
All therms over the first block per month at	\$ 0.3585	\$ 1.1669	\$ 0.1110	\$ 2.5525	\$ 0.6519	\$ 2.0114	\$ 0.1110	\$ 2.7951
		<del>\$ 2.4835</del>	<del>\$ 0.1444</del>	<del>\$ 2.4410</del>		<del>\$ 0.7908</del>	<del>\$ 0.0310</del>	<del>\$ 1.0446</del>
<b>Commercial/Industrial - G-41</b>								
Customer Charge per Month per Meter	\$ 63.38			\$ 63.38	\$ 63.38			\$ 63.38
Size of the first block	100 therms				20 therms			
Therms in the first block per month at	\$ 0.3070	\$ 2.1216	\$ 0.0888	\$ 2.4683	\$ 0.3070	\$ 2.0114	\$ 0.0888	\$ 2.5739
		<del>\$ 2.4835</del>	<del>\$ 0.0878</del>	<del>\$ 2.5434</del>		<del>\$ 0.7908</del>	<del>\$ 0.0478</del>	<del>\$ 1.3007</del>
All therms over the first block per month at	\$ 0.2084	\$ 2.1216	\$ 0.0888	\$ 2.3697	\$ 0.2084	\$ 2.0114	\$ 0.0888	\$ 2.4317
		<del>\$ 2.4835</del>	<del>\$ 0.0878</del>	<del>\$ 2.3895</del>		<del>\$ 0.7908</del>	<del>\$ 0.0478</del>	<del>\$ 1.1490</del>
<b>Commercial/Industrial - G-42</b>								
Customer Charge per Month per Meter	\$ 189.57			\$ 189.57	\$ 189.57			\$ 189.84
Size of the first block	1000 therms				400 therms			
Therms in the first block per month at	\$ 0.4634	\$ 2.1216	\$ 0.0888	\$ 2.6247	\$ 0.4634	\$ 2.0114	\$ 0.0888	\$ 2.5739
		<del>\$ 2.4835</del>	<del>\$ 0.0878</del>	<del>\$ 2.5007</del>		<del>\$ 0.7908</del>	<del>\$ 0.0478</del>	<del>\$ 1.2588</del>
All therms over the first block per month at	\$ 0.3212	\$ 2.1216	\$ 0.0888	\$ 2.4825	\$ 0.3212	\$ 2.0114	\$ 0.0888	\$ 2.4317
		<del>\$ 2.4835</del>	<del>\$ 0.0878</del>	<del>\$ 2.3585</del>		<del>\$ 0.7908</del>	<del>\$ 0.0478</del>	<del>\$ 1.1186</del>
<b>Commercial/Industrial - G-43</b>								
Customer Charge per Month per Meter	\$ 811.98			\$ 811.98	\$ 811.98			\$ 811.98
All therms over the first block per month at	\$ 0.2863	\$ 2.1216	\$ 0.0888	\$ 2.4476	\$ 0.1441	\$ 2.0114	\$ 0.0888	\$ 2.2546
		<del>\$ 2.4835</del>	<del>\$ 0.0878</del>	<del>\$ 2.3366</del>		<del>\$ 0.7908</del>	<del>\$ 0.0478</del>	<del>\$ 0.9567</del>
<b>Commercial/Industrial - G-51</b>								
Customer Charge per Month per Meter	\$ 63.38			\$ 63.38	\$ 63.38			\$ 63.38
Size of the first block	100 therms				100 therms			
Therms in the first block per month at	\$ 0.3070	\$ 2.1216	\$ 0.0888	\$ 2.4683	\$ 0.3070	\$ 2.0114	\$ 0.0888	\$ 2.4175
		<del>\$ 2.4835</del>	<del>\$ 0.0878</del>	<del>\$ 2.3565</del>		<del>\$ 0.7908</del>	<del>\$ 0.0478</del>	<del>\$ 1.1171</del>
All therms over the first block per month at	\$ 0.2084	\$ 2.1216	\$ 0.0888	\$ 2.3697	\$ 0.2084	\$ 2.0114	\$ 0.0888	\$ 2.3189
		<del>\$ 2.4835</del>	<del>\$ 0.0878</del>	<del>\$ 2.2579</del>		<del>\$ 0.7908</del>	<del>\$ 0.0478</del>	<del>\$ 1.0197</del>
<b>Commercial/Industrial - G-52</b>								
Customer Charge per Month per Meter	\$ 189.57			\$ 189.57	\$ 189.57			\$ 189.57
Size of the first block	1000 therms				1000 therms			
Therms in the first block per month at	\$ 0.2647	\$ 2.1216	\$ 0.0888	\$ 2.4260	\$ 0.1978	\$ 2.0114	\$ 0.0888	\$ 2.3083
		<del>\$ 2.4835</del>	<del>\$ 0.0878</del>	<del>\$ 2.3174</del>		<del>\$ 0.7908</del>	<del>\$ 0.0478</del>	<del>\$ 1.0119</del>
All therms over the first block per month at	\$ 0.1836	\$ 2.1216	\$ 0.0888	\$ 2.3449	\$ 0.1219	\$ 2.0114	\$ 0.0888	\$ 2.2324
		<del>\$ 2.4835</del>	<del>\$ 0.0878</del>	<del>\$ 2.2363</del>		<del>\$ 0.7908</del>	<del>\$ 0.0478</del>	<del>\$ 0.9371</del>
<b>Commercial/Industrial - G-53</b>								
Customer Charge per Month per Meter	\$ 838.52			\$ 838.52	\$ 838.52			\$ 838.52
All therms over the first block per month at	\$ 0.1851	\$ 2.1216	\$ 0.0888	\$ 2.3464	\$ 0.0968	\$ 2.0114	\$ 0.0888	\$ 2.2073
		<del>\$ 2.4835</del>	<del>\$ 0.0878</del>	<del>\$ 2.2443</del>		<del>\$ 0.7908</del>	<del>\$ 0.0478</del>	<del>\$ 0.9188</del>
<b>Commercial/Industrial - G-54</b>								
Customer Charge per Month per Meter	\$ 839.19			\$ 839.19	\$ 839.19			\$ 839.19
All therms over the first block per month at	\$ 0.0705	\$ 2.1216	\$ 0.0888	\$ 2.2318	\$ 0.0409	\$ 2.0114	\$ 0.0888	\$ 2.1514
		<del>\$ 2.4835</del>	<del>\$ 0.0878</del>	<del>\$ 2.1394</del>		<del>\$ 0.7908</del>	<del>\$ 0.0478</del>	<del>\$ 0.8732</del>

DATED:

ISSUED BY: /s/ Neil Proudman

EFFECTIVE: November 1, 2022

Neil Proudman  
TITLE: President

NHPUC No.11 GAS  
LIBERTY UTILITIES

Eighth Revised Page 97  
Superseding Seventh Revised Page 97

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

Calculation of the Cost of Gas Rate

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

Projected Gas Sales - herms	1,125,173
Total Calculated Cost of Gas Sendout	\$1,965,931
Indirect Costs from DG 20-105	\$208,129
Return on Inventory	\$15,323
Interest	\$2,463
Total Anticipated Cost of Gas Sendout	\$2,191,846

Add:	Winter 2021-2022 Deficiency Uncollected Interest	\$192,310
		\$3,065

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

	Prior Period Adjustments and Interest	\$195,375
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Total Anticipated Cost	\$2,387,221
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<u>Cost of Gas Rate</u>	Excluding Gas Assistance Program	Gas Assistance Program
Non-Fixed Price Option Cost of Gas Rate - Beginning Period (per therm)	\$ 2.1216	\$ 1.1669
Fixed Price Option Cost of Gas Rate (per therm) November 2022-April 2023	\$ 2.2394	\$ 1.2427
Pursuant to tariff section 17(d), the Company may adjust the approved cost of gas rate upward on a monthly basis to the following rate:		
Maximum Cost of Gas Rate - Non-Fixed Price Option (per therm)	\$ 2.6520	\$ 1.4586

DATED: XX XX, 2022

ISSUED BY: /s/ Neil Proudman

EFFECTIVE: November 1, 2022

TITLE: Neil Proudman  
President

Authorized by NHPUC Order No. \_\_\_\_, dated \_\_\_\_ in Docket No. 22-057

NHPUC No.11 GAS  
LIBERTY UTILITIES

Seventh Eighth Revised Page 97  
Superseding Sixth Seventh Revised Page 97

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

Calculation of the Cost of Gas Rate

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

Projected Gas Sales - therms	\$ 1,092,113	\$ 1,125,173
Total Calculated Cost of Gas Sendout	<del>\$ 1,881,051</del>	\$ 1,965,931
Indirect Costs from DG 20-105	<del>\$ 208,129</del>	\$ 208,129
Return on Inventory	<del>\$ 10,377</del>	\$ 15,323
Interest	<del>\$ -</del>	\$ 2,463
Total Anticipated Cost of Gas Sendout	<del>\$ 2,099,557</del>	\$ 2,191,846
Add: Prior Period Deficiency Uncollected Interest		\$ 192,310 \$ 3,065
Deduct: Prior Period Excess Collected Interest		<del>\$ -</del> <del>\$ -</del>
Prior Period Adjustments and Interest	<del>\$ 70,236</del>	\$ 195,375
Total Anticipated Cost	<del>\$ 2,169,793</del>	\$ 2,387,221

<u>Cost of Gas Rate</u>	<u>Excluding Gas Assistance Program</u>	<u>Gas Assistance Program</u>	<u>Excluding Gas Assistance Program</u>	<u>Gas Assistance Program</u>
Non-Fixed Price Option Cost of Gas Rate - Beginning Period (per therm)	<del>\$ 1.9868</del>	<del>\$ 1.0927</del>	\$ 2.1216	\$ 1.1669
Fixed Price Option Cost of Gas Rate (per therm) November 2022 - April 2023	<del>\$ 1.8941</del>	<del>\$ 1.0418</del>	\$ 2.2394	\$ 1.2427
Pursuant to tariff section 17(d), the Company may adjust the approved cost of gas rate upward on a monthly basis to the following rate:				
Maximum Cost of Gas Rate - Non-Fixed Price Option (per therm)	<del>\$ 2.4835</del>	<del>\$ 1.3659</del>	\$ 2.6520	\$ 1.4586

DATED: XX XX, 2022  
EFFECTIVE: November 1, 2022

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

REDACTED  
SCHEDULE A  
Winter 2022/2023 COG Update Filing

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

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

	(1)	(2)	(3)	(4)	(5)	(6)
			<u>VOLUMES</u>		<u>UNIT COST</u>	
	<u>UNIT</u>	<u>CONVERSION FACTOR</u>	<u>GALLONS</u>	<u>THERMS</u>	<u>PER GALLON</u>	<u>PER THERM</u>
1 GAS FROM PROPANE	GALLONS	0.91502	████████████████████	████████████████████	\$1.4763	\$1.6134
2 GAS FROM CNG	THERMS	N/A	N/A	████████████████████	N/A	████████████████████
3 TOTAL				<u>1,195,022</u>		



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

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

	PRIOR	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	TOTAL	REFERENCE
<b>PROPANE COSTS</b>									
1 PROPANE FIRM SENDOUT (therms)									Sch. I Col. 138 - Ln 2
2 COMPANY USE (therms)									Sch I Col. M
3 TOTAL PROPANE SENDOUT (therms)									Ln 1 + Ln 2
4 COST PER THERM (WACOG)	\$1.6137	\$1.6123	\$1.6104	\$1.6042	\$1.6455	\$1.5857			Sch F, Col. 2
5 TOTAL CALCULATED COST OF PROPANE	\$201,045	\$293,237	\$377,530	\$310,291	\$269,790	\$149,288	\$1,601,181		Ln 3 * Ln 4
6 INDIRECT COSTS FROM DG 20-105	\$34,688	\$34,688	\$34,688	\$34,688	\$34,688	\$34,688	\$208,129		DG 20-105, Section 11.2 (\$206,248 + 1,881)
7 PROPANE ADJUSTMENTS	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
8 TOTAL COST OF PROPANE	\$235,733	\$327,925	\$412,218	\$344,979	\$304,478	\$183,976	\$1,809,310		Ln 5 + Ln 6 + Ln 7
<b>CNG COSTS</b>									
9 CNG SENDOUT (therms)									Sch C, Ln 20
10 COST PER THERM (WACOG)									Sch C, Ln 21
11 TOTAL CALCULATED COST OF CNG									Ln 9 * Ln 10
12 CNG DEMAND CHARGES									Sch C, Ln 26
13 INCREMENTAL COSTS WINTER 2021-2022									Sch. O Ln
14 PROJECTED INCREMENTAL COSTS Winter 2022-2023									Sch. N Ln 7, Ln. 25
15 NET INCREMENTAL COSTS									Ln 13 + Ln 14
16 TOTAL CNG COSTS									Ln 11 + Ln 12 + Ln 13 + Ln 14
17 ACCOUNTING ADJUSTMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
18 FPO PREMIUM	\$344	\$516	\$661	\$546	\$459	\$264	\$2,790		Ln 30 * .02
19 TOTAL COSTS OF GAS									Ln 8 + Ln 16 + Ln 17 + Ln 18
20 RETURN ON INVENTORY	\$2,554	\$2,554	\$2,554	\$2,554	\$2,554	\$2,554	\$15,323		Company calculation
<b>REVENUES</b>									
21 BILLED FPO SALES (therms)	0	0	0	0	0	0	0		
22 COG FPO RATE	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
23 BILLED FPO REVENUE - CURRENT MONTH	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
24 BILLED NON-FPO SALES PRIOR MONTH (therms)	0	0	0	0	0	0	0		
25 COG NON-FPO RATE PRIOR MONTH	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
26 BILLED FPO REVENUE - PRIOR MONTH	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
27 BILLED NON-FPO SALES CURRENT MONTH (therms)	138,513	208,215	266,567	220,235	185,001	106,642	1,125,173		Sch. J
28 COG NON-FPO RATE CURRENT MONTH	\$2.1216	\$2.1216	\$2.1216	\$2.1216	\$2.1216	\$2.1216	\$2.1216		(Ln 39 + Ln 19 + Ln 20 + Ln 37) / Ln 33
29 BILLED NON-FPO REVENUE - CURRENT MONTH	\$293,876	\$441,759	\$565,561	\$467,261	\$392,507	\$226,257	\$2,387,221		Ln 27 * Ln 28
30 BILLED SALES OTHER PRIOR PERIODS	0	0	0	0	0	0	0		
31 COG OTHER PRIOR PERIODS BLENDED RATE	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
32 BILLED OTHER BLENDED REVENUE - PRIOR PERIODS	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
33 TOTAL SALES	138,513	208,215	266,567	220,235	185,001	106,642	1,125,173		Sch. J
34 TOTAL BILLED REVENUES	\$293,876	\$441,759	\$565,561	\$467,261	\$392,507	\$226,257	\$2,387,221		Ln 23 + Ln 26 + Ln 29 + Ln 32
35 UNBILLED REVENUES (NET)	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
36 TOTAL REVENUES	\$293,876	\$441,759	\$565,561	\$467,261	\$392,507	\$226,257	\$2,387,221		Ln 34 + Ln 35
37 (OVER)/UNDER COLLECTION	(\$6,439)	(\$45,778)	(\$68,267)	(\$48,789)	(\$27,577)	(\$989)	(\$2,463)		Ln 19 + Ln 20 - Ln 36
38 INTEREST AMOUNT	\$881	\$765	\$507	\$241	\$67	\$2	\$2,463		Sch. H
39 FINAL (OVER)/UNDER COLLECTION	\$195,375	\$189,817	\$144,804	\$77,044	\$28,497	\$987	(\$0)		Prior Mo Ln 39 + Ln 37 + Ln 38

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

CALCULATION OF PURCHASED GAS COSTS  
W NTER PERIOD 2022 – 2023

LINE NO.		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	TOTAL
1	TOTAL REQUIRED PURCHASES							
2	<b>PROPANE PURCHASE STABILIZATION PLAN DELIVERIES</b>							
3	THERMS	84,182	128,103	150,978	123,528	96,077	57,646	640,514
4	<b>RATES</b> - from Schedule D							
5	Contract Price	\$1.6501	\$1.6501	\$1.6501	\$1.6501	\$1.6501	\$1.6501	
6	Broker Fee	incl.	incl.	incl.	incl.	incl.	incl.	
7	Pipeline Fee	incl.	incl.	incl.	incl.	incl.	incl.	
8	PERC Fee	incl.	incl.	incl.	incl.	incl.	incl.	
9	Trucking Fee	incl.	incl.	incl.	incl.	incl.	incl.	
10	COST PER THERM	\$1.6501	\$1.6501	\$1.6501	\$1.6501	\$1.6501	\$1.6501	\$1.6501
11	TOTAL COST - Propane Purchase Stabilization Plan Deliveries	\$138,911	\$211,386	\$249,134	\$203,837	\$158,540	\$95,124	\$1,056,932
12	<b>AMHERST STORAGE PROPANE DELIVERIES</b>							
13	Therms	-	24,948	47,520	33,264	9,504	3,564	118,800
14	<b>RATES</b> - from Schedule F							
15	WACOG Price	\$0.0000	\$1.6000	\$1.6000	\$1.6000	\$1.6000	\$1.6000	
16	Trucking Fee	\$0.0000	\$0.0650	\$0.0650	\$0.0650	\$0.0650	\$0.0650	
17	COST PER THERM	\$0.0000	\$1.6650	\$1.6650	\$1.6650	\$1.6650	\$1.6650	\$1.6650
18	TOTAL COST - Amherst Storage Propane Deliveries	\$0	\$41,538	\$79,121	\$55,385	\$15,824	\$5,934	\$197,802
19	<b>CNG DELIVERIES</b>							
20	THERMS							
21	RATE							
22								
23	COST PER THERM							
24								
25	COST - CNG							
26								
27	TOTAL CNG							
28	<b>SPOT PURCHASES</b>							
29	THERMS							
30	From Schedule E							
31	COST PER THERM	\$1.4362	\$1.4362	\$1.4362	\$1.4348	\$1.4136	\$1.3918	\$1.4240
32	TOTAL COST - Spot Purchases							
33	<b>OTHER ITEMS</b>							
34	Storage	\$0	\$0	\$0	\$0	\$0	\$0	\$0
35	Refund of Deferred Revenue Surcharge over collection	\$0	\$0	\$0	\$0	\$0	\$0	\$0
36	TOTAL OTHER ITEMS	\$0	\$0	\$0	\$0	\$0	\$0	\$0
37	<b>TOTAL</b>							
38	THERMS FROM PROPANE							
39	COST							
40	THERMS FROM CNG							
41	COST							
42	COST PER THERM	\$1.6317	\$1.6428	\$1.6322	\$1.6310	\$1.5940	\$1.6092	\$1.6254

SCHEDULE D  
Winter 2022/2023 COG Update Filing

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

PROPANE PURCHASING STABILIZATION PLAN  
WINTER PERIOD 2022 – 2023

LINE  
NO.

1 2 3 4 5 6 7 8 9 10	Delivery Month	Hedging Schedule & Volume (Gallons)						Total
		Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	
	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 Volume	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%	

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

SCHEDULE E  
Winter 2022/2023 COG Update Filing

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

PROPANE SPOT MARKET PURCHASE COST ANALYSIS  
WINTER PERIOD 2022 – 2023

		(1) Mt. Belvieu		(2) Broker Fee		(3) Pipeline Rate		(4) PERC Fee		(5) Supplier Charge		(6) Cost @ Selkirk		(7) Trucking to Keene		(8) \$ per Gal.		(9) \$ per Therm
1	NOV	0.8788	+	0.0100	+	0.2579	+	0.0050	+	0.0500	=	1.2016	+	0.1125	=	1.3141	=	1.4362
2	DEC	0.8788	+	0.0100	+	0.2579	+	0.0050	+	0.0500	=	1.2016	+	0.1125	=	1.3141	=	1.4362
3	JAN	0.8788	+	0.0100	+	0.2579	+	0.0050	+	0.0500	=	1.2016	+	0.1125	=	1.3141	=	1.4362
4	FEB	0.8775	+	0.0100	+	0.2579	+	0.0050	+	0.0500	=	1.2004	+	0.1125	=	1.3129	=	1.4348
5	MAR	0.8581	+	0.0100	+	0.2579	+	0.0050	+	0.0500	=	1.1810	+	0.1125	=	1.2935	=	1.4136
6	APR	0.8381	+	0.0100	+	0.2579	+	0.0050	+	0.0500	=	1.1610	+	0.1125	=	1.2735	=	1.3918

1. Propane futures market quotations (cmegroup.com) on 10/4/22 close. See Appendix 1.
2. A generally accepted standard broker fee
3. Pipeline rate from Mt. Belvieu to Selkirk
4. Propane Education Research Council (propanecouncil.org)
5. A generally accepted standard supplier charge
6. Selkirk Cost - all fees plus propane cost
7. Northern Gas Transport trucking rate including diesel fuel surcharge. See Appendix 3A & 3B.
8. Delivered Price per Gallon
9. Delivered Price per therm as converted using per gallon price / .91502

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

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

LINE NO.		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		<u>Therms</u>	<u>Cost</u>	<u>Therm</u>	<u>Rate</u> <u>Gal.</u>	<u>CNG therms</u>	<u>Cost</u>	<u>Total Sendout</u>	<u>Total Cost</u>		<u>Therm Rate</u>
1	August 2022 (Actual)										
2	Beginning Balance	47,654	\$78,129	\$1.6395	\$1.5002						
3	Purchases Received	149,650	\$237,450	\$1.5867	\$1.4519						
4	Total Available	197,304	\$315,578	\$1.5995	\$1.4635						
5	Less Sendout	34,858	\$55,754	\$1.5995	\$1.4635						
6	Ending Balance	162,446	\$259,824	\$1.5995	\$1.4635						
7	September 2022 (Estimated)										
8	Beginning Balance	162,446	\$259,824	\$1.5995	\$1.4635						
9	Purchases Received	40,000	\$68,109	\$1.7027	\$1.5580						
10	Total Available	202,446	\$327,933	\$1.6199	\$1.4822						
11	Less Sendout	39,316	\$63,686	\$1.6198	\$1.4822						
12	Ending Balance	163,130	\$264,247	\$1.6199	\$1.4822						
13	October 2022 (Estimated)										
14	Beginning Balance	163,130	\$264,247	\$1.6199	\$1.4822						
15	Purchases Received	55,000	\$93,349	\$1.6973	\$1.5530						
16	Total Available	218,130	\$357,596	\$1.6394	\$1.5001						
17	Less Sendout	58,108	\$95,261	\$1.6394	\$1.5001						
18	Ending Balance	160,022	\$262,335	\$1.6394	\$1.5001						
19	November 2022 (Forecasted)										
20	Beginning Balance	160,022	\$262,335	\$1.6394	\$1.5001						
21	Purchases Received	124,586	\$196,937	\$1.5807	\$1.4464						
22	Total Available	284,608	\$459,273	\$1.6137	\$1.4766						
23	Less Sendout	124,586	\$201,045	\$1.6137	\$1.4766						\$1.659
24	Ending Balance	160,022	\$258,228	\$1.6137	\$1.4766						
25	December 2022 (Forecasted)										
26	Beginning Balance	160,022	\$258,228	\$1.6137	\$1.4766						
27	Purchases Received	156,930	\$252,786	\$1.6108	\$1.4739						
28	Total Available	316,952	\$511,014	\$1.6123	\$1.4753						
29	Less Sendout	181,878	\$293,237	\$1.6123	\$1.4753						\$1.638
30	Ending Balance	135,074	\$217,777	\$1.6123	\$1.4753						
31	January 2023 (Forecasted)										
32	Beginning Balance	135,074	\$217,777	\$1.6123	\$1.4753						
33	Purchases Received	186,917	\$300,747	\$1.6090	\$1.4723						
34	Total Available	321,991	\$518,524	\$1.6104	\$1.4735						
35	Less Sendout	234,437	\$377,530	\$1.6104	\$1.4735						\$1.624
36	Ending Balance	87,554	\$140,994	\$1.6104	\$1.4735						
37	February 2023 (Forecasted)										
38	Beginning Balance	87,554	\$140,994	\$1.6104	\$1.4735						
39	Purchases Received	160,156	\$256,391	\$1.6009	\$1.4648						
40	Total Available	247,710	\$397,385	\$1.6042	\$1.4679						
41	Less Sendout	193,420	\$310,291	\$1.6042	\$1.4679						\$1.625
42	Ending Balance	54,290	\$87,094	\$1.6042	\$1.4679						
43	March 2023 (Forecasted)										
44	Beginning Balance	54,290	\$87,094	\$1.6042	\$1.4679						
45	Purchases Received	154,453	\$256,391	\$1.6600	\$1.5189						
46	Total Available	208,743	\$343,485	\$1.6455	\$1.5057						
47	Less Sendout	163,957	\$269,790	\$1.6455	\$1.5057						\$1.660
48	Ending Balance	44,786	\$73,695	\$1.6455	\$1.5057						
49	April 2023 (Forecasted)										
50	Beginning Balance	44,786	\$73,695	\$1.6455	\$1.5057						
51	Purchases Received	90,580	\$140,960	\$1.5562	\$1.4239						
52	Total Available	135,366	\$214,655	\$1.5857	\$1.4510						
53	Less Sendout	94,144	\$149,288	\$1.5857	\$1.4510						\$1.630
54	Ending Balance	41,222	\$65,367	\$1.5857	\$1.4510						
55	AVERAGE WINTER RATE - SENDOUT										
56							FPO Premium (Sch. B, Line 15)		\$2,790		
57											

REDACTED  
SCHEDULE G  
Winter 2022/2023 COG Update Filing

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

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

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

SCHEDULE H  
Winter 2022/2023 COG Update Filing

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

INTEREST CALCULATION  
WINTER PERIOD 2022 – 2023

LINE NO.	MONTH	(1) BEG. OF MONTH BALANCE	(2) (OVER) UNDER COLLECT	(3) ADJUSTMENTS	(4) REFUNDS	(5) END OF MONTH BALANCE (COL.1+2+3)	(6) AVERAGE BALANCE COL. (COL. [1+4]/2)	(7) ANNUAL INTEREST RATE	(8) INTEREST AMOUNT	(9) MONTH END BAL. WITH INTEREST (COL. 4+7)
1	MAY 2022	\$ 223,755	-	(72,222)	\$0	\$151,533	\$187,644	3.50%	192	\$151,725
2	JUN	151,725	0	34,131	0	\$185,856	168,791	4.00%	136	185,992
3	JUL	185,992	0	6,646	0	\$192,639	189,315	4.75%	75	192,714
4	AUG	192,714	0	0	0	\$192,714	192,714	5.50%	883	193,597
5	SEP	193,597	0	0	0	\$193,597	193,597	5.50%	887	194,484
6	OCT	194,484	0	0	0	\$194,484	194,484	5.50%	891	195,375
7	NOV	195,375	(6,439)	0	0	\$188,936	192,155	5.50%	881	189,817
8	DEC	189,817	(45,778)	0	0	\$144,039	166,928	5.50%	765	144,804
9	JAN 2023	144,804	(68,267)	0	0	\$76,537	110,671	5.50%	507	77,044
10	FEB	77,044	(48,789)	0	0	\$28,256	52,650	5.50%	241	28,497
11	MAR	28,497	(27,577)	0	0	\$920	14,708	5.50%	67	987
12	APR	987	(989)	0	0	(\$2)	492	5.50%	2	(0)
13										
14									<u>\$5,528</u>	

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

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



SCHEDULE J  
Winter 2022/2023 COG Update Filing

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

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

Summary - Total Winter Season Sales

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

SCHEDULE K-1  
Winter 2022/2023 COG Update Filing

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	Winter Nov-Apr		
1	Typical Usage - therms (1)							447	
2	39	69	81	103	89	66			
3	<b>Residential Heating R-3</b>								
4	Customer Charge	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34	
5	Delivery Charge: All therms @	\$0.3834	\$14.95	\$26.45	\$31.06	\$39.49	\$34.12	\$25.30	\$171.38
6	<b>Base Delivery Revenue Total</b>	<b>\$30.34</b>	<b>\$41.84</b>	<b>\$46.45</b>	<b>\$54.88</b>	<b>\$49.51</b>	<b>\$40.69</b>	<b>\$263.72</b>	
7	COG Rates	\$1.8941	\$1.8941	\$1.8941	\$1.8941	\$1.8941	\$1.8941	\$1.8941	
8	<b>Cost of Gas Total</b>	<b>\$73.87</b>	<b>\$130.69</b>	<b>\$153.42</b>	<b>\$195.09</b>	<b>\$168.57</b>	<b>\$125.01</b>	<b>\$846.65</b>	
9	LDAC Rates	\$0.1397	\$0.1012	\$0.1154	\$0.1154	\$0.1318	\$0.1318	\$0.1210	
10	<b>LDAC Total</b>	<b>\$5.45</b>	<b>\$6.98</b>	<b>\$9.35</b>	<b>\$11.89</b>	<b>\$11.73</b>	<b>\$8.70</b>	<b>\$54.10</b>	
11	<b>Total Bill</b>	<b>\$110</b>	<b>\$180</b>	<b>\$209</b>	<b>\$262</b>	<b>\$230</b>	<b>\$174</b>	<b>\$1,164</b>	
12									
13		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr	
14	Typical Usage - therms (1)							447	
15	39	69	81	103	89	66			
16	<b>Residential Heating R-3</b>								
17	Customer Charge	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34	
18	Delivery Charge: All therms @	\$0.6519	\$25.42	\$44.98	\$52.80	\$67.15	\$58.02	\$43.03	\$291.40
19	<b>Base Delivery Revenue Total</b>	<b>\$40.81</b>	<b>\$60.37</b>	<b>\$68.19</b>	<b>\$82.54</b>	<b>\$73.41</b>	<b>\$58.42</b>	<b>\$383.74</b>	
20	Seasonal Base Delivery Difference from previous year							\$120.02	
21	Seasonal Percent Change from previous year							45.5%	
22	COG Rates	\$2.2394	\$2.2394	\$2.2394	\$2.2394	\$2.2394	\$2.2394	\$2.2394	
23	<b>Cost of Gas Total</b>	<b>\$87.34</b>	<b>\$154.52</b>	<b>\$181.39</b>	<b>\$230.66</b>	<b>\$199.31</b>	<b>\$147.80</b>	<b>\$1,001.02</b>	
24	Seasonal COG Difference from previous year							\$154.37	
25	Seasonal Percent Change from previous year							18.2%	
26	LDAC Rates	\$0.1110	\$0.1110	\$0.1110	\$0.1110	\$0.1110	\$0.1110	\$0.1110	
27	<b>LDAC Total</b>	<b>\$4.33</b>	<b>\$7.66</b>	<b>\$8.99</b>	<b>\$11.43</b>	<b>\$9.88</b>	<b>\$7.33</b>	<b>\$49.62</b>	
28	Seasonal LDAC Difference from previous year							-\$4.48	
29	Seasonal Percent Change from previous year							-8.3%	
30	<b>Total Bill</b>	<b>\$132</b>	<b>\$223</b>	<b>\$259</b>	<b>\$325</b>	<b>\$283</b>	<b>\$214</b>	<b>\$1,434.38</b>	
31	Seasonal Total Bill Difference from previous year							\$269.91	
32	Seasonal Percent Change from previous year							23.2%	
33	Seasonal Percent Change resulting from COG							13.3%	
34	Seasonal Percent Change resulting from LDAC							-0.4%	

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

SCHEDULE K-2  
Winter 2022/2023 COG Update Filing

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	Winter Nov-Apr
1 Typical Usage - therms (1)	39	69	81	103	89	66	447
2 <b>Residential Heating R-3</b>							
3 Customer Charge \$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34
4 Delivery Charge: All therms @ \$0.3834	\$14.95	\$26.45	\$31.06	\$39.49	\$34.12	\$25.30	\$171.38
5 <b>Base Delivery Revenue Total</b>	<b>\$30.34</b>	<b>\$41.84</b>	<b>\$46.45</b>	<b>\$54.88</b>	<b>\$49.51</b>	<b>\$40.69</b>	<b>\$263.72</b>
6 COG Rates	\$1.8968	\$1.8972	\$1.5090	\$1.6493	\$2.4835	\$2.4835	\$1.9730
7 <b>Cost of Gas Total</b>	<b>\$73.98</b>	<b>\$130.91</b>	<b>\$122.23</b>	<b>\$169.88</b>	<b>\$221.03</b>	<b>\$163.91</b>	<b>\$881.94</b>
8 LDAC Rates	\$0.1397	\$0.1012	\$0.1154	\$0.1154	\$0.1318	\$0.1318	\$0.1210
9 <b>LDAC Total</b>	<b>\$5.45</b>	<b>\$6.98</b>	<b>\$9.35</b>	<b>\$11.89</b>	<b>\$11.73</b>	<b>\$8.70</b>	<b>\$54.10</b>
10 <b>Total Bill</b>	<b>\$110</b>	<b>\$180</b>	<b>\$178</b>	<b>\$237</b>	<b>\$282</b>	<b>\$213</b>	<b>\$1,200</b>
	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr
11 Typical Usage - therms (1)	39	69	81	103	89	66	447
12 <b>Residential Heating R-3</b>							
13 Customer Charge \$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34
14 Delivery Charge: All therms @ \$0.6519	\$25.42	\$44.98	\$52.80	\$67.15	\$58.02	\$43.03	\$291.40
15 <b>Base Delivery Revenue Total</b>	<b>\$40.81</b>	<b>\$60.37</b>	<b>\$68.19</b>	<b>\$82.54</b>	<b>\$73.41</b>	<b>\$58.42</b>	<b>\$383.74</b>
16 Seasonal Base Delivery Difference from previous year							\$120.02
17 Seasonal Percent Change from previous year							45.5%
18 COG Rates	\$2.1216	\$2.1216	\$2.1216	\$2.1216	\$2.1216	\$2.1216	\$2.1216
19 <b>Cost of Gas Total</b>	<b>\$82.74</b>	<b>\$146.39</b>	<b>\$171.85</b>	<b>\$218.52</b>	<b>\$188.82</b>	<b>\$140.03</b>	<b>\$948.35</b>
20 Seasonal COG Difference from previous year							\$66.41
21 Seasonal Percent Change from previous year							7.5%
22 LDAC Rates	\$0.1110	\$0.1110	\$0.1110	\$0.1110	\$0.1110	\$0.1110	\$0.1110
23 <b>LDAC Total</b>	<b>\$4.33</b>	<b>\$7.66</b>	<b>\$8.99</b>	<b>\$11.43</b>	<b>\$9.88</b>	<b>\$7.33</b>	<b>\$49.62</b>
24 Seasonal LDAC Difference from previous year							-\$4.48
25 Seasonal Percent Change from previous year							71.9%
26 <b>Total Bill</b>	<b>\$128</b>	<b>\$214</b>	<b>\$249</b>	<b>\$312</b>	<b>\$272</b>	<b>\$206</b>	<b>\$1,381.71</b>
27 Seasonal Total Bill Difference from previous year							\$181.95
28 Seasonal Percent Change from previous year							15.2%
29 Seasonal Percent Change resulting from COG							5.5%
30 Seasonal Percent Change resulting from LDAC							-0.4%

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

SCHEDULE L-1  
Winter 2022/2023 COG Update Filing

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	Winter Nov-Apr	
1								
2								
3	Typical Usage - therms						262	1,721
4	<b>Commercial G-41</b>							
5	Customer Charge	\$57.06	\$57.06	\$57.06	\$57.06	\$57.06	\$342.36	
6	Delivery Charge: First 100 therms @	\$0.4688	\$46.88	\$46.88	\$46.88	\$46.88	\$281.28	
7	Over 100 therms @	\$0.3149	\$10.39	\$46.92	\$65.18	\$95.41	\$352.99	
8	<b>Base Delivery Revenue Total</b>	\$114.33	\$150.86	\$169.12	\$199.35	\$188.02	\$976.63	
9	COG Rates	\$1.8941	\$1.8941	\$1.8941	\$1.8941	\$1.8941	\$1.8941	
10	<b>Cost of Gas Total</b>	\$251.92	\$471.63	\$581.49	\$763.32	\$695.13	\$3,259.74	
11	LDAC Rates	\$0.0831	\$0.0749	\$0.0891	\$0.0891	\$0.0991	\$0.0902	
12	<b>LDAC Total</b>	\$11.05	\$18.65	\$27.35	\$35.91	\$36.37	\$155.30	
13	<b>Total Bill</b>	<b>\$377</b>	<b>\$641</b>	<b>\$778</b>	<b>\$999</b>	<b>\$920</b>	<b>\$4,392</b>	
14								
15								
16	Typical Usage - therms						262	1,721
17	<b>Commercial G-41</b>							
18	Customer Charge	\$63.30	\$63.30	\$63.30	\$63.30	\$63.30	\$379.80	
19	Delivery Charge: First 100 therms @	\$0.5088	\$50.88	\$50.88	\$50.88	\$50.88	\$305.28	
20	Over 100 therms @	\$0.3550	\$10.39	\$46.92	\$65.18	\$95.41	\$352.99	
21	<b>Base Delivery Revenue Total</b>	<b>\$124.57</b>	<b>\$161.10</b>	<b>\$179.36</b>	<b>\$209.59</b>	<b>\$198.26</b>	<b>\$1,038.07</b>	
22	Seasonal Base Delivery Difference from previous year						\$61.44	
23	Seasonal Percent Change from previous year						6.3%	
24	COG Rates	\$2.2394	\$2.2394	\$2.2394	\$2.2394	\$2.2394	\$2.2394	
25	<b>Cost of Gas Total</b>	<b>\$297.84</b>	<b>\$557.61</b>	<b>\$687.50</b>	<b>\$902.48</b>	<b>\$821.86</b>	<b>\$3,854.01</b>	
26	Seasonal COG Difference from previous year						\$594.27	
27	Seasonal Percent Change from previous year						18.2%	
28	LDAC Rates	\$0.0888	\$0.0888	\$0.0888	\$0.0888	\$0.0888	\$0.0888	
29	<b>LDAC Total</b>	<b>\$11.81</b>	<b>\$22.11</b>	<b>\$27.26</b>	<b>\$35.79</b>	<b>\$32.59</b>	<b>\$152.83</b>	
30	Seasonal LDAC Difference from previous year						-\$2.47	
31	Seasonal Percent Change from previous year						-1.6%	
32	<b>Total Bill</b>	<b>\$434</b>	<b>\$741</b>	<b>\$894</b>	<b>\$1,148</b>	<b>\$1,053</b>	<b>\$5,045</b>	
33	Seasonal Total Bill Difference from previous year						\$653.24	
34	Seasonal Percent Change from previous year						14.9%	
35	Seasonal Percent Change resulting from COG						13.5%	
36	Seasonal Percent Change resulting from LDAC						-0.1%	

SCHEDULE L-2  
Winter 2022/2023 COG Update Filing

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	Winter Nov-Apr
1							
2							
3	Typical Usage - therms						1,721
4	133	249	307	403	367	262	
5	<b>Commercial G-41</b>						
6	Customer Charge	\$57.06	\$57.06	\$57.06	\$57.06	\$57.06	\$342.36
7	Delivery Charge: First 100 therms @	\$0.4688	\$46.88	\$46.88	\$46.88	\$46.88	\$281.28
8	Over 100 therms @	\$0.3149	\$10.39	\$46.92	\$65.18	\$95.41	\$352.99
9	<b>Base Delivery Revenue Total</b>	<b>\$114.33</b>	<b>\$150.86</b>	<b>\$169.12</b>	<b>\$199.35</b>	<b>\$188.02</b>	<b>\$976.63</b>
10	COG Rates	\$1.8741	\$1.8741	\$1.8741	\$1.8741	\$1.8741	\$1.8741
11	<b>Cost of Gas Total</b>	<b>\$249.26</b>	<b>\$466.65</b>	<b>\$575.35</b>	<b>\$755.26</b>	<b>\$687.79</b>	<b>\$3,225.32</b>
12	LDAC Rates	\$0.0831	\$0.0749	\$0.0891	\$0.0891	\$0.0991	\$0.0991
13	<b>LDAC Total</b>	<b>\$11.05</b>	<b>\$18.65</b>	<b>\$27.35</b>	<b>\$35.91</b>	<b>\$36.37</b>	<b>\$155.30</b>
14	<b>Total Bill</b>	<b>\$375</b>	<b>\$636</b>	<b>\$772</b>	<b>\$991</b>	<b>\$912</b>	<b>\$4,357</b>
15							Winter Nov-Apr
16	Typical Usage - therms						1,721
17	133	249	307	403	367	262	
18	<b>Commercial G-41</b>						
19	Customer Charge	\$63.30	\$63.30	\$63.30	\$63.30	\$63.30	\$379.80
20	Delivery Charge: First 100 therms @	\$0.5088	\$50.88	\$50.88	\$50.88	\$50.88	\$305.28
21	Over 100 therms @	\$0.3550	\$10.39	\$46.92	\$65.18	\$95.41	\$352.99
22	<b>Base Delivery Revenue Total</b>	<b>\$124.57</b>	<b>\$161.10</b>	<b>\$179.36</b>	<b>\$209.59</b>	<b>\$198.26</b>	<b>\$1,038.07</b>
23	Seasonal Base Delivery Difference from previous year						\$61.44
24	Seasonal Percent Change from previous year						6.3%
25	COG Rates	\$2.1216	\$2.1216	\$2.1216	\$2.1216	\$2.1216	\$2.1216
26	<b>Cost of Gas Total</b>	<b>\$282.17</b>	<b>\$528.28</b>	<b>\$651.33</b>	<b>\$855.00</b>	<b>\$778.63</b>	<b>\$3,651.27</b>
27	Seasonal COG Difference from previous year						\$425.95
28	Seasonal Percent Change from previous year						13.2%
29	LDAC Rates	\$0.0888	\$0.0888	\$0.0888	\$0.0888	\$0.0888	\$0.0888
30	<b>LDAC Total</b>	<b>\$11.81</b>	<b>\$22.11</b>	<b>\$27.26</b>	<b>\$35.79</b>	<b>\$32.59</b>	<b>\$152.83</b>
31	Seasonal LDAC Difference from previous year						-\$2.47
32	Seasonal Percent Change from previous year						-1.6%
33	<b>Total Bill</b>	<b>\$419</b>	<b>\$711</b>	<b>\$858</b>	<b>\$1,100</b>	<b>\$1,009</b>	<b>\$4,842</b>
34	Seasonal Total Bill Difference from previous year						\$484.92
35	Seasonal Percent Change from previous year						11.1%
36	Seasonal Percent Change resulting from COG						9.8%
37	Seasonal Percent Change resulting from LDAC						-0.1%

SCHEDULE M  
Winter 2022/2023 COG Update Filing

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

REDACTED  
SCHEDULE N  
Winter 2022/2023 COG Update Filing

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Projected	Projected	Projected	Projected	Projected	Projected	
	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	
1 <b>CNG PURCHASES</b>							
2 CNG Volumes (Schedule C Filing)							
3							
4 CNG Costs (Schedule C Filing)							
5 Total Cost per Actual CNG Costs (Schedule C Filing)							
6							
7 CNG Cost Per Therm Actual							
8							
9 <b>SPOT PROPANE PURCHASES</b>							
10 Spot Propane Volumes (Schedule C Reconciliation)							
11							
12 Total Costs Spot Propane							
13 Total Cost Spot Propane							
14							
15 Spot Propane Cost Per Therm Actual	\$ 1.4362	\$ 1.4362	\$ 1.4362	\$ 1.4348	\$ 1.4136	\$ 1.3918	
16							
17							
18							
19 CNG Volumes							
20 Price difference CNG vs Spot Propane							
21 Adj. for rounding							\$0.0000
22 Incremental Costs Propane							(\$66,401)
23							
24							
25						50%	
						Allowed Recoverable Costs	\$ 2 (33,201)

SCHEDULE O  
Winter 2022/2023 COG Update Filing

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

	<b>COG Period</b>	<b>Year</b>	<b>Actual / Estimate</b>	<b>Amount</b>	<b>50% Recovery</b>	<b>Deferred</b>	<b>(Refund)/Charge</b>
1	Winter	2019-20	Actuals	\$132,469	\$66,235	\$132,533	\$66,299
2	Winter	2020-21	Actuals	\$44,016	\$22,008	\$0	(\$22,008)
3	Winter	2021-22	Actuals	\$39,489	\$0	\$0	\$39,489
4	<b>Total Costs</b>						<b>\$39,489</b>
5	<b>Included in Winter 2022-2023 filing</b>						<b>\$39,489</b>



REDACTED  
SCHEDULE P  
Winter 2022/2023 COG Update Filing

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

	Actual Nov-21	Actual Dec-21	Actual Jan-22	Actual Feb-22	Actual Mar-22	Actual Apr-22	Total
1 <b>CNG PURCHASES</b>							
2 CNG Volumes (Schedule C Reconciliation)							
3							
4 CNG Costs (Schedule C Reconciliation)							
5 Total Cost per Actual CNG Costs (Schedule C Reconciliation)							
6							
7 CNG Cost Per Therm Actual							
8							
9 <b>SPOT PROPANE PURCHASES</b>							
10 Spot Propane Volumes (Schedule C Reconciliation)							
11							
12 Total Costs Spot Propane							
13 Total Cost Spot Propane							
14							
15 Spot Propane Cost Per Therm Actual	\$1.6307	\$1.5583	\$1.7863	\$1.9256	\$1.9350	\$1.7709	\$1.8004
16							
17							
18							
19 CNG Volumes							
20							
21 Price difference CNG vs Spot Propane							
22 Adj. for rounding							
23 Incremental Costs Propane							
24							
25							
26							
						Allowed Recoverable Costs \$	39,489

**MONT BELVIEU PROPANE FUTURES - 8/25/22 CLOSE**

**MONT BELVIEU LDH PROPANE (OPIS) FUTURES - SETTLEMENTS**

TRADE DATE THURSDAY 25 AUG 2022 ▾

**FINAL DATA** ●

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

<b>ESTIMATED VOLUME TOTALS</b>	<b>14,080</b>	<b>PRIOR DAY OPEN INTEREST TOTALS</b>	<b>12</b>
--------------------------------	---------------	---------------------------------------	-----------

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

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

**RATES (In Cents-per-bbl.)**

[1] All rates are increased.

**ITEM NO. 135**

**Non-Incentive Rates for Propane**

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

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

August 16, 2022

To: All Customers

**Re: Fuel Surcharge Notice**

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

Best Regards,

APPENDIX 3B  
Winter 2022/2023 COG Update Filing

Northern Gas Transport Inc. - Selkirk to Keene

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