

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

COST OF GAS RATE FILING - DOCKET NO. DG 23-xxx

SUMMER PERIOD 2023

CONTENTS

1. CALCULATION OF COST OF GAS RATE-SUMMARY	
2. CONVERSION OF GAS COSTS - GALLONS TO THERMS	SCHEDULE A
3. CALCULATION OF COST OF GAS RATE	SCHEDULE B PG.1
4. SUMMER 2022 COST OF GAS RECONCILIATION	SCHEDULE B PG.2
5. CALCULATION OF PURCHASED GAS COSTS	SCHEDULE C
6. HEDGING ANALYSIS	SCHEDULE D-1
7. SPOT PRICE COMPARISON	SCHEDULE D-2
8. PROPANE PURCHASE STABILIZATION PROGRAM	SCHEDULE D-3
9. PROPANE SPOT MARKET PURCHASE COST ANALYSIS	SCHEDULE E
10. INVENTORY & WACOG CALCULATION	SCHEDULE F
NO LONGER APPLICABLE	SCHEDULE G
NO LONGER APPLICABLE	SCHEDULE H
11. WEATHER NORMALIZATION - SENDOUT	SCHEDULE I
12. WEATHER NORMALIZATION - SALES	SCHEDULE J
<u>BILL IMPACT ANALYSES:</u>	
13. RESIDENTIAL NON-FPO	SCHEDULE K
14. COMMERCIAL NON-FPO	SCHEDULE L
<u>INCREMENTAL COST CALCULATION</u>	
15. PROJECTED INCREMENTAL COST CALCULATION SUMMER 2023	SCHEDULE M
16. 50 PERCENT OF INCREMENTAL CNG COSTS SUMMER 2019-2023	SCHEDULE N
17. ACTUAL INCREMENTAL COSTS INCLUDED IN SCHEDULE N	SCHEDULE O
<u>APPENDICES:</u>	
18. MONT BELVIEU PROPANE FUTURES PRICES	APPENDIX 1
19. ENTERPRISE TE PRODUCTS PIPELINE FERC TARIFF - EFF. 3/1/23	APPENDIX 2
20. TRUCKING FUEL SURCHARGE NOTIFICATION	APPENDIX 3A
21. TRUCKING FUEL SURCHARGE RATE PER GALLON	APPENDIX 3B

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

CALCULATION OF COST OF GAS RATE
SUMMARY
SUMMER PERIOD 2023

Calculation of the Cost of Gas Rate

Period Covered: Summer Period May 1, 2023 through October 31, 2023

Projected Gas Sales - therms		353,632
Total Calculated Cost of Gas Sendout, including interest		\$548,698
Add:	Prior Period Deficiency Uncollected Interest	\$0 \$0
Deduct:	Prior Period (Excess) Collected Interest	(\$28,437) \$1,732
	Prior Period Adjustments and Interest	(\$26,705)
Total Anticipated Cost		<u><u>\$521,994</u></u>

Cost of Gas Rate

Cost of Gas Rate - Beginning Period (per therm)	\$1.4761
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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)	<u>\$1.8451</u>
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LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION

CONVERSION OF COSTS - GALLONS TO THERMS
SUMMER PERIOD 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 INVENTORY	GALLONS	0.91502			\$1.3596	\$1.4859
2 GAS FROM CNG	THERMS	N/A	N/A		N/A	
3 TOTAL				382,961		

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

CALCULATION OF COST OF GAS RATE
SUPPLY / DEMAND BALANCE
SUMMER PERIOD 2023

LINE NO.	PRIOR	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	TOTAL	REFERENCE
PROPANE COSTS									
1	PROPANE FIRM SENDOUT (therms)								Sch. I Col. 13 - Ln 8
2	COMPANY USE (therms)								Sch I Col. 11
3	TOTAL PROPANE SENDOUT (therms)								Ln 1 + Ln 2
4	COST PER THERM (WACOG)	\$1.5347	\$1.5110	\$1.4970	\$1.4899	\$1.4273	\$1.4630		Sch F, Col. 3 (Less Sendout)
5	TOTAL CALCULATED COST OF PROPANE	\$87,891	\$64,257	\$61,908	\$60,506	\$64,801	\$117,196	\$456,559	Ln 3 * Ln 4
6	PROPANE ADJUSTMENTS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
7	TOTAL COST OF PROPANE	\$87,891	\$64,257	\$61,908	\$60,506	\$64,801	\$117,196	\$456,559	Ln 5 + Ln 6
CNG COSTS									
8	CNG SENDOUT (therms)								Sch C, Ln 20
9	COST PER THERM (WACOG)								Sch C, Ln 23
10	TOTAL CALCULATED COST OF CNG								Ln 8 * Ln 9
11	CNG DEMAND CHARGES								Sch C, Ln 26
12	PROJECTED INCREMENTAL COSTS SUMMER 2023	\$19	\$19	\$19	\$19	\$19	\$19	\$111	Sch. N
13	NET INCREMENTAL COSTS	\$19	\$19	\$19	\$19	\$19	\$19	\$111	Ln 12
14	TOTAL CNG COSTS								Ln 10 + Ln 11 + Ln 13
15	ACCOUNTING ADJUSTMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
16	FPO PREMIUM	\$0	\$0	\$0	\$0	\$0	\$0	\$0	Ln 30 * .02 (N/A for summer period)
17	TOTAL COSTS OF GAS								Ln 7 + Ln 14 + Ln 15 + Ln 16
18	RETURN ON INVENTORY	\$0	\$0	\$0	\$0	\$0	\$0	\$0	Company calculation
REVENUES									
19	BILLED FPO SALES (therms)	0	0	0	0	0	0		
20	COG FPO RATE	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
21	BILLED FPO REVENUE - CURRENT MONTH	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
22	BILLED NON-FPO SALES PRIOR MONTH (therms)	0	0	0	0	0	0		
23	COG NON-FPO RATE PRIOR MONTH	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		
24	BILLED FPO REVENUE - PRIOR MONTH	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
25	BILLED NON-FPO SALES CURRENT MONTH (therms)	66,280	49,014	47,418	47,093	52,842	90,985	353,632	Sch. J
26	COG NON-FPO RATE CURRENT MONTH	\$1.4761	\$1.4761	\$1.4761	\$1.4761	\$1.4761	\$1.4761		(Ln 37 + Ln 17 + Ln 18 + Ln 36) / Ln 25
27	BILLED NON-FPO REVENUE - CURRENT MONTH	\$97,835	\$72,349	\$69,993	\$69,514	\$78,000	\$134,302	\$521,993	Ln 25 * Ln 26
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		
30	BILLED OTHER BLENDED REVENUE - PRIOR PERIODS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
31	TOTAL SALES	66,280	49,014	47,418	47,093	52,842	90,985	353,632	Sch. J
32	TOTAL BILLED REVENUES	\$97,835	\$72,349	\$69,993	\$69,514	\$78,000	\$134,302	\$521,993	Ln 21 + Ln 24 + Ln 27 + Ln 30
33	UNBILLED REVENUES (NET)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
34	TOTAL REVENUES	\$97,835	\$72,349	\$69,993	\$69,514	\$78,000	\$134,302	\$521,993	Ln 32 + Ln 33
35	(OVER)/UNDER COLLECTION	\$6,456	\$5,547	\$5,912	\$5,074	\$1,551	\$2,584	\$418	Ln 17 + Ln 18 - Ln 34
36	CUMULATIVE (OVER)/UNDER COLLECTION ELIGIBLE FOR INTEREST	(\$26,705)	(\$20,249)	(\$14,856)	(\$9,056)	(\$4,061)	(\$2,554)	\$9	Prior Mo Ln 36 + Ln 35 + Ln 39
37	PRIME RATE	7.75%	7.75%	7.75%	7.75%	7.75%	7.75%		
38	DAYS PER MONTH	31	30	31	31	30	31		
39	INTEREST AMOUNT	(\$155)	(\$112)	(\$79)	(\$43)	(\$21)	(\$8)	(\$418)	(Prior Mo Ln 36 + Curr Mo Ln 36) / 2 x Ln 37 / 36
40	FINAL CUMULATIVE (OVER)/UNDER COLLECTION WITH INTEREST	(\$20,403)	(\$14,968)	(\$9,135)	(\$4,104)	(\$2,575)	\$1		

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

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

LINE NO	(1) PRIOR	(2) Actual May-22	(3) Actual Jun-22	(4) Actual Jul-22	(5) Actual Aug-22	(6) Actual Sep-22	(7) Actual Oct-22	(8) Actual Nov-22	(9) Actual Dec-22	(10) Actual Jan-23	(11) Actual Feb-23	(12) Estimate Mar-23	(13) Estimate Apr-23	(14) TOTAL
PROPANE COSTS														
1	PROPANE FIRM SENDOUT (therms)													
2	COMPANY USE (therms)													
3	TOTAL PROPANE SENDOUT (therms)													
4	COST PER THERM (WACOG)	\$1.6164	\$1.6534	\$1.6395	\$1.6296	\$1.5813	\$1.5377	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	
5	TOTAL CALCULATED COST OF PROPANE	\$82,525	\$65,339	\$62,236	\$61,479	\$68,081	\$119,762	\$0	\$0	\$0	\$0	\$0	\$0	\$459,422
6	PROPANE ADJUSTMENTS	\$1	(\$0)	\$1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2
7	TOTAL COST OF PROPANE	\$82,526	\$65,339	\$62,237	\$61,479	\$68,081	\$119,762	\$0	\$0	\$0	\$0	\$0	\$0	\$459,424
CNG COSTS														
8	CNG SENDOUT (therms)													
9	COMPANY USE (therms)													
10	TOTAL CNG SENDOUT (therms)													
11	COST PER THERM													
12	TOTAL CALCULATED COST OF CNG													
13	CNG DEMAND CHARGES													
14	CNG ADJUSTMENTS													
15	JE TO MOVE COSTS FROM SUMMER TO WINTER													
16	TOTAL CALCULATED COST OF CNG PLUS DEMAND CHARGES AND ADJUSTMENTS													
17	CNG PER THERM RATE													
18	INCREMENTAL COSTS SUMMER 2019 PER Order # 26,505 in DG 20-105													
19	INCREMENTAL COSTS SUMMER 2020 PER Order # 26,505 in DG 20-105													
20	INCREMENTAL COSTS SUMMER 2021													
21	PROJECTED INCREMENTAL COSTS SUMMER 2022													
22	NET INCREMENTAL COSTS													
23	TOTAL CNG COSTS													
24	FPO PREMIUM	\$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
25	TOTAL COSTS OF GAS													
26	RETURN ON INVENTORY	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
REVENUES														
27	BILLED FPO SALES (therms)	0	0	0	0	0	0	0	0	0	0	0	0	0
28	COG FPO 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
29	BILLED FPO REVENUES	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
30	BILLED NON-FPO SALES PRIOR MONTH (therms)	0	8,515	12,315	12,903	12,654	3,665	0	0	0	0	0	0	49,952
31	COG NON-FPO RATE PRIOR MONTH	\$0.0000	\$2.4835	\$1.6220	\$2.0198	\$1.8336	\$2.0114	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$1.9203	\$97,555
32	BILLED NON-FPO REVENUES	\$0	\$21,147	\$19,976	\$25,860	\$23,202	\$7,372	\$0	\$0	\$0	\$0	\$0	\$0	\$0
33	BILLED NON-FPO SALES CURRENT MONTH (therms)	37,681	35,831	32,777	33,353	33,413	11,821	0	0	0	0	0	0	184,876
34	COG NON-FPO RATE CURRENT MONTH	\$2.4835	\$1.6220	\$2.0198	\$1.8336	\$2.0114	\$1.9203	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$1.9203	\$0.0000	\$0
35	BILLED NON-FPO REVENUES	\$93,580	\$58,118	\$66,204	\$61,156	\$67,207	\$22,700	\$0	\$0	\$0	\$0	\$0	\$0	\$368,964
36	BILLED SALES OTHER PRIOR PERIODS	180	0	4	16	(17)	1	4,336	255	90,973	4	0	0	95,752
37	COG OTHER PRIOR PERIODS BLENDED RATE	\$1.2524	\$0.0000	\$2.4825	\$1.6220	\$2.0732	\$1.8336	\$1.9259	\$1.9355	\$1.9390	(\$2.1575)	\$0.0000	\$0.0000	\$0
38	BILLED OTHER PRIOR PERIODS REVENUES	\$225	\$0	\$10	\$26	(\$35)	\$2	\$8,351	\$494	\$176,401	(\$9)	\$0	\$0	\$185,464
39	TOTAL SALES	37,860	44,346	45,097	46,172	46,049	15,487	4,336	255	90,973	4	0	0	330,580
40	TOTAL BILLED REVENUES	\$93,805	\$79,265	\$86,189	\$87,042	\$90,373	\$30,074	\$8,351	\$494	\$176,401	(\$9)	\$0	\$0	\$651,983
41	UNBILLED REVENUES (NET)	\$5,622	\$14,976	(\$12,755)	\$15,602	(\$23,444)	\$156,861	(\$156,861)	\$0	\$0	\$0	\$0	\$0	\$0
42	TOTAL REVENUES	\$99,427	\$94,240	\$73,434	\$102,643	\$66,929	\$186,935	(\$148,510)	\$494	\$176,401	(\$9)	\$0	\$0	\$651,983
43	(OVER)/UNDER COLLECTION	\$19,196	(\$49,784)	\$3,319	(\$25,544)	\$19,628	(\$44,427)	\$150,855	\$1,798	(\$174,109)	\$2,300	\$2,292	\$2,292	(\$92,185)
44	CUMULATIVE (OVER)/UNDER COLLECTION ELIGIBLE FOR INTEREST	\$63,748	\$82,944	\$33,378	\$36,888	\$11,485	\$31,226	(\$13,104)	\$137,799	\$139,917	(\$33,366)	(\$30,726)	(\$28,625)	(\$26,529)
45	PRIME RATE	3.50%	4.00%	4.75%	5.50%	5.50%	6.25%	6.25%	7.00%	7.50%	7.75%	7.75%	7.75%	
46	DAYS PER MONTH	31	30	31	31	30	31	30	31	31	28	31	30	
47	INTEREST AMOUNT	\$218	\$191	\$142	\$113	\$97	\$48	\$320	\$826	\$339	(\$191)	(\$195)	(\$176)	\$1,732
48	FINAL CUMULATIVE (OVER)/UNDER COLLECTION WITH INTEREST	\$83,162	\$33,569	\$37,030	\$11,598	\$31,323	(\$13,056)	\$138,119	\$140,743	(\$33,027)	(\$30,917)	(\$28,821)	(\$26,705)	

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

CALCULATION OF PURCHASED GAS COSTS
SUMMER PERIOD 2023

LINE NO.		May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	TOTAL
1	TOTAL REQUIRED PURCHASES	71,576	53,188	51,694	51,041	57,599	97,863	382,961
2	<u>PROPANE PURCHASE STABILIZATION PLAN DELIVERIES</u>							
3	THERMS	-	-	-	-	-	-	-
4	<u>RATES -</u>							
5	Contract Price	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	
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	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	
11	TOTAL COST - Propane Purchase Stabilization Plan Deliveries	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12	<u>AMHERST STORAGE PROPANE DELIVERIES</u>							
13	THERMS	-	-	-	-	-	-	-
14	<u>RATES - from Schedule F</u>							
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	
18	TOTAL COST - Amherst Storage Propane Deliveries	\$0	\$0	\$0	\$0	\$0	\$0	\$0
19	<u>CNG DELIVERIES</u>							
20	THERMS							
21	RATE							
22								
23	COST PER THERM							
24								
25	COST - CNG							
26	DEMAND FIXED \$110,000 Annual -- 75% Peak							
27	TOTAL CNG							
28	<u>SPOT PURCHASES</u>							
29	THERMS							
30	From Schedule E							
31	COST PER THERM							\$0.2583
32	TOTAL COST - Spot Purchases							
33	<u>OTHER ITEMS</u>							
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	<u>TOTAL</u>							
38	THERMS FROM PROPANE							
39	COST							
40	THERMS FROM CNG							
41	COST							
42	COST PER THERM	\$1.4024	\$1.4298	\$1.4469	\$1.4501	\$1.4272	\$1.4269	\$1.4285

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - 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-22	\$1.1712	+	\$0.2579	+	\$0.1000	+	\$0.0050	+	\$0.1145	=	\$1.6486	140,000	\$230,801	140,000			-\$0.1122
May-22	\$1.2281	+	\$0.2579	+	\$0.1000	+	\$0.0050	+	\$0.1145	=	\$1.7055	105,000	\$179,078	105,000			-\$0.1122
Jun-22	\$1.2414	+	\$0.2579	+	\$0.1000	+	\$0.0050	+	\$0.1145	=	\$1.7188	105,000	\$180,469	105,000			-\$0.1122
Jul-22	\$1.1515	+	\$0.2579	+	\$0.1000	+	\$0.0050	+	\$0.1145	=	\$1.6289	140,000	\$228,049	140,000			-\$0.1122
Aug-22	\$1.0323	+	\$0.2579	+	\$0.1000	+	\$0.0050	+	\$0.1145	=	\$1.5097	105,000	\$158,520	105,000			-\$0.1122
Sep-22	\$1.0203	+	\$0.2579	+	\$0.1000	+	\$0.0050	+	\$0.1145	=	\$1.4977	105,000	\$157,253	105,000			-\$0.1122
Total											700,000	\$1,134,170		700,000			-\$0.1122

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

COMPARISON OF CONTRACT COST TO HYPOTHETICAL SPOT COST
WINTER SEASON 2022-2023 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-22		92,000		\$1.2716	92,000		
Dec-22		140,000		\$1.1744	140,000		
Jan-23		165,000		\$1.4860	165,000		
Feb-23		135,000		\$1.3382	135,000		
Total							

13.4%

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

PROPANE PURCHASING STABILIZATION PLAN
PRE-PURCHASES AND DELIVERY SCHEDULE

Delivery Month	Pre-Purchases (Gallons)						
	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Total
Nov-23	18,400	13,800	13,800	18,400	13,800	13,800	92,000
Dec-23	28,000	21,000	21,000	28,000	21,000	21,000	140,000
Jan-24	33,000	24,750	24,750	33,000	24,750	24,750	165,000
Feb-24	27,000	20,250	20,250	27,000	20,250	20,250	135,000
Mar-24	21,000	15,750	15,750	21,000	15,750	15,750	105,000
Apr-24	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 (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - KEENE DIVISION

PROPANE SPOT MARKET PURCHASE COST ANALYSIS
SUMMER PERIOD 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	MAY									
2	JUN									
3	JUL									
4	AUG									
5	SEP									
6	OCT									

1. Propane futures market quotations (cmegroup.com) on 3/7/23 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
SUMMER PERIOD 2023

LINE NO.		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		<u>Therms</u>	<u>Cost</u>	<u>Therm</u>	<u>Rate Gal.</u>	<u>CNG therms</u>	<u>Cost</u>	<u>Total Sendout</u>	<u>Total Cost</u>		<u>Therm Rate</u>
1	May 2023 (Forecasted)										
2	Beginning Balance	77,606	\$122,994	\$1.5849	\$1.4502						
3	Purchases Received	57,271	\$83,994	\$1.4666	\$1.3420						
4	Total Available	134,877	\$206,988	\$1.5346	\$1.4042						
5	Less Sendout	57,271	\$87,891	\$1.5347	\$1.4042						
6	Ending Balance	77,606	\$119,097	\$1.5346	\$1.4042						
7	June 2022 (Forecasted)										
8	Beginning Balance	77,606	\$119,097	\$1.5346	\$1.4042						
9	Purchases Received	42,525	\$62,425	\$1.4680	\$1.3432						
10	Total Available	120,131	\$181,522	\$1.5110	\$1.3826						
11	Less Sendout	42,525	\$64,257	\$1.5110	\$1.3826						
12	Ending Balance	77,606	\$117,265	\$1.5110	\$1.3826						
13	July 2023 (Forecasted)										
14	Beginning Balance	77,606	\$117,265	\$1.5110	\$1.3826						
15	Purchases Received	41,354	\$60,819	\$1.4707	\$1.3457						
16	Total Available	118,960	\$178,085	\$1.4970	\$1.3698						
17	Less Sendout	41,354	\$61,908	\$1.4970	\$1.3698						
18	Ending Balance	77,606	\$116,177	\$1.4970	\$1.3698						
19	August 2023 (Forecasted)										
20	Beginning Balance	77,606	\$116,177	\$1.4970	\$1.3698						
21	Purchases Received	40,612	\$59,950	\$1.4762	\$1.3507						
22	Total Available	118,218	\$176,127	\$1.4899	\$1.3632						
23	Less Sendout	40,612	\$60,506	\$1.4899	\$1.3632						
24	Ending Balance	77,606	\$115,621	\$1.4898	\$1.3632						
25	September 2023 (Forecasted)										
26	Beginning Balance	77,606	\$115,621	\$1.4898	\$1.3632						
27	Purchases Received	45,400	\$59,950	\$1.3205	\$1.2083						
28	Total Available	123,006	\$175,571	\$1.4273	\$1.3060						
29	Less Sendout	45,400	\$64,801	\$1.4273	\$1.3060						
30	Ending Balance	77,606	\$110,770	\$1.4273	\$1.3060						
31	October 2023 (Forecasted)										
32	Beginning Balance	77,606	\$110,770	\$1.4273	\$1.3060						
33	Purchases Received	80,106	\$119,965	\$1.4976	\$1.3703						
34	Total Available	157,712	\$230,735	\$1.4630	\$1.3387						
35	Less Sendout	80,106	\$117,196	\$1.4630	\$1.3387						
36	Ending Balance	77,606	\$113,539	\$1.4630	\$1.3387						
37	AVERAGE WINTER RATE - SENDOUT										

LIBERTY UT LIT ES (ENERGYNORTH NATURAL GAS) CORP. D/B/A LIBERTY - 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 May-22	66,833	50,180	16,653	250	299	(49)	66.61	3,264	19,917	70,097	2,320	1,479	69,256
2 Jun-22	52,200	50,180	2,020	109	103	6	18.53	(111)	1,909	52,089	2,021	1,099	51,167
3 Jul-22	50,374	50,180	194	10	23	(13)	19.40	252	446	50,626	2,065	1,068	49,629
4 Aug-22	49,986	50,180	0	22	43	(21)	0.00	0	0	49,986	1,878	1,055	49,163
5 Sep-22	58,592	50,180	8,412	262	194	68	32.11	(2,183)	6,229	56,409	2,588	1,190	55,011
6 Oct-22	99,072	50,180	48,892	575	537	38	85.03	(3,231)	45,661	95,841	2,961	2,022	94,902
7													
8 Total	377,057	301,080	76,171	1,228	1,199	29		(2,009)	74,162	375,048	13,833	7,914	369,128

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)
May-22	884	12,109	6,136	5,973	250	299	(49)	23.89	1,171	7,144	13,280
Jun-22	843	6,878	6,136	742	109	103	6	6.81	(41)	701	6,837
Jul-22	862	6,230	6,136	94	10	23	(13)	9.40	122	216	6,352
Aug-22	860	6,042	6,136	0	22	43	(21)	0.00	0	0	6,042
Sep-22	862	8,528	6,136	2,392	262	194	68	9.13	(621)	1,771	7,907
Oct-22	893	19,628	6,136	13,493	575	537	38	23.47	(892)	12,601	18,737
Total		59,414	36,814	22,694	1,228	1,199	29	8.98	(260)	22,434	59,155

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)
May-22	323	51,043	41,056	9,987	250	299	(49)	39.95	1,957	11,945	53,000
Jun-22	311	42,243	41,056	1,187	109	103	6	10.89	(65)	1,122	42,177
Jul-22	319	41,060	41,056	4	10	23	(13)	0.44	6	10	41,066
Aug-22	317	41,051	41,056	0	22	43	(21)	0.00	0	0	41,051
Sep-22	318	46,294	41,056	5,239	262	194	68	20.00	(1,360)	3,879	44,935
Oct-22	313	74,455	41,056	33,399	575	537	38	58.09	(2,207)	31,192	72,248
Total		296,146	246,334	49,816	1,228	1,199	29	57.55	(1,669)	48,147	294,477

Summary - Total Summer Season Sales

	Actual 2022	Normalized
May	63,152	66,280
June	49,120	49,014
July	47,290	47,418
August	47,093	47,093
September	54,822	52,842
October	94,083	90,985
Total	355,560	353,632

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Summer May-Oct
Typical Usage - therms (1)	21	10	7	7	8	12	65
Residential Heating R-3							
Customer Charge	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34
Delivery Charge: All therms @	\$0.5632	\$0.6337	\$0.6519	\$11.83	\$5.63	\$3.94	\$4.44
Base Delivery Revenue Total	\$27.22	\$21.02	\$19.33	\$19.83	\$20.61	\$23.21	\$131.22
COG Rates	\$2.4835	\$1.6220	\$2.0198	\$1.8336	\$2.0114	\$1.9203	\$2.0689
Cost of Gas Total	\$52.15	\$16.22	\$14.14	\$12.84	\$16.09	\$23.04	\$134.48
LDAC Rates	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1318	\$0.1317
LDAC Total	\$2.77	\$1.32	\$0.92	\$0.92	\$1.05	\$1.58	\$8.56
Total Bill	\$82	\$39	\$34	\$34	\$38	\$48	\$274
	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Summer May-Oct
Typical Usage - therms (1)	21	10	7	7	8	12	65
Residential Heating R-3							
Customer Charge	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34
Delivery Charge: All therms @	\$0.6519	\$13.69	\$6.52	\$4.56	\$4.56	\$5.22	\$7.82
Base Delivery Revenue Total	\$29.08	\$21.91	\$19.95	\$19.95	\$20.61	\$23.21	\$134.71
Seasonal Base Delivery Difference from previous year							\$3.49
Seasonal Percent Change from previous year							2.7%
COG Rates	\$1.4761	\$1.4761	\$1.4761	\$1.4761	\$1.4761	\$1.4761	\$1.4760
Cost of Gas Total	\$31.00	\$14.76	\$10.33	\$10.33	\$11.81	\$17.71	\$95.94
Seasonal COG Difference from previous year							-\$38.54
Seasonal Percent Change from previous year							-28.7%
LDAC Rates	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1114
LDAC Total	\$2.34	\$1.11	\$0.78	\$0.78	\$0.89	\$1.34	\$7.24
Seasonal LDAC Difference from previous year							-\$1.32
Seasonal Percent Change from previous year							-15.4%
Total Bill	\$62	\$38	\$31	\$31	\$33	\$42	\$237.89
Seasonal Total Bill Difference from previous year							-\$36.37
Seasonal Percent Change from previous year							-13.3%
Seasonal Percent Change resulting from COG							-14.1%
Seasonal Percent Change resulting from LDAC							-0.5%

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

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Winter Nov-Apr
Typical Usage - therms	67	30	22	20	27	40	206
Commercial G-41	May-22-Jul-22	Aug-22	Sep-22-Oct-22				
Customer Charge	\$57.06	\$62.03	\$62.03	\$57.06	\$57.06	\$57.06	\$342.36
Delivery Charge: First 20 therms @	\$0.4688	\$0.5007	\$0.5088	\$9.38	\$10.01	\$10.18	\$58.51
Over 20 therms @	\$0.3149	\$0.3469	\$0.3550	\$14.80	\$2.49	\$7.10	\$28.17
Base Delivery Revenue Total	\$81.24	\$69.59	\$67.07	\$67.07	\$69.73	\$74.34	\$429.04
COG Rates	\$2.4835	\$1.6220	\$2.0198	\$1.8336	\$2.0114	\$1.9203	\$2.0742
Cost of Gas Total	\$166.39	\$48.66	\$44.44	\$36.67	\$54.31	\$76.81	\$427.28
LDAC Rates	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991	\$0.0991
LDAC Total	\$6.64	\$2.97	\$2.18	\$1.98	\$2.68	\$3.96	\$20.41
Total Bill	\$254	\$121	\$114	\$106	\$127	\$155	\$877
	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Winter Nov-Apr
Typical Usage - therms	67	30	22	20	27	40	206
Commercial G-41							
Customer Charge	\$63.30	\$63.30	\$63.30	\$63.30	\$63.30	\$63.30	\$379.80
Delivery Charge: First 20 therms @	\$0.5088	\$10.18	\$10.18	\$10.18	\$10.18	\$10.18	\$61.08
Over 20 therms @	\$0.3550	\$14.80	\$3.15	\$0.63	\$0.00	\$2.20	\$6.30
Base Delivery Revenue Total	\$88.28	\$76.63	\$74.11	\$73.48	\$75.68	\$79.78	\$467.96
Seasonal Base Delivery Difference from previous year							\$38.92
Seasonal Percent Change from previous year							9.1%
COG Rates	\$1.4761	\$1.4761	\$1.4761	\$1.4761	\$1.4761	\$1.4761	\$1.4760
Cost of Gas Total	\$98.90	\$44.28	\$32.47	\$29.52	\$39.85	\$59.04	\$304.06
Seasonal COG Difference from previous year							-\$123.22
Seasonal Percent Change from previous year							-28.8%
LDAC Rates	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890
LDAC Total	\$5.96	\$2.67	\$1.96	\$1.78	\$2.40	\$3.56	\$18.33
Seasonal LDAC Difference from previous year							-\$2.08
Seasonal Percent Change from previous year							-10.2%
Total Bill	\$193	\$124	\$109	\$105	\$118	\$142	\$790
Seasonal Total Bill Difference from previous year							-\$86.38
Seasonal Percent Change from previous year							-9.9%
Seasonal Percent Change resulting from COG							-14.1%
Seasonal Percent Change resulting from LDAC							-0.2%

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

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Projected	Projected	Projected	Projected	Projected	Projected	
	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	
1 CNG PURCHASES							
2 CNG Volumes (Schedule C Filing)							
3							
4 CNG Costs (Schedule C Filing)							
5 Total Cost per Actual CNG Costs (Schedule C Filing)							
6							
7 CNG Cost Per Therm Actual							
8							
9 SPOT PROPANE PURCHASES							
10 Spot Propane Volumes (Schedule C Reconciliation)							
11							
12 Total Costs Spot Propane							
13 Total Cost Spot Propane							
14							
15 Spot Propane Cost Per Therm Actual							
16							
17							
18							
19 CNG Volumes							
20 Price difference CNG vs Spot Propane							
21 Adj. for rounding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0.0000
22 Incremental Costs Propane	\$ 4,598	\$ 2,033	\$ 1,229	\$ 1,332	\$ 3,399	\$ 6,921	\$19,511
23							
24							
25							
						50% if CNG higher	2
						Allowed Recoverable Costs	\$ 19,511

Incremental CNG Supply Costs through October 2022
Amount to be Recovered/(Refunded) Through Keene COG Rates

	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H
1	CNG Increment Cost/Saving Risk Sharing - 50% Shareholder/Ratepayers							
2	Incremental CNG Supply Costs - October 2019 thru October 2022							
3	COG Period	Year	Incremental Cost/(Savings) Amount	Allowed Recoverable Amount from Customers due to Higher/(Lower) CNG vs Propane Costs	Incremental Costs Not Recoverable/D eferred	Incremental Costs not Recovered Balance	(Refund)/Charge	
4	Summer (DG 20-105 Settlement Agre	2019	5,048	2,524	2,524	2,524	(2,524)	Propane Cheaper
5	Summer (DG 20-105 Settlement Agre	2020	16,214	8,107	8,107	10,631	8,107	Propane Cheaper
6	Summer (DG 21-050 Recon)	2021	(13,026)	(10,631)	(2,395)	(2,395)	10,631	CNG Cheaper tha
7	Summer (DG 22-015 Recon)	2022	5,012	2,506	2,506	111	(2,506)	Propane Cheaper
8	Summer 2023 projected	2023	(19,511)	(111)	(19,400)	(19,400)	111	

