

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

DG 23-076

Winter 2023/2024 Cost of Gas (Supply) and Summer 2024 Cost of Gas (Supply)

RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23  
Request No. DOE 1-1 (COG)

Date of Response: 9/18/23  
Respondent: James King

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**REQUEST:**

Reference: Liberty's August-September 2023 filing

Please provide all live Excel files that correspond to all the tables and schedules included in the Company's Winter 2022-23 and Summer 2023 COG and LDAC filings. "Live" files should include the formulas and allow the user to input new figures, if needed. If such Excel files are already provided, please identify the date and time of the email(s).

**RESPONSE:**

The confidential Excel model support for the Company's COG filing was submitted via email by Michael Sheehan on September 1, 2023, at 4:30 PM.

The confidential Excel model support for the Company's LDAC filing was submitted via email by Maureen Karpf on August 21, 2023, at 7:05 PM.

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

DG 23-076

Winter 2023/2024 Cost of Gas (Supply) and Summer 2024 Cost of Gas (Supply)

RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23  
Request No. DOE 1-2 (COG)

Date of Response: 9/18/23  
Respondent: James King

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**REQUEST:**

Reference: Liberty's August-September 2023 filing

In evaluating Liberty's filing, the DOE requires an "apples to apples" comparison between last year's COG approved rates and the Liberty's proposed rates, including over/under calculations and forecasting. Please provide the following:

- A. Please cross-reference the schedules and tables provided in Liberty's current August-September filing with the schedules and tables Liberty filed in Docket No. DG 22-045 as of October 10, 2023 (wherein rates reflected "carve outs" for RDAF and GasHolder). Please identify any changed assumption, categories or formula Liberty has made in this filing as compared to the DG 22-045 filing ultimately approved by the Commission Order No. 26,715 and 26,737.
- B. Liberty's testimony purports to provide a comparison of Winter 2022-2023 rates and the proposed Winter 2023-2024 rates based upon "rates effective November 1, 2023." See Culbertson & King Testimony at 007. It further appears that Liberty's rates include what Liberty has identified as an anticipated RDAF under-collection for an "uncollected" amount from decoupling year 3 and an RDAF under collection all of decoupling year 4. Those values remain in dispute. Liberty's proposed rates seem to include Gas Holder expenses that were "carved out" of November rates. See Dockets No. DG 22-041 and DG 22-045. Please comment and confirm and/or explain.
- C. Given that the rates effective November 1, 2023 were updated by the Commission on November 30, 2023 (in light of Liberty's self-directed changes) and given that the COG Supply and LDAC processes have been newly divided, please provide a comparison of the proposed Winter rates and the 2022-2023 Winter rates based on the November 1, 2023 and November 30, 2023 Order. (See Culbertson and King Testimony at 016 comparing Summer Rates to rates in effect per Order No. 26,715 and 26,737). This comparison should include the following tables and a brief narrative description similar to the description provided in Liberty's initial testimony, adjusted to reflect the updated calculations.

Please provide a table for such as the one provided in Culbertson and King Testimony at 007, including a row for the FPO rates, for the following: i) the overall rates for each category of rate class including COG and LDAC, ii) the LDAC rates for each category of rate class, and iii) the COG (Supply) rates for each category of rate class. Please identify whether C&I G41 and G42 are what Liberty generically describes as “low winter use” or “high winter use.” Please identify whether C&I G 52 is “low winter use” or high winter use.” See Order No. 26,715 and Order no. 26,737 (including but not limited to Liberty’s correction of miscategorizing low-use and high-use rate classes). Please provide the same tables for the Summer COG period.

- D. Do Liberty’s proposed rate calculations include what Liberty states is a decoupling year under-collection of approximately \$4 million stemming from decoupling year 1 and 2? See Docket No. DG 22-041.

**RESPONSE:**

- A. The COG calculations are not impacted by the calculations which reflected “carve outs” for RDAF and GasHolder. The COG calculations in the current filing remain consistent with the Company’s tariff.
- B. The Company is requesting recovery of the RDAF amounts and Gas Holder expenses and thus believes that including the RDAF amounts in dispute and the Gas Holder expenses that were “carved out” is consistent with the tariff and provides a more accurate depiction of the rates, consistent with the tariff. The Company is open to discussion on how to best reflect these amounts in final rates.
- C. Please see Attachment 23-076 DOE 1-2.c.xlsx for the requested comparisons.

In the Company’s Tariff, the below classes are identified as follows:

G-41 Commercial/Industrial Service: Low Annual Use, High Winter Use  
G-42 Commercial/Industrial Service: Medium Annual Use, High Winter Use  
G-52 Commercial/Industrial Service: Medium Annual Use, Low Winter Use

- D. No. The Company did not include the under-collection of approximately \$4M stemming from decoupling years 1 and 2 consistent with the prior year’s filing.

Winter

	COG Rates Effective November 1, 2022 (Order No. 26,715)	Max COG Rates Effective November 1, 2022 (Order No. 26,715)	LDAC Rates Effective November 1, 2022 (Order No. 26,715)	Combined COG + LDAC (Order No. 26,715)	COG Rates Effective November 1, 2022 (Order No. 26,737)	Max COG Rates Effective November 1, 2022 (Order No. 26,737)	LDAC Rates Effective November 1, 2022 (Order No. 26,737)	Combined COG + LDAC (Order No. 26,737)	November 1, 2023, COG Proposed Rate	Max Winter 23/24 COG Rate	LDAC Rate November 1, 2023 (Currently Effective)	Combined COG + LDAC November 1, 2023	Change (26,715 to proposed)	% Change (26,715 to proposed)	Change (26,737 to proposed)	% Change (26,737 to proposed)
Residential - R3	\$1.4300	\$1.7875	\$0.1110	\$1.5410	\$1.4300	\$1.7875	\$0.1086	\$1.5386	\$0.6175	\$0.7719	\$0.1180	\$0.7355	(\$0.8055)	-52%	(\$0.8031)	-52%
Residential FPO	\$1.4500	n/a	\$0.1110	\$1.5610	\$1.4500	n/a	\$0.1086	\$1.5586	\$0.6375	n/a	\$0.1180	\$0.7555	(\$0.8055)	-52%	(\$0.8031)	-52%
C&I - G41	\$1.4301	\$1.7876	\$0.0888	\$1.5189	\$1.4301	\$1.7876	\$0.0872	\$1.5173	\$0.6173	\$0.7716	\$0.0957	\$0.7138	(\$0.8059)	-53%	(\$0.8043)	-53%
C&I - G42	\$1.4301	\$1.7876	\$0.0888	\$1.5189	\$1.4301	\$1.7876	\$0.0872	\$1.5173	\$0.6173	\$0.7716	\$0.0957	\$0.7138	(\$0.8059)	-53%	(\$0.8043)	-53%
C&I - G52	\$1.4296	\$1.7870	\$0.0888	\$1.5184	\$1.4296	\$1.7870	\$0.0872	\$1.5168	\$0.6185	\$0.7731	\$0.0957	\$0.7142	(\$0.8042)	-53%	(\$0.8026)	-53%

Summer

	COG Rates Effective May 1, 2023 (Order No. 26,715)	Max COG Rates Effective May 1, 2023 (Order No. 26,715)	LDAC Rates Effective May 1, 2023 (Order No. 26,715)	Combined COG + LDAC (Order No. 26,715)	COG Rates Effective May 1, 2023 (Order No. 26,737)	Max COG Rates Effective May 1, 2023 (Order No. 26,737)	LDAC Rates Effective May 1, 2023 (Order No. 26,737)	Combined COG + LDAC (Order No. 26,737)	May 1, 2024, Proposed Rate	Max Summer COG Rate	LDAC Rate May 1, 2023	Combined COG + LDAC May 1, 2024	Change	% Change	Change	% Change
Residential - R3	\$1.0269	\$1.2836	\$0.1110	\$1.1379	\$1.0269	\$1.2836	\$0.1086	\$1.1355	\$0.6267	\$0.7845	\$0.2006	\$0.8273	(\$0.3106)	-27%	(\$0.3082)	-27%
C&I - G41	\$1.0271	\$1.2839	\$0.0888	\$1.1159	\$1.0271	\$1.2839	\$0.0872	\$1.1143	\$0.6261	\$0.7826	\$0.0890	\$0.7151	(\$0.4008)	-36%	(\$0.3992)	-36%
C&I - G42	\$1.0271	\$1.2839	\$0.0888	\$1.1159	\$1.0271	\$1.2839	\$0.0872	\$1.1143	\$0.6261	\$0.7826	\$0.0890	\$0.7151	(\$0.4008)	-36%	(\$0.3992)	-36%
C&I - G52	\$1.0266	\$1.2833	\$0.0888	\$1.1154	\$1.0266	\$1.2833	\$0.0872	\$1.1128	\$0.6273	\$0.7841	\$0.0890	\$0.7163	(\$0.3991)	-36%	(\$0.3975)	-36%

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DG 23-076

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RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23  
Request No. DOE 1-3 (COG)

Date of Response: 9/18/23  
Respondent: James King

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**REQUEST:**

Reference: Liberty's August-September 2023 filing

Liberty has provided "customer bill impacts of the proposed firm sales cost of gas rate on an average heating customer's winter bill as compared to the winter rates in effect last year." See Culbertson and King Testimony at 012. Please provide tables for "Customer Bill Impacts" for:

- i. combined LDAC and COG rates;
- ii. just LDAC rates;
- iii. just COG Supply rates.

Are the assumptions, methodology(ies) and formula Liberty applied in this docket identical to the assumptions, methodology(ies) and formula applied by the Company in calculating customer bill impacts in Docket No. DG. 22-045? Please explain in detail.

Please provide the same tables for the Summer 2024 period.

**RESPONSE:**

- i. Please See Pk Schedule 8 and OP Schedule 8 as filed on September 1, 2023. These customer bill impacts take into account the separation of the COG and LDAC costs and reflect LDAC changes on the dates prescribed in Docket No. DG 23-027.
- ii. Please see Schedule 8 of the LDAC filing as filed on August 21, 2023, for just LDAC rates.
- iii. Please see Attachment 23-076 DOE 1-3.xlsx. The attachment includes revised PK Schedule 8 and OP Schedule 8 to exclude any changes in the LDAC rate from the currently effective LDAC rates.

The calculations of the bill impacts remain largely unchanged from those used in the calculation of customer bill impacts in Docket No. DG 22-045. The only change from the prior docket is an

Docket No. DG 23-076 Request No. DOE 1-3 (COG)

update to the “Typical Usage (Therms).” The Company updated the usage to reflect the forecast for the typical customer usage for November 2023 through October 2024.

Annual Bill Comparisons, Nov 22 - Apr 23 Actual Rates vs Nov 23 - Apr 24

1 Non FPO Rate

2 November 1, 2023 - April 30, 2024

3 Residential Heating (R3)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
4 PROPOSED		Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter Nov-Apr
5		84	118	137	131	104	66	640
6 average Usage (Therms)	9/1/2023 - Current							
7								
8 Winter:								
9 Cust. Chg	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 92.34
10 Headblock	\$ 0.6167							
11 Tailblock	\$ 0.6167	\$ 52.01	\$ 73.04	\$ 84.37	\$ 80.54	\$ 64.03	\$ 40.68	\$ 394.68
12 HB Threshold	-							
13								
20 Total Base Rate Amount		\$ 67.40	\$ 88.43	\$ 99.76	\$ 95.93	\$ 79.42	\$ 56.07	\$ 487.02
21								
22 COG Rate - (Seasonal)		\$ 0.6175	\$ 0.6175	\$ 0.6175	\$ 0.6175	\$ 0.6175	\$ 0.6175	\$ 0.6175
23 COG amount		\$ 52.08	\$ 73.13	\$ 84.48	\$ 80.65	\$ 64.11	\$ 40.74	\$ 395.19
24								
25 LDAC		\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180
26 LDAC amount		\$ 9.95	\$ 13.98	\$ 16.14	\$ 15.41	\$ 12.25	\$ 7.78	\$ 75.52
27								
28 Total Bill		\$ 129.44	\$ 175.54	\$ 200.39	\$ 191.99	\$ 155.78	\$ 104.59	\$ 957.72

29 November 1, 2022 - April 30, 2023

31 Residential Heating (R3)

32 CURRENT		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr
33		84	118	137	131	104	66	640
34 average Usage (Therms)								
35								
36 Winter:	9/1/2022 - 7/31/2023 9/1/2023 - Current							
37 Cust. Chg	\$ 15.39 \$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 92.34
38 Headblock	\$ 0.6519 \$ 0.6167							
39 Tailblock	\$ 0.6519 \$ 0.6167	\$ 54.98	\$ 77.21	\$ 89.19	\$ 85.14	\$ 67.68	\$ 43.00	\$ 417.20
40 HB Threshold	- -							
41								
48 Total Base Rate Amount		\$ 70.37	\$ 92.60	\$ 104.58	\$ 100.53	\$ 83.07	\$ 58.39	\$ 509.54
49								
50 COG Rate - (Seasonal)		\$ 1.4300	\$ 1.2551	\$ 1.3292	\$ 0.4525	\$ 0.2443	\$ 0.1326	\$ 0.8505
51 COG amount		\$ 120.61	\$ 148.65	\$ 181.86	\$ 59.10	\$ 25.36	\$ 8.75	\$ 544.32
52								
53 LDAC		\$ 0.1086	\$ 0.1086	\$ 0.1113	\$ 0.1113	\$ 0.1113	\$ 0.1113	\$ 0.1104
54 LDAC amount		\$ 9.16	\$ 12.86	\$ 15.23	\$ 14.54	\$ 11.56	\$ 7.34	\$ 70.68
55								
56 Total Bill		\$ 200.14	\$ 254.10	\$ 301.66	\$ 174.16	\$ 119.99	\$ 74.48	\$ 1,124.55

57 DIFFERENCE:

58 Total Bill		(\$70.70)	(\$78.57)	(\$101.27)	\$17.83	\$35.79	\$30.11	(\$166.82)
59 % Change		-35.33%	-30.92%	-33.57%	10.24%	29.83%	40.42%	-14.83%
60								
61 Base Rate		\$ (2.97)	\$ (4.17)	\$ (4.82)	\$ (4.60)	\$ (3.65)	\$ (2.32)	\$ (22.53)
62 % Change		-4.22%	-4.50%	-4.60%	-4.57%	-4.40%	-3.98%	-4.42%
63								
64 COG & LDAC		\$ (67.74)	\$ (74.40)	\$ (96.46)	\$ 22.42	\$ 39.44	\$ 32.43	\$ (144.29)
65 % Change		-52.20%	-46.07%	-48.94%	30.45%	106.83%	201.56%	-23.46%
66								

## Annual Bill Comparisons, Nov 22 - Apr 23 Actual Rates vs Nov 23 - Apr 24

## 1 FPO Rate

## 2 November 1, 2023 - April 30, 2024

## 3 Residential Heating (R3-FPO)

## 4 PROPOSED

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter Nov-Apr
5		84	118	137	131	104	66	640
6	average Usage (Therms)							
7	9/1/2023 - Current							
8	Winter:							
9	Cust. Chg \$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 92.34
10	Headblock \$ 0.6167							
11	Tailblock \$ 0.6167	\$ 52.01	\$ 73.04	\$ 84.37	\$ 80.54	\$ 64.03	\$ 40.68	\$ 394.68
12	HB Threshold -							
13								
20	Total Base Rate Amount	\$ 67.40	\$ 88.43	\$ 99.76	\$ 95.93	\$ 79.42	\$ 56.07	\$ 487.02
21								
22	COG Rate - (Seasonal)	\$ 0.6375	\$ 0.6375	\$ 0.6375	\$ 0.6375	\$ 0.6375	\$ 0.6375	\$ 0.6375
23	COG amount	\$ 53.77	\$ 75.50	\$ 87.22	\$ 83.26	\$ 66.19	\$ 42.05	\$ 407.99
24								
25	LDAC	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180
26	LDAC amount	\$ 9.95	\$ 13.98	\$ 16.14	\$ 15.41	\$ 12.25	\$ 7.78	\$ 75.52
27								
28	Total Bill	\$ 131.12	\$ 177.90	\$ 203.13	\$ 194.60	\$ 157.86	\$ 105.91	\$ 970.52

## 29 November 1, 2022 - April 30, 2023

## 31 Residential Heating (R3-FPO)

## 32 CURRENT

		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr
33		84	118	137	131	104	66	640
34	average Usage (Therms)							
35								
36	Winter:							
37	Cust. Chg \$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 92.34
38	Headblock \$ 0.6519							
39	Tailblock \$ 0.6519	\$ 54.98	\$ 77.21	\$ 89.19	\$ 85.14	\$ 67.68	\$ 43.00	\$ 417.20
40	HB Threshold -							
41								
48	Total Base Rate Amount	\$ 70.37	\$ 92.60	\$ 104.58	\$ 100.53	\$ 83.07	\$ 58.39	\$ 509.54
49								
50	COG Rate - (Seasonal)	\$ 1.4500	\$ 1.4500	\$ 1.4500	\$ 1.4500	\$ 1.4500	\$ 1.4500	\$ 1.4500
51	COG amount	\$ 122.30	\$ 171.73	\$ 198.38	\$ 189.37	\$ 150.54	\$ 95.65	\$ 927.97
52								
53	LDAC	\$ 0.1086	\$ 0.1086	\$ 0.1113	\$ 0.1113	\$ 0.1113	\$ 0.1113	\$ 0.1104
54	LDAC amount	\$ 9.16	\$ 12.86	\$ 15.23	\$ 14.54	\$ 11.56	\$ 7.34	\$ 70.68
55								
56	Total Bill	\$ 201.83	\$ 277.19	\$ 318.19	\$ 304.43	\$ 245.17	\$ 161.39	\$ 1,508.20

## 57 DIFFERENCE:

58	Total Bill	(\$70.70)	(\$99.28)	(\$115.06)	(\$109.83)	(\$87.31)	(\$55.48)	(\$537.68)
59	% Change	-35.03%	-35.82%	-36.16%	-36.08%	-35.61%	-34.38%	-35.65%
60								
61								
62	Base Rate	\$ (2.97)	\$ (4.17)	\$ (4.82)	\$ (4.60)	\$ (3.65)	\$ (2.32)	\$ (22.53)
63	% Change	-4.22%	-4.50%	-4.60%	-4.57%	-4.40%	-3.98%	-4.42%
64								
65	COG & LDAC	\$ (67.74)	\$ (95.11)	\$ (110.25)	\$ (105.24)	\$ (83.66)	\$ (53.16)	\$ (515.15)
66	% Change	-51.53%	-51.53%	-51.61%	-51.61%	-51.61%	-51.61%	-51.58%



Annual Bill Comparisons, Nov 22 - Apr 23 Actual Rates vs Nov 23 - Apr 24

1 GAP Rate

2 November 1, 2023 - April 30, 2024

3 Residential Heating (R4-GAP)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
4 PROPOSED		Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter Nov-Apr
5		84	118	137	131	104	66	640
6 average Usage (Therms)								
7	11/1/2023							
8 Winter:								
9 Cust. Chg	\$ 8.47	\$ 8.47	\$ 8.47	\$ 8.47	\$ 8.47	\$ 8.47	\$ 8.47	\$ 50.82
10 Headblock	\$ 0.3392							
11 Tailblock	\$ 0.3392	\$ 28.61	\$ 40.17	\$ 46.41	\$ 44.30	\$ 35.22	\$ 22.38	\$ 217.08
12 HB Threshold	-							
13								
20 Total Base Rate Amount		\$ 37.08	\$ 48.64	\$ 54.88	\$ 52.77	\$ 43.69	\$ 30.85	\$ 267.90
21								
22 COG Rate - (Seasonal)		\$ 0.3396	\$ 0.3396	\$ 0.3396	\$ 0.3396	\$ 0.3396	\$ 0.3396	\$ 0.3396
23 COG amount		\$ 28.64	\$ 40.22	\$ 46.47	\$ 44.36	\$ 35.26	\$ 22.40	\$ 217.35
24								
25 LDAC		\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180
26 LDAC amount		\$ 9.95	\$ 13.98	\$ 16.14	\$ 15.41	\$ 12.25	\$ 7.78	\$ 75.52
27								
28 Total Bill		\$ 75.68	\$ 102.84	\$ 117.49	\$ 112.54	\$ 91.20	\$ 61.03	\$ 560.77

29 November 1, 2022 - April 30, 2023

31 Residential Heating (R4-GAP)

32 CURRENT		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr
33		84	118	137	131	104	66	640
34 average Usage (Therms)								
35								
36 Winter:	11/1/22 to 4/30/23	11/1/23 to 4/30/24						
37 Cust. Chg	\$ 8.47	\$ 8.47	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 92.34
38 Headblock	\$ 0.3585	\$ 0.3392						
39 Tailblock	\$ 0.3585	\$ 0.3392	\$ 54.98	\$ 77.21	\$ 89.19	\$ 85.14	\$ 67.68	\$ 417.20
40 HB Threshold	-	-						
41								
48 Total Base Rate Amount		\$ 70.37	\$ 92.60	\$ 104.58	\$ 100.53	\$ 83.07	\$ 58.39	\$ 509.54
49								
50 COG Rate - (Seasonal)		\$ 0.7865	\$ 0.6903	\$ 0.7311	\$ 0.2489	\$ 0.1344	\$ 0.0729	\$ 0.4678
51 COG amount		\$ 66.34	\$ 81.76	\$ 100.02	\$ 32.50	\$ 13.95	\$ 4.81	\$ 299.38
52								
53 LDAC		\$ 0.1086	\$ 0.1086	\$ 0.1113	\$ 0.1113	\$ 0.1113	\$ 0.1113	\$ 0.1104
54 LDAC amount		\$ 9.16	\$ 12.86	\$ 15.23	\$ 14.54	\$ 11.56	\$ 7.34	\$ 70.68
55								
56 Total Bill		\$ 145.87	\$ 187.21	\$ 219.83	\$ 147.57	\$ 108.58	\$ 70.55	\$ 879.60

57 DIFFERENCE:

58 Total Bill		(\$70.19)	(\$84.37)	(\$102.34)	(\$35.03)	(\$17.38)	(\$9.51)	(\$318.83)
59 % Change		-48.12%	-45.07%	-46.55%	-23.74%	-16.01%	-13.48%	-36.25%
60								
61 Base Rate		\$ (33.29)	\$ (43.95)	\$ (49.70)	\$ (47.76)	\$ (39.39)	\$ (27.55)	\$ (241.64)
62 % Change		-47.31%	-47.47%	-47.53%	-47.51%	-47.41%	-47.18%	-47.42%
63								
64 COG & LDAC		\$ (36.90)	\$ (40.42)	\$ (52.64)	\$ 12.73	\$ 22.01	\$ 18.04	\$ (77.19)
65 % Change		-48.87%	-42.72%	-45.67%	27.06%	86.28%	148.40%	-20.86%
66								

1 Annual Bill Comparisons, Nov 22 - Apr 23 Actual Rates vs Nov 23 - Apr 24

2 November 1, 2023 - April 30, 2024

3 Commercial Rate (G-41)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
4	<b>PROPOSED</b>							
5		<b>Nov-23</b>	<b>Dec-23</b>	<b>Jan-24</b>	<b>Feb-24</b>	<b>Mar-24</b>	<b>Apr-24</b>	<b>Winter</b>
6	<b>average Usage (Therms)</b>	261	390	482	458	334	185	<b>Nov-Apr</b>
7								2,111
8	<b>Winter:</b>							
9	Cust. Chg	\$ 60.81	\$ 60.81	\$ 60.81	\$ 60.81	\$ 60.81	\$ 60.81	\$ 364.86
10	Headblock	\$ 0.4928	\$ 0.4928	\$ 0.4928	\$ 0.4928	\$ 0.4928	\$ 0.4928	\$ 295.68
11	Tailblock	\$ 0.3390	\$ 0.3390	\$ 0.3390	\$ 0.3390	\$ 0.3390	\$ 0.3390	\$ 512.12
12	HB Threshold	100						
13								
20	Total Base Rate Amount	\$ 164.62	\$ 208.51	\$ 239.56	\$ 231.53	\$ 189.55	\$ 138.90	\$ 1,172.66
21								
22	COG Rate - (Seasonal)	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173
23	COG amount	\$ 161.02	\$ 240.94	\$ 297.48	\$ 282.86	\$ 206.43	\$ 114.20	\$ 1,302.93
24								
25	LDAC	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957
26	LDAC amount	\$ 24.96	\$ 37.35	\$ 46.12	\$ 43.85	\$ 32.00	\$ 17.70	\$ 201.99
27								
28	<b>Total Bill</b>	<b>\$350.60</b>	<b>\$486.80</b>	<b>\$583.16</b>	<b>\$558.23</b>	<b>\$427.99</b>	<b>\$270.81</b>	<b>\$2,677.59</b>

29  
30 November 1, 2022 - April 30, 2023

31 Commercial Rate (G-41)

32	<b>CURRENT</b>							
33		<b>Nov-22</b>	<b>Dec-22</b>	<b>Jan-23</b>	<b>Feb-23</b>	<b>Mar-23</b>	<b>Apr-23</b>	<b>Winter</b>
34	<b>average Usage (Therms)</b>	261	390	482	458	334	185	<b>Nov-Apr</b>
35								2,111
36	<b>Winter:</b>							
37	Cust. Chg	\$ 63.30	\$ 63.30	\$ 63.30	\$ 63.30	\$ 63.30	\$ 63.30	\$ 379.80
38	Headblock	\$ 0.5088	\$ 0.5088	\$ 0.5088	\$ 0.5088	\$ 0.5088	\$ 0.5088	\$ 254.40
39	Tailblock	\$ 0.3550	\$ 0.3550	\$ 0.3550	\$ 0.3550	\$ 0.3550	\$ 0.3550	\$ 536.29
40	HB Threshold	100	100					
41								
48	Total Base Rate Amount	\$ 120.40	\$ 217.24	\$ 249.76	\$ 241.35	\$ 197.39	\$ 144.35	\$ 1,170.49
49								
50	COG Rate - (Seasonal)	\$ 1.4301	\$ 1.2552	\$ 1.3293	\$ 0.4526	\$ 0.2444	\$ 0.1327	\$ 0.8610
51	COG amount	\$ 373.04	\$ 489.93	\$ 640.60	\$ 207.39	\$ 81.73	\$ 24.55	\$ 1,817.23
52								
53	LDAC	\$ 0.0872	\$ 0.0872	\$ 0.0890	\$ 0.0890	\$ 0.0890	\$ 0.0890	\$ 0.0884
54	LDAC amount	\$ 22.75	\$ 34.04	\$ 42.89	\$ 40.78	\$ 29.76	\$ 16.46	\$ 186.68
55								
56	<b>Total Bill</b>	<b>\$516.18</b>	<b>\$741.21</b>	<b>\$933.24</b>	<b>\$489.52</b>	<b>\$308.89</b>	<b>\$185.37</b>	<b>\$3,174.40</b>

57  
58 **DIFFERENCE:**

59	<b>Total Bill</b>	\$ (165.58)	\$ (254.40)	\$ (350.09)	\$ 68.72	\$ 119.10	\$ 85.44	\$ (496.82)
60	% Change	-32.08%	-34.32%	-37.51%	14.04%	38.56%	46.09%	-15.65%
61								
62	<b>Base Rate</b>	\$ 44.22	\$ (8.74)	\$ (10.20)	\$ (9.82)	\$ (7.84)	\$ (5.45)	\$ 2.17
63	% Change	36.72%	-4.02%	-4.08%	-4.07%	-3.97%	-3.78%	0.19%
64								
65	<b>COG &amp; LDAC</b>	\$ (209.80)	\$ (245.67)	\$ (339.89)	\$ 78.54	\$ 126.94	\$ 90.89	\$ (498.99)
66	% Change	-53.01%	-46.89%	-49.73%	31.65%	113.86%	221.61%	-24.90%

1 Annual Bill Comparisons, Nov 22 - Apr 23 Actual Rates vs Nov 23 - Apr 24

2 November 1, 2023 - April 30, 2024

3 C&I High Winter Use Medium G-42

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
4 PROPOSED		Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter Nov-Apr
5		2,543	3,519	4,174	3,998	3,106	1,898	19,238
6 average Usage (Therms)								
7	9/1/2023 - Current							
8 Winter:								
9 Cust. Chg	\$ 182.42	\$ 182.42	\$ 182.42	\$ 182.42	\$ 182.42	\$ 182.42	\$ 182.42	\$ 1,094.52
10 Headblock	\$ 0.4485	\$ 448.50	\$ 448.50	\$ 448.50	\$ 448.50	\$ 448.50	\$ 448.50	\$ 2,691.00
11 Tailblock	\$ 0.3063	\$ 472.62	\$ 771.46	\$ 972.35	\$ 918.33	\$ 645.02	\$ 274.94	\$ 4,054.72
12 HB Threshold	1,000							
13								
20 Total Base Rate Amount		\$ 1,103.54	\$ 1,402.38	\$ 1,603.27	\$ 1,549.25	\$ 1,275.94	\$ 905.86	\$ 7,840.24
21								
22 COG Rate - (Seasonal)		\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173
23 COG amount		\$ 1,569.80	\$ 2,172.06	\$ 2,576.92	\$ 2,468.04	\$ 1,917.23	\$ 1,171.40	\$ 11,875.46
24								
25 LDAC		\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957
26 LDAC amount		\$ 243.37	\$ 336.74	\$ 399.50	\$ 382.62	\$ 297.23	\$ 181.60	\$ 1,841.05
27								
28 Total Bill		\$ 2,916.71	\$ 3,911.18	\$ 4,579.69	\$ 4,399.91	\$ 3,490.40	\$ 2,258.87	\$ 21,556.76

29 November 1, 2022 - April 30, 2023

31 C&I High Winter Use Medium G-42

		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr
32 CURRENT		2,543	3,519	4,174	3,998	3,106	1,898	19,238
33								
34 average Usage (Therms)								
35								
36 Winter:	9/1/2022 - 7/31/2023 9/1/2023 - Current							
37 Cust. Chg	\$ 189.84 \$ 182.42	\$ 189.84	\$ 189.84	\$ 189.84	\$ 189.84	\$ 189.84	\$ 189.84	\$ 1,139.04
38 Headblock	\$ 0.4634 \$ 0.4485	\$ 463.40	\$ 463.40	\$ 463.40	\$ 463.40	\$ 463.40	\$ 463.40	\$ 2,780.40
39 Tailblock	\$ 0.3212 \$ 0.3063	\$ 495.62	\$ 808.99	\$ 1,019.65	\$ 963.00	\$ 676.39	\$ 288.32	\$ 4,251.97
40 HB Threshold	1,000 1,000							
41								
48 Total Base Rate Amount		\$ 1,148.86	\$ 1,462.23	\$ 1,672.89	\$ 1,616.24	\$ 1,329.63	\$ 941.56	\$ 8,171.41
49								
50 COG Rate - (Seasonal)		\$ 1.4301	\$ 1.2552	\$ 1.3293	\$ 0.4526	\$ 0.2444	\$ 0.1327	\$0.8537
51 COG amount		\$ 3,636.76	\$ 4,416.61	\$ 5,549.16	\$ 1,809.55	\$ 759.07	\$ 251.81	\$ 16,422.97
52								
53 LDAC		\$ 0.0872	\$ 0.0872	\$ 0.0890	\$ 0.0890	\$ 0.0890	\$ 0.0890	0.0884
54 LDAC amount		\$ 221.75	\$ 306.83	\$ 371.53	\$ 355.83	\$ 276.42	\$ 168.89	\$ 1,701.25
55								
56 Total Bill		\$ 5,007.37	\$ 6,185.67	\$ 7,593.58	\$ 3,781.62	\$ 2,365.12	\$ 1,362.26	\$ 26,295.62

57 DIFFERENCE:

58								
59 Total Bill		\$ (2,090.65)	\$ (2,274.49)	\$ (3,013.89)	\$ 618.29	\$ 1,125.28	\$ 896.61	\$ (4,738.86)
60 % Change		-41.75%	-36.77%	-39.69%	16.35%	47.58%	65.82%	-18.02%
61								
62 Base Rate		\$ (45.31)	\$ (59.85)	\$ (69.62)	\$ (66.99)	\$ (53.70)	\$ (35.69)	\$ (331.16)
63 % Change		-3.94%	-4.09%	-4.16%	-4.14%	-4.04%	-3.79%	-4.05%
64								
65 COG & LDAC		\$ (2,045.34)	\$ (2,214.64)	\$ (2,944.27)	\$ 685.28	\$ 1,178.98	\$ 932.30	\$ (4,407.70)
66 % Change		-53.01%	-46.89%	-49.73%	31.65%	113.86%	221.61%	-24.32%

1 Annual Bill Comparisons, Nov 22 - Apr 23 Actual Rates vs Nov 23 - Apr 24

2 November 1, 2023 - April 30, 2024

3 Commercial Rate (G-52)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
4	<b>PROPOSED</b>							
5		<b>Nov-23</b>	<b>Dec-23</b>	<b>Jan-24</b>	<b>Feb-24</b>	<b>Mar-24</b>	<b>Apr-24</b>	<b>Winter Nov-Apr</b>
6	average Usage (Therms)	1,907	2,294	2,692	2,308	2,175	1,933	13,309
7								
8	<b>Winter:</b>							
9	Cust. Chg	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 1,093.56
10	Headblock	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 1,536.00
11	Tailblock	\$ 0.1749	\$ 0.2262	\$ 0.2951	\$ 0.2287	\$ 0.2055	\$ 0.1631	\$ 1,278.37
12	HB Threshold	1,000						
13								
20	Total Base Rate Amount	\$ 596.95	\$ 664.50	\$ 734.17	\$ 667.02	\$ 643.85	\$ 601.44	\$ 3,907.93
21								
22	COG Rate - (Seasonal)	\$0.6185	\$0.6185	\$0.6185	\$0.6185	\$0.6185	\$0.6185	\$ 0.6185
23	COG amount	\$ 1,179.66	\$ 1,418.55	\$ 1,664.92	\$ 1,427.47	\$ 1,345.53	\$ 1,195.57	\$ 8,231.71
24								
25	LDAC	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957
26	LDAC amount	\$ 182.53	\$ 219.49	\$ 257.61	\$ 220.87	\$ 208.19	\$ 184.99	\$ 1,273.69
27								
28	<b>Total Bill</b>	<b>\$1,959.14</b>	<b>\$2,302.54</b>	<b>\$2,656.71</b>	<b>\$2,315.36</b>	<b>\$2,197.57</b>	<b>\$1,982.00</b>	<b>\$13,413.32</b>

30 November 1, 2022 - April 30, 2023

31 Commercial Rate (G-52)

32	<b>CURRENT</b>							
33		<b>Nov-22</b>	<b>Dec-22</b>	<b>Jan-23</b>	<b>Feb-23</b>	<b>Mar-23</b>	<b>Apr-23</b>	<b>Winter Nov-Apr</b>
34	average Usage (Therms)	1,907	2,294	2,692	2,308	2,175	1,933	13,309
35								
36	<b>Winter:</b>							
37	Cust. Chg	\$ 189.57	\$ 189.57	\$ 189.57	\$ 189.57	\$ 189.57	\$ 189.57	\$ 1,137.42
38	Headblock	\$ 0.2647	\$ 0.2647	\$ 0.2647	\$ 0.2647	\$ 0.2647	\$ 0.2647	\$ 1,588.20
39	Tailblock	\$ 0.1836	\$ 0.2374	\$ 0.3106	\$ 0.2404	\$ 0.2158	\$ 0.1713	\$ 1,341.96
40	HB Threshold	1,000						
41								
48	Total Base Rate Amount	\$ 620.85	\$ 691.76	\$ 764.90	\$ 694.41	\$ 670.09	\$ 625.57	\$ 4,067.58
49								
50	COG Rate - (Seasonal)	\$ 1.4296	\$ 1.2547	\$ 1.3288	\$ 0.4521	\$ 0.2439	\$ 0.1322	\$ 0.8273
51	COG amount	\$ 2,726.67	\$ 2,877.69	\$ 3,576.96	\$ 1,043.43	\$ 530.60	\$ 255.54	\$ 11,010.90
52								
53	LDAC	\$ 0.0872	\$ 0.0872	\$ 0.0890	\$ 0.0890	\$ 0.0890	\$ 0.0890	\$ 0.0884
54	LDAC amount	\$ 166.32	\$ 200.00	\$ 239.58	\$ 205.41	\$ 193.62	\$ 172.04	\$ 1,176.95
55								
56	<b>Total Bill</b>	<b>\$3,513.84</b>	<b>\$3,769.45</b>	<b>\$4,581.44</b>	<b>\$1,943.25</b>	<b>\$1,394.30</b>	<b>\$1,053.15</b>	<b>\$16,255.43</b>

57 **DIFFERENCE:**

58								
59	<b>Total Bill</b>	<b>\$ (1,554.70)</b>	<b>\$ (1,466.91)</b>	<b>\$ (1,924.73)</b>	<b>\$ 372.12</b>	<b>\$ 803.27</b>	<b>\$ 928.85</b>	<b>\$ (2,842.11)</b>
60	% Change	<b>-44.25%</b>	<b>-38.92%</b>	<b>-42.01%</b>	<b>19.15%</b>	<b>57.61%</b>	<b>88.20%</b>	<b>-17.48%</b>
61								
62	<b>Base Rate</b>	<b>\$ (23.90)</b>	<b>\$ (27.26)</b>	<b>\$ (30.73)</b>	<b>\$ (27.39)</b>	<b>\$ (26.24)</b>	<b>\$ (24.13)</b>	<b>\$ (159.65)</b>
63	% Change	<b>-3.85%</b>	<b>-3.94%</b>	<b>-4.02%</b>	<b>-3.94%</b>	<b>-3.92%</b>	<b>-3.86%</b>	<b>-3.92%</b>
64								
65	<b>COG &amp; LDAC</b>	<b>\$ (1,530.80)</b>	<b>\$ (1,439.65)</b>	<b>\$ (1,894.00)</b>	<b>\$ 399.51</b>	<b>\$ 829.51</b>	<b>\$ 952.97</b>	<b>\$ (2,682.46)</b>
66	% Change	<b>-52.91%</b>	<b>-46.78%</b>	<b>-49.63%</b>	<b>31.99%</b>	<b>114.54%</b>	<b>222.88%</b>	<b>-22.01%</b>

1 **Residential Heating**

2		<u>Winter 2022-2023</u>	<u>Winter 2023-2024</u>
3	Customer Charge	\$ 15.39	\$ 15.39
4	First 100 Therms	\$ 0.6519	\$ 0.6167
5	Excess 100 Therms	\$ 0.6519	\$ 0.6167
6	LDAC	\$ 0.1104	\$ 0.1180
7	COG	\$ 0.8505	\$ 0.6175
8	Total Adjust	\$ 0.9610	\$ 0.7355

10												
11												
12												
13		<u>Winter 2022-23 @</u>	<u>Winter 2023-24 @</u>	Total		Base Rate		COG		LDAC		
14				\$ Impact	% Impact	\$ Impact	% Impact	\$ Impact	% Impact	\$ Impact	% Impact	
15		\$0.9610	\$0.7355	(\$0.23)	-23%							
16	Cooking alone	5	\$23.28	\$22.15	(\$1.13)	-4.84%	\$0.00	0%	-\$1.17	-5%	\$0.04	0.16%
17												
18		10	\$31.17	\$28.91	(\$2.25)	-7.23%	\$0.00	0%	-\$2.33	-8%	\$0.08	0.24%
19												
20		20	\$46.94	\$42.43	(\$4.51)	-9.61%	\$0.00	0%	-\$4.66	-11%	\$0.15	0.32%
21												
22	Water Heating alone	30	\$62.72	\$55.96	(\$6.76)	-10.78%	\$0.00	0%	-\$6.99	-12%	\$0.23	0.36%
23												
24		45	\$86.38	\$76.24	(\$10.15)	-11.75%	\$0.00	0%	-\$10.49	-14%	\$0.34	0.39%
25												
26		50	\$94.27	\$83.00	(\$11.27)	-11.96%	\$0.00	0%	-\$11.65	-14%	\$0.38	0.40%
27												
28	Heating Alone	80	\$133.71	\$116.81	(\$16.91)	-12.65%	\$0.00	0%	-\$17.48	-15%	\$0.57	0.42%
29												
30		125	\$225.22	\$195.23	(\$29.99)	-13.31%	\$0.00	0%	-\$30.99	-16%	\$1.00	0.45%
31												
32		150	\$252.04	\$218.22	(\$33.82)	-13.42%	\$0.00	0%	-\$34.95	-16%	\$1.13	0.45%
33												
34		200	\$330.92	\$285.83	(\$45.09)	-13.63%	\$0.00	0%	-\$46.60	-16%	\$1.51	0.46%
35												

Schedule 8  
Off-Peak  
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1 Annual Bill Comparisons, May 23 - Oct 23 Filing vs May 24 - Oct 24

2 November 2023 - October 2024

3 Residential Heating (R3)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
		November 1, 2023 - April 30, 2024						
		Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter Nov-Apr
Typical Usage (Therms)		84	118	137	131	104	66	640
Winter:	9/1/2022 9/1/2023							
Cust. Chg	\$ 15.39 \$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 92.34
Headblock	\$ 0.6519 \$ 0.6167	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tailblock	\$ 0.6519 \$ 0.6167	\$ 52.01	\$ 73.04	\$ 84.37	\$ 80.54	\$ 64.03	\$ 40.68	\$ 394.68
HB Threshold	- -							
Summer:	9/1/2022 9/1/2023							
Cust. Chg	\$ 15.39 \$ 15.39							
Headblock	\$ 0.6519 \$ 0.6167							
Tailblock	\$ 0.6519 \$ 0.6167							
HB Threshold	- -							
Total Base Rate Amount		\$ 67.40	\$ 88.43	\$ 99.76	\$ 95.93	\$ 79.42	\$ 56.07	\$ 487.02
COG Rate - (Seasonal)		\$ 0.6175	\$ 0.6175	\$ 0.6175	\$ 0.6175	\$ 0.6175	\$ 0.6175	\$ 0.6175
COG amount		\$ 52.08	\$ 73.13	\$ 84.48	\$ 80.65	\$ 64.11	\$ 40.74	\$ 395.19
LDAC		\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180
LDAC amount		\$ 9.95	\$ 13.98	\$ 16.14	\$ 15.41	\$ 12.25	\$ 7.78	\$ 75.52
Total Bill		\$ 129.44	\$ 175.54	\$ 200.39	\$ 191.99	\$ 155.78	\$ 104.59	\$ 957.72

30 November 2022 - October 2023

31 Residential Heating (R3)

		November 1, 2022 - April 30, 2023						
		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr
Typical Usage (Therms)		84	118	137	131	104	66	640
Winter:	9/1/2022 9/1/2023							
Cust. Chg	\$ 15.39 \$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 92.34
Headblock	\$ 0.6519 \$ 0.6167	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tailblock	\$ 0.6519 \$ 0.6167	\$ 54.98	\$ 77.21	\$ 89.19	\$ 85.14	\$ 67.68	\$ 43.00	\$ 417.20
HB Threshold	- -	\$ 46.97						
Summer:	9/1/2022 9/1/2023							
Cust. Chg	\$ 15.39 \$ 15.39							
Headblock	\$ 0.6519 \$ 0.6167							
Tailblock	\$ 0.6519 \$ 0.6167							
HB Threshold	- -							
Total Base Rate Amount		\$ 70.37	\$ 92.60	\$ 104.58	\$ 100.53	\$ 83.07	\$ 58.39	\$ 509.54
COG Rate - (Seasonal)		\$ 1.4300	\$ 1.2551	\$ 1.3292	\$ 0.4525	\$ 0.2443	\$ 0.1326	\$ 0.8505
COG amount		\$ 120.61	\$ 148.65	\$ 181.86	\$ 59.10	\$ 25.36	\$ 8.75	\$ 544.32
LDAC		\$ 0.1086	\$ 0.1086	\$ 0.1113	\$ 0.1113	\$ 0.1113	\$ 0.1113	\$ 0.1104
LDAC amount		\$ 9.16	\$ 12.86	\$ 15.23	\$ 14.54	\$ 11.56	\$ 7.34	\$ 70.68
Total Bill		\$ 200.14	\$ 254.10	\$ 301.66	\$ 174.16	\$ 119.99	\$ 74.48	\$ 1,124.55

58 DIFFERENCE:

Total Bill	\$ (70.70) \$ (78.57) \$ (101.27) \$ 17.83 \$ 35.79 \$ 30.11 \$ (166.82)
% Change	-35.33% -30.92% -33.57% 10.24% 29.83% 40.42% -14.83%
Base Rate	\$ (2.97) \$ (4.17) \$ (4.82) \$ (4.60) \$ (3.65) \$ (2.32) \$ (22.53)
% Change	-4.22% -4.50% -4.60% -4.57% -4.40% -3.98% -4.42%
COG & LDAC	\$ (67.74) \$ (74.40) \$ (96.46) \$ 22.42 \$ 39.44 \$ 32.43 \$ (144.29)
% Change	-52.20% -46.07% -48.94% 30.45% 106.83% 201.56% -23.46%

(8) (9) (10) (11) (12) (13) (14) (15)  
May 1, 2024 - October 31, 2024

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer May-Oct	Total Nov-Oct
37	19	14	12	21	52	155	795
\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 92.34	\$ 184.68
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 23.04	\$ 11.94	\$ 8.53	\$ 7.61	\$ 12.98	\$ 31.78	\$ 95.88	\$ 490.56
\$ 38.43	\$ 27.33	\$ 23.92	\$ 23.00	\$ 28.37	\$ 47.17	\$ 188.22	\$ 675.24
\$ 0.6267	\$ 0.6267	\$ 0.6267	\$ 0.6267	\$ 0.6267	\$ 0.6267	\$ 0.6267	\$ 0.6193
\$ 23.41	\$ 12.14	\$ 8.67	\$ 7.74	\$ 13.19	\$ 32.29	\$ 97.44	\$ 492.63
\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180
\$ 4.41	\$ 2.29	\$ 1.63	\$ 1.46	\$ 2.48	\$ 6.08	\$ 18.35	\$ 93.86
\$ 66.25	\$ 41.76	\$ 34.21	\$ 32.19	\$ 44.05	\$ 85.54	\$ 304.01	\$ 1,261.73

May 1, 2023 - October 31, 2023

May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Summer May-Oct	Total Nov-Oct
37	19	14	12	21	52	155	795
\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 15.39	\$ 92.34	\$ 184.68
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 24.35	\$ 12.63	\$ 9.01	\$ 7.61	\$ 12.98	\$ 31.78	\$ 98.37	\$ 515.57
\$ 39.74	\$ 28.02	\$ 24.40	\$ 23.00	\$ 28.37	\$ 47.17	\$ 190.71	\$ 700.25
\$ 1.2836	\$ 1.2438	\$ 1.2071	\$ 0.8964	\$ 0.7493	\$ 0.7493	\$ 0.9917	\$ 0.8781
\$ 47.95	\$ 24.09	\$ 16.69	\$ 11.06	\$ 15.78	\$ 38.61	\$ 154.18	\$ 698.50
\$ 0.1113	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1180	\$ 0.1164	\$ 0.1116
\$ 4.16	\$ 2.29	\$ 1.63	\$ 1.46	\$ 2.48	\$ 6.08	\$ 18.10	\$ 88.78
\$ 91.85	\$ 54.39	\$ 42.73	\$ 35.52	\$ 46.63	\$ 91.86	\$ 362.99	\$ 1,487.54

\$ (25.60) \$ (12.63) \$ (8.51) \$ (3.33) \$ (2.58) \$ (6.32) \$ (58.98) \$ (225.80)
-27.88% -23.23% -19.92% -9.37% -5.53% -6.88% -16.25% -15.18%
\$ (1.31) \$ (0.68) \$ (0.49) \$ - \$ - \$ - \$ (2.48) \$ (25.01)
-3.31% -2.43% -1.99% 0.00% 0.00% 0.00% -1.30% -3.57%
\$ (24.29) \$ (11.95) \$ (8.02) \$ (3.33) \$ (2.58) \$ (6.32) \$ (56.50) \$ (200.79)
-46.61% -45.32% -43.80% -26.59% -14.14% -14.14% -32.79% -25.50%

Schedule 8  
Off-Peak  
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1 Annual Bill Comparisons, May 23 - Oct 23 Filing vs May 24 - Oct 24

2 November 2023 - October 2024

3 Commercial Rate (G-41)

		November 1, 2023 - April 30, 2024							
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	
		Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter Nov-Apr	
Typical Usage (Therms)		261	390	482	458	334	185	2,111	
Winter:									
9/1/2022 9/1/2023									
Cust. Chg	\$ 63.30 \$ 60.81	\$ 60.81	\$ 60.81	\$ 60.81	\$ 60.81	\$ 60.81	\$ 60.81	\$ 364.86	
Headblock	\$ 0.5088 \$ 0.4928	\$ 49.28	\$ 49.28	\$ 49.28	\$ 49.28	\$ 49.28	\$ 49.28	\$ 295.68	
Tailblock	\$ 0.3550 \$ 0.3390	\$ 54.53	\$ 98.42	\$ 129.47	\$ 121.44	\$ 79.46	\$ 28.81	\$ 512.12	
HB Threshold	100 100	\$122.88	\$49.28	\$49.28	\$49.28	\$49.28	\$49.28		
Summer:									
9/1/2022 9/1/2023									
Cust. Chg	\$ 63.30 \$ 60.81								
Headblock	\$ 0.5088 \$ 0.4928								
Tailblock	\$ 0.3550 \$ 0.3390								
HB Threshold	20 20								
Total Base Rate Amount		\$ 164.62	\$ 208.51	\$ 239.56	\$ 231.53	\$ 189.55	\$ 138.90	\$ 1,172.66	
COG Rate - (Seasonal)		\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173	
COG amount		\$ 161.02	\$ 240.94	\$ 297.48	\$ 282.86	\$ 206.43	\$ 114.20	\$ 1,302.93	
LDAC		\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	
LDAC amount		\$ 24.96	\$ 37.35	\$ 46.12	\$ 43.85	\$ 32.00	\$ 17.70	\$ 201.99	
Total Bill		\$ 350.60	\$ 486.80	\$ 583.16	\$ 558.23	\$ 427.99	\$ 270.81	\$ 2,677.59	

30 November 2022 - October 2023

31 Commercial Rate (G-41)

		November 1, 2022 - April 30, 2023							
		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr	
Typical Usage (Therms)		261	390	482	458	334	185	2,111	
Winter:									
9/1/2022 9/1/2023									
Cust. Chg	\$ 63.30 \$ 60.81	\$ 63.30	\$ 63.30	\$ 63.30	\$ 63.30	\$ 63.30	\$ 63.30	\$ 379.80	
Headblock	\$ 0.5088 \$ 0.4928	\$ -	\$ 50.88	\$ 50.88	\$ 50.88	\$ 50.88	\$ 50.88	\$ 254.40	
Tailblock	\$ 0.3550 \$ 0.3390	\$ 57.10	\$ 103.06	\$ 135.58	\$ 127.17	\$ 83.21	\$ 30.17	\$ 536.29	
HB Threshold	100 100								
Summer:									
9/1/2022 9/1/2023									
Cust. Chg	\$ 63.30 \$ 60.81								
Headblock	\$ 0.5088 \$ 0.4928								
Tailblock	\$ 0.3550 \$ 0.3390								
HB Threshold	20 20								
Total Base Rate Amount		\$ 120.40	\$ 217.24	\$ 249.76	\$ 241.35	\$ 197.39	\$ 144.35	\$ 1,170.49	
COG Rate - (Seasonal)		\$ 1.4301	\$ 1.2552	\$ 1.3293	\$ 0.4526	\$ 0.2444	\$ 0.1327	\$ 0.8610	
COG amount		\$ 373.04	\$ 489.93	\$ 640.60	\$ 207.39	\$ 81.73	\$ 24.55	\$ 1,817.23	
LDAC		\$ 0.0872	\$ 0.0872	\$ 0.0890	\$ 0.0890	\$ 0.0890	\$ 0.0890	\$ 0.0884	
LDAC amount		\$ 22.75	\$ 34.04	\$ 42.89	\$ 40.78	\$ 29.76	\$ 16.46	\$ 186.68	
Total Bill		\$ 516.18	\$ 741.21	\$ 933.24	\$ 489.52	\$ 308.89	\$ 185.37	\$ 3,174.40	

58 DIFFERENCE:

Total Bill		\$ (165.58)	\$ (254.40)	\$ (350.09)	\$ 68.72	\$ 119.10	\$ 85.44	\$ (496.82)	
% Change		-32.08%	-34.32%	-37.51%	14.04%	38.56%	46.09%	-15.65%	
Base Rate		\$ 44.22	\$ (8.74)	\$ (10.20)	\$ (9.82)	\$ (7.84)	\$ (5.45)	\$ 2.17	
% Change		36.72%	-4.02%	-4.08%	-4.07%	-3.97%	-3.78%	0.19%	
COG & LDAC		\$ (209.80)	\$ (245.67)	\$ (339.89)	\$ 78.54	\$ 126.94	\$ 90.89	\$ (498.99)	
% Change		-53.01%	-46.89%	-49.73%	31.65%	113.86%	221.61%	-24.90%	

(8) (9) (10) (11) (12) (13) (14) (15)  
May 1, 2024 - October 31, 2024

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer May-Oct	Total Nov-Oct
91	47	33	25	47	141	383	2,494
\$ 60.81	\$ 60.81	\$ 60.81	\$ 60.81	\$ 60.81	\$ 60.81	\$ 364.86	\$ 729.72
\$ 9.86	\$ 9.86	\$ 9.86	\$ 9.86	\$ 9.86	\$ 9.86	\$ 59.14	\$ 354.82
\$ 24.01	\$ 9.05	\$ 4.27	\$ 1.79	\$ 9.00	\$ 41.11	\$ 89.23	\$ 601.35
\$ 94.68	\$ 79.71	\$ 74.94	\$ 72.45	\$ 79.66	\$ 111.78	\$ 513.22	\$ 1,685.89
\$ 0.6261	\$ 0.6261	\$ 0.6261	\$ 0.6261	\$ 0.6261	\$ 0.6261	\$ 0.6261	\$ 0.6187
\$ 56.87	\$ 29.23	\$ 20.41	\$ 15.82	\$ 29.14	\$ 88.45	\$ 239.92	\$ 1,542.85
\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957
\$ 8.69	\$ 4.47	\$ 3.12	\$ 2.42	\$ 4.45	\$ 13.52	\$ 36.67	\$ 238.67
\$ 160.24	\$ 113.41	\$ 98.47	\$ 90.70	\$ 113.25	\$ 213.75	\$ 789.82	\$ 3,467.40

May 1, 2023 - October 31, 2023

May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Summer May-Oct	Total Nov-Oct
91	47	33	25	47	141	383	2,494
\$63.30	\$ 63.30	\$ 63.30	\$ 60.81	\$ 60.81	\$ 60.81	\$ 372.33	\$ 752.13
\$ 10.18	\$ 10.18	\$ 10.18	\$ 9.86	\$ 9.86	\$ 9.86	\$ 60.10	\$ 314.50
\$ 25.14	\$ 9.47	\$ 4.47	\$ 1.79	\$ 9.00	\$ 41.11	\$ 90.99	\$ 627.28
\$ 98.62	\$ 82.95	\$ 77.95	\$ 72.45	\$ 79.66	\$ 111.78	\$ 523.41	\$ 1,693.91
\$ 1.2839	\$ 1.2441	\$ 1.2074	\$ 0.8967	\$ 0.7496	\$ 0.7496	\$ 0.9851	\$ 0.8800
\$ 116.62	\$ 58.09	\$ 39.36	\$ 22.66	\$ 34.89	\$ 105.90	\$ 377.51	\$ 2,194.74
\$ 0.0890	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0941	\$ 0.0893
\$ 8.08	\$ 4.47	\$ 3.12	\$ 2.42	\$ 4.45	\$ 13.52	\$ 36.06	\$ 222.74
\$ 223.32	\$ 145.51	\$ 120.43	\$ 97.54	\$ 119.00	\$ 231.20	\$ 936.99	\$ 4,111.39

\$ (63.08)	\$ (32.09)	\$ (21.96)	\$ (6.84)	\$ (5.75)	\$ (17.45)	\$ (147.17)	\$ (643.98)
-28.25%	-22.05%	-18.24%	-7.01%	-4.83%	-7.55%	-15.71%	-15.66%
\$ (3.94)	\$ (3.24)	\$ (3.01)	\$ -	\$ -	\$ -	\$ (10.19)	\$ (8.02)
-4.00%	-3.90%	-3.86%	0.00%	0.00%	0.00%	-1.95%	-0.47%
\$ (59.14)	\$ (28.85)	\$ (18.95)	\$ (6.84)	\$ (5.75)	\$ (17.45)	\$ (136.98)	\$ (635.96)
-47.43%	-46.13%	-44.61%	-27.27%	-14.61%	-14.61%	-33.12%	-26.31%

Schedule 8  
Off-Peak  
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1 Annual Bill Comparisons, May 23 - Oct 23 Filing vs May 24 - Oct 24

2 November 2023 - October 2024

3 C&I High Winter Use Medium G-42

(3) (4) (5) (6) (7)  
November 1, 2023 - April 30, 2024

		Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter Nov-Apr
4	Typical Usage (Therms)	2,543	3,519	4,174	3,998	3,106	1,898	19,238
5								
6	Winter:	9/1/2022	9/1/2023					
7	Cust. Chg	\$ 189.84	\$ 182.42	\$ 182.42	\$ 182.42	\$ 182.42	\$ 182.42	\$ 1,094.52
8	Headblock	\$ 0.4634	\$ 0.4485	\$ 448.50	\$ 448.50	\$ 448.50	\$ 448.50	\$ 2,691.00
9	Tailblock	\$ 0.3212	\$ 0.3063	\$ 472.62	\$ 771.46	\$ 972.35	\$ 918.33	\$ 645.02
10	HB Threshold	1,000	1,000					\$ 274.94
11								\$ 4,054.72
12	Summer:	9/1/2022	9/1/2023					
13	Cust. Chg	\$ 189.84	\$ 182.42					
14	Headblock	\$ 0.4634	\$ 0.4485					
15	Tailblock	\$ 0.3212	\$ 0.3063					
16	HB Threshold	400	400					
17								
18	Total Base Rate Amount	\$ 1,103.54	\$ 1,402.38	\$ 1,603.27	\$ 1,549.25	\$ 1,275.94	\$ 905.86	\$ 7,840.24
19								
20	COG Rate - (Seasonal)	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173	\$ 0.6173
21	COG amount	\$ 1,569.80	\$ 2,172.06	\$ 2,576.92	\$ 2,468.04	\$ 1,917.23	\$ 1,171.40	\$ 11,875.46
22								
23	LDAC	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957
24	LDAC amount	\$ 243.37	\$ 336.74	\$ 399.50	\$ 382.62	\$ 297.23	\$ 181.60	\$ 1,841.05
25								
26	Total Bill	\$ 2,916.71	\$ 3,911.18	\$ 4,579.69	\$ 4,399.91	\$ 3,490.40	\$ 2,258.87	\$ 21,556.76
27								
28								
29								

30 November 2022 - October 2023

31 C&I High Winter Use Medium G-42

November 1, 2022 - April 30, 2023

		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr
32	Typical Usage (Therms)	2,543	3,519	4,174	3,998	3,106	1,898	19,238
33								
34	Winter:	9/1/2022	9/1/2023					
35	Cust. Chg	\$ 189.84	\$ 182.42	\$ 189.84	\$ 189.84	\$ 189.84	\$ 189.84	\$ 1,139.04
36	Headblock	\$ 0.4634	\$ 0.4485	\$ 463.40	\$ 463.40	\$ 463.40	\$ 463.40	\$ 2,780.40
37	Tailblock	\$ 0.3212	\$ 0.3063	\$ 495.62	\$ 808.99	\$ 1,019.65	\$ 963.00	\$ 676.39
38	HB Threshold	1,000	1,000					\$ 288.32
39								\$ 4,251.97
40	Summer:	9/1/2022	9/1/2023					
41	Cust. Chg	\$ 189.84	\$ 182.42					
42	Headblock	\$ 0.4634	\$ 0.4485					
43	Tailblock	\$ 0.3212	\$ 0.3063					
44	HB Threshold	400	400					
45								
46	Total Base Rate Amount	\$ 1,148.86	\$ 1,462.23	\$ 1,672.89	\$ 1,616.24	\$ 1,329.63	\$ 941.56	\$ 8,171.41
47								
48	COG Rate - (Seasonal)	\$ 1.4301	\$ 1.2552	\$ 1.3293	\$ 0.4526	\$ 0.2444	\$ 0.1327	\$ 0.8537
49	COG amount	\$ 3,636.76	\$ 4,416.61	\$ 5,549.16	\$ 1,809.55	\$ 759.07	\$ 251.81	\$ 16,422.97
50								
51	LDAC	\$ 0.0872	\$ 0.0872	\$ 0.0890	\$ 0.0890	\$ 0.0890	\$ 0.0890	\$ 0.0894
52	LDAC amount	\$ 221.75	\$ 306.83	\$ 371.53	\$ 355.83	\$ 276.42	\$ 168.89	\$ 1,701.25
53								
54	Total Bill	\$ 5,007.37	\$ 6,185.67	\$ 7,593.58	\$ 3,781.62	\$ 2,365.12	\$ 1,362.26	\$ 26,295.62
55								
56								
57								

58 DIFFERENCE:

59	Total Bill	\$(2,090.65)	#####	\$(3,013.89)	\$ 618.29	\$ 1,125.28	\$ 896.61	\$(4,738.86)
60	% Change	-41.75%	-36.77%	-39.69%	16.35%	47.58%	65.82%	-18.02%
61								
62	Base Rate	\$ (45.31)	\$ (59.85)	\$ (69.62)	\$ (66.99)	\$ (53.70)	\$ (35.69)	\$ (331.16)
63	% Change	-3.94%	-4.09%	-4.16%	-4.14%	-4.04%	-3.79%	-4.05%
64								
65	COG & LDAC	\$(2,045.34)	#####	\$(2,944.27)	\$ 685.28	\$ 1,178.98	\$ 932.30	\$(4,407.70)
66	% Change	-53.01%	-46.89%	-49.73%	31.65%	113.86%	221.61%	-24.32%

(8) (9) (10) (11) (12) (13) (14) (15)  
May 1, 2024 - October 31, 2024

	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer May-Oct	Total Nov-Oct
4	1,031	572	420	343	619	1,610	4,595	23,832
5								
6								
7								
8								
9	\$ 182.42	\$ 182.42	\$ 182.42	\$ 182.42	\$ 182.42	\$ 182.42	\$ 1,094.52	\$ 2,189.04
10	\$ 179.40	\$ 179.40	\$ 179.40	\$ 153.66	\$ 179.40	\$ 179.40	\$ 1,050.66	\$ 3,741.66
11	\$ 193.36	\$ 52.72	\$ 5.99	\$ -	\$ 67.22	\$ 370.54	\$ 689.83	\$ 4,744.55
12								
13	\$ 555.18	\$ 414.54	\$ 367.81	\$ 336.08	\$ 429.04	\$ 732.36	\$ 2,835.01	\$10,675.25
14	\$ 0.6261	\$ 0.6261	\$ 0.6261	\$ 0.6261	\$ 0.6261	\$ 0.6261	\$ 0.6261	\$ 0.6190
15	\$ 645.69	\$ 358.20	\$ 262.68	\$ 214.51	\$ 387.83	\$ 1,007.86	\$ 2,876.77	\$14,752.23
16	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957
17	\$ 98.69	\$ 54.75	\$ 40.15	\$ 32.79	\$ 59.28	\$ 154.05	\$ 439.72	\$ 2,280.77
18								
19	\$1,299.57	\$ 827.49	\$ 670.63	\$ 583.38	\$ 876.15	\$1,894.27	\$ 6,151.49	\$27,708.25
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								

May 1, 2023 - October 31, 2023

	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Summer May-Oct	Total Nov-Oct
32	1,031	572	420	343	619	1,610	4,595	23,832
33								
34								
35								
36								
37	\$ 189.84	\$ 189.84	\$ 189.84	\$ 182.42	\$ 182.42	\$ 182.42	\$ 1,116.78	\$ 2,255.82
38	\$ 185.36	\$ 185.36	\$ 185.36	\$ 153.66	\$ 179.40	\$ 179.40	\$ 1,068.54	\$ 3,848.94
39	\$ 202.77	\$ 55.28	\$ -	\$ -	\$ -	\$ -	\$ 258.05	\$ 4,510.02
40								
41	\$ 577.97	\$ 430.48	\$ 375.20	\$ 336.08	\$ 361.82	\$ 361.82	\$ 2,443.37	\$10,614.78
42	\$ 1.2839	\$ 1.2441	\$ 1.2074	\$ 0.8967	\$ 0.7496	\$ 0.7496	\$ 0.9839	\$ 0.8788
43	\$1,324.07	\$ 711.77	\$ 506.56	\$ 307.22	\$ 464.33	\$ 1,206.66	\$ 4,520.61	\$20,943.58
44	\$ 0.0890	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0942	\$ 0.0895
45	\$ 91.78	\$ 54.75	\$ 40.15	\$ 32.79	\$ 59.28	\$ 154.05	\$ 432.81	\$ 2,134.06
46								
47	\$1,993.83	\$1,197.00	\$ 921.91	\$ 676.09	\$ 885.43	\$1,722.53	\$ 7,396.79	\$33,692.41
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								

59	\$(694.26)	\$(369.51)	\$(251.27)	\$(92.71)	\$(9.29)	\$ 171.74	\$(1,245.30)	\$(5,984.16)
60	-34.82%	-30.87%	-27.26%	-13.71%	-1.05%	9.97%	-16.84%	-17.76%
61								
62	\$ (22.79)	\$ (15.94)	\$ (7.39)	\$ -	\$ 67.22	\$ 370.54	\$ 391.63	\$ 60.47
63	-3.94%	-3.70%	-1.97%	0.00%	18.58%	102.41%	16.03%	0.57%
64								
65	\$ (671.47)	\$(353.57)	\$(243.88)	\$(92.71)	\$(76.50)	\$(198.80)	\$(1,636.93)	\$(6,044.63)
66	-47.43%	-46.13%	-44.61%	-27.27%	-14.61%	-14.61%	-33.05%	-26.19%



Schedule 8  
Off-Peak  
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1 Annual Bill Comparisons, May 23 - Oct 23 Filing vs May 24 - Oct 24

2 November 2023 - October 2024

3 Commercial Rate (G-52)

		Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter Nov-Apr
Typical Usage (Therms)		1,907	2,294	2,692	2,308	2,175	1,933	13,309
Winter:		9/1/2022	9/1/2023					
Cust. Chg	\$ 189.57	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 1,093.56
Headblock	\$ 0.2647	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 1,536.00
Tailblock	\$ 0.1836	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 1,278.37
HB Threshold	1000	1,000						
Summer:		9/1/2022	9/1/2023					
Cust. Chg	\$ 189.57	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 1,093.56
Headblock	\$ 0.1978	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 1,134.60
Tailblock	\$ 0.1219	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 1,538.50
HB Threshold	1000	1,000						
Total Base Rate Amount		\$ 596.95	\$ 664.50	\$ 734.17	\$ 667.02	\$ 643.85	\$ 601.44	\$ 3,907.93
COG Rate - (Seasonal)		\$ 0.6185	\$ 0.6185	\$ 0.6185	\$ 0.6185	\$ 0.6185	\$ 0.6185	\$ 0.6185
COG amount		\$ 1,179.66	\$ 1,418.55	\$ 1,664.92	\$ 1,427.47	\$ 1,345.53	\$ 1,195.57	\$ 8,231.71
LDAC		\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957
LDAC amount		\$ 182.53	\$ 219.49	\$ 257.61	\$ 220.87	\$ 208.19	\$ 184.99	\$ 1,273.69
Total Bill		\$ 1,959.14	\$ 2,302.54	\$ 2,656.71	\$ 2,315.36	\$ 2,197.57	\$ 1,982.00	\$ 13,413.32

4 November 2022 - October 2023

5 Commercial Rate (G-52)

		November 1, 2022 - April 30, 2023						
		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Winter Nov-Apr
Typical Usage (Therms)		1,907	2,294	2,692	2,308	2,175	1,933	13,309
Winter:		9/1/2022	9/1/2023					
Cust. Chg	\$ 189.57	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 1,137.42
Headblock	\$ 0.2647	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 1,588.20
Tailblock	\$ 0.1836	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 1,341.96
HB Threshold	1,000	1,000						
Summer:		9/1/2022	9/1/2023					
Cust. Chg	\$ 189.57	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 1,115.49
Headblock	\$ 0.1978	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 1,160.70
Tailblock	\$ 0.1219	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 1,611.38
HB Threshold	1,000	1,000						
Total Base Rate Amount		\$ 620.85	\$ 691.76	\$ 764.90	\$ 694.41	\$ 670.09	\$ 625.57	\$ 4,067.58
COG Rate - (Seasonal)		\$ 1.4296	\$ 1.2547	\$ 1.3288	\$ 0.4521	\$ 0.2439	\$ 0.1322	\$ 0.8273
COG amount		\$ 2,726.67	\$ 2,877.69	\$ 3,576.96	\$ 1,043.43	\$ 530.60	\$ 255.54	\$ 11,010.90
LDAC		\$ 0.0872	\$ 0.0872	\$ 0.0890	\$ 0.0890	\$ 0.0890	\$ 0.0890	\$ 0.0884
LDAC amount		\$ 166.32	\$ 200.00	\$ 239.58	\$ 205.41	\$ 193.62	\$ 172.04	\$ 1,176.95
Total Bill		\$ 3,513.84	\$ 3,769.45	\$ 4,581.44	\$ 1,943.25	\$ 1,394.30	\$ 1,053.15	\$ 16,255.43

6 DIFFERENCE:

Total Bill	\$(1,554.70)	#####	\$(1,924.73)	\$ 372.12	\$ 803.27	\$ 928.85	\$(2,842.11)
% Change	-44.25%	-38.92%	-42.01%	19.15%	57.61%	88.20%	-17.48%
Base Rate	\$(23.90)	\$(27.26)	\$(30.73)	\$(27.39)	\$(26.24)	\$(24.13)	\$(159.65)
% Change	-3.85%	-3.94%	-4.02%	-3.94%	-3.92%	-3.86%	-3.92%
COG & LDAC	\$(1,530.80)	#####	\$(1,894.00)	\$ 399.51	\$ 829.51	\$ 952.97	\$(2,682.46)
% Change	-52.91%	-46.78%	-49.63%	31.99%	114.54%	222.88%	-22.01%

		(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
		May 1, 2024 - October 31, 2024							
		May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer May-Oct	Total Nov-Oct
Typical Usage (Therms)		1,482	1,317	1,269	1,323	1,295	1,611	8,298	21,607
Winter:									
Cust. Chg	\$ 189.57	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 1,093.56	\$ 2,187.12
Headblock	\$ 0.2647	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 1,536.00	\$ 2,670.60
Tailblock	\$ 0.1836	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 1,278.37	\$ 1,538.50
HB Threshold	1000	1,000							
Summer:									
Cust. Chg	\$ 189.57	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 1,093.56	\$ 2,187.12
Headblock	\$ 0.1978	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 1,134.60	\$ 2,670.60
Tailblock	\$ 0.1219	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 1,538.50	\$ 1,538.50
HB Threshold	1000	1,000							
Total Base Rate Amount		\$ 425.94	\$ 407.30	\$ 401.79	\$ 407.95	\$ 404.76	\$ 440.54	\$ 2,488.29	\$ 6,396.22
COG Rate - (Seasonal)		\$ 0.6273	\$ 0.6273	\$ 0.6273	\$ 0.6273	\$ 0.6273	\$ 0.6273	\$ 0.6273	\$ 0.6273
COG amount		\$ 929.74	\$ 826.46	\$ 795.93	\$ 830.08	\$ 812.41	\$ 1,010.68	\$ 5,205.30	\$ 13,437.01
LDAC		\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957
LDAC amount		\$ 141.84	\$ 126.08	\$ 121.43	\$ 126.64	\$ 123.94	\$ 154.19	\$ 794.11	\$ 2,067.80
Total Bill		\$ 1,497.51	\$ 1,369.85	\$ 1,319.14	\$ 1,364.67	\$ 1,341.12	\$ 1,605.41	\$ 8,487.70	\$ 21,901.03

		May 1, 2023 - October 31, 2023						
		May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Summer May-Oct
Typical Usage (Therms)		1,482	1,317	1,269	1,323	1,295	1,611	8,298
Winter:								
Cust. Chg	\$ 189.57	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 1,115.49
Headblock	\$ 0.2647	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 0.2560	\$ 1,160.70
Tailblock	\$ 0.1836	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 0.1749	\$ 1,611.38
HB Threshold	1,000	1,000						
Summer:								
Cust. Chg	\$ 189.57	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 182.26	\$ 1,115.49
Headblock	\$ 0.1978	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 0.1891	\$ 1,160.70
Tailblock	\$ 0.1219	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 0.1132	\$ 1,611.38
HB Threshold	1,000	1,000						
Total Base Rate Amount		\$ 446.14	\$ 426.07	\$ 420.14	\$ 407.95	\$ 404.76	\$ 440.54	\$ 2,545.61
COG Rate - (Seasonal)		\$ 1.2833	\$ 1.2435	\$ 1.2068	\$ 0.8961	\$ 0.7490	\$ 0.7490	\$ 1.0164
COG amount		\$ 1,902.01	\$ 1,638.30	\$ 1,531.20	\$ 1,185.78	\$ 970.03	\$ 1,206.76	\$ 8,434.08
LDAC		\$ 0.0890	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0957	\$ 0.0945
LDAC amount		\$ 131.91	\$ 126.08	\$ 121.43	\$ 126.64	\$ 123.94	\$ 154.19	\$ 784.18
Total Bill		\$ 2,480.06	\$ 2,190.45	\$ 2,072.77	\$ 1,720.37	\$ 1,498.73	\$ 1,801.49	\$ 11,763.87

Total Bill	\$(982.55)	\$(830.61)	\$(753.62)	\$(355.69)	\$(157.61)	\$(196.08)	\$(3,276.17)
% Change	-39.62%	-37.92%	-36.36%	-20.68%	-10.62%	-10.88%	-27.85%
Base Rate	\$(20.20)	\$(18.77)	\$(18.35)	\$ -	\$ -	\$ -	\$(57.33)
% Change	-4.53%	-4.41%	-4.37%	0.00%	0.00%	0.00%	-2.25%
COG & LDAC	\$(962.34)	\$(811.84)	\$(735.28)	\$(355.69)	\$(157.61)	\$(196.08)	\$(3,218.84)
% Change	-47.31%	-46.01%	-44.49%	-27.10%	-14.41%	-14.41%	-34.92%

Schedule 8  
Off-Peak  
Page 5 of 5

1 **Residential Heating**

2		<u>Summer 2023</u>	<u>Summer 2024</u>
3	Customer Charge	\$ 15.39	\$ 15.39
4	First 20 Therms	\$ 0.6519	\$ 0.6167
5	Excess 20 Therms	\$ 0.6519	\$ 0.6167
6	LDAC	\$ 0.1164	\$ 0.1180
7	COG	\$ 0.8073	\$ 0.6267
8	Total Adjust	\$ 0.9237	\$ 0.7447
9			
10			
11			
12			
13		<u>Summer 2023 COG @</u>	<u>Summer 2024 Cog @</u>
14		\$ 0.9237	\$ 0.7447
15			
16	Cooking alone	5 \$ 23.27	\$ 22.20
17			
18		10 \$ 31.15	\$ 29.00
19			
20		20 \$ 46.90	\$ 42.62
21			
22	Water Heating alone	30 \$ 62.66	\$ 56.23
23			
24		45 \$ 86.29	\$ 76.65
25			
26		50 \$ 94.17	\$ 83.46
27			
28	Heating Alone	80 \$ 133.56	\$ 117.50
29			
30		125 \$ 224.94	\$ 196.46
31			
32		150 \$ 251.73	\$ 219.60
33			
34		200 \$ 330.50	\$ 287.67
35			

Total		Base Rate		COG		LDAC	
\$ Impact	% Impact	\$ Impact	% Impact	\$ Impact	% Impact	\$ Impact	% Impact
\$ (0.18)	-19%						
\$ (1.07)	-5%	\$ (0.18)	-1%	\$ (0.90)	-4%	\$ 0.01	0%
\$ (2.14)	-7%	\$ (0.35)	-1%	\$ (1.81)	-6%	\$ 0.02	0%
\$ (4.28)	-9%	\$ (0.70)	-2%	\$ (3.61)	-8%	\$ 0.03	0%
\$ (6.43)	-10%	\$ (1.06)	-2%	\$ (5.42)	-10%	\$ 0.05	0%
\$ (9.64)	-11%	\$ (1.58)	-2%	\$ (8.13)	-11%	\$ 0.07	0%
\$ (10.71)	-11%	\$ (1.76)	-2%	\$ (9.03)	-11%	\$ 0.08	0%
\$ (16.06)	-12%	\$ (2.64)	-2%	\$ (13.54)	-12%	\$ 0.12	0%
\$ (28.49)	-13%	\$ (4.68)	-2%	\$ (24.02)	-12%	\$ 0.21	0%
\$ (32.13)	-13%	\$ (5.28)	-2%	\$ (27.09)	-12%	\$ 0.24	0%
\$ (42.83)	-13%	\$ (7.04)	-2%	\$ (36.12)	-13%	\$ 0.32	0%

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

DG 23-076

Winter 2023/2024 Cost of Gas (Supply) and Summer 2024 Cost of Gas (Supply)

RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23  
Request No. DOE 1-4 (COG)

Date of Response: 9/18/23  
Respondent: Deborah Gilbertson

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**REQUEST:**

Reference: Liberty's August-September 2023 filing

Please provide data, any associated models, and a narrative description of how the Company forecasts its sales (in therms) and how the Company forecasts the associated number of customers. Please identify any changes Liberty has made in assumptions, formulas or calculation as compared the Company forecast Liberty made in Docket No. DG 22-045. See Dkt. No. DG 22-045, Liberty's Response to DOE Set 2 DR 2-2.

Liberty's response should include but should not be limited to:

- i) an explanation regarding why Liberty's forecasted sendout requirements for sales customers for Winter 2023-2024 is approximately 3.7 million therms higher than the normalized actual sendout for firm sales customers for the November 1, 2022 to April 30, 2023 period; and
- ii) why Liberty's "design weather requirements" are "approximately 10 percent greater than normal sendout requirements for weather that is 10 percent cooler than normal." See Gilbertson Testimony at 027.

**RESPONSE:**

There have been no changes to the methodology or assumptions described and illustrated in Liberty's Response to DOE Set 2 DR 2-2. The files have been updated to include 2023-24 forecast data. Please see Attachment 23-076 DOE 1-4.1.xlsx and Attachment 23-076 DOE 1-4.2.xlsx.

- i) To begin this comparison, it's essential to compare the actual normalized sales to the forecasted sales for each period. The winter of 2022-23 was 13.4 percent warmer than normal, with January 2023 being 22.1% warmer than normal. The variance between forecasted normal sales for 2022-23 vs. weather-normalized actual sales for 2022-23 is a -1.8% variance. Note: when normalizing winter data, the Company uses the average slope of the actual data and recalculates the usage by multiplying that

slope times the normal HDD weather data for the period. The company then adds the baseload to that value to create the weather normal volume. In the case of a very warm winter, such as the winter of 2022–23, the slope is likely lower than what a ‘normal slope’ would be and therefore it’s reasonable to assume the total volume recalculated would render a lower volume than if the actual winter was in the normal range. Weather normalization is a guide, not exact.

Next, when comparing 2023–24 forecasted normal sendout requirements against actual normalized sendout from the previous period (2022–23), you must first consider the variance described above. You may then compare the 2022–23 forecast for sales customers, which was 92,395,519 therms, against the forecast for 2023–24 sales, which is 94,459,064 (Gilbertson testimony Bates 027, lines 8 through 10). This increase in the sales customer forecast is 2.2 %, which also considers any reverse migration from transportation service to sales service.

- ii) The Company seeks to show that the supplies procured for the winter period will not only satisfy normal requirements but will also satisfy a high-case scenario such as a design winter. This measure is simply in place to demonstrate winter readiness. This standard measure of winter readiness under a high-case scenario has been in place and approved in all COG dockets over the past many years.

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

DG 23-076

Winter 2023/2024 Cost of Gas (Supply) and Summer 2024 Cost of Gas (Supply)

RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23

Request No. DOE 1-5 (COG)

Date of Response: 9/18/23

Respondent: Deborah Gilbertson

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**REQUEST:**

Reference: Liberty's August-September 2023 filing; RSA 362-I:2 (Supp 2022)

Does the Company intend to use renewable natural gas (RNG) to meet any customer requirements (or potential requirements) in the Winter 2023-2024 or Summer 2024 period? Please explain and provide documentation.

- A. If yes, has or will the Company invest in any renewable natural gas infrastructure, including but not limited to decompression skid(s)? Please explain and provide documentation. If yes, please include an explanation of the accounting treatment to be given any costs associated with the procurement of or use of decompression skid(s).
- B. If the Company intends to use, or may use, RNG (see above) please provide the results of the Company's RFP process, including the RFP and identify any winning bidders. Did the Company contract with any bidders? Please provide a copy of the RFP, a summary of bidder responses and explain why the Company elected to contract with the bidder(s) it did.
- C. Please explain how the Company "consulted with DOE" on all issues related to RFPs.
- D. What quantify of RNG does Liberty have the option to purchase, from whom, when and how? Will purchased quantities exceed 5 percent of the Company's total gas volume delivered?
- E. What are "the monetary benefits of the proposed use of RNG to utility customers and the state (see RSA 362-I:2 II). Please provide any documentation and analysis Liberty has done, including but not limited to a cost-benefit analysis, if performed.
- F. What incremental costs to utility customers are associated with Liberty's use of RNG? Does Liberty expect to obtain any "value of any environmental attributes" or carbon offsets, relative to the incremental costs to gas utility customers necessary to achieve those benefits? See RSA 362-I:2, II.
- G. To what extent does Liberty's proposed or potential use of RNG advance the objectives of the energy policy of the state, the state's 10-year energy strategy or other state policy,

Docket No. DG 23-076 Request No. DOE 1-5 (COG)

including enhancing consumer choice and improving gas system resiliency through diversification of supply options? See RSA 362-I:2, II.

- H. Please provide information and documentation regarding the following: market terms, price, conditions, availability, service quality, economic benefits to participating and non-participating customers, and job creation as a result of the Company's use of RNG. See RSA 362-I:2, II, V.

**RESPONSE:**

- A. No. At present time, the Company has no firm plan or agreement in place to serve customers with RNG in winter 2023/2024 or Summer 2024.
- B. N/A. See the response to A. above.
- C. The Company provided DOE with a draft of the RFP prior to its issuance, DOE provided extensive comments, and the Company incorporated most of DOE's suggestions.
- D. See the response to A. above. The Company does not have a contract for RNG supply.
- E. See the response to A. The Company does not have a contract for RNG supply and has not conducted the requested calculations.
- F. See the responses to A. and E. above.
- G. See the response to A. above. Absent a particular RNG contract or proposal there is no basis on which to assess its benefits.
- H. See the response to G. above.

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

DG 23-076

Winter 2023/2024 Cost of Gas (Supply) and Summer 2024 Cost of Gas (Supply)  
RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23  
Request No. DOE 1-6 (COG)

Date of Response: 9/18/23  
Respondent: Deborah Gilbertson

**REQUEST:**

Reference: Liberty's August-September 2023 filing; RSA 362-I:2 (Supp 2022)

The Company states that it has "issued several requests for proposals (RFPs)" for supply for the upcoming winter period. Please list all RFPs that have been issued, identify the winning bidder(s) and provide a copy of the new contract. See Gilbertson Testimony at 024-25.

**RESPONSE:**

Please see Confidential Attachments 23-076 DOE 1-6.1 through DOE 1-6.9 for copies of the new contracts. Also, please see the table below for a list of RFPs that have been awarded. Note: the Company is still in the process of finalizing a couple of the contracts.

Term	Asset	Description	Winning Bidder	Signed Contracts
Winter 2023-24	LNG	LNG Refill	UGI Energy Services /Gaz Metro LNG /REV LNG LLC	Y,Y,Y
Winter 2023-24	Propane	Propane Refill	Patriot Gas Supply	Y
Winter 2023-24	Canadian interconnect PNGTS/Dracut	PXP Path	Emera Energy Services, Inc	Y
Winter 2023-24	Canadian interconnect with Iroquois	Dawn to Waddington	Citadel Energy Marketing LLC	
Winter 2023-24	Canadian to citygate	Niagara	Emera Energy Services, Inc	Y
Winter 2023-24	TGP Longhaul from Gulf	Longhaul	Hartree Partners LP	
Winter 2023-24	Baseload TGP Z6	Basis Hedge	Repsol Energy NA	Y
Winter 2023-24	TGP Zone 6 or Dracut	Dracut Call 1	Twin Eagle Resource Mgt, LLC	Y
Winter 2023-24	TGP Zone 6 or Dracut	Dracut Call 2	Calpine Energy Services LP	Y

Confidential Attachments 23-076 DOE 1-6.1 through DOE 1-6.9 contain third-party pricing and other information that is "confidential, commercial, or financial information" and is thus protected from disclosure by RSA 91-A:5, IV, and presumed to be confidential in cost of gas proceedings pursuant to Puc 201.06(a)(11). Therefore, pursuant to that statute and Puc 203.08(d) and Puc 201.01.06(a)(11)(g) (protecting "responses to data requests related to a. through f. above"), the Company has a good faith basis to seek confidential treatment of this information and asserts confidentiality pursuant to those rules.

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

DG 23-076

Winter 2023/2024 Cost of Gas (Supply) and Summer 2024 Cost of Gas (Supply)

RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23  
Request No. DOE 1-7 (COG)

Date of Response: 9/18/23  
Respondent: Deborah Gilbertson

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**REQUEST:**

Reference: Liberty's August-September 2023 filing; RSA 362-I:2 (Supp 2022)

The Company states that "the approximate five percent unfilled portion of S\_MA storage provides a buffer that allows the Company operational flexibility to inject some of its supply into storage if needed due to weather fluctuations during the month of November."

- A. Is this a new Company approach of policy? Please explain and provide documentation of "past practice" or why the Company is making this change.
- B. What "supply" does the Company anticipate may be "injected into storage" and how much does that "supply" cost per therm? What vendor(s) would provide that supply?

**RESPONSE:**

- A. This is not a new approach or policy. It is standard procedure.
- B. The Company requires some open space in storage for injections in the event of extreme warm weather conditions, operational constraints on upstream pipelines, or in the event of reverse migration from the Company's Retail Choice program. Although a determination of which supply to inject would be made on the day in question, it would likely be the Long-haul supply which is contracted to [REDACTED] and priced at [REDACTED]. Additionally, gas injected as part of reverse migration would be injected at the Company's weighted average cost of gas (WACOG).

The redacted or shaded information above is confidential pricing terms that are "confidential, commercial, or financial information" and are thus protected from disclosure by RSA 91-A:5, IV, and presumed to be confidential in cost of gas proceedings pursuant to Puc 201.06(a)(11). Therefore, pursuant to that statute and Puc 203.08(d) and Puc 201.01.06(a)(11)(g) (protecting "responses to data requests related to a. through f. above"), the Company has a good faith basis to seek confidential treatment of this information and asserts confidentiality pursuant to those rules



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

DG 23-076

Winter 2023/2024 Cost of Gas (Supply) and Summer 2024 Cost of Gas (Supply)

RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23  
Request No. DOE 1-8 (COG)

Date of Response: 9/18/23  
Respondent: Deborah Gilbertson  
James King

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**REQUEST:**

Reference: Liberty's August-September 2023 filing; RSA 362-I:2 (Supp 2022)

Liberty states that, "... LNG and propane facilities provide the Company and its customers with necessary system pressure support during peak days as well as a critical gas supply source to meet design day requirements. These facilities contribute to the Company's reliability, flexible, and least cost portfolio." See Gilbertson Testimony at 026. Liberty also states that "The estimated percentage used for pressure support purposes of 8.7% stayed the same based on the marginal cost study used for the rate design approved in Docket No. DG 20-105." Culbertson and King Testimony Bates 008.

- A. Please comment on capital improvements made at the Tilton facility following the DG 20-105 rate case; specifically, weren't improvement made to improve system pressure support and change the estimated 8.7 percentage?
- B. Please identify all "facilities" referenced directly or implicitly by Gilbertson, Culbertson and King, when the Company acquired or rented them and where they are located.

**RESPONSE:**

- A. Following the DG 20-105 rate case, three capital improvement projects at the Tilton facility have been completed and an additional project is scheduled for September 2023. These projects upgraded the SCADA system for reliability and more accurate control and the valve replacement addressed the main liquid valve which was leaking. As discussed in testimony the estimated percentage used for pressure support purposes of 8.7% stayed the same based on the marginal cost study used for the rate design approved in Docket No. DG 20-105. While the above projects can improve system pressure support, in any given year the Company may realize a higher or lower pressure support need depending on the weather and needs of the system during a given period. The Company found it appropriate to keep the estimated percentage amount until a different figure is proscribed for the system. Please see below for a list of the projects.

**2020**

401933-364301 Manual Control Panel AIS	8840-1933	16949
401933-364301 Installation & Commissioning AIS	8840-1933	16947
Total Cost \$ 294,705.42		

**2021**

402126-369301 Tilton LNG Tank Valve replacement	402126-369301
Total Cost \$ 114,207.99	

**2023**

Tilton Plant – Tilton - Re-Insulate LNG Tank: this project has a PO cut and is scheduled for SEPT 23

Total Estimated Cost (2023) \$33,600

- B. The Company owns and operates three LNG facilities located in Tilton, Manchester, and Concord, New Hampshire. The Company owns and operates four propane facilities located in Tilton, Manchester, Nashua, and Amherst, New Hampshire. Note: the Amherst facility is a storage facility with no vaporization.

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

DG 23-076

Winter 2023/2024 Cost of Gas (Supply) and Summer 2024 Cost of Gas (Supply)

RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23  
Request No. DOE 1-9 (COG)

Date of Response: 9/18/23  
Respondent: Deborah Gilbertson

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**REQUEST:**

Reference: Liberty's August-September 2023 filing; RSA 362-I:2 (Supp 2022)

- A. Does Liberty use a 10-year past period, 20-year past period, a 30-year past period, a 40-year past period, or a different interval to "weather normalize" and/or determine "peak design day" needs? Please explain why Liberty is using the interval(s) it does.
- B. Please illustrate specifically how a 20-year period would impact Liberty's calculation of weather normalized and design day needs, by way of comparison to the calculations included in this forecast. Would Liberty's projected therm sales for the winter period increase or decrease; by how much (please provide the amount and the percentage change)?

**RESPONSE:**

- A. Liberty uses a 30-year past period to prepare its design day, as agreed to in the settlement agreement in Docket No. DG 21-008, which the Commission approved in Order No. 26,551 (Nov. 12, 2021):

SECTION 3. PLANNING STANDARDS

3.1 In Liberty's next least cost integrated resource plan, which is due on or before October 2, 2022 ("2022 LCIRP"), the Company shall present its design day analysis for the 2022 LCIRP based on weather data from the 30 years immediately preceding the year of the LCIRP filing.

3.2 The Company shall use the design day standard set forth in Section 3.1 as an input to the Company's supply deficiency analysis to be included in the 2022 LCIRP

- B. The 30-year period has already been decided and agreed upon as part of the settlement agreement and approved by the Commission. To re-do the entire forecast based on 20-year weather normalization would be a timely, expensive, and unduly burdensome undertaking, and thus the Company respectfully objects to this question.

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

DG 23-076

Winter 2023/2024 Cost of Gas (Supply) and Summer 2024 Cost of Gas (Supply)

RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23  
Request No. DOE 1-10 (COG)

Date of Response: 9/18/23  
Respondent: Deborah Gilbertson  
James King

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**REQUEST:**

Reference: Liberty's August-September 2023 filing; RSA 362-I:2 (Supp 2022)

What NYMEX data was used to forecast the first-of-the-month price for baseload quantities and the daily price (call option)? Please provide documentation showing the NYMEX data and identify the date that was obtained and used.

- A. What is the NYMEX data for first-of-the-month price for baseload quantities and the daily price (call option) as of September 8, 2023? How does this compare to the data EnergyNorth used in its forecast (percentage increase or percentage decrease)?
- B. Please confirm that Liberty requests a standard COG 25% "cap such that, consistent with the traditional COG framework, Liberty—through monthly trigger filings—will be able to increase the Winter and/or Summer COG by an additional 25% without further Commission proceedings, and decrease without restriction? If not, please explain further. See Culbertson and King Testimony at 010.

**RESPONSE:**

- A. For the 2023/2024 COG filing, which was filed on September 1, the NYMEX forecasted settlement price for each month in the period was obtained on August 28, 2023. The table below illustrates the NYMEX price difference between August 28 projections and September 8 projections, which on average decreased by 3%. Daily forecasted settle prices are not forecasted in any publication, only monthly.
- B. Yes, the Company requests the standard COG 25% cap consistent with the traditional COG framework.

	NYMEX FORECAST FUTURE SETTLE											
Forecast Date	11/1/2023	12/1/2023	1/1/2024	2/1/2024	3/1/2024	4/1/2024	5/1/2024	6/1/2024	7/1/2024	8/1/2024	9/1/2024	10/1/2024
August 28,2023	3.106	3.576	3.824	3.749	3.437	3.123	3.112	3.213	3.324	3.362	3.341	3.428
September 8,2023	2.958	3.421	3.675	3.602	3.302	3.038	3.037	3.146	3.263	3.299	3.28	3.374
Change	0.148	0.155	0.149	0.147	0.135	0.085	0.075	0.067	0.061	0.063	0.061	0.054
% change	5%	4%	4%	4%	4%	3%	2%	2%	2%	2%	2%	2%

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

DG 23-076

Winter 2023/2024 Cost of Gas (Supply) and Summer 2024 Cost of Gas (Supply)

RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23  
Request No. DOE 1-11 (COG)

Date of Response: 9/18/23  
Respondent: James King

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**REQUEST:**

Reference: Liberty's August-September 2023 filing; RSA 362-I:2 (Supp 2022)

Please provide a copy of all fixed-price-offer (FPO) letters (for both the EnergyNorth and for the Liberty-Keene division) sent to customers to alert them to Liberty's FPO offer. If the Company's letters do not identify a "start" and "end" date within which time a customer may elect FPO rates, please identify those periods. If the Liberty-Keene letter has not yet been sent, please provide a final draft.

- A. What percentage of customers accepted the FPO offer in the 2021-2022 (Winter) season?
- B. How many customers have already accepted the Company's FPO offer for the Winter 2023-24, to date, for EnergyNorth and Liberty-Keene respectively?

**RESPONSE:**

- A. In the 2021–2022 Winter season, 9,657 customers, or 10.1% of ENNG customers accepted the FPO offer. For the same period, 128 customers, or 10.6% of Keene Customers accepted the FPO offer. In the 2022–2023 Winter season, 13,984 customers, or 14.3% of ENNG customers accepted the FPO offer. For the same period, 193 customers, or 16.4 % of Keene Customers accepted the FPO offer.
- B. The FPO mailers will be sent by October 1, 2023, advising customers of the program, the FPO rate, and the procedure to enroll. Please see Attachment 23-076 DOE 1-11.zip. This attachment includes the FPO mailers for both ENNG and Keene from the winter 2022–2023 period. The Company intends to provide customers with similar content for the upcoming winter period.

[DATE]

[Name]  
[Mailing\_Address]  
[City], [State] [Zip\_Code]

**Fixed Price Option (FPO)**  
Service Address:  
[Full\_Service\_Address]  
Account:  
[Location\_ID]-[CUSTNMBR]

Dear [Name]:

Each fall, Liberty offers you the opportunity to “lock in” the price per therm for the Gas Supply Charge portion of your bills, from November 1 through April 30. With the Fixed Price Option, you will pay one fixed price per therm for the Gas Supply Charge portion of your bill during this period, even if the price of natural gas changes during the heating season.

**Applications for the program must be returned on or before October 24, 2022.** Energy prices – including natural gas – remain volatile as in years past. If you have multiple accounts, please return one form for each service address and account number. This program is available to customers who are billed on Budget Billing as well as those who are billed on a regular billing schedule.

**Does the FPO represent the entire amount on my monthly gas bill?**

No. Your monthly natural gas bill has two main components: (1) a Gas Delivery Charge and (2) a Gas Supply Charge. The FPO is for the Gas Supply Charge. (The largest portion of your bill)

**What is the “Fixed Price” for the 2022–2023 heating season?**

The 2022–2023 FPO Gas Supply Charge that was submitted to the New Hampshire Public Utility Commission is **\$1.7535** per therm (**\$0.9644** per therm for customers on Fuel Assistance). These rates are not guaranteed until we receive a decision from the NHPUC. A decision is expected prior to November 1. Visit [www.libertyenergyandwater.com](http://www.libertyenergyandwater.com) after November 1<sup>st</sup> to see the final approved rate.

**What will my Gas Supply Charge price be this winter if I don’t enroll in the FPO?**

As of today’s date, we estimate that the Gas Supply Charge price for the winter will be approximately **\$1.7335** per therm (**\$0.9534** per therm for customers on Fuel Assistance). This non-guaranteed price may increase if the market price of natural gas increases during the winter or decrease if the market price of natural gas decreases. Price fluctuations are market-driven, and it is difficult for Liberty to predict what those market conditions or prices will be. This rate is not guaranteed until we receive a decision from the NHPUC.

**Are there any fees to sign up or minimum or maximum usage requirements?**

No. There are no sign-up fees or minimum or maximum usage levels. However, the program is non-transferable, and customers must remain in the program through April 30, 2023. If you move to a new location, the FPO rate will apply at your new location through April 30, 2023.

**How do I sign up?**

Fill out the attached coupon and return it in the enclosed envelope on or before October 24, 2022. You will be notified whether or not you are enrolled in the FPO. Enrollment acceptance is based on a timely response.

Sincerely,  
Liberty

**Please cut on the dotted line and return this coupon in the envelope provided.**

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[Name]  
[Service\_Address]

**YES**, please sign me up to participate in the Fixed Price Option (FPO). This program locks in the Gas Supply Charge price listed above for the heating season beginning November 1, 2022 and ending April 30, 2023.

If you would like to receive confirmation that you have been successfully enrolled in the FPO, please provide us with your email address: \_\_\_\_\_

\_\_\_\_\_

Signature: \_\_\_\_\_ Date:



[date]

«Customer\_Name\_»  
«Mailing\_Address\_»  
«City\_», «State» «Zip\_»-«Zip4»

*Subject:*  
*Fixed Price Option (FPO)*  
For acct #:  
«Acct\_Number\_»

Dear «Customer\_Name\_»,

We are pleased to inform you that per your request, you are now enrolled in our Fixed Price Option program. This program will lock in your natural gas supply rate of **\$1.7535** per therm (**\$0.9644** per therm for customers on Fuel Assistance) for the winter period of November 1<sup>st</sup> through April 30th. The charges on your November bill will reflect this new rate.

**PLEASE NOTE:** We are currently working with the Public Utilities Commission to finalize this rate. It's possible it will be slightly different than what appears in this letter. The final rate will be determined by November 1<sup>st</sup>, and once established it will not change for the entire winter period. Please visit [www.libertyenergyandwater.com](http://www.libertyenergyandwater.com) to view the current rates on or after November 1<sup>st</sup>.

If you have any questions or concerns, please feel free to call one of our customer service representatives at 1-800-833-4200.

Regards,  
Liberty

[date]

«Customer\_Name\_»  
«Mailing\_Address\_»  
«City\_», «State» «Zip\_»-«Zip4»

*Subject:*  
*Fixed Price Option (FPO)*  
For acct #:  
«Acct\_Number\_»

Dear «Customer\_Name\_»,

We regret to inform you that your application for our Fixed Price Option Program was not received by the deadline of October 24, 2022. As a result, we are unable to enroll you in the program.

If you have any questions or concerns, please feel free to call one of our customer service representatives at 1-800-833-4200.

Regards,  
Liberty

[DATE]

[Name]  
[Mailing\_Address]  
[City], [State] [Zip\_Code]

**Fixed Price Option (FPO)**  
Service Address:  
[Full\_Service\_Address]  
Account:  
[Location\_ID]-[CUSTNMBR]

Dear [Name]:

Each fall, Liberty offers you the opportunity to “lock in” the price per therm for the Gas Supply Charge portion of your bills, from November 1 through April 30. With the Fixed Price Option, you will pay one fixed price per therm for the Gas Supply Charge portion of your bill during this period, even if the price of gas changes during the heating season.

**Applications for the program must be returned on or before October 26, 2022.** Energy prices – including gas prices– remain volatile as in years past. If you have multiple accounts, please return one form for each service address and account number. This program is available to customers who are billed on Budget Billing as well as those who are billed on a regular billing schedule.

**Does the FPO represent the entire amount on my monthly gas bill?**

No. Your monthly gas bill has two main components: (1) a Gas Delivery Charge and (2) a Gas Supply Charge. The FPO is for the Gas Supply Charge. (The largest portion of your bill)

**What is the “Fixed Price” for the 2022–2023 heating season?**

The 2022–2023 FPO Gas Supply Charge that was submitted to the New Hampshire Public Utility Commission is **\$2.2394** per therm (**\$1.2317** per therm for customers on Fuel Assistance). These rates are not guaranteed until we receive a decision from the NHPUC. A decision is expected prior to November 1. Visit [www.libertyenergyandwater.com](http://www.libertyenergyandwater.com) after November 1<sup>st</sup> to see the final approved rate.

**What will my Gas Supply Charge price be this winter if I don’t enroll in the FPO?**

As of today’s date, we estimate that the Gas Supply Charge price for the winter will be approximately **\$2.2194** per therm (**\$1.2117** per therm for customers on Fuel Assistance). This non-guaranteed price may increase if the market price of gas increases during the winter or decrease if the market price of gas decreases. Price fluctuations are market-driven, and it is difficult for Liberty to predict what those market conditions or prices will be. This rate is not guaranteed until we receive a decision from the NHPUC.

**Are there any fees to sign up or minimum or maximum usage requirements?**

No. There are no sign-up fees or minimum or maximum usage levels. However, the program is non-transferable, and customers must remain in the program through April 30, 2023. If you move to a new location, the FPO rate will apply at your new location through April 30, 2023.

**How do I sign up?**

Fill out the attached coupon and return it in the enclosed envelope on or before October 26, 2022. You will be notified whether or not you are enrolled in the FPO. Enrollment acceptance is based on a timely response.

Sincerely,  
Liberty

**Please cut on the dotted line and return this coupon in the envelope provided.**

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[Name]  
[Service\_Address]  
**KEENE**

**YES**, please sign me up to participate in the Fixed Price Option (FPO). This program locks in the Gas Supply Charge price listed above for the heating season beginning November 1, 2022 and ending April 30, 2023.

If you would like to receive confirmation that you have been successfully enrolled in the FPO, please provide us with your email address: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

[date]

«Customer\_Name\_»  
«Mailing\_Address\_»  
«City\_», «State» «Zip\_»-«Zip4»

*Subject:*  
*Fixed Price Option (FPO)*  
For acct #:  
«Acct\_Number\_»

Dear «Customer\_Name\_»,

We are pleased to inform you that per your request, you are now enrolled in our Fixed Price Option program. This program will lock in your gas supply rate of **\$2.2394** per therm (**\$1.2317** per therm for customers on Fuel Assistance) for the winter period of November 1<sup>st</sup> through April 30th. The charges on your November bill will reflect this new rate.

PLEASE NOTE: We are currently working with the Public Utilities Commission to finalize this rate. It's possible it will be slightly different than what appears in this letter. The final rate will be determined by November 1<sup>st</sup>, and once established it will not change for the entire winter period. Please visit [www.libertyenergyandwater.com](http://www.libertyenergyandwater.com) to view the current rates on or after November 1<sup>st</sup>.

If you have any questions or concerns, please feel free to call one of our customer service representatives at 1-800-833-4200.

Regards,  
Liberty

[date]

«Customer\_Name\_»  
«Mailing\_Address\_»  
«City\_», «State» «Zip\_»-«Zip4»

*Subject:*  
*Fixed Price Option (FPO)*  
For acct #:  
«Acct\_Number\_»

Dear «Customer\_Name\_»,

We regret to inform you that your application for our Fixed Price Option Program was not received by the deadline of October 26, 2022. As a result, we are unable to enroll you in the program.

If you have any questions or concerns, please feel free to call one of our customer service representatives at 1-800-833-4200.

Regards,  
Liberty

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

DG 23-076

Winter 2023/2024 Cost of Gas (Supply) and Summer 2024 Cost of Gas (Supply)

RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23  
Request No. DOE 1-12 (COG)

Date of Response: 9/18/23  
Respondent: Deborah Gilbertson

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**REQUEST:**

Reference: Liberty's August-September 2023 filing; RSA 362-I:2 (Supp 2022)

Does the Company consider this year's markets for supply less volatile than last year's markets? Why or why not? Please explain and provide any relevant documentation.

**RESPONSE:**

The Company does not consider this year's markets less volatile than last year's markets. Although the Company recognizes that forward-look pricing currently for the 2023/2024 plan year is far below what was predicted at this time one year ago for the 2022/2023 plan year, the Company cannot predict future events which may or may not occur to disrupt market stability. The Company ensures that it has adequate supplies in place to serve customers under various conditions including normal year, and design year demand.

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

DG 23-076

Winter 2023/2024 Cost of Gas (Supply) and Summer 2024 Cost of Gas (Supply)

RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23  
Request No. DOE 1-13 (COG)

Date of Response: 9/18/23  
Respondent: James King

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**REQUEST:**

Reference: Liberty's August-September 2023 filing; RSA 362-I:2 (Supp 2022)

The Company's testimony asserts that the "bad debt percentage in this filing is 0.86% changed from the actual bad debt percentage calculated in the Winter 2021-2022 Cost of Gas Reconciliation." See Culbertson and King Testimony at 009.

- A. Has the Company considered the impact that COVID and related policies may have had on the bad debt percentages associated with the Winter 2021-2022 period? Why or why not?
- B. How does the bad debt percentage for Winter 2022-2023 compare to the bad debt percentage for Winter 2017-2018?

**RESPONSE:**

- A. The Company's calculation of the bad debt percentage does not consider the causes of any changes in the bad debt percentage, such as the impact that COVID and related policies may have had. The Company's calculation follows the mathematical formula in the tariff that "the actual bad debt percentage shall be calculated by dividing the Company's actual net write-offs for the relevant measurement period by its revenue for the same period." The measurement period for the 0.86% used and approved in the 2022/2023 winter period is based on May 2021 through April 2022 revenues and write-offs.
- B. The bad debt percentage used in Docket No. DG 17-135 for the winter 2017/2018 period was 1.11%. The bad debt percentage proposed in the instant filing, Docket No. DG 23-076, is 0.26%.

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

DG 23-076

Winter 2023/2024 Cost of Gas (Supply) and Summer 2024 Cost of Gas (Supply)

RE: Liberty's August 21, 2023, and September 1, 2023, filings

Department of Energy Data Requests - Set 1 (COG Supply)

Date Request Received: 9/8/23  
Request No. DOE 1-14 (COG)

Date of Response: 9/18/23  
Respondent: James King

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**REQUEST:**

Reference: Liberty's August-September 2023 filing; RSA 362-I:2 (Supp 2022)

Liberty seems to have identified a Winter Period 2023-2024 "Deferred Gas Cost Prior Period Over Collection of "(8,577,690);" this appears to be a reported over-collection. Please provide a narrative describing the components that resulted in this figure. Similarly, Liberty seems to have identified a Summer 2024 "Prior Period (Over)/Under Collection of \$9,879,800," which appears to be a reported under-collection of \$9,879,800. Please provide a narrative describing the components that resulted in this figure. Please also confirm that the Winter and Summer periods are wholly independent of each other. See Culbertson and King Testimony at 06 and 015.

**RESPONSE:**

The Winter and Summer periods are wholly independent of each other, each with its own set of deferral accounts. The winter period 2023–2024 deferred gas cost prior period over-collection of (\$8,577,690) is the result of several factors. As described in the testimony, the over-collection was driven by the lag in the timing of monthly cost of gas rate adjustments as compared to changes in the underlying costs. That is, gas costs dropped much faster than the Company could adjust its COG rates through the monthly adjustments, resulting in an over-collection. Another factor contributing to the over-collection was two seasonal adjustments made during the winter period. In December 2022, the Company made an approximately \$10.2M adjustment for gas supply costs originally booked to summer which should have been booked to winter. The second seasonal adjustment, in March 2023, was for approximately \$6M for revenues that were initially booked to the winter period which were rebooked to the summer period. The Summer 2023 period began with an under-collection amount of approximately \$18M, and since the beginning of the period, the Company has lowered the under-collection balance by approximately \$9.5M. The Company expects that by the start of the 2024 summer period, this balance will further drop.