

STATE OF NEW HAMPSHIRE  
BEFORE THE  
PUBLIC UTILITIES COMMISSION

Docket No. DG 23-067

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty  
Distribution Service Rate Case  
Temporary Rates

DIRECT TESTIMONY

OF

TYLER J CULBERTSON

AND

C. DREW CAYTON

July 27, 2023



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**TABLE OF CONTENTS**

<u>TITLE</u>	<u>PAGE</u>
LIST OF ATTACHMENTS .....	iii
I. INTRODUCTION.....	1
II. NEED FOR TEMPORARY RATE RELIEF .....	4
III. REVENUE REQUIREMENT ANALYSIS.....	6
IV. BILL IMPACTS.....	9
V. CONCLUSION .....	10

**LIST OF ATTACHMENTS**

Attachment TJC/CDC-TEMP-1	Schedule T – Temporary Rate Increase
Attachment TJC/CDC-TEMP-2	Bill Impacts – Temporary Rates
Attachment TJC/CDC-TEMP-3	Curriculum Vitae of C. Drew Cayton

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Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty  
Docket No. DG 23-067  
Temporary Rates  
Direct Testimony of T. Culbertson and C. Drew Cayton  
Page 1 of 12

1 **I. INTRODUCTION**

2 **Q. Please state your full name, business address, and position.**

3 A. My name is Tyler J Culbertson. Since May 2023, I am employed by Liberty Utilities  
4 Service Corp. (“LUSC”) as the Director of Rates and Regulatory Affairs for Liberty  
5 Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty (“Liberty EnergyNorth” or the  
6 “Company”) and Liberty Utilities (Granite State Electric) Corp. (“Liberty GSE”). LUSC,  
7 Liberty EnergyNorth, and Liberty GSE are direct subsidiaries of Liberty Utilities Co.  
8 (“Liberty”). My business address is 15 Buttrick Road, Londonderry, New Hampshire.

9 **Q. On whose behalf are you submitting this testimony?**

10 A. I am submitting testimony in this proceeding before the New Hampshire Public Utilities  
11 Commission (“Commission”) on behalf of Liberty EnergyNorth.

12 **Q. Please describe your educational and professional background.**

13 A. I graduated from the University of Iowa in 2009 with a Bachelor of Science degree in  
14 Accounting, and I have held an active Certified Public Accountant (“CPA”) license since  
15 2012. Prior to accepting my position, I was employed by DCP Midstream as the Senior  
16 Manager of Regulatory Affairs from 2015 to 2023. My responsibility at DCP Midstream  
17 was to ensure company-wide compliance with the economic regulations of the Federal  
18 Energy Regulatory Commission and various state regulatory agencies. From 2014 to  
19 2015, I was a Senior Rate Analyst for Tallgrass Energy, and from 2010 to 2014, I was a  
20 Rate Analyst for SourceGas (now Black Hills Energy).

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty  
Docket No. DG 23-067  
Temporary Rates  
Direct Testimony of T. Culbertson and C. Drew Cayton  
Page 2 of 12

1 **Q. Please describe your duties for Liberty EnergyNorth.**

2 A. As Director of Rates and Regulatory Affairs, I am primarily responsible for rates  
3 regulatory affairs for Liberty EnergyNorth and Liberty GSE.

4 **Q. Have you previously testified in regulatory proceedings before the New Hampshire  
5 Public Utilities Commission (“Commission”)?**

6 A. Yes. I testified in a regulatory proceeding before the Commission in Docket No. DE 23-  
7 044 in support of Liberty GSE’s Default Energy Service rates.

8 **Q. Mr. Cayton, please state your full name, business address, and position.**

9 A. My name is C. Drew Cayton. My business address is 11401 Lamar Ave., Overland Park,  
10 Kansas, 66221. I am employed by Black and Veatch Management Consulting, LLC as a  
11 Principal Consultant.

12 **Q. Please describe your business and educational background.**

13 A. I am an economic consultant with more than fifteen years of experience regarding rate-  
14 making and regulatory issues involving state and federally regulated utilities, including  
15 seven years as an Energy Industry Analyst at the Federal Energy Regulatory Commission  
16 (“FERC”) in the Office of Administrative Litigation. I hold a Bachelor of Arts in  
17 Political Science and a Master’s in Public Administration from the University of North  
18 Carolina at Wilmington. A copy of my curriculum vitae is included as Attachment  
19 TJC/CDC-TEMP-3.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty  
Docket No. DG 23-067  
Temporary Rates  
Direct Testimony of T. Culbertson and C. Drew Cayton  
Page 3 of 12

1 **Q. What are your responsibilities in your current position?**

2 A. As a member of Black and Veatch Management Consulting, LLC's Global Advisory  
3 practice, my responsibilities include providing advisory services that address strategic,  
4 financial, reputational, and regulatory needs of energy and utility clients. My primary  
5 areas of focus are regulatory advisory, accounting, civil litigation, and financial analysis.

6 **Q. Have you testified before the Commission?**

7 A. No, I have not.

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

9 A. The purpose of this testimony is to support the Company's request for the Commission to  
10 set new distribution rates effective October 1, 2023, as temporary rates pursuant to RSA  
11 378:27, assuming the Commission suspends the Company's proposed tariff pages for a  
12 permanent rate increase. Specifically, our testimony explains why the Company is  
13 requesting authority to set temporary rates; provides the level of temporary rates sought  
14 by the Company; explains the adjustments incorporated into the Company's revenue  
15 requirement calculation; and provides the impact of the temporary rates on customers'  
16 bills.

17 **Q. Are you sponsoring any attachments and schedules?**

18 A. Yes. In addition to Mr. Cayton's curriculum vitae in Attachment TJC/CDC-TEMP-3, we  
19 are sponsoring the following attachments and schedules:

- 20
- Attachment TJC/CDC-TEMP-1, which includes the following schedule:

- 1                   ○ Schedule T – Temporary Rates Revenue Requirement and Revenue  
2                   Deficiency (all schedule references in this testimony are to Schedule T).  
3                   • Attachment TJC/ CDC-TEMP-2, which provides the bill impact analysis for  
4                   temporary rates.

5 **II. NEED FOR TEMPORARY RATE RELIEF**

6 **Q. Can you please summarize the reasons the Company is requesting temporary rate**  
7 **relief at this time?**

8 A. Liberty EnergyNorth is requesting authority to implement temporary rates effective  
9 October 1, 2023, primarily due to the revenue deficiency created by the difference  
10 between the capital investments made since the Company's last rate case in 2019 and the  
11 current level of base-rate revenue allowed in distribution rates. The Company's most  
12 recent rate case was Docket No. DG 20-105 and was based on a 2019 test year and  
13 included two step adjustments for plant additions in 2020 and 2021. As explained in  
14 more detail in the testimony of Company witnesses Tracy A. Mustoe and Bradford R.  
15 Marx, the Company made additional capital investments of approximately \$123.1 million  
16 in 2020, 2021, and 2022 that are not being recovered in rates. The Company's request  
17 for temporary rate relief is necessary to address the revenue deficiency due to these  
18 unrecovered capital investments.



Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty  
Docket No. DG 23-067  
Temporary Rates  
Direct Testimony of T. Culbertson and C. Drew Cayton  
Page 5 of 12

1 **Q. Please discuss the capital investments that are driving the Company's request for**  
2 **temporary rate relief.**

3 A. As noted above, the principal driver of the Company's request for temporary rate relief is  
4 to allow for the recovery of the cost of significant distribution system investments  
5 implemented since the Company's last step adjustment, which are not reflected in rates.  
6 The current level of base-rate revenue is insufficient to allow the Company an  
7 opportunity to earn a fair rate of return, as demonstrated by the financial results of the  
8 Company in the test year (twelve months ended December 31, 2022). If the deficiency is  
9 not addressed, the Company will experience additional financial degradation during the  
10 course of the Commission's review of the permanent rate request. The Company's  
11 capital investments are comprised of investments for growth and non-growth capital in its  
12 distribution system. Because the Company's customer base grows each year, the  
13 Company installs new gas service lines off its existing gas mains or builds gas main  
14 extensions that include new service lines to accommodate this growth. Non-growth-  
15 related investment is required to maintain system safety and address asset condition  
16 issues such as the replacement of leak prone pipe. While the Company has been allowed  
17 to recover some non-growth related plant investment between rate cases through the two  
18 step adjustments granted in the last rate case, the growth related plant investment is not  
19 currently being recovered in Liberty EnergyNorth's distribution rates.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty  
Docket No. DG 23-067  
Temporary Rates  
Direct Testimony of T. Culbertson and C. Drew Cayton  
Page 6 of 12

1 **Q. Are the Company’s current rates sufficient to allow it to earn a reasonable return**  
2 **on rate base?**

3 A. No, they are not. For the 12-month period ended December 31, 2022 (“Test Year”), the  
4 Company’s earned return on rate base for the distribution portion of its business was  
5 4.99% as shown on line 23 of Schedule T. This is less than the allowed return on rate  
6 base of 7.1% computed using the Company’s last authorized return on equity of 9.3%,  
7 established by the Commission in Order No. 26,505 (July 30, 2021), and its current cost  
8 of debt and capital structure (Schedule T, lines 93–95). As a result, Liberty  
9 EnergyNorth’s financial situation is not sustainable, compelling the Company to seek rate  
10 relief so that there are sufficient revenues to support utility operation and continued  
11 investment in the safe and reliable operation of the system.

12 **III. REVENUE REQUIREMENT ANALYSIS**

13 **Q. What level of temporary rate increase does the Company’s financial position**  
14 **support?**

15 A. As shown on Schedule T, page 3, based on updated plant in service on December 31,  
16 2022, the Company’s financial position can support a temporary increase of \$15,287,114,  
17 or a 14.94% increase in distribution revenue and a 6.83% increase in total revenue.

18 **Q. What level of temporary rate increase is the Company requesting?**

19 A. The Company requests temporary rates that would generate additional annual gross  
20 distribution revenue of \$15,287,114, which represents a 14.94% increase in distribution  
21 revenue and 6.83% increase in total revenue. The Company is requesting that temporary

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty  
Docket No. DG 23-067  
Temporary Rates  
Direct Testimony of T. Culbertson and C. Drew Cayton  
Page 7 of 12

1 rates take effect as of October 1, 2023, on a service-rendered basis, and that they be  
2 applied by increasing all rates under the existing rate design by a uniform percentage.

3 **Q. How did you calculate the temporary rate deficiency of \$15,287,114?**

4 A. We calculated the temporary rate deficiency by multiplying the 7.10% rate of return on  
5 rate base (described above) by rate base as of December 31, 2022, and then subtracting  
6 from that product the Company's actual return for the test year, with certain adjustments  
7 described below.

8 **Q. Please provide an overview of Schedule T (Attachment TJC/CDC-TEMP-1).**

9 A. Schedule T (Attachment TJC/CDC-TEMP-1) provides the Company's Temporary  
10 Revenue Requirement of \$117,614,312. The Company has calculated a distribution  
11 revenue deficiency of \$15,287,114 based on adjusted Test Year revenues of  
12 \$102,327,198. The computation of the revenue deficiency reflects total rate base of  
13 \$527,760,229 and assumes a weighted cost of capital of 7.10%.

14 **Q. Did you make any adjustments?**

15 A. Yes, we made the following adjustments:

- 16 1) Removed revenue related to the cost of gas and the Local Delivery Adjustment  
17 Charge ("LDAC") (Schedule T, line 2).
- 18 2) Removed revenue related to decoupling (Schedule T, line 3).
- 19 3) Removed the expenses associated with the cost of gas from the historical test year  
20 (Schedule T, line 8).

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty  
Docket No. DG 23-067  
Temporary Rates  
Direct Testimony of T. Culbertson and C. Drew Cayton  
Page 8 of 12

- 1           4) Adjusted distribution revenue (Schedule T, line 2) to agree with the separately  
2           computed cycle operating revenue presented in the testimony of Company witness  
3           Kenneth A. Sosnick.
- 4           5) Adjusted the amortization of certain ongoing regulatory assets including Costs to  
5           Achieve (“CTA”) interest and NHDAS contract (Schedule T, line 30).
- 6           6) Included the excess accumulated deferred income tax liability amortizations as a  
7           credit to amortization expense. This amortization is reflective of the regulatory  
8           liability grossed-up for income taxes, as calculated using the Reverse South  
9           Georgia method (Schedule T, line 32). This item is also discussed in our direct  
10          testimony regarding the revenue requirement for permanent rates, as well as  
11          Schedule RR-EN-3-6 to that testimony.
- 12          7) Adjusted income tax expense for the adjusted information, based on statutory  
13          rates and synchronized interest expense (Schedule T, line 15 with the calculation  
14          provided on lines 59–89, Schedule T).

15   **Q.    Why is the Company proposing normalizing adjustments to the cost of service in**  
16   **this filing?**

17   A.    Although the Company relies substantially on unadjusted 2022 test year data in the  
18   development of the cost of service, it is important to make normalizing adjustments to the  
19   cost of service. One reason is that included in any representative test year are cost or  
20   revenue elements that are non-recurring, out-of-period, or otherwise not appropriate to be  
21   reflected in the revenue requirement. Similarly, to the extent that the test year excludes  
22   certain known-and-measurable cost or revenue elements that are understood to be

1 incurred on a continuing basis, those elements are appropriate for inclusion in the revenue  
2 requirement.

3 **Q. Are the proposed normalizing adjustments consistent with the statute governing**  
4 **temporary rates?**

5 A. Yes. Pursuant to RSA 378.27, temporary rates “shall be sufficient to yield not less than a  
6 reasonable return on the cost of the property of the utility used and useful in the public  
7 service less accrued depreciation, *as shown by the reports of the utility filed with the*  
8 *commission, unless there appears to be reasonable ground for questioning the figures in*  
9 *such reports”* (emphasis added). The adjustments described above are items that are  
10 necessary to reflect the results of distribution operations from a regulatory perspective;  
11 thus, they are appropriate for inclusion in the calculation of temporary rates.

12 **IV. BILL IMPACTS**

13 **Q. Has the Company calculated the bill impacts from the proposed temporary rates?**

14 A. Yes. The bill impacts are shown in Attachment TJC/CDC-TEMP-2.

15 **Q. Please describe the customer bill impacts of the temporary rates.**

16 A. The annual bill impacts (as a percentage of the total bill) to various classes of customers  
17 are as follows:

- 18
- For a residential heating customer (Rate R-3) using 765 therms per year, the  
19 annual increase is \$103.94 or 10.64% on a total bill basis.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty  
Docket No. DG 23-067  
Temporary Rates  
Direct Testimony of T. Culbertson and C. Drew Cayton  
Page 10 of 12

- 1           • For a low annual use, high winter use commercial/industrial customer (Rate G-41)  
2           using 2,560 therms per year, the annual increase is \$270.48, or 10.37% on a total  
3           bill basis.
- 4           • For a medium annual use, high winter use commercial/industrial customer (Rate  
5           G-42) using 23,949 therms per year, the annual increase is \$1,694.05, or 8.45%  
6           on a total bill basis; and
- 7           • For medium annual use, low winter use commercial/industrial customer (Rate G-  
8           52) using 21,644 therms per year, the annual increase is \$1,013.67, or 5.04% on a  
9           total bill basis.

10           Additional information showing the bill impacts by rate class is provided in Attachment  
11           TJC/CDC-TEMP-2.

12   **Q.   Is the Company proposing any rate design changes associated with temporary**  
13   **rates?**

14   A.   Not at this time.

15   **V.   CONCLUSION**

16   **Q.   Please summarize why the Company is requesting a temporary rate increase.**

17   A.   The Company is seeking a temporary rate increase because its return on rate base for the  
18   historical test year ended December 31, 2022, as adjusted on Schedule T, was only  
19   4.99%, as compared to its allowed return of 7.1%. This is significantly less than the rate  
20   of return on equity approved by the Commission in the Company's last rate case filing  
21   (computed as described above) and is driven by the cost of capital investments since the

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty  
Docket No. DG 23-067  
Temporary Rates  
Direct Testimony of T. Culbertson and C. Drew Cayton  
Page 11 of 12

1 last rate case. Without a temporary rate increase, the Company will not have the  
2 opportunity to earn a reasonable return until a permanent rate order becomes effective.

3 **Q. How does the request for temporary rates relate to the Company's request for a**  
4 **permanent rate increase?**

5 A. The Company has requested a permanent rate increase of \$27,549,837; and the calculated  
6 deficiency for temporary rate purposes is \$15,287,114 or 55.49% of that amount, which  
7 demonstrates that the deficiency is driven predominantly by test year results. Temporary  
8 rates are proposed to be in effect until the establishment of permanent rates pursuant to  
9 the Commission's final order in this rate case. The temporary rate increase will reduce,  
10 but not eliminate, regulatory lag while providing the Commission and parties to the  
11 proceeding with sufficient opportunity to fully evaluate the Company's permanent rate  
12 request. The temporary rate increase will also allow the Company to begin returning  
13 excess accumulated deferred income tax dollars related to recent New Hampshire  
14 Business Profits Tax reductions to customers before permanent rates go into effect. The  
15 temporary rates as requested will also provide a gradual transition to the permanent rates  
16 ultimately approved by the Commission.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty  
Docket No. DG 23-067  
Temporary Rates  
Direct Testimony of T. Culbertson and C. Drew Cayton  
Page 12 of 12

1 **Q. Do the proposed temporary rates provide no more than a reasonable return on the**  
2 **cost of the property of the Company that is used and useful in the public service less**  
3 **accrued depreciation, as shown by the reports of the Company filed with the**  
4 **Commission?**

5 A. Yes. With the proposed temporary rates, the Company will earn no more than a  
6 reasonable return on its investment calculated on the books and records on file with the  
7 Commission. As demonstrated in Attachment TJC/CDC-TEMP-1, Schedule T, the  
8 Company's required level of temporary rates yields a rate of return equal to 7.1%.

9 **Q. Are customers protected from being overcharged by temporary rates if the final**  
10 **rate decision is less than the temporary rates?**

11 A. Yes, customers are protected because of the reconciling nature of temporary rates once  
12 permanent rates are established by the Commission.

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

14 A. Yes, it does.



**Liberty Utilities (EnergyNorth)**  
**Temporary Rate Increase**  
**Test Year Ended December 31, 2022**

Line	Account	Test Year Ended December 31, 2022	Cost of Gas	Adjustments	Distribution Operating Income	Proposed Temporary Increase	With Proposed Temporary Increase
1	<b>Revenue</b>						
2	Operating Revenue	\$ 209,490,317	\$ (110,661,385)	\$ (2,275,787)	\$ 96,553,144	\$ 15,287,114	\$ 111,840,258
3	Decoupling Revenue	8,479,807	(8,479,807)	-	-	-	-
4	Indirect COG Revenue	3,893,588	-	-	3,893,588	-	3,893,588
5	Other Revenue	1,880,466	-	-	1,880,466	-	1,880,466
6	<b>Revenue</b>	<b>\$ 223,744,178</b>	<b>\$ (119,141,193)</b>	<b>\$ (2,275,787)</b>	<b>\$ 102,327,198</b>	<b>\$ 15,287,114</b>	<b>\$ 117,614,312</b>
7							
8	<b>Operating Expenses</b>						
9	Operations and Maintenance - Gas	\$ 114,454,194	\$ (112,232,037)		\$ 2,222,157		\$ 2,222,157
10	Operations and Maintenance - Distribution	13,059,212	-		13,059,212		13,059,212
11	Customer Accounting	3,925,424	782,693		4,708,117		4,708,117
12	Sales & New Business	487,256	-		487,256		487,256
13	Administrative & General	12,266,440	-		12,266,440		12,266,440
14	Depreciation and Amortization	24,926,507	-	(2,944,134)	21,982,372		21,982,372
15	Taxes other than Income Taxes	15,457,322	-		15,457,322		15,457,322
16	Income Taxes	12,188,963	-	(6,358,544)	5,830,419	4,116,056	9,946,475
17	<b>Operating Expenses</b>	<b>\$ 196,765,317</b>	<b>\$ (111,449,344)</b>	<b>\$ (9,302,678)</b>	<b>\$ 76,013,295</b>	<b>\$ 4,116,056</b>	<b>\$ 80,129,350</b>
18							
19	<b>Utility Net Income</b>	<b>\$ 26,978,861</b>	<b>\$ (7,691,849)</b>	<b>\$ 7,026,891</b>	<b>\$ 26,313,903</b>	<b>\$ 11,171,059</b>	<b>\$ 37,484,962</b>
20							
21	<b>Rate Base</b>		<i>Line 48</i>		<b>\$ 527,760,229</b>		<b>\$ 527,760,229</b>
22							
23	<b>Rate of Return on Rate Base</b>				<b>4.99%</b>		<b>7.10%</b>
24							

Line	Description	Reference	Amount
25	<b>Adjustments</b>		
26	Adjust Operating Revenue	RR-3-EN-01	(2,275,787)
27	Adjustment to Operating Revenue	To Line 2	<u>\$ (2,275,787)</u>
28			
29	Adjust CTA, Concord Steam, and Depr Imbalance Amortization	RR-EN-3-5 & 6	\$ (551,702)
30	Adjustment to Amortization Expense	To Line 14	<u>\$ (551,702)</u>
31			
32	EADIT Amortization	RR-EN-3-6	\$ (2,392,432)
33	Adjustment to Amortization Expense	To Line 14	<u>\$ (2,392,432)</u>
34			
35	Historical Test Year Income Taxes	Line 16	\$ 12,188,963
36	Normalized Income Tax Expense	Line 78	5,830,419
37	Adjustment to Income Tax Expense	To Line 16	<u>\$ (6,358,544)</u>
38			
39	<b>Rate Base, 12/31/2022</b>		
40	Utility Plant	RR-EN-5	\$ 818,583,027
41	Accumulated Depreciation	RR-EN-5	(188,019,704)
42	Materials and Supplies	RR-EN-5-1	6,463,310
43	Customer Deposits	RR-EN-5-1	(3,027,697)
44	Cash Working Capital	Line 57	2,967,250
45	Regulatory Assets	RR-EN-5	12,610,917
46	Accumulated Deferred Income Taxes	RR-EN-5	(84,710,759)
47	Excess Accumulated Deferred Income Taxes	RR-EN-5	(37,106,114)
48	<b>Total Rate Base</b>		<u>\$ 527,760,229</u>
49			
50	<u>Cash Working Capital</u>		
51	Operating Expenses, Taxes other than Income Taxes	Sum Line 9 thru 15	\$ 70,182,876
52	Less: Depreciation and Amortization	Line 14	(21,982,372)
53	Income Taxes, Adjusted	Line 78	5,830,419
54	Less: Deferred Income Taxes	RR-EN-2-1-WP	(11,942,273)
55			<u>\$ 42,088,649</u>
56	Cash Working Capital	25.72 days	7.05%
57			<u>\$ 2,967,250</u>
58			

Line	Description	Reference	Amount
59	<b>Normalize Income Tax Expense</b>		
60	Net Income before Adjustments	Line 19	\$ 26,978,861
61	Add Back: Income Tax Expense	Line 16	12,188,963
62	Adjust Cost of Gas & LDAC	Line 19	(7,691,849)
63	Adjust Operating Revenue	Line 27	(2,275,787)
64	Adjust Other Revenue	Line 5	0
65	Adjust Amortization Expense	Line 29	2,944,134
66	Pre-Tax Operating Income, Adjusted		\$ 32,144,322
67			
68	Rate Base	Line 48	\$ 527,760,229
69	Debt Portion	RR-4	45.00%
70	Debt Component		\$ 237,492,103
71	Debt Cost	RR-4	4.417%
72	Synchronized Interest expense		10,490,026
73	Pre-Tax Income	Line 66 - Line 72	\$ 21,654,296
74			
75	Income Tax Rates		21.00% <i>Federal</i>
76			7.50% <i>State</i>
77			26.93% <i>Composite</i>
78	Income Tax Expense - Normalized		<u>5,830,419</u>
79			
80			
81	<b>Temporary Increase Revenue Deficiency</b>		
82	Rate Base	Line 48	\$ 527,760,229
83	Target Rate of Return on Rate Base	Line 95	7.10%
84	Operating Income Requirement		37,484,962
85	Operating Income at Present Rates	Line 19	26,313,903
86	Operating Income Deficiency		11,171,059
87	Income Tax Allowance	From Line 77	4,116,056
88	Revenue Deficiency		15,287,114
89	Additional Income Tax Expense	Line 88- Line 86	\$ 4,116,056
90			
91			
92	<u>Target Rate of Return on Rate Base</u>		
93	Common Equity	Docket DG 20-105 (ROE)	55.00% 9.30% 5.12%
94	Short-Term Debt		0.00% 0.00% 0.00%
95	Long-Term Debt		45.00% 4.417% 1.99%
96			<u>100.00% 7.10%</u>
97			
98			<u>% Increase</u>
99	Proposed Temporary Increase	Line 2	\$ 15,287,114
100	Distribution Revenue	Line 6	102,327,198 14.94%
101	Total Revenue	Line 6	\$ 223,744,178 6.83%
102	% of Permanent Increase		54.74%

Liberty Utilities (Energy/North Natural Gas) Corp.  
Bill Impact Analysis - Cost of Gas Filing Methodology

Line  
No

1 Winter Season (Jan. - Apr., Nov. - Dec.)  
2 Residential Non-Heating (RI)

PROPOSED	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
average Usage (Therms)	25	35	35	33	28	21	177
<b>Winter:</b>							
Cust. Chg	\$17.83	\$17.83	\$17.83	\$17.83	\$17.83	\$17.83	\$106.98
Headblock	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Tailblock	\$13.31	\$18.65	\$18.65	\$17.85	\$14.90	\$11.09	\$94.45
HB Threshold	\$ 0.5345						-
<b>Summer:</b>							
Cust. Chg							
Headblock							
Tailblock	\$ 0.5345						-
HB Threshold							
Total Base Rate Amount	\$31.14	\$36.48	\$36.48	\$35.68	\$32.73	\$28.92	\$201.43
COG Rate - (Winter)	\$0.1326	\$0.1326	\$0.1326	\$0.1326	\$0.1326	\$0.1326	\$0.1326
COG amount - Winter	\$3.30	\$4.63	\$4.63	\$4.43	\$3.70	\$2.75	\$23.43
COG Rate - (Summer)							
COG amount - Summer							
LDAC	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113
LDAC amount	\$2.77	\$3.88	\$3.88	\$3.72	\$3.10	\$2.31	\$19.67
<b>Total Bill</b>	<b>\$37.22</b>	<b>\$44.99</b>	<b>\$45.00</b>	<b>\$43.82</b>	<b>\$39.52</b>	<b>\$33.98</b>	<b>\$244.53</b>

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
13	11	9	9	11	16	69	246
\$17.83	\$17.83	\$17.83	\$17.83	\$17.83	\$17.83	\$106.98	\$213.96
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$7.11	\$6.07	\$4.93	\$4.65	\$5.65	\$8.59	\$37.01	\$131.46
\$24.94	\$23.90	\$22.76	\$22.48	\$23.48	\$26.42	\$143.99	\$345.42
\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$0.4351
\$16.07	\$13.70	\$11.13	\$10.51	\$12.76	\$19.40	\$83.58	\$107.01
\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1132
\$1.57	\$1.34	\$1.09	\$1.03	\$1.25	\$1.90	\$8.17	\$27.84
<b>\$42.58</b>	<b>\$38.94</b>	<b>\$34.97</b>	<b>\$34.02</b>	<b>\$37.49</b>	<b>\$47.72</b>	<b>\$235.73</b>	<b>\$480.26</b>

31 Winter Season (Jan. - Apr., Nov. - Dec.)  
32 Residential Non-Heating (RI)

CURRENT	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
average Usage (Therms)	25	35	35	33	28	21	177
<b>Winter:</b>							
Cust. Chg	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34
Headblock	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Tailblock	\$11.49	\$16.10	\$16.10	\$15.41	\$12.86	\$9.57	\$81.53
HB Threshold	\$ 0.4614						-
<b>Summer:</b>							
Cust. Chg							
Headblock							
Tailblock	\$ 0.4614						-
HB Threshold							
Total Base Rate Amount	\$26.88	\$31.49	\$31.49	\$30.80	\$28.25	\$24.96	\$173.87
COG Rate - (Winter)	\$0.1326	\$0.1326	\$0.1326	\$0.1326	\$0.1326	\$0.1326	\$0.1326
COG amount - Winter	\$3.3031	\$4.6275	\$4.6275	\$4.4279	\$3.6956	\$2.7503	\$23.43
COG Rate - (Summer)							
COG amount - Summer							
LDAC	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113
LDAC amount	\$2.77	\$3.88	\$3.88	\$3.72	\$3.10	\$2.31	\$19.67
<b>Total Bill</b>	<b>\$32.96</b>	<b>\$40.00</b>	<b>\$40.00</b>	<b>\$38.94</b>	<b>\$35.05</b>	<b>\$30.02</b>	<b>\$216.97</b>

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
13	11	9	9	11	16	69	246
\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.34	\$184.68
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$6.14	\$5.24	\$4.25	\$4.02	\$4.88	\$7.42	\$31.95	\$113.48
\$21.53	\$20.63	\$19.64	\$19.41	\$20.27	\$22.81	\$124.29	\$298.16
\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$0.4351
\$16.0669	\$13.7035	\$11.1276	\$10.5112	\$12.7620	\$19.4038	\$83.58	\$107.01
\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1132
\$1.57	\$1.34	\$1.09	\$1.03	\$1.25	\$1.90	\$8.17	\$27.84
<b>\$39.17</b>	<b>\$35.67</b>	<b>\$31.86</b>	<b>\$30.95</b>	<b>\$34.28</b>	<b>\$44.11</b>	<b>\$216.03</b>	<b>\$433.00</b>

DIFFERENCE:

<b>Total Bill</b>	<b>\$4.26</b>	<b>\$4.99</b>	<b>\$4.99</b>	<b>\$4.88</b>	<b>\$4.48</b>	<b>\$3.96</b>	<b>\$27.56</b>
% Change	12.93%	12.48%	12.48%	12.53%	12.78%	13.18%	12.70%
<b>Base Rate</b>	<b>\$4.26</b>	<b>\$4.99</b>	<b>\$4.99</b>	<b>\$4.88</b>	<b>\$4.48</b>	<b>\$3.96</b>	<b>\$27.56</b>
% Change	15.85%	15.85%	15.85%	15.85%	15.85%	15.85%	15.85%
<b>COG &amp; LDAC</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
% Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

<b>\$3.41</b>	<b>\$3.27</b>	<b>\$3.11</b>	<b>\$3.08</b>	<b>\$3.21</b>	<b>\$3.62</b>	<b>\$19.70</b>	<b>\$47.26</b>
8.71%	9.17%	9.77%	9.94%	9.37%	8.20%	9.12%	10.91%
<b>\$3.41</b>	<b>\$3.27</b>	<b>\$3.11</b>	<b>\$3.08</b>	<b>\$3.21</b>	<b>\$3.62</b>	<b>\$19.70</b>	<b>\$47.26</b>
15.85%	15.85%	15.85%	15.85%	15.85%	15.85%	15.85%	15.85%
<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Liberty Utilities (Energy/North Natural Gas) Corp.  
Bill Impact Analysis - Cost of Gas Filing Methodology

Line  
No

71 Winter Season (Jan. - Apr., Nov. - Dec.) 72 Residential Heating (R3)							
73 PROPOSED							
	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
74 average Usage (Therms)	80	119	144	137	101	61	642
75							
76							
77 <b>Winter:</b>							
78 Cust. Chg	\$17.83	\$17.83	\$17.83	\$17.83	\$17.83	\$17.83	\$106.98
79 Headblock	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
80 Tailblock	\$ 0.7143	\$56.90	\$85.20	\$102.73	\$97.80	\$72.23	\$458.62
81 HB Threshold	-						
82							
83 <b>Summer:</b>							
84 Cust. Chg							
85 Headblock							
86 Tailblock	\$ 0.7143						
87 HB Threshold	-						
88							
89 Total Base Rate Amount	\$74.73	\$103.03	\$120.56	\$115.63	\$90.06	\$61.60	\$565.60
90							
91 COG Rate - (Winter)	\$0.1326	\$0.1326	\$0.1326	\$0.1326	\$0.1326	\$0.1326	\$0.1326
92 COG amount - Winter	\$10.56	\$15.82	\$19.07	\$18.15	\$13.41	\$8.13	\$85.14
93							
94 COG Rate - (Summer)							
95 COG amount - Summer							
96							
97 LDAC	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113
98 LDAC amount	\$8.87	\$13.28	\$16.01	\$15.24	\$11.25	\$6.82	\$71.46
99							
100 <b>Total Bill</b>	<b>\$94.16</b>	<b>\$132.12</b>	<b>\$155.63</b>	<b>\$149.02</b>	<b>\$114.73</b>	<b>\$76.55</b>	<b>\$722.20</b>

Summer Season (May - Oct.)							
May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
27	17	13	12	18	36	123	765
\$17.83	\$17.83	\$17.83	\$17.83	\$17.83	\$17.83	\$106.98	\$213.96
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$19.10	\$11.80	\$9.38	\$8.92	\$12.88	\$25.94	\$88.02	\$546.64
\$36.93	\$29.63	\$27.21	\$26.75	\$30.71	\$43.77	\$195.00	\$760.60
\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$0.3056
\$32.27	\$19.93	\$15.85	\$15.07	\$21.77	\$43.84	\$148.74	\$233.88
\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1124
\$3.16	\$1.95	\$1.55	\$1.47	\$2.13	\$4.29	\$14.54	\$86.00
<b>\$72.36</b>	<b>\$51.51</b>	<b>\$44.61</b>	<b>\$43.29</b>	<b>\$54.61</b>	<b>\$91.90</b>	<b>\$358.28</b>	<b>\$1,080.48</b>

101 Winter Season (Jan. - Apr., Nov. - Dec.) 102 Residential Heating (R3)							
103 CURRENT							
	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
104 average Usage (Therms)	80	119	144	137	101	61	642
105							
106							
107 <b>Winter:</b>							
108 Cust. Chg	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.35
109 Headblock	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
110 Tailblock	\$ 0.6167	\$49.12	\$73.56	\$88.69	\$84.43	\$62.36	\$395.96
111 HB Threshold	-						
112							
113 <b>Summer:</b>							
114 Cust. Chg							
115 Headblock							
116 Tailblock	\$ 0.6167						
117 HB Threshold	-						
118							
119 Total Base Rate Amount	\$64.52	\$88.95	\$104.08	\$99.83	\$77.75	\$53.18	\$488.31
120							
121 COG Rate - (Winter)	\$0.1326	\$0.1326	\$0.1326	\$0.1326	\$0.1326	\$0.1326	\$0.1326
122 COG amount - Winter	\$10.5622	\$15.8163	\$19.0696	\$18.1545	\$13.4089	\$8.1257	\$85.14
123							
124 COG Rate - (Summer)							
125 COG amount - Summer							
126							
127 LDAC	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113
128 LDAC amount	\$8.87	\$13.28	\$16.01	\$15.24	\$11.25	\$6.82	\$71.46
129							
130 <b>Total Bill</b>	<b>\$83.94</b>	<b>\$118.04</b>	<b>\$139.16</b>	<b>\$133.22</b>	<b>\$102.42</b>	<b>\$68.13</b>	<b>\$644.91</b>
131							
132 <b>DIFFERENCE:</b>							
133 <b>Total Bill</b>	<b>\$10.21</b>	<b>\$14.08</b>	<b>\$16.47</b>	<b>\$15.80</b>	<b>\$12.31</b>	<b>\$8.42</b>	<b>\$77.29</b>
134 % Change	12.17%	11.93%	11.84%	11.86%	12.02%	12.36%	11.98%
135							
136 <b>Base Rate</b>	<b>\$10.21</b>	<b>\$14.08</b>	<b>\$16.47</b>	<b>\$15.80</b>	<b>\$12.31</b>	<b>\$8.42</b>	<b>\$77.29</b>
137 % Change	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%
138							
139 <b>COG &amp; LDAC</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
140 % Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Summer Season (May - Oct.)							
May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
27	17	13	12	18	36	123	765
\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.35	\$184.71
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$16.49	\$10.18	\$8.10	\$7.70	\$11.12	\$22.3986	\$75.99	\$471.95
\$31.88	\$25.58	\$23.49	\$23.09	\$26.52	\$37.79	\$168.35	\$656.66
\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$0.3056
\$32.2747	\$19.9342	\$15.8507	\$15.0685	\$21.7709	\$43.8420	\$148.74	\$233.88
\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1124
\$3.16	\$1.95	\$1.55	\$1.47	\$2.13	\$4.29	\$14.54	\$86.00
<b>\$67.31</b>	<b>\$47.46</b>	<b>\$40.89</b>	<b>\$39.63</b>	<b>\$50.41</b>	<b>\$85.92</b>	<b>\$331.63</b>	<b>\$976.54</b>
<b>\$5.05</b>	<b>\$4.05</b>	<b>\$3.72</b>	<b>\$3.66</b>	<b>\$4.20</b>	<b>\$5.98</b>	<b>\$26.65</b>	<b>\$103.94</b>
7.50%	8.53%	9.10%	9.22%	8.33%	6.96%	8.04%	10.64%
\$5.05	\$4.05	\$3.72	\$3.66	\$4.20	\$5.98	\$26.65	\$103.94
15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Liberty Utilities (Energy/North Natural Gas) Corp.  
Bill Impact Analysis - Cost of Gas Filing Methodology

Line  
No

141 Winter Season (Jan. - Apr., Nov. - Dec.)  
142 Low Income Residential Heating (R4)

PROPOSED	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
average Usage (Therms)	64	97	138	131	99	61	590
<b>Winter:</b>							
Cust. Chg	\$9.81	\$9.81	\$9.81	\$9.81	\$9.81	\$9.81	\$58.86
Headblock	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Tailblock	\$ 0.7143	\$25.18	\$38.05	\$54.05	\$51.35	\$38.97	\$231.62
HB Threshold	-						
<b>Summer:</b>							
Cust. Chg							
Headblock							
Tailblock	\$ 0.3929						
HB Threshold	-						
Total Base Rate Amount	\$34.99	\$47.86	\$63.86	\$61.16	\$48.78	\$33.82	\$290.48
COG Rate - (Winter)	\$0.0729	\$0.0729	\$0.0729	\$0.0729	\$0.0729	\$0.0729	\$0.0729
COG amount - Winter	\$4.6725	\$7.0599	\$10.0279	\$9.5285	\$7.2315	\$4.4550	\$42.98
COG Rate - (Summer)							
COG amount - Summer							
LDAC	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113
LDAC amount	\$7.13	\$10.78	\$15.31	\$14.55	\$11.04	\$6.80	\$65.61
<b>Total Bill</b>	<b>\$46.80</b>	<b>\$65.70</b>	<b>\$89.19</b>	<b>\$85.24</b>	<b>\$67.06</b>	<b>\$45.08</b>	<b>\$399.07</b>

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
27	17	14	13	16	30	117	706
\$17.83	\$17.83	\$17.83	\$17.83	\$17.83	\$17.83	\$106.98	\$165.84
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$19.29	\$12.0616	\$9.7290	\$8.9666	\$11.7492	\$21.6946	\$83.49	\$315.11
\$37.12	\$29.89	\$27.56	\$26.80	\$29.58	\$39.52	\$190.47	\$480.95
\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$0.2606
\$32.60	\$20.38	\$16.44	\$15.15	\$19.85	\$36.66	\$141.09	\$184.07
\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1124
\$3.19	\$1.99	\$1.61	\$1.48	\$1.94	\$3.58	\$13.79	\$79.40
<b>\$72.90</b>	<b>\$52.27</b>	<b>\$45.61</b>	<b>\$43.43</b>	<b>\$51.38</b>	<b>\$79.77</b>	<b>\$345.35</b>	<b>\$744.42</b>

171 Winter Season (Jan. - Apr., Nov. - Dec.)  
172 Low Income Residential Heating (R4)

CURRENT	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
average Usage (Therms)	64	97	138	131	99	61	590
<b>Winter:</b>							
Cust. Chg	\$8.47	\$8.47	\$8.47	\$8.47	\$8.47	\$8.47	\$50.79
Headblock	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Tailblock	\$ 0.6167	\$21.74	\$32.85	\$46.66	\$44.34	\$33.65	\$199.96
HB Threshold	-						
<b>Summer:</b>							
Cust. Chg							
Headblock							
Tailblock	\$ 0.3392						
HB Threshold	-						
Total Base Rate Amount	\$30.21	\$41.31	\$55.13	\$52.80	\$42.11	\$29.19	\$250.76
COG Rate - (Winter)	\$0.0729	\$0.0729	\$0.0729	\$0.0729	\$0.0729	\$0.0729	\$0.0729
COG amount - Winter	\$4.6725	\$7.0599	\$10.0279	\$9.5285	\$7.2315	\$4.4550	\$42.98
COG Rate - (Summer)							
COG amount - Summer							
LDAC	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	\$0.1113	0.1113
LDAC amount	\$7.13	\$10.78	\$15.31	\$14.55	\$11.04	\$6.80	\$65.61
<b>Total Bill</b>	<b>\$42.01</b>	<b>\$59.15</b>	<b>\$80.46</b>	<b>\$76.88</b>	<b>\$60.39</b>	<b>\$40.45</b>	<b>\$359.34</b>

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
27	17	14	13	16	30	117	706
\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$15.39	\$92.35	\$143.15
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$16.6539	\$10.41	\$8.40	\$7.74	\$10.14	\$18.73	\$72.08	\$272.04
\$32.05	\$25.81	\$23.79	\$23.13	\$25.54	\$34.12	\$164.44	\$415.19
\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$1.2071	\$0.2606
\$32.5975	\$20.3829	\$16.4411	\$15.1527	\$19.8550	\$36.6619	\$141.09	\$184.07
\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1180	\$0.1124
\$3.19	\$1.99	\$1.61	\$1.48	\$1.94	\$3.58	\$13.79	\$79.40
<b>\$67.83</b>	<b>\$48.18</b>	<b>\$41.84</b>	<b>\$39.77</b>	<b>\$47.33</b>	<b>\$74.37</b>	<b>\$319.32</b>	<b>\$678.66</b>

DIFFERENCE:

<b>Total Bill</b>	<b>\$4.79</b>	<b>\$6.54</b>	<b>\$8.73</b>	<b>\$8.36</b>	<b>\$6.67</b>	<b>\$4.63</b>	<b>\$39.72</b>
% Change	11.39%	11.06%	10.85%	10.88%	11.05%	11.44%	11.05%
<b>Base Rate</b>	<b>\$4.79</b>	<b>\$6.54</b>	<b>\$8.73</b>	<b>\$8.36</b>	<b>\$6.67</b>	<b>\$4.63</b>	<b>\$39.72</b>
% Change	15.84%	15.84%	15.84%	15.84%	15.84%	15.84%	15.84%
<b>COG &amp; LDAC</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
% Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

<b>\$5.07</b>	<b>\$4.09</b>	<b>\$3.77</b>	<b>\$3.66</b>	<b>\$4.04</b>	<b>\$5.40</b>	<b>\$26.03</b>	<b>\$65.76</b>
7.48%	8.48%	9.00%	9.21%	8.54%	7.26%	8.15%	9.69%
<b>\$5.07</b>	<b>\$4.09</b>	<b>\$3.77</b>	<b>\$3.66</b>	<b>\$4.04</b>	<b>\$5.40</b>	<b>\$26.03</b>	<b>\$65.76</b>
15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.84%
<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Liberty Utilities (Energy/North Natural Gas) Corp.  
Bill Impact Analysis - Cost of Gas Filing Methodology

Line  
No

211 Winter Season (Jan. - Apr., Nov. - Dec.)  
212 Commercial/Industrial - Low Annual Use, High Winter Use (G-41)

213 PROPOSED	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
214 average Usage (Therms)	266	421	523	495	351	196	2,252
217 <b>Winter:</b>							
218 Cust. Chg	\$70.44	\$70.44	\$70.44	\$70.44	\$70.44	\$70.44	\$422.64
219 Headblock \$ 0.5708	\$57.08	\$57.08	\$57.08	\$57.08	\$57.08	\$57.08	\$342.48
220 Tailblock \$ 0.3927	\$65.10	\$126.21	\$166.15	\$155.15	\$98.42	\$37.66	\$648.68
221 HB Threshold 100							
222							
223 <b>Summer:</b>							
224 Cust. Chg							
225 Headblock \$ 0.5708							
226 Tailblock \$ 0.3927							
227 HB Threshold 20							
228							
229 Total Base Rate Amount	\$192.62	\$253.73	\$293.67	\$282.67	\$225.94	\$165.18	\$1,413.80
230							
231 COG Rate - (Winter)	\$0.1327	\$0.1327	\$0.1327	\$0.1327	\$0.1327	\$0.1327	\$0.1327
232 COG amount - Winter	\$35.2684	\$55.9187	\$69.4152	\$65.6963	\$46.5266	\$25.9956	\$298.82
233							
234 COG Rate - (Summer)							
235 COG amount - Summer							
236							
237 LDAC	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890
238 LDAC amount	\$23.65	\$37.50	\$46.56	\$44.06	\$31.20	\$17.43	\$200.41
239							
240 <b>Total Bill</b>	<b>\$251.54</b>	<b>\$347.15</b>	<b>\$409.64</b>	<b>\$392.42</b>	<b>\$303.67</b>	<b>\$208.61</b>	<b>\$1,913.04</b>

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
72	36	27	25	44	104	308	2,560
\$70.44	\$70.44	\$70.44	\$70.44	\$70.44	\$70.44	\$422.64	\$845.28
\$11.42	\$11.42	\$11.42	\$11.42	\$11.42	\$11.42	\$68.50	\$410.98
\$20.55	\$6.26	\$2.55	\$1.91	\$9.46	\$33.17	\$73.91	\$722.59
\$102.40	\$88.12	\$84.41	\$83.77	\$91.31	\$115.03	\$565.04	\$1,978.84
\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$0.2621
\$87.32	\$43.41	\$32.00	\$30.02	\$53.22	\$126.15	\$372.12	\$670.94
\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0898
\$6.92	\$3.44	\$2.54	\$2.38	\$4.22	\$10.00	\$29.49	\$229.91
<b>\$196.64</b>	<b>\$134.97</b>	<b>\$118.95</b>	<b>\$116.17</b>	<b>\$148.75</b>	<b>\$251.17</b>	<b>\$966.66</b>	<b>\$2,879.69</b>

241 Winter Season (Jan. - Apr., Nov. - Dec.)  
242 Commercial/Industrial - Low Annual Use, High Winter Use (G-41)

243 CURRENT	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
244 average Usage (Therms)	266	421	523	495	351	196	2,252
247 <b>Winter:</b>							
248 Cust. Chg	\$60.81	\$60.81	\$60.81	\$60.81	\$60.81	\$60.81	\$364.89
249 Headblock \$ 0.4928	\$49.28	\$49.28	\$49.28	\$49.28	\$49.28	\$49.28	\$295.68
250 Tailblock \$ 0.3390	\$56.20	\$108.95	\$143.43	\$133.93	\$84.96	\$32.51	\$559.98
251 HB Threshold 100							
252							
253 <b>Summer:</b>							
254 Cust. Chg							
255 Headblock \$ 0.4928							
256 Tailblock \$ 0.3390							
257 HB Threshold 20							
258							
259 Total Base Rate Amount	\$166.29	\$219.05	\$253.53	\$244.02	\$195.05	\$142.60	\$1,220.55
260							
261 COG Rate - (Winter)	\$0.1327	\$0.1327	\$0.1327	\$0.1327	\$0.1327	\$0.1327	\$0.1327
262 COG amount - Winter	\$35.2684	\$55.9187	\$69.4152	\$65.6963	\$46.5266	\$25.9956	\$298.82
263							
264 COG Rate - (Summer)							
265 COG amount - Summer							
266							
267 LDAC	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890
268 LDAC amount	\$23.65	\$37.50	\$46.56	\$44.06	\$31.20	\$17.43	\$200.41
269							
270 <b>Total Bill</b>	<b>\$225.21</b>	<b>\$312.47</b>	<b>\$369.50</b>	<b>\$353.78</b>	<b>\$272.78</b>	<b>\$186.03</b>	<b>\$1,719.78</b>

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
72	36	27	25	44	104	308	2,560
\$60.81	\$60.81	\$60.81	\$60.81	\$60.81	\$60.81	\$364.89	\$729.78
\$9.86	\$9.86	\$9.86	\$9.86	\$9.86	\$9.86	\$59.14	\$354.82
\$17.74	\$5.41	\$2.20	\$1.65	\$8.16	\$28.64	\$63.80	\$623.78
\$88.41	\$76.08	\$72.88	\$72.32	\$78.83	\$99.31	\$487.82	\$1,708.37
\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$0.2621
\$87.32	\$43.41	\$32.00	\$30.02	\$53.22	\$126.15	\$372.12	\$670.94
\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0898
\$6.92	\$3.44	\$2.54	\$2.38	\$4.22	\$10.00	\$29.49	\$229.91
<b>\$182.65</b>	<b>\$122.93</b>	<b>\$107.41</b>	<b>\$104.72</b>	<b>\$136.27</b>	<b>\$235.45</b>	<b>\$889.44</b>	<b>\$2,609.22</b>

271 **DIFFERENCE:**

273 <b>Total Bill</b>	<b>\$26.33</b>	<b>\$34.68</b>	<b>\$40.15</b>	<b>\$38.64</b>	<b>\$30.88</b>	<b>\$22.58</b>	<b>\$193.26</b>
274 % Change	11.69%	11.10%	10.87%	10.92%	11.32%	12.13%	11.24%
275							
276 <b>Base Rate</b>	<b>\$26.33</b>	<b>\$34.68</b>	<b>\$40.15</b>	<b>\$38.64</b>	<b>\$30.88</b>	<b>\$22.58</b>	<b>\$193.26</b>
277 % Change	15.83%	15.83%	15.84%	15.83%	15.83%	15.83%	15.83%
278							
279 <b>COG &amp; LDAC</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
280 % Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

<b>\$13.99</b>	<b>\$12.04</b>	<b>\$11.53</b>	<b>\$11.45</b>	<b>\$12.48</b>	<b>\$15.72</b>	<b>\$77.22</b>	<b>\$270.48</b>
7.66%	9.80%	10.74%	10.93%	9.16%	6.68%	8.68%	10.37%
\$13.99	\$12.04	\$11.53	\$11.45	\$12.48	\$15.72	\$77.22	\$270.48
15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Liberty Utilities (EnergyNorth Natural Gas) Corp.  
Bill Impact Analysis - Cost of Gas Filing Methodology

Line  
No

281 Winter Season (Jan. - Apr., Nov. - Dec.)

282 Commercial/Industrial - Medium Annual Use, High Winter Use (G-42)

283 PROPOSED	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
284 average Usage (Therms)	2,572	3,720	4,472	4,295	3,196	1,965	20,220
287 <b>Winter:</b>							
288 Cust. Chg	\$211.30	\$211.30	\$211.30	\$211.30	\$211.30	\$211.30	\$1,267.80
289 Headblock \$ 0.5195	\$519.50	\$519.50	\$519.50	\$519.50	\$519.50	\$519.50	\$3,117.00
290 Tailblock \$ 0.3548	\$557.82	\$964.96	\$1,231.87	\$1,169.19	\$779.29	\$342.24	\$5,045.37
291 HB Threshold 1,000							
292							
293 <b>Summer:</b>							
294 Cust. Chg							
295 Headblock \$ 0.5195							
296 Tailblock \$ 0.3548							
297 HB Threshold 400							
298							
299 Total Base Rate Amount	\$1,288.62	\$1,695.76	\$1,962.67	\$1,899.99	\$1,510.09	\$1,073.04	\$9,430.17
300							
301 COG Rate - (Winter)	\$0.1327	\$0.1327	\$0.1327	\$0.1327	\$0.1327	\$0.1327	\$0.1327
302 COG amount - Winter	\$341.33	\$493.61	\$593.44	\$569.99	\$424.16	\$260.70	\$2,683.24
303							
304 COG Rate - (Summer)							
305 COG amount - Summer							
306							
307 LDAC	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890
308 LDAC amount	\$228.93	\$331.06	\$398.01	\$382.29	\$284.48	\$174.85	\$1,799.61
309							
310 <b>Total Bill</b>	<b>\$1,858.88</b>	<b>\$2,520.43</b>	<b>\$2,954.11</b>	<b>\$2,852.28</b>	<b>\$2,218.73</b>	<b>\$1,508.59</b>	<b>\$13,913.02</b>

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
819	445	332.59	333.46	570	1,228	3,728	23,949
\$211.30	\$211.30	\$211.30	\$211.30	\$211.30	\$211.30	\$1,267.80	\$2,535.60
\$207.80	\$207.80	\$172.78	\$173.23	\$207.80	\$207.80	\$1,177.21	\$4,294.21
\$148.60	\$16.05	\$0.00	\$0.00	\$60.46	\$293.78	\$518.88	\$5,564.25
\$567.70	\$435.15	\$384.08	\$384.53	\$479.56	\$712.88	\$2,963.89	\$12,394.06
\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$0.3000
\$988.65	\$537.56	\$401.57	\$402.61	\$688.70	\$1,482.69	\$4,501.79	\$7,185.03
\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0900
\$78.36	\$42.61	\$31.83	\$31.91	\$54.59	\$117.52	\$356.82	\$2,156.43
<b>\$1,634.71</b>	<b>\$1,015.32</b>	<b>\$817.48</b>	<b>\$819.06</b>	<b>\$1,222.85</b>	<b>\$2,313.09</b>	<b>\$7,822.50</b>	<b>\$21,735.51</b>

311 Winter Season (Jan. - Apr., Nov. - Dec.)

312 Commercial/Industrial - Medium Annual Use, High Winter Use (G-42)

313 CURRENT	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
314 average Usage (Therms)	2,572	3,720	4,472	4,295	3,196	1,965	20,220
317 <b>Winter:</b>							
318 Cust. Chg	\$182.42	\$182.42	\$182.42	\$182.42	\$182.42	\$182.42	\$1,094.53
319 Headblock \$ 0.4485	\$448.50	\$448.50	\$448.50	\$448.50	\$448.50	\$448.50	\$2,691.00
320 Tailblock \$ 0.3063	\$481.57	\$833.05	\$1,063.48	\$1,009.37	\$672.76	\$295.45	\$4,355.68
321 HB Threshold 1,000							
322							
323 <b>Summer:</b>							
324 Cust. Chg							
325 Headblock \$ 0.4485							
326 Tailblock \$ 0.3063							
327 HB Threshold 400							
328							
329 Total Base Rate Amount	\$1,112.49	\$1,463.97	\$1,694.40	\$1,640.29	\$1,303.68	\$926.38	\$8,141.21
330							
331 COG Rate - (Winter)	\$0.1327	\$0.1327	\$0.1327	\$0.1327	\$0.1327	\$0.1327	\$0.1327
332 COG amount - Winter	\$341.3331	\$493.6084	\$593.4356	\$569.9944	\$424.1640	\$260.7014	\$2,683.24
333							
334 COG Rate - (Summer)							
335 COG amount - Summer							
336							
337 LDAC	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890
338 LDAC amount	\$228.93	\$331.06	\$398.01	\$382.29	\$284.48	\$174.85	\$1,799.61
339							
340 <b>Total Bill</b>	<b>\$1,682.75</b>	<b>\$2,288.64</b>	<b>\$2,685.84</b>	<b>\$2,592.57</b>	<b>\$2,012.33</b>	<b>\$1,361.93</b>	<b>\$12,624.06</b>
341							
342 <b>DIFFERENCE:</b>							
343 <b>Total Bill</b>	<b>\$176.13</b>	<b>\$231.79</b>	<b>\$268.27</b>	<b>\$259.70</b>	<b>\$206.41</b>	<b>\$146.66</b>	<b>\$1,288.96</b>
344 % Change	10.47%	10.13%	9.99%	10.02%	10.26%	10.77%	10.21%
345							
346 <b>Base Rate</b>	<b>\$176.13</b>	<b>\$231.79</b>	<b>\$268.27</b>	<b>\$259.70</b>	<b>\$206.41</b>	<b>\$146.66</b>	<b>\$1,288.96</b>
347 % Change	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%
348							
349 <b>COG &amp; LDAC</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
350 % Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
819	445	333	333	570	1,228	3,728	23,949
\$182.42	\$182.42	\$182.42	\$182.42	\$182.42	\$182.42	\$1,094.53	\$2,189.05
\$179.40	\$179.40	\$149.17	\$149.55	\$179.40	\$179.40	\$1,016.32	\$3,707.32
\$128.29	\$13.85	\$0.00	\$0.00	\$52.19	\$253.62	\$447.95	\$4,803.63
\$490.11	\$375.67	\$331.59	\$331.98	\$414.02	\$615.44	\$2,558.80	\$10,700.01
\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$1.2074	\$0.3000
\$988.65	\$537.56	\$401.57	\$402.61	\$688.70	\$1,482.69	\$4,501.79	\$7,185.03
\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0900
\$78.36	\$42.61	\$31.83	\$31.91	\$54.59	\$117.52	\$356.82	\$2,156.43
<b>\$1,557.12</b>	<b>\$955.84</b>	<b>\$764.98</b>	<b>\$766.50</b>	<b>\$1,157.31</b>	<b>\$2,215.65</b>	<b>\$7,417.40</b>	<b>\$20,041.46</b>
\$77.59	\$59.47	\$52.49	\$52.55	\$65.54	\$97.44	\$405.09	\$1,694.05
4.98%	6.22%	6.86%	6.86%	5.66%	4.40%	5.46%	8.45%
\$77.59	\$59.47	\$52.49	\$52.55	\$65.54	\$97.44	\$405.09	\$1,694.05
15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%





Liberty Utilities (Energy/North Natural Gas) Corp.  
Bill Impact Analysis - Cost of Gas Filing Methodology

Line No

421 Winter Season (Jan. - Apr., Nov. - Dec.)  
422 Commercial/Industrial - Low Annual Use, Low Winter Use (G-51)

423 PROPOSED	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
424 average Usage (Therms)	289	347	393	372	315	255	1,972
427 Winter:							
428 Cust. Chg	\$70.51	\$70.51	\$70.51	\$70.51	\$70.51	\$70.51	\$423.06
429 Headblock \$ 0.3440	\$34.40	\$34.40	\$34.40	\$34.40	\$34.40	\$34.40	\$206.40
430 Tailblock \$ 0.2297	\$43.47	\$56.73	\$67.37	\$62.58	\$49.30	\$35.61	\$315.06
431 HB Threshold 100							
432 Summer:							
433 Cust. Chg							
434 Headblock \$ 0.3440							
435 Tailblock \$ 0.2297							
436 HB Threshold 100							
437 Total Base Rate Amount	\$148.38	\$161.64	\$172.28	\$167.49	\$154.21	\$140.52	\$944.52
438 COG Rate - (Winter)	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322
439 COG amount - Winter	\$38.2380	\$45.8703	\$51.9946	\$49.2367	\$41.5924	\$33.7176	\$260.65
440 COG Rate - (Summer)							
441 COG amount - Summer							
442 LDAC	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890
443 LDAC amount	\$25.74	\$30.88	\$35.00	\$33.15	\$28.00	\$22.70	\$175.48
444 Total Bill	\$212.36	\$238.39	\$259.28	\$249.87	\$223.80	\$196.94	\$1,380.65

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
205	205	186	174	196	257	1,223	3,195
\$70.51	\$70.51	\$70.51	\$70.51	\$70.51	\$70.51	\$423.06	\$846.12
\$34.40	\$34.40	\$34.40	\$34.40	\$34.40	\$34.40	\$206.40	\$412.80
\$24.06	\$24.12	\$19.75	\$17.02	\$22.11	\$36.13	\$143.20	\$458.26
\$128.97	\$129.03	\$124.66	\$121.93	\$127.02	\$141.04	\$772.66	\$1,717.18
\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$0.5437
\$247.08	\$247.43	\$224.42	\$210.12	\$236.87	\$310.50	\$1,476.41	\$1,737.06
\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0916
\$19.59	\$19.62	\$17.80	\$16.66	\$18.78	\$24.62	\$117.08	\$292.56
\$395.64	\$396.08	\$366.87	\$348.71	\$382.68	\$476.16	\$2,366.14	\$3,746.79

451 Winter Season (Jan. - Apr., Nov. - Dec.)  
452 Commercial/Industrial - Low Annual Use, Low Winter Use (G-51)

453 CURRENT	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
454 average Usage (Therms)	289	347	393	372	315	255	1,972
457 Winter:							
458 Cust. Chg	\$60.87	\$60.87	\$60.87	\$60.87	\$60.87	\$60.87	\$365.22
459 Headblock \$ 0.2970	\$29.70	\$29.70	\$29.70	\$29.70	\$29.70	\$29.70	\$178.20
460 Tailblock \$ 0.1983	\$37.53	\$48.98	\$58.16	\$54.03	\$42.56	\$30.75	\$271.99
461 HB Threshold 100							
462 Summer:							
463 Cust. Chg							
464 Headblock \$ 0.2970							
465 Tailblock \$ 0.1983							
466 HB Threshold 100							
467 Total Base Rate Amount	\$128.10	\$139.55	\$148.73	\$144.60	\$133.13	\$121.32	\$815.42
468 COG Rate - (Winter)	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322
469 COG amount - Winter	\$38.2380	\$45.8703	\$51.9946	\$49.2367	\$41.5924	\$33.7176	\$260.65
470 COG Rate - (Summer)							
471 COG amount - Summer							
472 LDAC	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890
473 LDAC amount	\$25.74	\$30.88	\$35.00	\$33.15	\$28.00	\$22.70	\$175.48
474 Total Bill	\$192.08	\$216.30	\$235.73	\$226.98	\$202.72	\$177.73	\$1,251.54

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
205	205	186	174	196	257	1,223	3,195
\$60.87	\$60.87	\$60.87	\$60.87	\$60.87	\$60.87	\$365.22	\$730.45
\$29.70	\$29.70	\$29.70	\$29.70	\$29.70	\$29.70	\$178.20	\$356.40
\$20.77	\$20.83	\$17.05	\$14.70	\$19.09	\$31.19	\$123.62	\$395.62
\$111.34	\$111.40	\$107.62	\$105.27	\$109.66	\$121.76	\$667.05	\$1,482.46
\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$0.5437
\$247.08	\$247.43	\$224.42	\$210.12	\$236.87	\$310.50	\$1,476.41	\$1,737.06
\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0916
\$19.59	\$19.62	\$17.80	\$16.66	\$18.78	\$24.62	\$117.08	\$292.56
\$378.01	\$378.44	\$349.83	\$332.05	\$365.31	\$456.88	\$2,260.53	\$3,512.08

481 DIFFERENCE:

482 Total Bill	\$20.28	\$22.09	\$23.55	\$22.89	\$21.08	\$19.21	\$129.11
483 % Change	10.56%	10.21%	9.99%	10.09%	10.40%	10.81%	10.32%
484 Base Rate	\$20.28	\$22.09	\$23.55	\$22.89	\$21.08	\$19.21	\$129.11
485 % Change	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%
486 COG & LDAC	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
487 % Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

\$17.63	\$17.64	\$17.04	\$16.67	\$17.36	\$19.28	\$105.61	\$234.72
4.66%	4.66%	4.87%	5.02%	4.75%	4.22%	4.67%	6.68%
\$17.63	\$17.64	\$17.04	\$16.67	\$17.36	\$19.28	\$105.61	\$234.72
15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Liberty Utilities (Energy/North Natural Gas) Corp.  
Bill Impact Analysis - Cost of Gas Filing Methodology

Line No

491 Winter Season (Jan. - Apr., Nov. - Dec.)  
492 Commercial/Industrial - Medium Annual Use, Low Winter Use (G-52)

493 PROPOSED	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
494 average Usage (Therms)	1,916	2,288	2,709	2,529	2,176	1,766	13,384
497 <b>Winter:</b>							
498 Cust. Chg	\$211.12	\$211.12	\$211.12	\$211.12	\$211.12	\$211.12	\$1,266.72
499 Headblock \$ 0.2965	\$296.50	\$296.50	\$296.50	\$296.50	\$296.50	\$296.50	\$1,779.00
500 Tailblock \$ 0.2026	\$185.56	\$260.95	\$346.29	\$309.77	\$238.29	\$155.19	\$1,496.06
501 HB Threshold 1,000							
502 <b>Summer:</b>							
503 Cust. Chg							
504 Headblock \$ 0.2190							
505 Tailblock \$ 0.1311							
506 HB Threshold 1,000							
507 Total Base Rate Amount	\$693.18	\$768.57	\$853.91	\$817.39	\$745.91	\$662.81	\$4,541.78
508 COG Rate - (Winter)	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322
509 COG amount - Winter	\$253.2804	\$302.4718	\$358.1631	\$334.3335	\$287.6911	\$233.4658	\$1,769.41
510 COG Rate - (Summer)							
511 COG amount - Summer	\$1,206.81	\$1,206.81	\$1,206.81	\$1,206.81	\$1,206.81	\$1,206.81	\$7,240.86
512 LDAC	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890
513 LDAC amount	\$170.51	\$203.63	\$241.12	\$225.08	\$193.68	\$157.17	\$1,191.20
514 <b>Total Bill</b>	<b>\$1,116.97</b>	<b>\$1,274.67</b>	<b>\$1,453.20</b>	<b>\$1,376.81</b>	<b>\$1,227.29</b>	<b>\$1,053.45</b>	<b>\$7,502.39</b>

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
1,399	1,382	1,237	1,246	1,341	1,653	8,259	21,644
\$211.12	\$211.12	\$211.12	\$211.12	\$211.12	\$211.12	\$1,266.72	\$2,533.44
\$219.00	\$219.00	\$219.00	\$219.00	\$219.00	\$219.00	\$1,314.00	\$3,093.00
\$52.36	\$50.13	\$31.06	\$32.31	\$44.70	\$85.62	\$296.18	\$1,792.24
\$482.48	\$480.25	\$461.18	\$462.43	\$474.82	\$515.74	\$2,876.90	\$7,418.68
\$1,206.81	\$1,206.81	\$1,206.81	\$1,206.81	\$1,206.81	\$1,206.81	\$7,240.86	\$28,123.24
\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0916
\$133.92	\$132.29	\$118.37	\$119.29	\$128.33	\$158.20	\$790.41	\$1,981.61
<b>\$2,305.22</b>	<b>\$2,280.75</b>	<b>\$2,072.27</b>	<b>\$2,085.93</b>	<b>\$2,221.45</b>	<b>\$2,668.90</b>	<b>\$13,634.52</b>	<b>\$21,136.91</b>

521 Winter Season (Jan. - Apr., Nov. - Dec.)  
522 Commercial/Industrial - Medium Annual Use, Low Winter Use (G-52)

523 CURRENT	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
524 average Usage (Therms)	1,916	2,288	2,709	2,529	2,176	1,766	13,384
527 <b>Winter:</b>							
528 Cust. Chg	\$182.26	\$182.26	\$182.26	\$182.26	\$182.26	\$182.26	\$1,093.58
529 Headblock \$ 0.2560	\$256.00	\$256.00	\$256.00	\$256.00	\$256.00	\$256.00	\$1,536.00
530 Tailblock \$ 0.1749	\$160.19	\$225.27	\$298.95	\$267.42	\$205.71	\$133.97	\$1,291.52
531 HB Threshold 1,000							
532 <b>Summer:</b>							
533 Cust. Chg							
534 Headblock \$ 0.1891							
535 Tailblock \$ 0.1132							
536 HB Threshold 1,000							
537 Total Base Rate Amount	\$598.45	\$663.53	\$737.21	\$705.68	\$643.98	\$572.24	\$3,921.10
538 COG Rate - (Winter)	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322
539 COG amount - Winter	\$253.2804	\$302.4718	\$358.1631	\$334.3335	\$287.6911	\$233.4658	\$1,769.41
540 COG Rate - (Summer)							
541 COG amount - Summer	\$1,206.81	\$1,206.81	\$1,206.81	\$1,206.81	\$1,206.81	\$1,206.81	\$7,240.86
542 LDAC	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890
543 LDAC amount	\$170.51	\$203.63	\$241.12	\$225.08	\$193.68	\$157.17	\$1,191.20
544 <b>Total Bill</b>	<b>\$1,022.25</b>	<b>\$1,169.63</b>	<b>\$1,336.50</b>	<b>\$1,265.10</b>	<b>\$1,125.35</b>	<b>\$962.88</b>	<b>\$6,881.70</b>
545 <b>DIFFERENCE:</b>							
546 <b>Total Bill</b>	<b>\$94.73</b>	<b>\$105.03</b>	<b>\$116.70</b>	<b>\$111.71</b>	<b>\$101.94</b>	<b>\$90.58</b>	<b>\$620.69</b>
547 % Change	9.27%	8.98%	8.73%	8.83%	9.06%	9.41%	9.02%
548 <b>Base Rate</b>	<b>\$94.73</b>	<b>\$105.03</b>	<b>\$116.70</b>	<b>\$111.71</b>	<b>\$101.94</b>	<b>\$90.58</b>	<b>\$620.69</b>
549 % Change	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%	15.83%
550 <b>COG &amp; LDAC</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
551 % Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
1,399	1,382	1,237	1,246	1,341	1,653	8,259	21,644
\$182.26	\$182.26	\$182.26	\$182.26	\$182.26	\$182.26	\$1,093.58	\$2,187.16
\$189.10	\$189.10	\$189.10	\$189.10	\$189.10	\$189.10	\$1,134.60	\$2,670.60
\$45.21	\$43.28	\$26.82	\$27.90	\$38.60	\$73.93	\$255.74	\$1,547.26
\$416.58	\$414.64	\$398.18	\$399.26	\$409.96	\$445.29	\$2,483.92	\$6,405.02
\$1,206.81	\$1,206.81	\$1,206.81	\$1,206.81	\$1,206.81	\$1,206.81	\$7,240.86	\$28,123.24
\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0916
\$133.92	\$132.29	\$118.37	\$119.29	\$128.33	\$158.20	\$790.41	\$1,981.61
<b>\$2,239.31</b>	<b>\$2,215.15</b>	<b>\$2,009.27</b>	<b>\$2,022.76</b>	<b>\$2,156.59</b>	<b>\$2,598.46</b>	<b>\$13,241.54</b>	<b>\$20,123.24</b>
<b>\$65.91</b>	<b>\$65.60</b>	<b>\$63.00</b>	<b>\$63.17</b>	<b>\$64.86</b>	<b>\$70.45</b>	<b>\$392.98</b>	<b>\$1,013.67</b>
2.94%	2.96%	3.14%	3.12%	3.01%	2.71%	2.97%	5.04%
\$65.91	\$65.60	\$63.00	\$63.17	\$64.86	\$70.45	\$392.98	\$1,013.67
15.82%	15.82%	15.82%	15.82%	15.82%	15.82%	15.82%	15.83%
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Liberty Utilities (Energy/North Natural Gas) Corp.  
Bill Impact Analysis - Cost of Gas Filing Methodology

Line  
No

561 Winter Season (Jan. - Apr., Nov. - Dec.)

562 Commercial/Industrial - High Annual Use, Load Factor Less Than 90% (G-53)							
563 PROPOSED							
	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
564 average Usage (Therms)	26,393	30,514	34,284	31,537	28,621	23,002	174,351
565 <b>Winter:</b>							
566 Cust. Chg	\$933.33	\$933.33	\$933.33	\$933.33	\$933.33	\$933.33	\$5,599.98
567 Headblock	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
568 Tailblock	\$5,471.30	\$6,325.48	\$7,107.05	\$6,537.65	\$5,933.24	\$4,768.23	\$36,142.95
569 HB Threshold	\$ 0.2073						
570							
571							
572 <b>Summer:</b>							
573 Cust. Chg							
574 Headblock							
575 Tailblock	\$ 0.1051						
576 HB Threshold							
577							
578 Total Base Rate Amount	\$6,404.63	\$7,258.81	\$8,040.38	\$7,470.98	\$6,866.57	\$5,701.56	\$41,742.93
579							
580 COG Rate - (Winter)	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322
581 COG amount - Winter	\$3,489.1727	\$4,033.9057	\$4,532.3302	\$4,169.2122	\$3,783.7616	\$3,040.8102	\$23,049.19
582							
583 COG Rate - (Summer)							
584 COG amount - Summer							
585							
586 LDAC	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890
587 LDAC amount	\$2,348.99	\$2,715.72	\$3,051.27	\$2,806.81	\$2,547.31	\$2,047.14	\$15,517.23
588							
589 <b>Total Bill</b>	<b>\$12,242.79</b>	<b>\$14,008.43</b>	<b>\$15,623.98</b>	<b>\$14,447.00</b>	<b>\$13,197.64</b>	<b>\$10,789.51</b>	<b>\$80,309.35</b>
590							

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
18,412	20,467	17,338	18,127	19,178	22,948	116,471	290,822
\$933.33	\$933.33	\$933.33	\$933.33	\$933.33	\$933.33	\$5,599.98	\$11,199.96
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$1,935.12	\$2,151.13	\$1,822.28	\$1,905.11	\$2,015.64	\$2,411.81	\$12,241.09	\$48,384.03
\$2,868.45	\$3,084.46	\$2,755.61	\$2,838.44	\$2,948.97	\$3,345.14	\$17,841.07	\$59,583.99
\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$0.5626
\$22,219.81	\$24,700.16	\$20,924.09	\$21,875.19	\$23,144.40	\$27,693.37	\$140,557.02	\$163,606.21
\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0917
\$1,762.04	\$1,958.74	\$1,659.29	\$1,734.72	\$1,835.37	\$2,196.10	\$11,146.26	\$26,663.49
<b>\$26,850.30</b>	<b>\$29,743.36</b>	<b>\$25,338.99</b>	<b>\$26,448.34</b>	<b>\$27,928.74</b>	<b>\$33,234.61</b>	<b>\$169,544.34</b>	<b>\$249,853.70</b>

591 Winter Season (Jan. - Apr., Nov. - Dec.)

592 Commercial/Industrial - High Annual Use, Load Factor Less Than 90% (G-53)							
593 CURRENT							
	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
594 average Usage (Therms)	26,393	30,514	34,284	31,537	28,621	23,002	174,351
595 <b>Winter:</b>							
596 Cust. Chg	\$805.75	\$805.75	\$805.75	\$805.75	\$805.75	\$805.75	\$4,834.52
597 Headblock	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
598 Tailblock	\$4,724.37	\$5,461.94	\$6,136.82	\$5,645.15	\$5,123.25	\$4,117.28	\$31,208.82
599 HB Threshold	\$ 0.1790						
600							
601							
602 <b>Summer:</b>							
603 Cust. Chg							
604 Headblock							
605 Tailblock	\$ 0.0907						
606 HB Threshold							
607							
608 Total Base Rate Amount	\$5,530.13	\$6,267.70	\$6,942.57	\$6,450.90	\$5,929.00	\$4,923.04	\$36,043.34
609							
610 COG Rate - (Winter)	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322
611 COG amount - Winter	\$3,489.1727	\$4,033.9057	\$4,532.3302	\$4,169.2122	\$3,783.7616	\$3,040.8102	\$23,049.19
612							
613 COG Rate - (Summer)							
614 COG amount - Summer							
615							
616 LDAC	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890
617 LDAC amount	\$2,348.99	\$2,715.72	\$3,051.27	\$2,806.81	\$2,547.31	\$2,047.14	\$15,517.23
618							
619 <b>Total Bill</b>	<b>\$11,368.29</b>	<b>\$13,017.32</b>	<b>\$14,526.17</b>	<b>\$13,426.92</b>	<b>\$12,260.08</b>	<b>\$10,010.99</b>	<b>\$74,609.76</b>
620							
621							
622 <b>DIFFERENCE:</b>							
623 <b>Total Bill</b>	<b>\$874.50</b>	<b>\$991.11</b>	<b>\$1,097.81</b>	<b>\$1,020.08</b>	<b>\$937.56</b>	<b>\$778.52</b>	<b>\$5,699.59</b>
624 % Change	7.69%	7.61%	7.56%	7.60%	7.65%	7.78%	7.64%
625							
626 <b>Base Rate</b>	<b>\$874.50</b>	<b>\$991.11</b>	<b>\$1,097.81</b>	<b>\$1,020.08</b>	<b>\$937.56</b>	<b>\$778.52</b>	<b>\$5,699.59</b>
627 % Change	15.81%	15.81%	15.81%	15.81%	15.81%	15.81%	15.81%
628							
629 <b>COG &amp; LDAC</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
630 % Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Summer Season (May - Oct.)

May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
18,412	20,467	17,338	18,127	19,178	22,948	116,471	290,822
\$805.75	\$805.75	\$805.75	\$805.75	\$805.75	\$805.75	\$4,834.52	\$9,669.04
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$1,669.98	\$1,856.40	\$1,572.60	\$1,644.08	\$1,739.47	\$2,081.36	\$10,563.91	\$41,772.72
\$2,475.74	\$2,662.15	\$2,378.35	\$2,449.84	\$2,545.23	\$2,887.12	\$15,398.43	\$51,441.77
\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$0.5626
\$22,219.81	\$24,700.16	\$20,924.09	\$21,875.19	\$23,144.40	\$27,693.37	\$140,557.02	\$163,606.21
\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0917
\$1,762.04	\$1,958.74	\$1,659.29	\$1,734.72	\$1,835.37	\$2,196.10	\$11,146.26	\$26,663.49
<b>\$26,457.59</b>	<b>\$29,321.05</b>	<b>\$24,961.74</b>	<b>\$26,059.74</b>	<b>\$27,525.00</b>	<b>\$32,776.59</b>	<b>\$167,101.71</b>	<b>\$241,711.47</b>
<b>\$392.71</b>	<b>\$422.31</b>	<b>\$377.25</b>	<b>\$388.60</b>	<b>\$403.74</b>	<b>\$458.02</b>	<b>\$2,442.64</b>	<b>\$8,142.23</b>
1.48%	1.44%	1.51%	1.49%	1.47%	1.40%	1.46%	3.37%
<b>\$392.71</b>	<b>\$422.31</b>	<b>\$377.25</b>	<b>\$388.60</b>	<b>\$403.74</b>	<b>\$458.02</b>	<b>\$2,442.64</b>	<b>\$8,142.23</b>
15.86%	15.86%	15.86%	15.86%	15.86%	15.86%	15.86%	15.83%
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Docket No. DG 23-067  
Exhibit 1

Liberty Utilities (EnergyNorth Natural Gas) Corp.  
Bill Impact Analysis - Cost of Gas Filing Methodology

Line  
No

631 Winter Season (Jan. - Apr., Nov. - Dec.)							
632 Commercial/Industrial - High Annual Use, Load Factor Greater Than 90% (G-54)							
633 PROPOSED							
	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
634 average Usage (Therms)	49,645	38,470	49,085	44,097	46,513	54,074	281,883
637 Winter:							
638 Cust. Chg	\$934.10	\$934.10	\$934.10	\$934.10	\$934.10	\$934.10	\$5,604.60
639 Headblock	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
640 Tailblock	\$ 0.0790	\$3,921.99	\$3,039.12	\$3,877.69	\$3,483.63	\$4,271.87	\$22,268.79
641 HB Threshold	-	-	-	-	-	-	-
642							
643 Summer:							
644 Cust. Chg							
645 Headblock							
646 Tailblock	\$ 0.0447						
647 HB Threshold	-	-	-	-	-	-	-
648							
649 Total Base Rate Amount	\$4,856.09	\$3,973.22	\$4,811.79	\$4,417.73	\$4,608.59	\$5,205.97	\$27,873.39
650							
651 COG Rate - (Winter)	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322
652 COG amount - Winter	\$6,563.1204	\$5,085.7223	\$6,488.9993	\$5,829.5703	\$6,148.9603	\$7,148.6185	\$37,264.99
653							
654 COG Rate - (Summer)							
655 COG amount - Summer							
656							
657 LDAC	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890
658 LDAC amount	\$4,418.44	\$3,423.82	\$4,368.54	\$3,924.60	\$4,139.62	\$4,812.61	\$25,087.63
659							
660 <b>Total Bill</b>	<b>\$15,837.65</b>	<b>\$12,482.77</b>	<b>\$15,669.33</b>	<b>\$14,171.90</b>	<b>\$14,897.17</b>	<b>\$17,167.20</b>	<b>\$90,226.01</b>

Summer Season (May - Oct.)								
	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
48,707	52,212	51,948	60,402	51,600	63,956	328,826	610,709	
\$934.10	\$934.10	\$934.10	\$934.10	\$934.10	\$934.10	\$5,604.60	\$11,209.20	
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
\$2,177.19	\$2,333.89	\$2,322.09	\$2,699.99	\$2,306.52	\$2,858.84	\$14,698.52	\$36,967.32	
\$3,111.29	\$3,267.99	\$3,256.19	\$3,634.09	\$3,240.62	\$3,792.94	\$20,303.12	\$48,176.52	
\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$0.7108	
\$58,779.39	\$63,009.80	\$62,691.30	\$72,893.56	\$62,270.87	\$77,182.35	\$396,827.27	\$434,092.26	
\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0926	
\$4,661.24	\$4,996.72	\$4,971.46	\$5,780.51	\$4,938.12	\$6,120.61	\$31,468.65	\$56,556.28	
<b>\$66,551.92</b>	<b>\$71,274.51</b>	<b>\$70,918.95</b>	<b>\$82,308.15</b>	<b>\$70,449.61</b>	<b>\$87,095.90</b>	<b>\$448,599.05</b>	<b>\$538,825.06</b>	

661 Winter Season (Jan. - Apr., Nov. - Dec.)							
662 Commercial/Industrial - High Annual Use, Load Factor Greater Than 90% (G-54)							
663 CURRENT							
	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	Winter
664 average Usage (Therms)	49,645	38,470	49,085	44,097	46,513	54,074	281,883
667 Winter:							
668 Cust. Chg	\$806.42	\$806.42	\$806.42	\$806.42	\$806.42	\$806.42	\$4,838.52
669 Headblock	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
670 Tailblock	\$ 0.0682	\$3,385.82	\$2,623.65	\$3,347.58	\$3,007.39	\$3,172.16	\$19,224.45
671 HB Threshold	-	-	-	-	-	-	-
672							
673 Summer:							
674 Cust. Chg							
675 Headblock							
676 Tailblock	\$ 0.0386						
677 HB Threshold	-	-	-	-	-	-	-
678							
679 Total Base Rate Amount	\$4,192.23	\$3,430.07	\$4,154.00	\$3,813.81	\$3,978.58	\$4,494.28	\$24,062.97
680							
681 COG Rate - (Winter)	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322	\$0.1322
682 COG amount - Winter	\$6,563.1204	\$5,085.7223	\$6,488.9993	\$5,829.5703	\$6,148.9603	\$7,148.6185	\$37,264.99
683							
684 COG Rate - (Summer)							
685 COG amount - Summer							
686							
687 LDAC	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890	\$0.0890
688 LDAC amount	\$4,418.44	\$3,423.82	\$4,368.54	\$3,924.60	\$4,139.62	\$4,812.61	\$25,087.63
689							
690 <b>Total Bill</b>	<b>\$15,173.79</b>	<b>\$11,939.61</b>	<b>\$15,011.54</b>	<b>\$13,567.97</b>	<b>\$14,267.15</b>	<b>\$16,455.51</b>	<b>\$86,415.58</b>

Summer Season (May - Oct.)								
	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Summer	Total
48,707	52,212	51,948	60,402	51,600	63,956	328,826	610,709	
\$806.42	\$806.42	\$806.42	\$806.42	\$806.42	\$806.42	\$4,838.52	\$9,677.03	
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
\$1,880.08	\$2,015.39	\$2,005.21	\$2,331.53	\$1,991.76	\$2,468.71	\$12,692.69	\$31,917.14	
\$2,686.50	\$2,821.81	\$2,811.63	\$3,137.95	\$2,798.18	\$3,275.13	\$17,531.20	\$41,594.17	
\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$1.2068	\$0.7108	
\$58,779.39	\$63,009.80	\$62,691.30	\$72,893.56	\$62,270.87	\$77,182.35	\$396,827.27	\$434,092.26	
\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0957	\$0.0926	
\$4,661.24	\$4,996.72	\$4,971.46	\$5,780.51	\$4,938.12	\$6,120.61	\$31,468.65	\$56,556.28	
<b>\$66,127.13</b>	<b>\$70,828.33</b>	<b>\$70,474.39</b>	<b>\$81,812.02</b>	<b>\$70,007.17</b>	<b>\$86,578.09</b>	<b>\$445,827.13</b>	<b>\$532,242.71</b>	

692 DIFFERENCE:							
693 <b>Total Bill</b>	<b>\$663.85</b>	<b>\$543.16</b>	<b>\$657.80</b>	<b>\$603.92</b>	<b>\$630.02</b>	<b>\$711.68</b>	<b>\$3,810.43</b>
694 % Change	4.37%	4.55%	4.38%	4.45%	4.42%	4.32%	4.41%
695							
696 <b>Base Rate</b>	<b>\$663.85</b>	<b>\$543.16</b>	<b>\$657.80</b>	<b>\$603.92</b>	<b>\$630.02</b>	<b>\$711.68</b>	<b>\$3,810.43</b>
697 % Change	15.84%	15.84%	15.84%	15.84%	15.84%	15.84%	15.84%
698							
699 <b>COG &amp; LDAC</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
700 % Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

<b>\$424.79</b>	<b>\$446.18</b>	<b>\$444.57</b>	<b>\$496.14</b>	<b>\$442.44</b>	<b>\$517.81</b>	<b>\$2,771.92</b>	<b>\$6,582.35</b>
0.64%	0.63%	0.63%	0.61%	0.63%	0.60%	0.62%	1.24%
\$424.79	\$446.18	\$444.57	\$496.14	\$442.44	\$517.81	\$2,771.92	\$6,582.35
15.81%	15.81%	15.81%	15.81%	15.81%	15.81%	15.81%	15.83%
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%



## C. Drew Cayton

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Drew Cayton is a Principal Consultant Black & Veatch's Global Advisory practice as a regulatory subject matter expert advising clients in power and gas industries in jurisdictions throughout North America. Mr. Cayton has industry expertise in regulatory policy and rate making. He has more than fourteen years of investigation, litigation, and negotiation experience in matters set before the Federal Energy Regulatory Commission (FERC or Commission) and various state commissions.

### Education

M.P.A., University  
of North Carolina  
Wilmington  
B.A. Political  
Science,  
University of  
North Carolina  
Wilmington

Prior to joining Black & Veatch, Mr. Cayton spent six years as a consultant advising commercial, industrial, municipal, and utility clients on regulatory impacts at both the state and federal level. His work included investigating and analyzing utility and pipeline cost-of-service, cost allocation and rate design, depreciation, rate of return, and billing determinants.

Mr. Cayton spent seven years as an Energy Industry Analyst (Litigation) in FERC's Office of Administrative Litigation. As a technical case team leader, Mr. Cayton managed diverse teams tasked with executing extensive investigations into the propriety of various rate and tariff proposals before the FERC. He developed sound positions incorporating relevant Commission precedents, policies, rules, and regulations and then defended those positions in settlement and litigation proceedings.

Mr. Cayton holds a B.A. in Political Science and a M.P.A. from the University of North Carolina at Wilmington. He concentrated his graduate studies in public policy and public economics.

### TESTIMONY



- Florida Gas Transmission Company, LLC, Docket No. RP10-21-00: Filed on behalf of FERC Trial Staff on cost-of-service Issues
- Trans-Alaska Pipeline System, Docket No. IS09-348: Filed on behalf of FERC Trial Staff on Throughput, Cost Allocation and Rate Design
- MIGC, LLC, Docket No. RP12-122: Filed on behalf of FERC Trial Staff on Throughput, Cost Allocation and Rate Design issues
- Sierra Pacific Power Company, Docket No. 18-02011: Filed on behalf of Sierra customers on rate making impacts of the Tax Cuts and Jobs Act of 2017
- Liberty CalPeco, Docket No. A17-10-018, Filed on behalf of CalPeco customers on Catastrophic Emergency Memorandum Account cost responsibility
- Northern Natural Gas, Docket Nos. RP19-59-000 and RP19-1353 on behalf of industrial client group (NNSA)
- Northern Natural Gas, Docket No. RP22-1033 on behalf of a group of local distribution companies

## SELECTED PROJECTS

**Cost-of-Service.** Mr. Cayton assists clients in the development of complex and extensive cost-of-service models and is highly skilled in investigation and analysis of pipeline/utility revenue requirements to include rate base calculations, operating expense normalization, corporate overhead and other intercompany transactions, cost allocation, and taxes.

### *Natural Gas Experience*

- ANR Pipeline, Docket No. RP16-440
- Columbia Gas Pipeline, Docket No. RP20-1060
- Columbia Gulf Pipeline, Docket No. RP16-302
- East Tennessee Gas Transmission, Docket No. RP19-63
- Eastern Gas Transmission and Storage, Docket No. RP21-1187
- Empire Pipeline, Docket No. RP16-300
- Florida Gas Transmission, Dockets No. RP10-21, RP15-101, RP21-441
- Great Lakes Gas Transmission, Docket No. RP17-598
- Kinder Morgan Interstate Transmission, Docket No. RP11-1494
- Liberty EnergyNorth, Docket No. DG20-105
- Maritimes & North East Pipeline, Docket No. RP15-1026
- MoGas, Docket No. RP18-887
- Northern Natural Gas, Docket Nos. RP10-1448, RP19-59, and RP22-1033



- National Fuel, Docket No. RP12-88
- Paiute Pipeline, Docket Nos. RP09-406, RP14-540, and RP19-1291

*Natural Gas Experience Continued*

- Panhandle Eastern Pipe Line Company, LP, Docket No. RP19-1523
- Southern Natural Gas Company, Docket No. RP13-886
- Southern Star Central Gas Pipeline, Docket No. RP21-778
- Tallgrass Interstate Gas Transmission, Docket No. RP16-137
- Texas Eastern, Docket No. RP21-1188
- Trailblazer, Docket No. RP13-1031
- Transcontinental, Docket No. RP12-993
- Transwestern, Docket No. RP15-23
- Tuscarora, Docket No. RP16-229
- Viking Gas Transmission, Docket No. RP19-1340
- Williston Basin Pipeline Company, Docket No. RP14-118
- Various Pre-Filing Settlements

*Electric Experience*

- City of Shelby, OH 2016 and 2019 cost and revenue analysis
- Peine vs AEP, Docket No. ER07-1069
- Liberty CalPeco, Docket No. A.17-10-1018
- Nevada Energy/Sierra Pacific ON Line, Docket No. ER13-1605
- Sierra Pacific, Docket Nos. 16-06006 and 18-0211
- Tri-State G&T, Docket No. ER20-676, et al.
- Various Formula Rate Cases

**Cost Allocation and Rate Design.** Mr. Cayton assists clients in analyzing the impact of various cost allocation methodologies and rate design proposals to include cost causation matching and billing determinates.

*Natural Gas Experience*

- ANR Pipeline, Docket No. RP16-440
- Columbia Gas Pipeline, Docket No. RP20-1060
- Columbia Gulf Pipeline, Docket No. RP16-302
- East Tennessee Gas Transmission, Docket No. RP19-63
- Eastern Gas Transmission and Storage, Docket No. RP21-1187
- MIGC, Docket No. RP12-122
- MoGas, Docket No. RP18-887
- Northern Border, Docket No. RP18-234
- Northern Natural Gas, Docket No. RP19-59 and RP22-1033





- Ozark, Docket No. RP11-1495
- Paiute Pipeline, Docket No. RP19-1291

*Natural Gas Experience Continued*

- Southern Star Central Gas Pipeline Docket No. RP21-778
- Texas Eastern, Docket No. RP21-1188
- Trailblazer, Docket No. RP13-1031
- Transcontinental, Docket No. RP12-993
- Transwestern, Docket No. RP15-23
- Tuscarora, Docket No. RP16-229
- Viking Gas Transmission, Docket No. RP19-1340
- Williston Basin Pipeline Company, Docket No. RP14-118
- Various Pre-Filing Settlements

*Electric Experience*

- City of Shelby, OH 2016 and 2019 cost and revenue analysis
- Liberty CalPeco, Docket No. A.17-10-1018
- Peine vs AEP, Docket No. ER07-1069
- Sierra Pacific Power Company Docket Nos. 16-06006 and 18-02011
- VEPCO, Docket No. PUR-2021-00058
- Various Formula Rate Cases

*Oil Experience*

- *Trans-Alaska Pipeline System*, Docket No. IS09-348

**PRESENTATIONS**

- “New Tax Law and its Impact of Rates – Cost-of-Service” EBA 2018 Annual Meeting