

STATE OF NEW HAMPSHIRE  
BEFORE THE  
PUBLIC UTILITIES COMMISSION

Docket No. DG 23-076

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty  
Winter 2023/2024 Cost of Gas and Summer 2024 Cost of Gas

DIRECT TESTIMONY

OF

TYLER J. CULBERTSON

AND

JAMES M. KING

September 1, 2023



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1 **I. INTRODUCTION**

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

3 A. My name is Tyler J Culbertson. I am the Director of Rates and Regulatory Affairs for  
4 Liberty Utilities Service Corp. (“LUSC”), which provides service to Liberty Utilities  
5 (EnergyNorth Natural Gas) Corp. d/b/a Liberty (“Liberty” or the “Company”). My  
6 business address is 15 Buttrick Road, Londonderry, New Hampshire.

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

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

10 **Q. Please describe your educational and professional background and training**

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

1 **Q. Please describe your duties at LUSC.**

2 A. As Director of Rates and Regulatory Affairs, I am primarily responsible for rates and  
3 regulatory affairs for Liberty EnergyNorth and Liberty Utilities (Granite State Electric)  
4 Corp.

5 **Q. Mr. Culbertson, have you previously testified in regulatory proceedings before the**  
6 **New Hampshire Public Utilities Commission (the “Commission”)?**

7 A. Yes, I have.

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

9 A. My name is James M. King. My business address is 15 Buttrick Road, Londonderry, New  
10 Hampshire. I am an Analyst II for Rates and Regulatory Affairs for LUSC, which  
11 provides services to EnergyNorth and Granite State Electric.

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

13 A. I joined Liberty in September 2022. Prior to joining Liberty, I was employed by the  
14 Massachusetts Department of Public Utilities from 2014 through 2022. I held positions as  
15 an Economist III and Economist II in the Rates and Revenue Requirements Division  
16 where I was responsible for the review and analysis of base distribution rate cases, as  
17 well as other rate reconciliation mechanisms presented to the Department from  
18 Massachusetts’ gas, electric, and water companies. I graduated from Franklin and  
19 Marshall College with a Bachelor of Social Science in Government and Economics.

20 **Q. Have you previously testified in regulatory proceedings before the Commission?**

21 A. Yes, I have testified on multiple occasions before this Commission.

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

2 A. The purpose of our testimony is to explain the Company's updated proposed firm sales  
3 cost of gas rates for the 2023/2024 Winter (Peak) Period and 2024 Summer (Off-Peak)  
4 Period.

5 **II. WINTER 2023/2024 COST OF GAS FACTOR**

6 **Q. What are the proposed firm Winter sales and firm transportation cost of gas rates?**

7 A. The Company proposes a firm sales cost of gas rate of \$0.6175 per therm for residential  
8 customers, \$0.6173 per therm for commercial/industrial high winter use customers, and  
9 \$0.6185 per therm for commercial/industrial low winter use customers as shown on  
10 Illustrative Thirteenth Revised Page 95. The Company proposes a firm transportation cost  
11 of gas rate of \$0.0018 per therm as shown on Illustrative Third Revised Page 98.

12 **Q. Please explain tariff page Illustrative Thirteenth Revised Page 95.**

13 A. Illustrative Thirteenth Revised Page 95 contains the calculation of the 2023/2024 Winter  
14 Period Cost of Gas Rate and summarizes the Company's forecast of firm gas costs and  
15 firm gas sales. As shown on Page 95, the proposed 2023/2024 Average Cost of Gas of  
16 \$0.6175 per therm is derived by adding the Direct Cost of Gas Rate of \$0.5787 per therm  
17 to the Indirect Cost of Gas Rate of \$0.0388 per therm. The estimated total Anticipated  
18 Direct Cost of Gas, derived on Illustrative Thirteenth Revised Page 95, is \$54,722,319.  
19 The estimated Indirect Cost of Gas, shown on Page 95, is \$3,672,531. The Direct Cost of  
20 Gas Rate of \$0.5787 and the Indirect Cost of Gas Rate of \$0.0388 are determined by  
21 dividing each of these total cost figures by the projected winter period firm sales volumes  
22 of 94,568,321 therms.

1 To calculate the total Anticipated Direct Cost of Gas, the Company adds a list of  
2 allowable adjustments from deferred gas cost accounts to the projected demand and  
3 commodity costs for the winter period supply portfolio. These allowable adjustments,  
4 shown on Illustrative Third Revised Page 96, total \$(12,439,637). These adjustments are  
5 added to the Unadjusted Anticipated Cost of Gas of \$67,161,955 to determine the Total  
6 Anticipated Direct Cost of Gas of \$54,722,319.

7 **Q. What are the components of the Unadjusted Anticipated Cost of Gas?**

8 A. The Unadjusted Anticipated Cost of Gas shown on Illustrative Third Page 96 consists of  
9 the following components:

10	1. Purchased Gas Demand Costs	\$11,478,067
11	2. Purchased Gas Commodity Costs	46,903,637
12	3. Storage Demand and Capacity Costs	1,001,699
13	4. Storage Commodity Costs	4,860,737
14	5. Produced Gas Cost	7,269,540
15	Hedge Underground Storage Contract (saving)/Loss	<u>(4,351,724)</u>
16	Total	<u>\$67,161,955</u>

17 **Q. What are the components of the allowable adjustments to the Cost of Gas?**

18 A. The allowable adjustments to gas costs, listed on Illustrative Third Revised Page 96, are  
19 as follows:

20	1. Deferred Gas Cost Prior Period Over Collection	\$(8,577,690)
21	2. Interest	(401,465)
22	3. Fuel Inventory Revenue Requirement	861,872
23	4. Broker Revenues	(1,340,480)
24	5. Transportation COG Revenue	(120,926)
25	6. Capacity Release Margin	<u>(2,860,948)</u>
26	Total Adjustments	<u>\$(12,439,637)</u>

1 These allowable adjustments are standard adjustments made to the deferred gas cost  
2 balance through the operation of the Company's cost of gas adjustment clause. We  
3 discuss the factors contributing to the prior period over-collection later in this testimony.

4 **Q. How does the proposed average cost of gas rate in this filing compare to the average**  
5 **cost of gas rate approved by the Commission in Docket No. DG 22-045 for the**  
6 **2022/2023 winter period?**

7 A. The table below contains the comparison of the cost of gas rate approved in Docket No.  
8 DG 22-045, to the proposed rate in this filing.

	<b>Rates Effective November 1, 2022 (Order No. 26,715)</b>	<b>November 1, 2023, Proposed Rate</b>	<b>Change</b>	<b>% Change</b>
<b>Residential – R3</b>	<b>\$1.4300</b>	<b>\$0.6175</b>	<b>\$(0.8125)</b>	<b>(57)%</b>
<b>C&amp; I - G41</b>	<b>\$1.4301</b>	<b>\$0.6173</b>	<b>\$(0.8128)</b>	<b>(57)%</b>
<b>C&amp;I - G42</b>	<b>\$1.4301</b>	<b>\$0.6173</b>	<b>\$(0.8128)</b>	<b>(57)%</b>
<b>C&amp; I - G52</b>	<b>\$1.4296</b>	<b>\$0.6185</b>	<b>\$(0.8111)</b>	<b>(57)%</b>

9  
10 **Q. How does the proposed firm transportation winter cost of gas rate compare to the**  
11 **rate approved by the Commission for the 2022/2023 winter period?**

12 A. The proposed firm transportation winter cost of gas rate is \$0.0018 per therm. The rate  
13 approved in Docket No. DG 22-045 was \$.0098 per therm. There is a \$0.008 decrease in  
14 the firm transportation rate. The decrease is primarily due to a decrease in anticipated gas  
15 costs, due to market pricing. Market changes are discussed more in-depth in Ms.  
16 Gilbertson's testimony in this docket.

	<b>Rates Effective November 1, 2022 (Order No. 26,715)</b>	<b>November 1, 2023, Proposed Rate</b>	<b>Change</b>	<b>% Change</b>
<b>Transportation</b>	<b>\$0.0098</b>	<b>\$0.0018</b>	<b>\$(0.0084)</b>	<b>(82)%</b>

1

2 **Q. In the calculation of its firm transportation winter cost of gas rate, has the Company**  
3 **updated the estimated percentage used for pressure support purposes?**

4 A. No. The estimated percentage used for pressure support purposes of 8.7% stayed the  
5 same based on the marginal cost study used for the rate design approved in Docket No.  
6 DG 20-105.

7 **Q. Did the Company include a fuel inventory revenue requirement calculation in this**  
8 **filing?**

9 A. Yes. The calculation is provided on Schedule 26. The Company is proposing to collect  
10 \$861,872 in fuel inventory revenue requirement consistent with the approved rate of  
11 return in Order No. 26,505 (July 30, 2021) in Docket No. DG 20-105. The impact of this  
12 amount on the overall Cost of Gas rate is \$0.0091 per therm, which is determined by  
13 dividing the \$861,892 by the estimated November 2023 through April 2023 COG sales  
14 volumes of 94,568,321 therms.

15 **Q. How was the statutory tax rate of 27.08% on Schedule 26 calculated?**

16 A. The statutory rate of 27.08% was calculated by using a 21% federal tax rate and a 7.7%  
17 tax rate for the State of New Hampshire  $(0.21 + 0.077 - (0.21 \times 0.077) = 0.27083)$ .



1 **Q. How was the common equity pre-tax rate of 6.64% on Schedule 26 calculated?**

2 A. The common equity pre-tax rate of 6.64% was calculated by dividing the 9.30% rate of  
3 return on common equity, approved in Docket No. DG 20-105, by 0.72917 (1 – 0.27083)  
4 [statutory tax rate – see previous question] and multiplied by 52.00% (equity component  
5 of the capital structure approved in DG 20-105) [0.093 / 0.72917 x 0.5200 = 0.06664].

6 **Q. Has the bad debt percentage in this filing of 0.86% changed from the bad debt  
7 percentage calculated in the Winter 2021/2022 Cost of Gas Reconciliation?**

8 A. Yes. The bad debt percentage of 0.23% used in this filing is the calculated rate for the  
9 period of May 2022–April 2023. The bad debt percentage that was calculated in the  
10 Winter 2022/2023 Cost of Gas Reconciliations for the period of May 2021–April 2022  
11 was 0.86%.

	<b>Approved Rate Docket No. DG 22-045</b>	<b>Proposed Rate</b>	<b>% Change</b>
<b>Bad Debt %</b>	<b>0.86%</b>	<b>0.23%</b>	<b>(73.25)%</b>

12

13 **Q. What was the actual weighted average firm sales cost of gas rate for the 2022/2023  
14 winter period?**

15 A. The weighted average cost of gas rate was \$0.8505 per therm. This was calculated by  
16 applying the actual monthly cost of gas rates for November 2022 through April 2023 to  
17 the monthly therm usage of an average residential heating customer using 640 therms for  
18 the six winter period months. Below is a table showing various rate classes and their  
19 changes:

	<b>Average COG Rate Winter 2022/2023</b>	<b>Proposed Rate</b>	<b>Change</b>	<b>% Change</b>
<b>Residential – R3</b>	<b>\$0.8505</b>	<b>\$0.6175</b>	<b>\$(0.2330)</b>	<b>(27)%</b>
<b>C&amp; I - G41</b>	<b>\$0.8610</b>	<b>\$0.6173</b>	<b>\$(0.2437)</b>	<b>(28)%</b>
<b>C&amp;I - G42</b>	<b>\$0.8537</b>	<b>\$0.6173</b>	<b>\$(0.2364)</b>	<b>(28)%</b>
<b>C&amp; I - G52</b>	<b>\$0.8273</b>	<b>\$0.6185</b>	<b>\$(0.2088)</b>	<b>(25)%</b>

1

2 **Q. What is the current percentage used to calculate the maximum increase in the Cost**  
3 **of Gas rate?**

4 A. The current percentage used to calculate the maximum allowed increase to the Cost of  
5 Gas rate through the monthly “trigger” filings is 25% for both the Winter and Summer  
6 period Cost of Gas rates.

7 **III. PRIOR WINTER PERIOD OVER-COLLECTION**

8 **Q. Please explain the prior period over-collection of \$9,129,307.**

9 A. The prior period over-collection is detailed in the 2022/2023 winter period reconciliation.  
10 The winter period reconciliation was originally filed with the Commission on August 1,  
11 2023. The Company provided an update to the reconciliation on September 1, 2023. The  
12 \$9,129,307 over-collection is the sum of the deferred gas cost, bad debt, and working  
13 capital over- and under-collection balances as of April 30, 2023. The over-collection was  
14 driven by the lag in the timing of monthly cost of gas rate adjustments as compared to  
15 changes in the underlying costs.

1 **IV. FIXED PRICE OPTION**

2 **Q. Has the Company established a winter period fixed price pursuant to its Fixed Price**  
3 **Option Program?**

4 A. Yes. Pursuant to Order No. 24,515 in Docket No. DG 05-127, the Fixed Price Option  
5 Program (“FPO”) rates are set at \$0.0200 per therm higher than the initial proposed COG  
6 rate. Illustrative Third Revised Page 94 contains the FPO rate for the 2023/2024 winter  
7 period, which is \$0.6375 per therm for residential customers. This compares to the FPO  
8 rate approved for the 2022/2023 winter period of \$1.4500 per therm for residential  
9 customers. This represents a decrease of \$0.5996 per therm or 56% in the residential  
10 FPO rate. The total bill impact on the winter period bills for an average FPO heating  
11 customer using 640 therms is a decrease of approximately \$512.43 or 34% compared to  
12 last winter’s approved FPO rate. Schedule 23 contains the historical results of the FPO  
13 program.

	<b>Winter 2023/2024 FPO Bill Impact</b>	<b>Winter 2023/2024 Non-FPO Bill Impact</b>
<b>Residential - R3</b>	\$512.43 or 34%	\$141.57 or 13%

14

15 **Q. Has the Company also updated its Company Allowance percentage for the period**  
16 **November 2022 through October 2023 in accordance with Section 8 of the**  
17 **Company’s Delivery Terms and Conditions?**

18 A. Yes, in Schedule 25 the Company has recalculated its Company Allowance for the period  
19 November 2023 through October 2024. The Company calculated the Company

1 Allowance of 3.89% based on sendout and throughput data for the twelve months ending  
2 June 2023. The Company proposes to apply this recalculated Company Allowance to all  
3 supplier deliveries beginning in November 2023.

4 **V. CUSTOMER BILL IMPACTS**

5 **Q. What are the estimated impacts of the proposed firm sales cost of gas rate on an**  
6 **average heating customer’s winter bill as compared to the winter rates in effect last**  
7 **year?**

8 A. The bill impact analysis is presented in Schedule 8 of this filing. These bill impacts  
9 reflect the implementation of the step adjustment approved in Docket No. DG 22-028,  
10 effective September 1, 2022, relating to the Company’s distribution rate case. The bill  
11 impacts also include the LDAC rates included in the August 21, 2023, filing. Below is a  
12 summary of the total bill impacts of the proposed rates.

	<b>Winter 2022/2023 Bill Impact</b>	<b>Summer 2023 Bill Impact</b>	<b>Annual Bill Impact</b>
<b>Residential - R3</b>	<b>\$(142) or 13%</b>	<b>\$(46) or 13%</b>	<b>\$(188) or (13)%</b>
<b>Residential - R3 FPO</b>	<b>\$(512) or 34%</b>	<b>N/A</b>	<b>\$(512) or (34)%</b>
<b>Residential – R4 GAP</b>	<b>\$(294) or 33%</b>	<b>N/A</b>	<b>\$(294) or (33)%</b>
<b>C&amp; I - G41</b>	<b>\$(500) or 16%</b>	<b>\$(149) or 16%</b>	<b>\$(649) or (16)%</b>
<b>C&amp;I - G42</b>	<b>\$(4,773) or 18%</b>	<b>\$(1,267) or 17%</b>	<b>\$(6,006) or (18)%</b>
<b>C&amp; I - G52</b>	<b>\$(2,867) or 18%</b>	<b>\$(3,316) or 28%</b>	<b>\$(6,183) or (22)%</b>

1 **VI. OTHER TARIFF CHANGES**

2 **Q. Is the Company updating its Delivery Terms and Conditions in the filing?**

3 A. Yes. The Company is submitting Illustrative Third Revised Page 153 relating to Supplier  
4 Balancing and Peaking Demand Charges and Illustrative Third Revised Page 154 relating  
5 to Capacity Allocation.

6 **Q. Please describe the changes to tariff Page 153.**

7 A. In Illustrative Third Revised Page 153, the Company is updating the Peaking Demand  
8 Charge from \$56.69 per MMBtu of Peak MDQ to \$43.95 per MMBtu of Peak MDQ.  
9 This calculation is also presented in Schedule 21.

10 **Q. Please describe the changes to tariff Page 154.**

11 A. Illustrative Third Revised Page 154 updates the Capacity Allocator percentages used to  
12 allocate pipeline, storage, and local peaking capacity to high and low load factor  
13 customers under the mandatory capacity assignment requirement for firm transportation  
14 service. Schedule 22 contains the six-page worksheet that backs up the calculations for  
15 the updated allocators.

16 **VII. SUMMER 2024 COST OF GAS FACTOR**

17 **Q. What are the proposed 2024 summer firm sales cost of gas rates?**

18 A. The Company proposes a firm sales cost of gas rate of \$0.6267 per therm for residential  
19 customers, \$0.6261 per therm for commercial/industrial high winter use customers, and  
20 \$0.6273 per therm for commercial/industrial low winter use customers as shown on  
21 Illustrative Tenth Revised Page 92.

1 **Q. Please explain Illustrative Third Revised Page 91 and Illustrative Tenth Revised**  
2 **Page 92.**

3 A. Illustrative Third Revised Page 91 and Illustrative Tenth Revised Page 92 contain the  
4 calculation of the 2024 Summer Period Cost of Gas Rate and summarize the Company's  
5 forecast of firm gas sales, firm gas sendout, and gas costs. On Illustrative Tenth Revised  
6 Page 92, the 2024 Average Cost of Gas of \$0.6267 per therm is derived by adding the  
7 Direct Cost of Gas Rate of \$0.5939 per therm to the Indirect Cost of Gas Rate of \$0.0328  
8 per therm. The estimated total Anticipated Direct Cost of gas is \$14,964,886 and the  
9 estimated Indirect Cost of Gas is \$811,547. The Direct Cost of Gas Rate and the Indirect  
10 Cost of Gas Rates are determined by dividing each of these total cost figures by the  
11 projected summer firm sales volumes of 24,742,661 therms. Illustrative Tenth Revised  
12 Page 92 further shows that the Residential Cost of Gas Rate of \$0.6267 per therm is equal  
13 to the Average Cost of Gas for all firm sales customers. It also shows the calculation of  
14 the Commercial/Industrial High Winter Use Cost of Gas Rate of \$0.6261 per therm and  
15 the Commercial/Industrial Low Winter Use Cost of Gas Rate of \$0.6273 per therm.

16 The calculation of the Anticipated Direct Cost of Gas is shown on Illustrative Third  
17 Revised Page 91. To derive the total Anticipated Direct Cost of Gas of \$14,694,886 the  
18 Company starts with the Unadjusted Anticipated Cost of Gas of \$6,140,336 and adds the  
19 Net Adjustment totaling \$8,554,550.

1 **Q. What are the components of the Unadjusted Anticipated Cost of Gas?**

2 A. The components of the unadjusted cost of gas can be found on the Off-Peak Summary  
3 schedule, lines 9–23. The Unadjusted Anticipated Cost of Gas consists of the following:

4	1. Purchased Gas Demand Costs	\$3,22,250
5	2. Purchased Gas Supply Costs	5,741,685
6	3. Produced Gas Costs	<u>114,493</u>
7	4. Hedge Contract (Savings)/loss	<u>(2,938,092)</u>
8		
9	Total Unadjusted Anticipated Cost of Gas	<u>\$6,140,336</u>

10 **Q. What are the components of the adjustments to the cost of gas?**

11 A. The components of the adjustments to the cost of gas can be found on the Off-Peak  
12 Summary schedule, lines 25–40. The adjustments to gas costs, listed on Illustrative Third  
13 Revised Page 91 are as follows:

14	1. Prior Period (Over)/Under Collection	\$9,879,800
15	2. Interest	<u>702,520</u>
16	2. Capacity Release and Off System Sales Margins	<u>(2,027,770)</u>
17		
18	Total Adjustments	<u>\$8,554,550</u>

19 **Q. How does the proposed average Summer cost of gas rates in this filing compare to**  
20 **the cost of gas rates approved by Order Nos. 26,715, dated October 31, 2022, and**  
21 **26,737, dated November 30, 2022, in Docket No. DG 22-045 for the 2023 Summer**  
22 **Period?**

23 A. See the table below.

	<b>Rates Effective May 1, 2023 (Order Nos. 26,715 &amp; 26,737)</b>	<b>Proposed Rate</b>	<b>Change</b>	<b>% Change</b>
<b>Residential – R3</b>	<b>\$1.2836</b>	<b>\$0.6267</b>	<b>\$(0.6576)</b>	<b>(51)%</b>
<b>C&amp; I - G41</b>	<b>\$1.2839</b>	<b>\$0.6261</b>	<b>\$(0.6578)</b>	<b>(51)%</b>
<b>C&amp;I - G42</b>	<b>\$1.2839</b>	<b>\$0.6261</b>	<b>\$(0.6578)</b>	<b>(51)%</b>
<b>C&amp; I - G52</b>	<b>\$1.2833</b>	<b>\$0.6273</b>	<b>\$(0.6560)</b>	<b>(51)%</b>

1

2 **VIII. CONCLUSION**

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

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