

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
 Peak 2024 2025 Winter Cost of Gas Filing
 Demand Costs, Volumes and Rates

REDACTED
 Schedule 5
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Demand Costs

Reference	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST	Total
(a)	May 24	Jun 24	Jul 24	Aug 24	Sep 24	Oct 24	Nov 24	Dec 24	Jan 25	Feb 25	Mar 25	Apr 25		(n)	
1 Pipeline Demand															
2 Iroquois Gas Trans Service RTS 470-0	In 65 * In 108	\$ 18,477	\$ 18,477	\$ 18,477	\$ 18,477	\$ 17,369	\$ 17,369	\$ 17,369	\$ 17,369	\$ 17,369	\$ 17,369	\$ 17,369	\$ 17,369	\$ 212,858	
3 Tenn Gas Pipeline 95346 Z5-Z6	In 66 * In 109	23,880	23,880	23,880	23,880	23,880	23,880	23,880	23,880	23,880	23,880	23,880	23,880	286,565	
4 Tenn Gas Pipeline 2302 Z5-Z6	In 67 * In 110	18,639	18,639	18,639	18,639	18,639	18,639	18,639	18,639	18,639	18,639	18,639	18,639	223,664	
5 Tenn Gas Pipeline 8587 Z0-Z6	In 68 * In 111	135,803	135,803	135,803	135,803	135,803	135,803	135,803	135,803	135,803	135,803	135,803	135,803	1,629,635	
6 Tenn Gas Pipeline 8587 Z1-Z6	In 69 * In 112	249,557	249,557	249,557	249,557	249,557	249,557	249,557	249,557	249,557	249,557	249,557	249,557	2,994,679	
7 Tenn Gas Pipeline 8587 Z4-Z6	In 70 * In 113	25,888	25,888	25,888	25,888	25,888	25,888	25,888	25,888	25,888	25,888	25,888	25,888	310,653	
8 Tenn Gas Pipeline (Dracut) 42076 Z6-Z6	In 71 * In 114														
9 Tenn Gas Pipeline (Dracut) 358905 Z6-Z6	In 72 * In 115														
10 Tenn Gas Pipeline (Concord Lateral) Z6-Z6	In 73 * In 116														
11 Portland Natural Gas (C2C)	In 74 * In 117														
12 Portland Natural Gas (PXP)	In 75 * In 118														
13 Enbridge Gas M12200 (C2C)	In 76 * In 119	12,204	12,171	12,283	12,283	12,283	12,283	12,283	12,283	12,283	12,283	12,283	12,283	147,204	
14 Enbridge Gas M12284 (PXP)	In 77 * In 120	15,118	15,077	15,216	15,216	15,216	15,216	15,216	15,216	15,216	15,216	15,216	15,216	182,351	
15 TransCanada Pipeline 41232 (IRO)	In 78 * In 121	37,005	36,905	37,245	37,245	37,245	37,245	37,245	37,245	39,297	39,297	39,297	39,297	454,565	
16 TransCanada Pipeline 64195 (PXP)	In 79 * In 122	76,341	76,135	76,835	76,835	76,835	76,835	76,835	76,835	76,835	76,835	76,835	76,835	920,827	
17 Tenn Gas Pipeline Z4-Z6 stg 632	In 80 * In 123	103,694	103,694	103,694	103,694	103,694	103,694	103,694	103,694	103,694	103,694	103,694	103,694	1,244,323	
18 Tenn Gas Pipeline Z4-Z6 stg 11234	In 81 * In 124	48,107	48,107	48,107	48,107	48,107	48,107	48,107	48,107	48,107	48,107	48,107	48,107	577,288	
19 Tenn Gas Pipeline Z5-Z6 stg 11234	In 82 * In 125	11,683	11,683	11,683	11,683	11,683	11,683	11,683	11,683	11,683	11,683	11,683	11,683	140,202	
20 National Fuel FST 2358	In 83 * In 126	37,411	37,411	37,411	37,411	37,411	37,411	37,411	37,411	37,411	37,411	37,411	37,411	448,935	
21 Subtotal Pipeline Demand Charges		\$ 1,550,600	\$ 1,550,221	\$ 1,551,512	\$ 1,551,512	\$ 1,550,404	\$ 1,550,404	\$ 1,550,404	\$ 1,550,404	\$ 1,552,456	\$ 1,552,456	\$ 1,552,456	\$ 1,552,456	\$ 18,615,286	
22 Seasonal Allocation % allocated to Off Peak	Schedule 10B, In 15, col (o) / col (p)	20%	20%	20%	20%	20%	20%	20%	0%	0%	0%	0%	0%		
23 Off-Peak Total	In 21 * In 23	\$ 312,356	\$ 312,280	\$ 312,540	\$ 312,540	\$ 312,317	\$ 312,317	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,874,350	
24															
25 Peak Subtotal	In 21 - In 25	\$ 1,238,244	\$ 1,237,941	\$ 1,238,972	\$ 1,238,972	\$ 1,238,087	\$ 1,238,087	\$ 1,550,404	\$ 1,550,404	\$ 1,552,456	\$ 1,552,456	\$ 1,552,456	\$ 1,552,456	\$ 16,740,935	
26															
27															
28															
29 Peaking Demand															
30 Tenn Gas Pipeline (Concord Lateral) Z6-Z6	In 87 * In 129														
31 Demand FLS	In 88 * In 130														
32 Peaking Demand	In 89 * In 131														
33 Subtotal Peaking Demand Charges															
34															
35 Subtotal Pipeline & Peaking Demand Charges	In 27 + In 33	\$ 1,238,244	\$ 1,237,941	\$ 1,238,972	\$ 1,238,972	\$ 1,238,087	\$ 1,238,087	\$ 1,820,404	\$ 1,820,404	\$ 1,822,456	\$ 1,822,456	\$ 1,822,456	\$ 1,552,456	\$ 18,090,935	
36															
37 Capacity Credit Adjustment Factor		-25.09%	-25.09%	-25.09%	-25.09%	-25.09%	-25.09%	-27.49%	-27.49%	-27.49%	-27.49%	-27.49%	-27.49%		
38 Less Transportation Capacity Credit	In 35 * In 37	\$ (310,675)	\$ (310,599)	\$ (310,858)	\$ (310,858)	\$ (310,636)	\$ (310,636)	\$ (500,429)	\$ (500,429)	\$ (500,993)	\$ (500,993)	\$ (500,993)	\$ (426,770)	\$ (4,794,871)	
39															
40 Total Pipeline & Peaking Demand Charges	In 35 + In 38	\$ 927,569	\$ 927,341	\$ 928,114	\$ 928,114	\$ 927,451	\$ 927,451	\$ 1,319,975	\$ 1,319,975	\$ 1,321,463	\$ 1,321,463	\$ 1,321,463	\$ 1,125,686	\$ 13,296,065	
41															
42 Storage Demand															
43 EGTS 300076 - Demand	In 95 * In 134	\$ 2,498	\$ 2,498	\$ 2,498	\$ 2,498	\$ 2,498	\$ 2,498	\$ 2,498	\$ 2,498	\$ 2,498	\$ 2,498	\$ 2,498	\$ 2,498	\$ 29,980	
44 EGTS 300076 - Capacity Reservation	In 96 * In 135	2,650	2,650	2,650	2,650	2,650	2,650	2,650	2,650	2,650	2,650	2,650	2,650	31,796	
45 Honeoye - EN 11234 - Demand	In 97 * In 136	9,441	9,441	9,441	9,441	-	-	-	-	-	-	-	-	37,764	
46 Honeoye - EN 11234 - Capacity	In 98 * In 137	-	-	-	-	-	-	-	-	-	-	-	-	88,301	
47 National Fuel - 002357 - Demand	In 99 * In 138	18,916	18,916	18,916	18,916	11,038	11,038	11,038	11,038	11,038	11,038	11,038	11,038	226,992	
48 National Fuel - 002357 - Capacity	In 100 * In 139	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766	37,766	453,192	
49 Tenn Gas Pipeline - 523 - Demand	In 101 * In 140	27,091	27,091	27,091	27,091	27,091	27,091	27,091	27,091	27,091	27,091	27,091	27,091	325,091	
50 Tenn Gas Pipeline - 523 - Capacity	In 102 * In 141	26,527	26,527	26,527	26,527	26,527	26,527	26,527	26,527	26,527	26,527	26,527	26,527	318,320	
51 Subtotal Storage Demand Charges		\$ 124,889	\$ 124,889	\$ 124,889	\$ 124,889	\$ 126,485	\$ 126,485	\$ 126,485	\$ 126,485	\$ 126,485	\$ 126,485	\$ 126,485	\$ 126,485	\$ 1,511,436	
52															
53 Capacity Credit Adjustment Factor		-25.09%	-25.09%	-25.09%	-25.09%	-25.09%	-25.09%	-27.49%	-27.49%	-27.49%	-27.49%	-27.49%	-27.49%		
54 Less Transportation Capacity Credit	In 51 * In 53	\$ (31,335)	\$ (31,335)	\$ (31,335)	\$ (31,335)	\$ (31,735)	\$ (31,735)	\$ (34,771)	\$ (34,771)	\$ (34,771)	\$ (34,771)	\$ (34,771)	\$ (34,771)	\$ (397,433)	
55															
56 Total Storage Demand Charges	In 51 + In 54	\$ 93,554	\$ 93,554	\$ 93,554	\$ 93,554	\$ 94,750	\$ 94,750	\$ 91,714	\$ 91,714	\$ 91,714	\$ 91,714	\$ 91,714	\$ 91,714	\$ 1,114,003	
57															
58 Total Demand Charges	In 35 + In 51	\$ 1,363,133	\$ 1,362,829	\$ 1,363,860	\$ 1,363,860	\$ 1,364,572	\$ 1,364,572	\$ 1,946,889	\$ 1,946,889	\$ 1,948,941	\$ 1,948,941	\$ 1,948,941	\$ 1,678,941	\$ 19,602,372	
59															
60 Total Transportation Capacity Credit	In 38 + In 54	\$ (342,010)	\$ (341,934)	\$ (342,193)	\$ (342,193)	\$ (342,371)	\$ (342,371)	\$ (535,200)	\$ (535,200)	\$ (535,764)	\$ (535,764)	\$ (535,764)	\$ (461,541)	\$ (5,192,304)	
61															
62 Total Demand Charges less Cap. Cr.	In 58 + In 60	\$ 1,021,123	\$ 1,020,895	\$ 1,021,668	\$ 1,021,668	\$ 1,022,201	\$ 1,022,201	\$ 1,411,689	\$ 1,411,689	\$ 1,413,177	\$ 1,413,177	\$ 1,413,177	\$ 1,217,400	\$ 14,410,068	
63															

Demand Volumes (Dekatherms)

Reference	EST May-24	EST Jun-24	EST Jul-24	EST Aug-24	EST Sep-24	EST Oct-24	EST Nov-24	EST Dec-24	EST Jan-25	EST Feb-25	EST Mar-25	EST Apr-25	Total
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
64 Pipeline Demand													
65 Iroquois Gas Trans Service RTS 470-0	4,047	4,047	4,047	4,047	4,047	4,047	4,047	4,047	4,047	4,047	4,047	4,047	48,564
66 Tenn Gas Pipeline 95346 Z5-Z6	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	48,000
67 Tenn Gas Pipeline 2302 Z5-Z6	3,122	3,122	3,122	3,122	3,122	3,122	3,122	3,122	3,122	3,122	3,122	3,122	37,464
68 Tenn Gas Pipeline 8587 Z0-Z6	7,035	7,035	7,035	7,035	7,035	7,035	7,035	7,035	7,035	7,035	7,035	7,035	84,420
69 Tenn Gas Pipeline 8587 Z1-Z6	14,561	14,561	14,561	14,561	14,561	14,561	14,561	14,561	14,561	14,561	14,561	14,561	174,732
70 Tenn Gas Pipeline 8587 Z4-Z6	3,811	3,811	3,811	3,811	3,811	3,811	3,811	3,811	3,811	3,811	3,811	3,811	45,732
71 Tenn Gas Pipeline (Dracut) 42076 Z6-Z6													
72 Tenn Gas Pipeline (Dracut) 358905 Z6-Z6													
73 Tenn Gas Pipeline (Concord Lateral) Z6-Z6													
74 Portland Natural Gas (C2C)													
75 Portland Natural Gas (PXP)													
76 Enbridge Gas M12200 (C2C)	4,092	4,092	4,092	4,092	4,092	4,092	4,092	4,092	4,092	4,092	4,092	4,092	49,104
77 Enbridge Gas M12284 (PXP)	5,069	5,069	5,069	5,069	5,069	5,069	5,069	5,069	5,069	5,069	5,069	5,069	60,828
78 TransCanada Pipeline 41232 (IRO)	4,047	4,047	4,047	4,047	4,047	4,047	4,047	4,047	4,047	4,047	4,047	4,047	48,564
79 TransCanada Pipeline 64195 (PXP)	5,009	5,009	5,009	5,009	5,009	5,009	5,009	5,009	5,009	5,009	5,009	5,009	60,108
80 Tenn Gas Pipeline Z4-Z6 stg 632	15,265	15,265	15,265	15,265	15,265	15,265	15,265	15,265	15,265	15,265	15,265	15,265	183,180
81 Tenn Gas Pipeline Z4-Z6 stg 11234	7,082	7,082	7,082	7,082	7,082	7,082	7,082	7,082	7,082	7,082	7,082	7,082	84,984
82 Tenn Gas Pipeline Z5-Z6 stg 11234	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	23,484
83 National Fuel FST 2358	6,098	6,098	6,098	6,098	6,098	6,098	6,098	6,098	6,098	6,098	6,098	6,098	73,176
84 Subtotal Pipeline Demand Volumes	181,195	181,195	181,195	181,195	181,195	181,195	181,195	181,195	181,195	181,195	181,195	181,195	2,174,340
85													
86 Peaking Demand													
87 Tenn Gas Pipeline (Concord Lateral) Z6-Z6													
88 Demand FLS													
89 Peaking Demand													
90 Subtotal Peaking Demand Volumes													
91													
92 Total Pipeline & Peaking Demand Volumes	In 84 + In 90	181,195	181,195	181,195	181,195	181,195	181,195	185,195	185,195	185,195	185,195	185,195	2,194,340
93													
94 Storage Demand													
95 EGTS 300076 - Demand	934	934	934	934	934	934	934	934	934	934	934	934	11,208
96 EGTS 300076 - Capacity Reservation	102,700	102,700	102,700	102,700	102,700	102,700	102,700	102,700	102,700	102,700	102,700	102,700	1,232,400
97 Honeoye - EN 11234 - Demand	1,362	1,362	1,362	1,362	1,362	1,362	1,362	1,362	1,362	1,362	1,362	1,362	16,344
98 Honeoye - EN 11234 -Capacity	245,280	245,280	245,280	245,280	245,280	245,280	245,280	245,280	245,280	245,280	245,280	245,280	2,943,360
99 National Fuel - 002357 - Demand	6,098	6,098	6,098	6,098	6,098	6,098	6,098	6,098	6,098	6,098	6,098	6,098	73,176
100 National Fuel - 002357 - Capacity	670,800	670,800	670,800	670,800	670,800	670,800	670,800	670,800	670,800	670,800	670,800	670,800	8,049,600
101 Tenn Gas Pipeline - 523 - Demand	21,844	21,844	21,844	21,844	21,844	21,844	21,844	21,844	21,844	21,844	21,844	21,844	262,128
102 Tenn Gas Pipeline - 523 - Capacity	1,560,391	1,560,391	1,560,391	1,560,391	1,560,391	1,560,391	1,560,391	1,560,391	1,560,391	1,560,391	1,560,391	1,560,391	18,724,892
103 Total Storage Demand Volumes	2,609,409	2,609,409	2,609,409	2,609,409	2,609,409	2,609,409	2,609,409	2,609,409	2,609,409	2,609,409	2,609,409	2,609,409	31,312,908
104													
105 Total Demand Volumes	In 92 + In 103	2,790,604	2,790,604	2,790,604	2,790,604	2,790,604	2,790,604	2,794,604	2,794,604	2,794,604	2,794,604	2,794,604	33,507,248
106													

Firm Transportation Rates (Per Month)

Reference	31 EST May-24	30 EST Jun-24	31 EST Jul-24	31 EST Aug-24	30 EST Sep-24	31 EST Oct-24	30 EST Nov-24	31 EST Dec-24	31 EST Jan-25	28 EST Feb-25	31 EST Mar-25	30 EST Apr-25	Total
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
107 Pipeline Demand													
108 Iroquois Gas Trans Service RTS 470-0	\$ 4.5655	\$ 4.5655	\$ 4.5655	\$ 4.5655	\$ 4.2918	\$ 4.2918	\$ 4.2918	\$ 4.2918	\$ 4.2918	\$ 4.2918	\$ 4.2918	\$ 4.2918	\$ 4.2918
109 Tenn Gas Pipeline 95346 Z5-Z6	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701
110 Tenn Gas Pipeline 2302 Z5-Z6	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701
111 Tenn Gas Pipeline 8587 Z0-Z6	19.3039	19.3039	19.3039	19.3039	19.3039	19.3039	19.3039	19.3039	19.3039	19.3039	19.3039	19.3039	19.3039
112 Tenn Gas Pipeline 8587 Z1-Z6	17.1387	17.1387	17.1387	17.1387	17.1387	17.1387	17.1387	17.1387	17.1387	17.1387	17.1387	17.1387	17.1387
113 Tenn Gas Pipeline 8587 Z4-Z6	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929
114 Tenn Gas Pipeline (Dracut) 42076 Z6-Z6													
115 Tenn Gas Pipeline (Dracut) 358905 Z6-Z6													
116 Tenn Gas Pipeline (Concord Lateral) Z6-Z6													
117 Portland Natural Gas (C2C)													
118 Portland Natural Gas (PXP)													
119 Enbridge Gas M12200 (C2C)	2.9824	2.9743	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017
120 Enbridge Gas M12284 (PXP)	2.9824	2.9743	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017
121 TransCanada Pipeline 41232 (IRO)	9.1438	9.1191	9.2030	9.2030	9.2030	9.2030	9.2030	9.2030	9.2030	9.7101	9.7101	9.7101	9.7101
122 TransCanada Pipeline 64195 (PXP)	15.2407	15.1995	15.3394	15.3394	15.3394	15.3394	15.3394	15.3394	15.3394	15.3394	15.3394	15.3394	15.3394
123 Tenn Gas Pipeline Z4-Z6 stg 632	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929
124 Tenn Gas Pipeline Z4-Z6 stg 11234	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929
125 Tenn Gas Pipeline Z5-Z6 stg 11234	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701
126 National Fuel FST 2358	6.1350	6.1350	6.1350	6.1350	6.1350	6.1350	6.1350	6.1350	6.1350	6.1350	6.1350	6.1350	6.1350
127													
128 Peaking Demand													
129 Tenn Gas Pipeline (Concord Lateral) Z6-Z6													
130 Demand FLS													
131 Peaking Demand													
132													
133 Storage Demand													
134 EGTS 300076 - Demand	\$ 2.6749	\$ 2.6749	\$ 2.6749	\$ 2.6749	\$ 2.6749	\$ 2.6749	\$ 2.6749	\$ 2.6749	\$ 2.6749	\$ 2.6749	\$ 2.6749	\$ 2.6749	\$ 2.6749
135 EGTS 300076 - Capacity Reservation	0.0258	0.0258	0.0258	0.0258	0.0258	0.0258	0.0258	0.0258	0.0258	0.0258	0.0258	0.0258	0.0258
136 Honeoye - EN 11234 - Demand	6.9317	6.9317	6.9317	6.9317	-	-	-	-	-	-	-	-	-
137 Honeoye - EN 11234 - Capacity	-	-	-	-	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450	0.0450
138 National Fuel - Q02357 - Demand	3.1020	3.1020	3.1020	3.1020	3.1020	3.1020	3.1020	3.1020	3.1020	3.1020	3.1020	3.1020	3.1020
139 National Fuel - Q02357 - Capacity	0.0563	0.0563	0.0563	0.0563	0.0563	0.0563	0.0563	0.0563	0.0563	0.0563	0.0563	0.0563	0.0563
140 Tenn Gas Pipeline - 523 - Demand	1.2402	1.2402	1.2402	1.2402	1.2402	1.2402	1.2402	1.2402	1.2402	1.2402	1.2402	1.2402	1.2402
141 Tenn Gas Pipeline - 523 - Capacity	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170	0.0170

Eastern Gas Transmission and Storage, Inc.
 FERC Gas Tariff
 Sixth Revised Volume No. 1

GSS, GSS-E & ISS Rates
 Tariff Record No. 10.30.
 Version 10.0.0
 Superseding Version 9.0.0

RATES APPLICABLE TO RATE SCHEDULES IN
 FERC GAS TARIFF, VOLUME NO. 1
 (\$ per DT)

Rate Schedule	Rate Component	Base Tariff Rate [1]	Current Acct 858 Base	Current EPCA Base	TCRA [5] Surcharge	EPCA [6] Surcharge	Current Rate [7]	FERC ACA
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
GSS [2], [3]								
	Maximum							
	Storage Demand	\$2.6065	\$0.0680	\$0.0059	(\$0.0074)	\$0.0019	\$2.6749	-
	Storage Capacity	\$0.0258	-	-	-	-	\$0.0258	-
	Injection Charge	\$0.0252	-	\$0.0137	\$0.0000	\$0.0004	\$0.0393	-
	Withdrawal Charge	\$0.0252	-	-	\$0.0000	\$0.0004	\$0.0256	[8]
	GSS-TE Surcharge	-	-	-	\$0.0000	-	\$0.0000	-
	From Customers Balance	\$0.7282	\$0.0146	\$0.0013	(\$0.0016)	\$0.0008	\$0.7433	[8]
	Minimum							
	Storage Demand	\$0.0000	-	-	-	-	\$0.0000	-
	Storage Capacity	\$0.0000	-	-	-	-	\$0.0000	-
	Injection Charge	\$0.0252	-	-	-	-	\$0.0252	-
	Withdrawal Charge	\$0.0252	-	-	-	-	\$0.0252	[8]
	GSS-TE Surcharge	\$0.0000	-	-	-	-	\$0.0000	-
	From Customers Balance	\$0.7282	\$0.0146	\$0.0013	(\$0.0016)	\$0.0008	\$0.7433	[8]
GSS-E [2], [3]								
	Maximum							
	Storage Demand	\$2.4565	\$0.0680	\$0.0059	(\$0.0074)	\$0.0019	\$2.5249	-
	Storage Capacity	\$0.0409	-	-	-	-	\$0.0409	-
	Injection Charge	\$0.0252	-	\$0.0137	\$0.0000	\$0.0004	\$0.0393	-
	Withdrawal Charge	\$0.0252	-	-	\$0.0000	\$0.0004	\$0.0256	[8]
	Authorized Overruns	\$1.4160	\$0.0146	\$0.0013	(\$0.0016)	\$0.0008	\$1.4311	[8]
	Minimum							
	Storage Demand	\$0.0000	-	-	-	-	\$0.0000	-
	Storage Capacity	\$0.0000	-	-	-	-	\$0.0000	-
	Injection Charge	\$0.0252	-	-	-	-	\$0.0252	-
	Withdrawal Charge	\$0.0252	-	-	-	-	\$0.0252	[8]
	Authorized Overruns	\$1.4160	\$0.0146	\$0.0013	(\$0.0016)	\$0.0008	\$1.4311	[8]

Eastern Gas Transmission and Storage, Inc.
 FERC Gas Tariff
 Sixth Revised Volume No. 1

GSS, GSS-E & ISS Rates
 Tariff Record No. 10.30.
 Version 10.0.0
 Superseding Version 9.0.0

Rate Schedule	Rate Component	Base Tariff Rate [1]	Current Acct 858 Base	Current EPCA Base	TCRA [5] Surcharge	EPCA [6] Surcharge	Current Rate [7]	FERC ACA
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ISS [2]								
	Maximum							
	ISS Capacity	\$0.1123	\$0.0022	\$0.0002	(\$0.0002)	\$0.0001	\$0.1146	-
	Injection Charge	\$0.0252	-	\$0.0137	\$0.0000	\$0.0004	\$0.0393	-
	Withdrawal Charge	\$0.0252	-	-	\$0.0000	\$0.0004	\$0.0256	[8]
	Authorized Overrun/from Cust. Bal	\$0.7282	\$0.0146	\$0.0013	(\$0.0016)	\$0.0008	\$0.7433	[8]
	Excess Injection Charge	\$0.4209	-	\$0.0137	\$0.0000	\$0.0004	\$0.4350	-
	Minimum							
	ISS Capacity	\$0.0000	-	-	-	-	\$0.0000	-
	Injection Charge	\$0.0252	-	-	-	-	\$0.0252	-
	Withdrawal Charge	\$0.0252	-	-	-	-	\$0.0252	[8]
	Authorized Overrun/from Cust. Bal	\$0.7282	\$0.0146	\$0.0013	(\$0.0016)	\$0.0008	\$0.7433	[8]
	Excess Injection Charge	\$0.4209	-	\$0.0137	\$0.0000	\$0.0004	\$0.4350	-

- [1] The base tariff rate is the effective rate on file with the FERC, excluding adjustments approved by the Commission.
- [2] Storage Service Fuel Retention Percentage is 1.29%.
- [3] Applies to withdrawals made under Rate Schedule GSS, Section 5.1.G.
- [4] Daily Capacity Release Rate for GSS per Dt is \$0.7177. Daily Capacity Release Rate for GSS-E per Dt is \$1.4055.
- [5] 858 over/under from previous TCRA period.
- [6] Electric over/under from previous EPCA period.
- [7] The Current Rate shall be increased for the Annual Charge Adjustment (ACA) as applicable.
- [8] The applicable ACA rate is set forth on the FERC website (<https://www.ferc.gov/industries-data/natural-gas/overview/general-information/annual-charges>).

HONEOYE

View Contract

General Information					
Customer Energy North Natural Gas Inc.	Contract Category Storage	Contract Number EN-11234	Service Type FT	Status Active	Currency USD
Deal Maker Richard Norman	Deal Date 01/17/1988	Deal Time (hh:mm) 08:00	Master Agreement -- None --	Units Dth	
Contact Name Sarah Grant	Contact Number 1 603-2163559	Contact Number 2	Contact Email sarah.finegan@libertyutilities.com		

Contract Dates	
Effective Date (First Gas Day) 05/01/2010	Termination Date (Last Gas Day) 01/01/2050

Nomination Deadlines	
Day Before Flow Deadline (hh:mm 24-hr CCT)	Day of Flow Deadline (hh:mm 24-hr CCT)

Transaction Types and Rates						
Transaction Type	Allow Transaction	Use Hourly Profiles	Volumetric Charge (\$/Dth)	Other Rate (\$/Dth)	Fuel Percentage	Invoice Qty Type
Storage Injection	Yes	No	0	0	0	Scr Qty
Storage Withdrawal	Yes	No	0	0	0	Scr Qty
Authorized Injection Overtun	Yes	No	0	0	0	Scr Qty
Authorized Withdrawal Overtun	Yes	No	0	0	0	Scr Qty

INS/WO RATES AND FUELS (0)

Storage and Other Rates												
<input type="checkbox"/> Use Monthly Flat Storage Fee (\$/Month)	<table border="1"> <thead> <tr> <th colspan="3">Monthly Flat Storage Fee Table</th> </tr> <tr> <th>From</th> <th>To</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>05/01/10</td> <td>01/01/50</td> <td>9.443.28000</td> </tr> </tbody> </table>			Monthly Flat Storage Fee Table			From	To	Rate	05/01/10	01/01/50	9.443.28000
Monthly Flat Storage Fee Table												
From	To	Rate										
05/01/10	01/01/50	9.443.28000										

DEMAND RATE

FERC Information			
Capacity Release Contract	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Award	
Shopper Affiliation	NONE	Negotiated Rate Indicator	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Maximum Tariff Rate	0 OR Market Based Rates	Rate Schedule	157

Contract Quantity Limits			
Monthly MSQ Table			
From	To	Max Qty	Min Qty
05/01/10	01/01/50	245,280	0

Seasonal Ratchets																																																
Seasonal Ratchet "Annual" (Jan 01 to Dec 31)																																																
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Posted Special Terms and Conditions
 This is an evergreen contract. It will continue to automatically renew unless either party wishes to cancel. If either party does wish to cancel, they will make the cancellation request in writing on or before March 31, one year prior to cancellation.

Attached Files
 There are no files saved for this contract.

----- NON-EASTCHESTER RATES (All in \$ Per Dth) -----

	Minimum	RP19-445 Rates	RP22-1065 Rates		
		Maximum 1/ Effective 4/1/2020	Effective 9/1/2022	Effective 9/1/2023	Effective 9/1/2024
RTS DEMAND (Monthly):					
Zone 1	\$0.0000	\$5.2357	\$4.8393	\$4.5655	\$4.2918
Zone 2	\$0.0000	\$4.4878	\$4.3344	\$4.1823	\$4.0302
Inter-Zone	\$0.0000	\$8.2304	\$7.4217	\$7.2240	\$7.0567
RTS COMMODITY (Daily):					
Zone 1	\$0.0034	\$0.0034	\$0.0034	\$0.0034	\$0.0034
Zone 2	\$0.0022	\$0.0022	\$0.0022	\$0.0022	\$0.0022
Inter-Zone	\$0.0056	\$0.0056	\$0.0056	\$0.0056	\$0.0056
ITS COMMODITY (Daily):					
Zone 1	\$0.0034	\$0.1755	\$0.1625	\$0.1535	\$0.1445
Zone 2	\$0.0022	\$0.1497	\$0.1447	\$0.1397	\$0.1347
Inter-Zone	\$0.0056	\$0.2762	\$0.2496	\$0.2431	\$0.2376
VOLUMETRIC CAPACITY RELEASE (Daily) 2/:					
Zone 1	\$0.0000	\$0.1721	\$0.1591	\$0.1501	\$0.1411
Zone 2	\$0.0000	\$0.1475	\$0.1425	\$0.1375	\$0.1325
Inter-Zone	\$0.0000	\$0.2706	\$0.2440	\$0.2375	\$0.2320

**SEE SHEET NOS. 4A, 4B, AND 4C FOR ADJUSTMENTS TO RATES WHICH MAY BE APPLICABLE

(Footnotes continued on Sheet 4.01)

Iroquois Gas Transmission System, L.P.
FERC Gas Tariff
Second Revised Volume No. 1

Fifth Revised Sheet No. 4.01
Superseding
Fourth Revised Sheet No. 4.01

-
- 1/ The RP19-445 Rates that became effective 4/1/2020 shall be applicable to any Contesting Party to the Settlement dated July 27, 2022, pursuant to Section 13.3 of that Settlement.
 - 2/ No rate cap shall apply to any capacity releases with terms of less than or equal to one year pursuant to FERC Order Nos. 712 et al.

Issued On: September 9, 2022

Effective On: October 1, 2022

Dear Shipper:

Please find listed below the relevant business data for transportation on Iroquois during **August 2024**. For your convenience, the link below will take you directly to the Iroquois.com Informational Postings page where you can access the formatted fuel report. After clicking the link, expand the Notices folder, click on the Non-Critical section, Retrieve, and select the August 2024 Fuel Factors notice.

<https://iol.iroquois.com/Infopost/>

Note: Iroquois Fuel and Losses Retention (F & LR) format includes Losses+858+Other Fuel. Plc refer to “Total” column for the complete fuel %.

1st of the Month Nomination Due: July 31, 2024, at 1:00PM C.C.T.

Losses/858/Other Fuel Factors:

MAINLINE	Losses+ (%)	858+ (%)	Other Fuel (%)	= Total
Zone 1	-1.0	0.0	0.2	-0.8%
Zone 2	-1.0	0.0	0.3	-0.7%
Zone 1-2	-1.0	0.0	0.5	-0.5%
Backhauls	-1.0	0.0	0.0	-1.0%

EASTCHESTER	Losses+ (%)	Other Fuel (%)	= Total
Zone 1	-1.0	0.2	-0.8%
Zone 2	-1.0	0.3	-0.7%
Zone 1-2	-1.0	0.5	-0.5%
Backhauls	-1.0	0.0	-1.0%

BROOKFIELD RECEIPT TRANSFER FUEL FACTOR: 0.9%
--

One Stop Toll Free Number 1-888-IGTS-REP
 New Contracts 203-925-7229

& Discounts 203-944-7004
Fax 203-925-1925

If you have questions or require additional information, please call me at 203-944-7028.
John Esposito, Director, Gas Control, Scheduling and System Operations

National Fuel Gas Supply Corporation
 FERC Gas Tariff
 Fifth Revised Volume No. 1

Part 4 - Applicable Rates
 § 4.010 - Transportation Rates
 Version 43.0.0
 Page 1 of 1

RATES FOR TRANSPORTATION SERVICES

Rate Sch. (1)	Rate Component ^{1/} (2)		Base Rate (3)	TSCA (4)	TSCA Surch. (5)	Current Rate ^{2/} (6)
FT/FT-S						
	Reservation	(Max)	\$6.1350	-	-	\$6.1350
		(Min)	0.0000	-	-	\$0.0000
	Commodity	(Max)	0.0069	-	-	\$0.0069 plus ACA ^{3/}
		(Min)	0.0069	-	-	\$0.0069 plus ACA ^{3/}
	Overrun	(Max)	0.2086	-	-	\$0.2086 plus ACA ^{3/}
		(Min)	0.0069	-	-	\$0.0069 plus ACA ^{3/}
EFT						
	Reservation	(Max)	\$6.9865	0.0000	0.0000	\$6.9865
		(Min)	0.0000	0.0000	0.0000	\$0.0000
	Commodity	(Max)	0.0244	0.0000	0.0000	\$0.0244 plus ACA ^{3/}
		(Min)	0.0244	0.0000	0.0000	\$0.0244 plus ACA ^{3/}
	Overrun	(Max)	0.2541	-	-	\$0.2541 plus ACA ^{3/}
		(Min)	0.0244	-	-	\$0.0244 plus ACA ^{3/}
FST						
	Reservation	(Max)	\$6.1350	-	-	\$6.1350
		(Min)	0.0000	-	-	\$0.0000
	Commodity	(Max)	0.0069	-	-	\$0.0069 plus ACA ^{3/}
		(Min)	0.0069	-	-	\$0.0069 plus ACA ^{3/}
	Overrun	(Max)	0.2086	-	-	\$0.2086 plus ACA ^{3/}
		(Min)	0.0069	-	-	\$0.0069 plus ACA ^{3/}
IT						
	Commodity	(Max)	\$0.2086	-	-	\$0.2086 plus ACA ^{3/}
		(Min)	0.0000	-	-	\$0.0000 plus ACA ^{3/}
	Overrun	(Max)	0.2086	-	-	\$0.2086 plus ACA ^{3/}
		(Min)	0.0000	-	-	\$0.0000 plus ACA ^{3/}

The NA15 Retention is 1.05% applicable to use of the Northern Access 2015 Lease. ^{2/3/}

- 1/ The unit of measure for each rate component is Dth (dekatherms) unless otherwise indicated.
- 2/ All rates exclusive of Transportation Fuel and Company Use Retention and Transportation LAUF Retention. The Transportation Fuel and Company Use Retention for all applicable rate schedules is 0.78% and the Transportation LAUF Retention for all applicable rate schedules is 0.31%. Transporter may from time to time identify point pair transactions where the Transportation Fuel and Company Use Retention shall be zero ("Zero Fuel Point Pair Transactions"). Zero Fuel Point Pair Transactions will be assessed the applicable Transportation LAUF Retention.
- 3/ Pursuant to Section 19 of the General Terms and Conditions, the ACA unit charge, as revised annually and posted on the Commission's website, will be charged in addition to the specified rate.
- 4/ Transportation and Storage Retainage definitions are provided in General Terms and Conditions Section 41.2.

Effective On: April 1, 2024

National Fuel Gas Supply Corporation
 FERC Gas Tariff
 Fifth Revised Volume No. 1

Part 4 - Applicable Rates
 § 4.020 - Part 284 Storage Rates
 Version 37.0.0
 Page 1 of 1

RATES FOR PART 284 STORAGE SERVICES

Rate Sch. (1)	Rate Component ^{1/} (2)		Rate ^{2/} (3)
ESS	Demand	(Max)	\$3.2263
		(Min)	\$0.0000
	Capacity	(Max)	\$0.0589
		(Min)	\$0.0000
	Injection/Withdrawal	(Max)	\$0.0396 plus ACA ^{3/}
		(Min)	\$0.0000
Storage Balance Transfer	(Max) ^{4/}	\$3.8600	
	(Min) ^{4/}	\$0.0000	
ISS	Injection	(Max)	\$1.3514 plus ACA ^{3/}
		(Min)	\$0.0000
	Storage Balance Transfer	(Max) ^{4/}	\$3.8600
		(Min) ^{4/}	\$0.0000
FSS	Demand	(Max)	\$3.1020
		(Min)	\$0.0000
	Capacity	(Max)	\$0.0563 ^{1/}
		(Min)	\$0.0000
	Injection/Withdrawal	(Max)	\$0.0381 plus ACA ^{3/}
		(Min)	\$0.0000
Storage Balance Transfer	(Max) ^{4/}	\$3.8600	
	(Min) ^{4/}	\$0.0000	

1/ The unit of measure for each rate component is Dth unless otherwise indicated.
 2/ All rates exclusive of Storage Operating and LAUF Retention, where applicable. The Storage Operating and LAUF Retention for all applicable rate schedules is 0.84%.
 3/ Pursuant to Section 19 of the General Terms and Conditions, the ACA unit charge, as revised annually and posted on the Commission's website, will be charged in addition to the specified rate.
 4/ Rate per nomination.

Effective On: April 1, 2024

TransCanada Pipelines Limited
 Mainline Tolls - effective January 1, 2022 to December 31, 2026 (CER Order TG-014-2020)
 Abandonment Surcharges - effective January 1, 2024 (CER Order TG-007-2023)
 Rate Riders - effective January 1, 2024 to December 31, 2024 (CER Order TG-006-2023)

Storage Transportation Service

Line No.	Particulars	Monthly Toll (\$/GJ/Month)	Daily Equivalent (\$/GJ)	Abandonment Surcharge (\$/GJ/Month)	Daily Equivalent Abandonment Surcharge (\$/GJ)	Rate Rider (\$/GJ/Month)	Daily Equivalent Rate Rider (\$/GJ)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Centram MDA	4.14883	0.1364	0.21045	0.0069	-1.16815	-0.0383
2	Union WDA	23.89229	0.7855	1.70800	0.0560	-4.45300	-0.1460
3	Union NDA	13.80004	0.4537	0.57340	0.0188	-1.64090	-0.0538
4	Union EDA	9.02158	0.2966	0.37820	0.0124	-0.51850	-0.0170
5	KPUC EDA	8.94250	0.2940	0.37515	0.0123	-0.51240	-0.0168
6	Energir EDA	15.63721	0.5141	0.75640	0.0248	-0.89365	-0.0293
7	Enbridge CDA	4.55946	0.1499	0.12200	0.0040	-0.26230	-0.0086
8	Enbridge EDA	12.02067	0.3952	0.54900	0.0180	-0.68930	-0.0226
9	Cornwall	12.21838	0.4017	0.56120	0.0184	-0.69845	-0.0229

Firm Transportation - Short Notice

Line No.	Particulars	Monthly Toll (\$/GJ/Month)	Daily Equivalent (\$/GJ)	Abandonment Surcharge (\$/GJ/Month)	Daily Equivalent Abandonment Surcharge (\$/GJ)	Rate Rider (\$/GJ/Month)	Daily Equivalent Rate Rider (\$/GJ)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
10	Kirkwall to Thorold CDA	5.28946	0.1739	0.13725	0.0045	-0.27755	-0.0091
11	Union Parkway Belt to Goreway CDA	3.82946	0.1259	0.06100	0.0020	-0.20130	-0.0066
12	Union Parkway Belt to Victoria Square #2 CDA	4.59900	0.1512	0.10065	0.0033	-0.24095	-0.0079
13	Union Parkway Belt to Schomberg #2 CDA	4.54729	0.1495	0.09760	0.0032	-0.23790	-0.0078
14	Union Parkway Belt to Napanee #2 EDA	9.17063	0.3015	0.33855	0.0111	-0.47885	-0.0157

Dawn Long Term Fixed Price

Line No.	Particulars	Monthly Toll (\$/GJ/Month)	Daily Equivalent (\$/GJ)
	(a)	(b)	(c)
15	For All Dawn LTFP Contract Demand except any portion subject to a reduced term for the final 24 months of such reduced term	23.42083	0.7700
16	Any portion of Contract Demand reduced in term by 12 months for months 85 through 108	26.46250	0.8700
17	Any portion of Contract Demand reduced in term by 24 months for months 73 through 96	28.89583	0.9500
18	Any portion of Contract Demand reduced in term by 36 months for months 61 through 84	30.41667	1.0000
19	Any portion of Contract Demand reduced in term by 48 months for months 49 through 72	31.63333	1.0400
20	Any portion of Contract Demand reduced in term by 60 months for months 37 through 60	31.93750	1.0500

Notes: The tolls are inclusive of Delivery Pressure Toll and Abandonment Surcharge.
 The Abandonment Surcharges are the same as the Empress to Emerson 2 Abandonment Surcharges for FT service.

Herbert Long Term Fixed Price

Line No.	Particulars	Monthly Toll (\$/GJ/Month)	Daily Equivalent (\$/GJ)	Abandonment Surcharge (\$/GJ/Month)	Daily Equivalent Abandonment Surcharge (\$/GJ)
	(a)	(b)	(c)	(d)	(e)
21	Empress to Herbert	3.65000	0.1200	0.24705	0.0081

North Bay Junction Long Term Fixed Price (NBJ LTFP) Service

Line No.	Particulars	Monthly Toll (\$/GJ/Month)	Daily Equivalent (\$/GJ)
	(a)	(b)	(c)
1	NBJ LTFP	28.28750	0.9300
2	NBJ LTFP Differential Surcharge	0.00000	0.0000

Note: The toll for NBJ LTFP is inclusive of the applicable Abandonment Surcharge for FT service from Empress to North Bay Junction.
 The NBJ LTFP Differential Surcharge is zero provided the Abandonment Surcharge for FT service from Empress to North Bay Junction is equal or less than \$6.69167/GJ/Month.

Market Driven Service (MDS)

Line No.	Particulars	Monthly Toll (\$/GJ/Month)	Daily Equivalent (\$/GJ)	Abandonment Surcharge (\$/GJ/Month)	Daily Equivalent Abandonment Surcharge (\$/GJ)
	(a)	(b)	(c)	(d)	(e)
3	Empress to Emerson 2 (May 2021 Open Season) (Effective November 1, 2022)	10.53938	0.3465	1.18950	0.0390

Enhanced Market Balancing Service

Line No.	Particulars	Monthly Toll (\$/GJ/Month)	Daily Equivalent (\$/GJ)	Abandonment Surcharge (\$/GJ/Month)	Daily Equivalent Abandonment Surcharge (\$/GJ)	Rate Rider (\$/GJ/Month)	Daily Equivalent Rate Rider (\$/GJ)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
4	Union Parkway Belt to Union EDA	9.92374	0.3262	0.37820	0.0124	-0.51850	-0.0170

Delivery Pressure

Line No.	Particulars	Monthly Toll (\$/GJ/Month)	Daily Equivalent (\$/GJ)
	(a)	(b)	(c)
5	Average Delivery Pressure Toll	0.60833	0.0200

Note: Delivery Pressure toll applies to the following locations: Emerson 1 , Emerson 2, Union SWDA, Enbridge SWDA, Dawn Export, Niagara Falls, Iroquois, Chippawa and East Hereford.
 The Daily Equivalent Toll is only applicable to STS injections, IT, Diversions and STFT.

Union Dawn Receipt Point Surcharge

Line No.	Particulars	Monthly Toll (\$/GJ/Month)	Daily Equivalent (\$/GJ)
	(a)	(b)	(c)
6	Union Dawn Receipt Point Surcharge	0.13135	0.0043

Short Notice Balancing (SNB) Service

Line No.	Particulars	Monthly Toll (\$/GJ/Month)	Daily Equivalent (\$/GJ)
	(a)	(b)	(c)
7	SNB Toll	2.97597	0.0978

Note: This SNB Toll is a representative toll for the Eastern Region.

Energy Deficient Gas Allowance (EDGA) Service

Line No.	Particulars	Capacity Charge (\$/GJ/D)
	(a)	(b)
8	Western Section	0.9388
9	Eastern Section	0.3302

Note: The EDGA Service capacity charge for the Western Section is the effective Empress to North Bay Junction FT Toll and the capacity charge for the Eastern Section is the effective Parkway to North Bay Junction FT Toll.
 The EDGA Service fuel charge for the Western Section includes the effective Empress to North Bay Junction monthly fuel ratio and the fuel charge for the Eastern Section includes the effective Parkway to North Bay Junction monthly fuel ratio.

Line No.	Receipt Point	Delivery Point	FT Toll (\$/GJ/Month)	Daily Equivalent FT for IT / STFT (\$/GJ)	Abandonment (\$/GJ/Month)	Daily Equivalent Abandonment Surcharge (\$/GJ)	Rate Rider (\$/GJ/Month)	Daily Equivalent Rate Rider (\$/GJ)
1	Union NDA	Enbridge EDA	-	0.4769	-	0.0202	-	-
2	Union NDA	KPUC EDA	-	0.5748	-	0.0258	-	-
3	Union NDA	Energir EDA	-	0.6348	-	0.0292	-	-
4	Union NDA	Enbridge SWDA	-	0.6014	-	0.0273	-	-
5	Union NDA	Union SWDA	-	0.6029	-	0.0274	-	-
6	Union NDA	Chippawa	-	0.5417	-	0.0239	-	-
7	Union NDA	Cornwall	-	0.5224	-	0.0228	-	-
8	Union NDA	East Hereford	-	0.7544	-	0.0360	-	-
9	Union NDA	Emerson 1	-	0.6135	-	0.0604	-	-
10	Union NDA	Emerson 2	-	0.6135	-	0.0604	-	-
11	Union NDA	Iroquois	-	0.5008	-	0.0215	-	-
12	Union NDA	Kirkwall	-	0.4785	-	0.0203	-	-
13	Union NDA	Napierville	-	0.6225	-	0.0285	-	-
14	Union NDA	Niagara Falls	-	0.5401	-	0.0238	-	-
15	Union NDA	North Bay Junction	-	0.1241	-	0.0055	-	-
16	Union NDA	Phillipsburg	-	0.6339	-	0.0291	-	-
17	Union NDA	Spruce	-	0.5665	-	0.0551	-	-
18	Union NDA	St. Clair	-	0.6170	-	0.0282	-	-
19	Union NDA	Welwyn	-	0.6959	-	0.0697	-	-
20	Union NDA	Dawn Export	-	0.6014	-	0.0273	-	-
21	Union Parkway Belt	Empress	36.52433	1.2008	3.24825	0.1065	-8.45460	-0.2772
22	Union Parkway Belt	TransGas SSDA	32.93821	1.0829	2.84565	0.0933	-7.45420	-0.2444
23	Union Parkway Belt	Centram SSDA	30.35988	0.9981	2.55590	0.0838	-6.73440	-0.2208
24	Union Parkway Belt	Centram MDA	27.81908	0.9146	2.26920	0.0744	-6.02680	-0.1976
25	Union Parkway Belt	Centrat MDA	28.49738	0.9369	2.22650	0.0730	-5.73705	-0.1881
26	Union Parkway Belt	Union WDA	23.89229	0.7855	1.70800	0.0560	-4.45300	-0.1460
27	Union Parkway Belt	Nipigon WDA	21.91217	0.7204	1.48535	0.0487	-3.89790	-0.1278
28	Union Parkway Belt	Union NDA	13.80004	0.4537	0.57340	0.0188	-1.64090	-0.0538
29	Union Parkway Belt	Calstock NDA	18.57850	0.6108	1.11020	0.0364	-2.97070	-0.0974
30	Union Parkway Belt	Tunis NDA	15.96354	0.5245	0.81740	0.0268	-2.23665	-0.0733
31	Union Parkway Belt	Energir NDA	13.73008	0.4514	0.56730	0.0186	-1.61650	-0.0530
32	Union Parkway Belt	Union SSMDA	16.31854	0.5365	0.97600	0.0320	-2.81820	-0.0924
33	Union Parkway Belt	Union NCDA	6.64604	0.2185	0.24400	0.0080	-0.38125	-0.0125
34	Union Parkway Belt	Union CDA	4.16100	0.1368	0.10065	0.0033	-0.24095	-0.0079
35	Union Parkway Belt	Union ECDA	3.47358	0.1142	0.06100	0.0020	-0.20130	-0.0066
36	Union Parkway Belt	Union EDA	9.02158	0.2966	0.37820	0.0124	-0.51850	-0.0170
37	Union Parkway Belt	Union Parkway Belt	2.92000	0.0960	0.03060	0.0010	-0.17080	-0.0056
38	Union Parkway Belt	Enbridge CDA	4.55946	0.1499	0.12200	0.0040	-0.26230	-0.0086
39	Union Parkway Belt	Enbridge Parkway CDA	2.92000	0.0960	0.03060	0.0010	-0.17080	-0.0056
40	Union Parkway Belt	Enbridge EDA	12.02067	0.3952	0.54900	0.0180	-0.68930	-0.0226
41	Union Parkway Belt	KPUC EDA	8.94250	0.2940	0.37515	0.0123	-0.51240	-0.0168
42	Union Parkway Belt	Energir EDA	15.63721	0.5141	0.75640	0.0248	-0.89365	-0.0293
43	Union Parkway Belt	Enbridge SWDA	7.41558	0.2438	0.28670	0.0094	-0.42700	-0.0140
44	Union Parkway Belt	Union SWDA	7.45817	0.2452	0.28975	0.0095	-0.43005	-0.0141
45	Union Parkway Belt	Chippawa	5.59667	0.1840	0.18300	0.0060	-0.32330	-0.0106
46	Union Parkway Belt	Cornwall	12.21838	0.4017	0.56120	0.0184	-0.69845	-0.0229
47	Union Parkway Belt	East Hereford	19.27504	0.6337	0.96380	0.0316	-1.10105	-0.0361
48	Union Parkway Belt	Emerson 1	26.21004	0.8617	2.08925	0.0685	-5.57845	-0.1829
49	Union Parkway Belt	Emerson 2	26.21004	0.8617	2.08925	0.0685	-5.57845	-0.1829
50	Union Parkway Belt	Iroquois	11.37888	0.3741	0.51240	0.0168	-0.65270	-0.0214
51	Union Parkway Belt	Kirkwall	3.67738	0.1209	0.07320	0.0024	-0.21350	-0.0070
52	Union Parkway Belt	Napierville	15.26004	0.5017	0.73505	0.0241	-0.87230	-0.0286
53	Union Parkway Belt	Niagara Falls	5.55104	0.1825	0.17995	0.0059	-0.32025	-0.0105
54	Union Parkway Belt	North Bay Junction	10.04358	0.3302	0.43615	0.0143	-0.57645	-0.0189
55	Union Parkway Belt	Phillipsburg	15.60679	0.5131	0.75640	0.0248	-0.89365	-0.0293
56	Union Parkway Belt	Spruce	28.49738	0.9369	2.22650	0.0730	-5.73705	-0.1881
57	Union Parkway Belt	St. Clair	7.88704	0.2593	0.31415	0.0103	-0.45445	-0.0149
58	Union Parkway Belt	Welwyn	30.35988	0.9981	2.55590	0.0838	-6.73440	-0.2208
59	Union Parkway Belt	Dawn Export	7.41558	0.2438	0.28670	0.0094	-0.42700	-0.0140

Forecast for 2024 Summer Fuel Ratios

NOTE: The following is a forecast range of fuel ratios expected for the period of April 1, 2024 to October 31, 2024 based on current information. Actual fuel ratios will be posted on a monthly basis and may fall outside of this range.

Particulars (a)	Range	
	Low (b)	High (c)
1 Empress to Centram MDA	0.8%	1.5%
2 Empress to Centram SSDA	0.6%	1.1%
3 Empress to Centrat MDA	1.0%	1.8%
4 Empress to Herbert Delivery	0.2%	0.3%
5 Empress to Cornwall	3.0%	5.3%
6 Empress to Emerson 1	1.0%	1.8%
7 Empress to Emerson 2	1.0%	1.8%
8 Empress to Enbridge CDA	2.8%	5.1%
9 Empress to Enbridge EDA	2.9%	5.2%
10 Empress to Energir EDA	3.1%	5.6%
11 Empress to Energir NDA	2.4%	4.4%
12 Empress to Iroquois	2.9%	5.3%
13 Empress to KPUC EDA	3.0%	5.5%
14 Empress to Napierville	3.1%	5.6%
15 Empress to Spruce	1.0%	1.8%
16 Empress to Transgas SSDA	0.3%	0.6%
17 Empress to TPLP NDA	1.9%	3.5%
18 Empress to North Bay Junction	2.5%	4.5%
19 Empress to Union EDA	3.0%	5.3%
20 Empress to Union ECDA	2.8%	5.0%
21 Empress to Union NCDA	2.7%	4.8%
22 Empress to Union NDA	2.4%	4.3%
23 Empress to Union SSMIDA	2.1%	3.8%
24 Empress to Union SWDA	2.5%	4.6%
25 Empress to Union WDA	1.5%	2.6%
26 Empress to Welwyn	0.6%	1.1%
27 Union Dawn to East Hereford	1.0%	1.8%
28 Union Dawn to Enbridge CDA	0.3%	0.5%
29 Union Dawn to Enbridge EDA	0.7%	1.2%
30 Union Dawn to Energir EDA	0.8%	1.5%
31 Union Dawn to Iroquois	0.6%	1.1%
32 Union Dawn to Union EDA	0.5%	0.9%
33 Union Dawn to Union ECDA	0.2%	0.4%
34 Union Dawn to Union Parkway Belt	0.2%	0.4%
35 Union Parkway Belt to Cornwall	0.5%	0.8%
36 Union Parkway Belt to Enbridge CDA	0.1%	0.1%
37 Union Parkway Belt to Enbridge EDA	0.4%	0.8%
38 Union Parkway Belt to Energir NDA	0.5%	0.8%
39 Union Parkway Belt to Energir EDA	0.6%	1.1%
40 Union Parkway Belt to Goreway CDA	0.0%	0.0%
41 Union Parkway Belt to Iroquois	0.4%	0.7%
42 Union Parkway Belt to KPUC EDA	0.3%	0.5%
43 Union Parkway Belt to Philipsburg	0.6%	1.1%
44 Union Parkway Belt to Schomberg #2 CDA	0.1%	0.1%
45 Union Parkway Belt to Union EDA	0.3%	0.5%
46 Union Parkway Belt to Union NCDA	0.2%	0.3%
47 Union Parkway Belt to Union NDA	0.5%	0.8%
48 Union Parkway Belt to Victoria Square #2 CDA	0.1%	0.1%
49 Union Parkway Belt to Napanee #2 EDA	0.3%	0.5%
50 Union Parkway Belt to East Hereford	0.8%	1.4%

Particulars (a)	Range	
	Low (b)	High (c)
51 Kirkwall to Chippawa	0.1%	0.2%
52 Kirkwall to Thorold CDA	0.1%	0.2%
53 Kirkwall to Union CDA	0.0%	0.0%
54 Niagara Falls to Enbridge CDA	0.2%	0.3%
55 Niagara Falls to Enbridge Parkway CDA	0.1%	0.2%
56 Niagara Falls to Energir EDA	0.8%	1.4%
57 Niagara Falls to Kirkwall	0.1%	0.2%
58 Niagara Falls to KPUC EDA	0.4%	0.8%
59 Niagara Falls to Union Parkway Belt	0.1%	0.2%
60 St. Clair to Chippawa	0.3%	0.6%
61 St. Clair to Union SWDA	0.0%	0.0%
62 North Bay Junction to Iroquois	0.4%	0.8%
63 North Bay Junction to Enbridge CDA	0.3%	0.6%
64 North Bay Junction to Enbridge EDA	0.4%	0.7%
65 North Bay Junction to Energir EDA	0.6%	1.1%
66 North Bay Junction to Energir NDA	0.1%	0.2%
67 North Bay Junction to Union NDA	0.1%	0.2%
68 North Bay Junction to KPUC EDA	0.5%	1.0%
69 North Bay Junction to Cornwall	0.5%	0.8%
70 North Bay Junction to East Hereford	0.8%	1.4%
71 Chippawa to Enbridge Parkway CDA	0.1%	0.2%
72 Lachenaie to Iroquois	0.2%	0.3%
73 Iroquois to Energir EDA	0.2%	0.4%
74 Iroquois to Cornwall	0.1%	0.1%
75 Iroquois to Napierville	0.2%	0.4%
76 Iroquois to KPUC EDA	0.1%	0.2%
77 SS. Marie to Union SSMDA	0.0%	0.0%
78 Ste. Genevieve to Iroquois	0.2%	0.4%
79 Ste. Genevieve to Enbridge EDA	0.3%	0.6%
80 Welwyn to Centram MDA	0.2%	0.4%
81 Emerson 2 to Centram MDA	0.2%	0.3%
82 Union WDA to Union Parkway Belt	1.4%	2.6%
83 Union NDA to Union Parkway Belt	0.5%	0.8%
84 Centram MDA to Emerson 2	0.2%	0.3%

Delivery Pressure Fuel Ratio ⁽¹⁾

0.20%

⁽¹⁾ Applicable to deliveries at Emerson 1, Emerson 2, Union SWDA, Enbridge SWDA, Dawn Export, Niagara Falls, Iroquois, Chippawa and East Hereford.

Service Type	Receipt Location	Delivery Location	From Gas Day	To Gas Day	Combined Ratio
FH	Union Parkway Belt	East Hereford	8/1/2024	8/31/2024	1.69
FH	Union Parkway Belt	Iroquois	8/1/2024	8/31/2024	0.99

Tennessee Gas Pipeline Company, L.L.C.
 FERC NGA Gas Tariff
 Sixth Revised Volume No. 1

Twenty Third Revised Sheet No. 14
 Superseding
 Twenty Second Revised Sheet No. 14

RATES PER DEKATHERM

FIRM TRANSPORTATION RATES
 RATE SCHEDULE FOR FT-A

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Base Reservation Rates		DELIVERY ZONE							
RECEIPT ZONE	0	L	1	2	3	4	5	6	
0	\$4.6004		\$9.6134	\$12.9313	\$13.1602	\$14.4604	\$15.3491	\$19.2577	
L		\$4.0841							
1	\$6.9255		\$6.6386	\$8.8346	\$12.5152	\$12.3255	\$13.9003	\$17.0925	
2	\$12.9314		\$8.7816	\$4.5673	\$4.2696	\$5.4631	\$7.5139	\$9.6995	
3	\$13.1602		\$6.9558	\$4.6042	\$3.3216	\$5.1023	\$9.2279	\$10.6631	
4	\$16.7090		\$15.4042	\$5.8703	\$8.9212	\$4.3669	\$4.7226	\$6.7467	
5	\$19.9231		\$13.9996	\$6.1579	\$7.4511	\$4.8511	\$4.5504	\$5.9239	
6	\$23.0472		\$16.0796	\$11.0666	\$12.1915	\$8.6116	\$4.5303	\$3.9217	

Daily Base Reservation Rate 1/		DELIVERY ZONE							
RECEIPT ZONE	0	L	1	2	3	4	5	6	
0	\$0.1512		\$0.3161	\$0.4251	\$0.4327	\$0.4754	\$0.5046	\$0.6331	
L		\$0.1343							
1	\$0.2277		\$0.2183	\$0.2905	\$0.4115	\$0.4052	\$0.4570	\$0.5619	
2	\$0.4251		\$0.2887	\$0.1502	\$0.1404	\$0.1796	\$0.2470	\$0.3189	
3	\$0.4327		\$0.2287	\$0.1514	\$0.1092	\$0.1677	\$0.3034	\$0.3506	
4	\$0.5493		\$0.5064	\$0.1930	\$0.2933	\$0.1436	\$0.1553	\$0.2218	
5	\$0.6550		\$0.4603	\$0.2025	\$0.2450	\$0.1595	\$0.1496	\$0.1948	
6	\$0.7577		\$0.5286	\$0.3638	\$0.4008	\$0.2831	\$0.1489	\$0.1289	

Maximum Reservation Rates 2 /, 3 /		DELIVERY ZONE							
RECEIPT ZONE	0	L	1	2	3	4	5	6	
0	\$4.6466		\$9.6596	\$12.9775	\$13.2064	\$14.5066	\$15.3953	\$19.3039	
L		\$4.1303							
1	\$6.9717		\$6.6848	\$8.8808	\$12.5614	\$12.3717	\$13.9465	\$17.1387	
2	\$12.9776		\$8.8278	\$4.6135	\$4.3158	\$5.5093	\$7.5601	\$9.7457	
3	\$13.2064		\$7.0020	\$4.6504	\$3.3678	\$5.1485	\$9.2741	\$10.7093	
4	\$16.7552		\$15.4504	\$5.9165	\$8.9674	\$4.4131	\$4.7688	\$6.7929	
5	\$19.9693		\$14.0458	\$6.2041	\$7.4973	\$4.8973	\$4.5966	\$5.9701	
6	\$23.0934		\$16.1258	\$11.1128	\$12.2377	\$8.6578	\$4.5765	\$3.9679	

Notes:

- 1/ Applicable to demand charge credits and secondary points under discounted rate agreements.
- 2/ Includes a per Dth charge for the PCB Surcharge Adjustment per Article XXXII of the General Terms and Conditions of \$0.0000.
- 3/ Includes a per Dth charge for the PS/GHG Surcharge Adjustment per Article XXXVIII of the General Terms and Conditions of \$0.0462.

Issued: January 23, 2024
 Effective: January 1, 2024

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 Accepted: February 21, 2024

Tennessee Gas Pipeline Company, L.L.C.
 FERC NGA Gas Tariff
 Sixth Revised Volume No. 1

Twenty Fifth Revised Sheet No. 15
 Superseding
 Twenty Fourth Revised Sheet No. 15

RATES PER DEKATHERM

COMMODITY RATES
 RATE SCHEDULE FOR FT-A

Base
 Commodity Rates

RECEIPT ZONE	DELIVERY ZONE							
	0	L	1	2	3	4	5	6
0	\$0.0032		\$0.0115	\$0.0177	\$0.0219	\$0.2215	\$0.2114	\$0.2516
L		\$0.0012						
1	\$0.0042		\$0.0081	\$0.0147	\$0.0179	\$0.1884	\$0.1921	\$0.2193
2	\$0.0167		\$0.0087	\$0.0012	\$0.0028	\$0.0610	\$0.0977	\$0.1083
3	\$0.0207		\$0.0169	\$0.0026	\$0.0002	\$0.0814	\$0.1127	\$0.1231
4	\$0.0250		\$0.0205	\$0.0087	\$0.0105	\$0.0377	\$0.0533	\$0.0863
5	\$0.0284		\$0.0256	\$0.0100	\$0.0118	\$0.0530	\$0.0525	\$0.0653
6	\$0.0346		\$0.0300	\$0.0143	\$0.0163	\$0.0816	\$0.0443	\$0.0269

Minimum
 Commodity Rates 1/, 2/

RECEIPT ZONE	DELIVERY ZONE							
	0	L	1	2	3	4	5	6
0	\$0.0032		\$0.0115	\$0.0177	\$0.0219	\$0.0250	\$0.0284	\$0.0346
L		\$0.0012						
1	\$0.0042		\$0.0081	\$0.0147	\$0.0179	\$0.0210	\$0.0256	\$0.0300
2	\$0.0167		\$0.0087	\$0.0012	\$0.0028	\$0.0056	\$0.0100	\$0.0143
3	\$0.0207		\$0.0169	\$0.0026	\$0.0002	\$0.0081	\$0.0118	\$0.0163
4	\$0.0250		\$0.0205	\$0.0087	\$0.0105	\$0.0028	\$0.0046	\$0.0092
5	\$0.0284		\$0.0256	\$0.0100	\$0.0118	\$0.0046	\$0.0046	\$0.0066
6	\$0.0346		\$0.0300	\$0.0143	\$0.0163	\$0.0086	\$0.0041	\$0.0020

Maximum
 Commodity Rates 1/, 2/, 3/

RECEIPT ZONE	DELIVERY ZONE							
	0	L	1	2	3	4	5	6
0	\$0.0051		\$0.0134	\$0.0196	\$0.0238	\$0.2234	\$0.2133	\$0.2535
L		\$0.0031						
1	\$0.0061		\$0.0100	\$0.0166	\$0.0198	\$0.1903	\$0.1940	\$0.2212
2	\$0.0186		\$0.0106	\$0.0031	\$0.0047	\$0.0629	\$0.0996	\$0.1102
3	\$0.0226		\$0.0188	\$0.0045	\$0.0021	\$0.0833	\$0.1146	\$0.1250
4	\$0.0269		\$0.0224	\$0.0106	\$0.0124	\$0.0396	\$0.0552	\$0.0882
5	\$0.0303		\$0.0275	\$0.0119	\$0.0137	\$0.0549	\$0.0544	\$0.0672
6	\$0.0365		\$0.0319	\$0.0162	\$0.0182	\$0.0835	\$0.0462	\$0.0288

Notes:

- 1/ Rates stated above exclude the ACA Surcharge as revised annually and posted on the FERC website at <http://www.ferc.gov> on the Annual Charges page of the Natural Gas section. The ACA Surcharge is incorporated by reference into Transporter's Tariff and shall apply to all transportation under this Rate Schedule as provided in Article XXIV of the General Terms and Conditions.
- 2/ The applicable F&LR's and EPCR's, determined pursuant to Article XXXVII of the General Terms and Conditions, are listed on Sheet No. 32.
- 3/ Includes a per Dth charge for the PS/GHG Surcharge Adjustment per Article XXXVIII of the General Terms and Conditions of \$0.0019.

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Tennessee Gas Pipeline Company, L.L.C.
 FERC NGA Gas Tariff
 Sixth Revised Volume No. 1

Twenty First Revised Sheet No. 32
 Superseding
 Substitute Twentieth Revised Sheet No. 32

FUEL AND EPCR

F&LR 1/, 2/, 3/, 4/ -----	RECEIPT ZONE	DELIVERY ZONE							
		0	L	1	2	3	4	5	6
	0	0.36%		1.21%	1.84%	2.31%	2.70%	3.15%	3.63%
	L		0.16%						
	1	0.47%		0.87%	1.54%	1.86%	2.28%	2.77%	3.16%
	2	1.87%		0.93%	0.15%	0.33%	0.64%	1.13%	1.53%
	3	2.31%		1.86%	0.33%	0.06%	0.91%	1.32%	1.76%
	4	2.70%		2.12%	0.93%	1.11%	0.34%	0.54%	0.97%
	5	3.15%		2.85%	1.13%	1.33%	0.54%	0.53%	0.69%
	6	3.76%		3.26%	1.53%	1.76%	0.91%	0.42%	0.19%

Broad Run Expansion Project – Market Component (Z3-Z1): 5/ 5.85%

EPCR 3/, 4/ -----	RECEIPT ZONE	DELIVERY ZONE							
		0	L	1	2	3	4	5	6
	0	\$0.0021		\$0.0082	\$0.0128	\$0.0159	\$0.0192	\$0.0218	\$0.0262
	L		\$0.0007						
	1	\$0.0029		\$0.0058	\$0.0106	\$0.0129	\$0.0161	\$0.0197	\$0.0226
	2	\$0.0128		\$0.0062	\$0.0007	\$0.0019	\$0.0042	\$0.0076	\$0.0104
	3	\$0.0159		\$0.0129	\$0.0019	\$0.0000	\$0.0061	\$0.0090	\$0.0120
	4	\$0.0192		\$0.0148	\$0.0062	\$0.0075	\$0.0020	\$0.0034	\$0.0065
	5	\$0.0218		\$0.0197	\$0.0076	\$0.0090	\$0.0034	\$0.0034	\$0.0045
	6	\$0.0262		\$0.0226	\$0.0104	\$0.0120	\$0.0060	\$0.0025	\$0.0009

Broad Run Expansion Project – Market Component (Z3-Z1): 5/ \$0.0304

- 1/ Included in the above F&LR is the Losses component of the F&LR equal to 0.03%.
- 2/ For service that is rendered entirely by displacement and for gas scheduled and allocated for receipt at the Dracut, Massachusetts receipt point, Shipper shall render only the quantity of gas associated with Losses of 0.03%.
- 3/ The F&LR's and EPCR's listed above are applicable to FT-A, FT-BH, FT-G, FT-GS, IT, and to the transportation component of FT-PS.
- 4/ The F&LR's and EPCR's determined pursuant to Article XXXVII of the General Terms and Conditions.
- 5/ The incremental F&LR and EPCR set forth above are applicable to a Shipper(s) utilizing capacity on the Broad Run Expansion Project – Market Component facilities, from any receipt point(s) to any delivery point(s) located on the project's transportation path. Any service provided to a Shipper(s) outside the project's transportation path shall be subject to the greater of the incremental F&LR and EPCR for the project or the applicable F&LR and EPCR for the applicable receipt(s) and delivery point(s) as shown in the rate matrices above. Included in the above F&LR is the Losses component of the F&LR equal to 0.03%.

Issued: February 29, 2024
 Effective: April 1, 2024

Docket No. RP24-453-000
 Accepted: March 28, 2024

Portland Natural Gas Transmission System
 FERC Gas Tariff
 Third Revised Volume No. 1

PART 4.1
 Part 4.1- Stmtnt of Rates
 Recourse Reservation and Usage Rates
 v.8.0.0 Superseding v.7.0.0

Statement of Transportation Rates
 (Rates per DTH)

Rate Schedule	Rate Component	Base Rate	ACA Unit Charge 1/
FT	Recourse Reservation Rate		
	-- Maximum	\$25.9843	-----
	-- Minimum	\$00.0000	-----
	Seasonal Recourse Reservation Rate		
	-- Maximum	\$49.3701	-----
	-- Minimum	\$00.0000	-----
	Recourse Usage Rate		
	-- Maximum	\$00.0000	2/
	-- Minimum	\$00.0000	2/
	-- PXP Project	\$00.0091	
FT-FLEX	Recourse Reservation Rate		
	--Maximum	\$17.4406	-----
	--Minimum	\$00.0000	-----
	Recourse Usage Rate		
	--Maximum	\$00.2809	2/
	--Minimum	\$00.0000	2/

The following adjustment applies to all Rate Schedules above:

MEASUREMENT VARIANCE FACTOR-LAUF:

Minimum down to -1.00%
 Maximum up to +1.00%

MEASUREMENT VARIANCE FACTOR-FUEL 3/

-
- 1/ ACA assessed where applicable under Section 154.402 of the Commission's regulations and will be charged pursuant to Section 6.18 of the General Terms and Conditions at such time that initial and successive ACA assessments are made.
- 2/ The currently effective ACA unit charge as published on the Commission's website (www.ferc.gov) is incorporated herein by reference.

Issued: September 17, 2021
 Effective: November 1, 2021

Docket No. RP21-1126-000
 Accepted: October 12, 2021

TSP Name	Portland Natural Gas Transmission System	TSP	159747872	Date	Time	
Notice ID	25908808	Notice Type Description:	Other	Post	07/19/24	11:52:31 AM
		Notice Stat Desc:	Initiate	Notice Effective	07/19/24	12:00:00 AM
		Prior Notice:		Notice End	10/19/24	12:00:00 AM
		Critical:	N			
		Reqrd Rsp Desc:	No Response Required	Response		
Subject:	August 2024 Measurement Variance			Author:	Gary White	
Notice Text						
<p><i>Portland Natural Gas Transmission System (“PNGTS”) hereby notifies shippers of the August 2024 Measurement Variance.</i></p> <p><i>The Measurement Variance factor- LAUF for all Shippers for the month of August 2024 is <u>0.00%</u>.</i></p> <p><i>As a reminder, all PXP FT contracts with primary rights on the Joint Facilities will also incur Measurement Variance factor- FUEL. For the month of August 2024, this factor is <u>0.00%</u>.</i></p> <p><i>WXP Phase II, WXP Phase III contracts will also incur Measurement Variance factor - FUEL. For the month of August 2024, this factor is <u>0.00%</u>.</i></p> <p><i>Customers are encouraged to reach out to their Customer Services Representative with any questions.</i></p>						

RIDER: J	CARBON CHARGES
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	Federal Carbon Charge (if applicable) <u>¢/m³</u>	Facility Carbon Charge <u>¢/m³</u>
Union Rate Zones		
Union North Rate Class		
Rate 01	15.2500	0.0143
Rate 10	15.2500	0.0143
Rate 20	15.2500	0.0143
Rate 25	15.2500	0.0143
Rate 100	15.2500	0.0143
Union South Rate Class		
Rate M1	15.2500	0.0143
Rate M2	15.2500	0.0143
Rate M4	15.2500	0.0143
Rate M5	15.2500	0.0143
Rate M7	15.2500	0.0143
Rate M9	15.2500	0.0143
Rate T1	15.2500	0.0143
Rate T2	15.2500	0.0143
Rate T3	15.2500	0.0143
	<u>\$/GJ</u>	<u>\$/GJ</u>
Rate M12	0.0000	0.004
Rate M13	0.0000	0.004
Rate M16	0.0000	0.004
Rate M17	0.0000	0.004
Rate C1	0.0000	0.004

Effective July 1, 2024
Implemented July 1, 2024
OEB Order EB-2024-0166

Supersedes EB-2022-0200 Rate Schedule effective May 1, 2024.

RATE: M12	SCHEDULE B - MONTHLY TRANSPORTATION FUEL RATIOS
------------------	--

FIRM OR INTERRUPTIBLE TRANSPORTATION COMMODITY

Month	Dawn to		Kirkwall to Parkway Fuel Ratio (%)	M12-X Westerly	
	Parkway	Kirkwall		Parkway to Kirkwall, Dawn	Kirkwall to Dawn
	Fuel Ratio (%)	Fuel Ratio (%)		Fuel Ratio (%)	Fuel Ratio (%)
January	1.303	0.996	0.518	0.211	0.211
February	1.240	0.941	0.510	0.211	0.211
March	1.160	0.846	0.525	0.211	0.211
April	0.991	0.634	0.568	0.364	0.211
May	0.716	0.444	0.483	0.364	0.211
June	0.604	0.338	0.477	0.364	0.211
July	0.588	0.324	0.475	0.364	0.211
August	0.476	0.212	0.475	0.364	0.211
September	0.472	0.212	0.471	0.364	0.211
October	0.853	0.542	0.522	0.364	0.211
November	1.009	0.718	0.502	0.211	0.211
December	1.137	0.845	0.503	0.211	0.211

cell Nb Union TC PNGTS AMA K# 12284
 (carries over to 120 AMA tab) K# 12200

**FIRM OR INTERRUPTIBLE TRANSPORTATION COMMODITY
 AUTHORIZED OVERRUN FUEL RATIOS AND FUEL RATES**

Month	Dawn to		Kirkwall to Parkway Fuel Ratio (%)	M12-X Westerly	
	Parkway	Kirkwall		Parkway to Kirkwall, Dawn	Kirkwall to Dawn
	Fuel Ratio (%)	Fuel Ratio (%)		Fuel Ratio (%)	Fuel Ratio (%)
January	1.903	1.596	1.118	0.811	0.811
February	1.840	1.541	1.110	0.811	0.811
March	1.760	1.446	1.125	0.811	0.811
April	1.591	1.234	1.168	0.964	0.811
May	1.316	1.044	1.083	0.964	0.811
June	1.204	0.938	1.077	0.964	0.811
July	1.188	0.924	1.075	0.964	0.811
August	1.076	0.812	1.075	0.964	0.811
September	1.072	0.812	1.071	0.964	0.811
October	1.453	1.142	1.122	0.964	0.811
November	1.609	1.318	1.102	0.811	0.811
December	1.737	1.445	1.103	0.811	0.811

Effective **May 1, 2024** *BUT FUEL CHANGES MONTHLY*
 Implemented **May 1, 2024**
 OEB Order EB-2022-0200

Supersedes EB-2024-0093 Rate Schedule effective April 1, 2024.

UNION (ENBRIDGE)

RATE:	M12	TRANSPORTATION SERVICE
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APPLICABILITY

To any Customer who enters into an agreement with the Company pursuant to the Rate M12 Tariff for transportation service on the Company's Dawn-Parkway facilities, as defined in the Tariff.

Applicable Points

- Dawn as a receipt point: Dawn (TCPL), Dawn (Facilities) and Dawn (Vector).
- Dawn as a delivery point: Dawn (Facilities).

MONTHLY RATES AND CHARGES

The identified rates represent maximum prices for service. These rates may change periodically. Multi-year prices may also be negotiated, which may be higher than the identified rates.

	<u>Demand Rate</u> (per month)	<u>Fuel and Commodity Rate</u>	
		<u>Fuel</u> <u>Ratio</u>	<u>Commodity</u> <u>& Charge</u>
Firm Transportation (1) (2)			
Dawn to Parkway	3.864 ✓		Monthly fuel ratios shall be in accordance with Schedule "B".
Dawn to Kirkwall	3.281		\$/GJ
Kirkwall to Parkway	0.583		\$/GJ
M12-X Firm Transportation			
Between Dawn, Kirkwall and Parkway	4.772		Monthly fuel ratios shall be in accordance with Schedule "B".
			\$/GJ
Limited Firm/Interruptible Transportation (1)			
Dawn to Parkway – Maximum	9.273		Monthly fuel ratios shall be in accordance with Schedule "B".
Dawn to Kirkwall – Maximum	9.273		\$/GJ

K# M12284 FXP
 K# M12200 IRO
 cell N27 Union-TC-IR0 AMA (carries over to FXP AMA)

Rate Riders

The rates quoted herein shall be subject to the following Riders (if applicable):

- Rider D - Deferral and Variance Account Clearance
- Rider E - Revenue Adjustment
- ✓ Rider J - Carbon Charges

Notes to Transportation Charges

1. The annual transportation fuel required is calculated by application of the YCR Formula, as per Transportation Fuel Charges below.
2. A Demand Charge of \$0.079/GJ/day/month will be applicable for Customers contracting for Firm all day transportation service in addition to the Demand Charges appearing on this schedule for Firm Transportation service to either Kirkwall or Parkway.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
 Peak 2024 – 2025 Winter Cost of Gas Filing
 Supply and Commodity Costs, Volumes and Rates

REDACTED
 Schedule 6
 Page 1 of 5

For Month of:	Reference	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST	Total
(a)	(b)	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	(i)
		(c)	(d)	(e)	(f)	(g)	(h)	(c)	(d)	(e)	(f)	(g)	(h)	
Supply and Commodity Costs														
1 Pipeline Gas:														
2 Dawn Iroquois Supply	In 59 * In 97													
3 Dawn PXP Supply	In 60 * In 123													
4 Niagara Supply	In 61 * In 107													
5 TGP Supply (Gulf)	In 62 * In 112													
6 TGP Supply (Z4)	In 63 * In 117													
7 PNGTS - Berlin	In 64 * In 122													
8 Dracut Baseload	In 65 * In 127													
9 Dracut Swing 1	In 66 * In 132													
10 Dracut Swing 2	In 67 * In 137													
11 LNG Truck	In 68 * In 139													
12 Propane Truck	In 69 * In 141													
13														
14 Subtotal Pipeline Gas Costs														
15														
16 Volumetric Commodity Costs														
17 Dawn Iroquois Supply	In 59 * In 168	\$ 9,574	\$ 8,689	\$ 6,528	\$ 5,731	\$ 6,975	\$ 10,768	\$ 19,481	\$ 23,051	\$ 24,984	\$ 22,815	\$ 24,461	\$ 10,375	\$ 173,432
18 Dawn PXP Supply	In 60 * In 186	5,871	251	-	-	-	6,603	4,385	8,928	10,902	10,022	10,126	6,267	63,355
19 Niagara Supply	In 61 * In 196	5,499	5,167	5,212	4,930	4,139	6,610	5,337	5,948	6,708	6,082	6,586	5,352	67,572
20 TGP Supply (Gulf)	In 62 * In 206	31,387	-	-	-	-	29,381	186,825	241,996	252,896	225,104	205,719	190,061	1,363,370
21 TGP Supply (Z4)	In 63 * In 216	63,482	66,098	47,841	44,004	44,347	72,751	21,282	2,388	3,223	2,747	2,069	11,525	381,758
22 PNGTS - Berlin	In 64 * In 224	30	27	27	13	27	31	104	209	355	282	161	92	1,358
23 Dracut Baseload	In 65 * In 229	-	-	-	-	-	-	-	-	4,302,180	1,739,500	-	-	6,041,680
24 Dracut Swing 1	In 66 * In 239	-	-	-	-	-	1,595	6,154	5,697	31	5,652	12,135	3,746	35,009
25 Dracut Swing 2	In 67 * In 249	-	-	-	-	-	-	-	-	-	-	625	-	625
26 TGP Storage - Withdrawals	In 81 * In 260	-	-	-	-	-	-	29,504	56,805	65,544	51,753	23,601	-	227,207
27														
28 Total Volumetric Commodity Costs		\$ 115,845	\$ 80,232	\$ 59,608	\$ 54,678	\$ 55,487	\$ 127,739	\$ 273,072	\$ 345,023	\$ 4,666,822	\$ 2,063,956	\$ 285,484	\$ 227,419	\$ 8,355,366
29														
30 Less - Gas Refill:														
31 LNG Truck - Refills	In 74 * In 144													
32 Propane - Refills	In 75 * In 145													
33 TGP Storage Refill	In 76 * In 146													
34														
35 Subtotal Refills														
36														
37 Subtotal Supply & Pipeline Commodity	In 14 + In 28 + In 35													
38														
39 Seasonal Allocation - % allocated to Off-Peak		100%	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%	0%	
40														
41 Off-Peak Total														
42														
43 Total Peak Supply & Pipeline Commodity Costs														
44														
45 Storage Gas:														
46 TGP Storage	In 81 * In 146													
47														
48 Produced Gas:														
49 LNG Vapor	In 84 * In 149													
50 Propane	In 85 * In 150													
51														
52 Total Produced Gas	In 49 + In 50													
53														
54 AMA Credits														
55 Total Commodity Gas & Trans. Costs	In 37 + In 46 + In 52	\$ 14,460	\$ 14,133	\$ 14,183	\$ 14,224	\$ 14,878	\$ 17,252	\$ 2,661,264	\$ 7,145,018	\$ 14,909,905	\$ 11,435,556	\$ 5,664,282	\$ 2,126,394	\$ 44,031,550
56														
57														

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
 Peak 2024 – 2025 Winter Cost of Gas Filing
 Supply and Commodity Costs, Volumes and Rates

REDACTED
 Schedule 6
 Page 2 of 5

For Month of:	Reference	EST May-24 (c)	EST Jun-24 (d)	EST Jul-24 (e)	EST Aug-24 (f)	EST Sep-24 (g)	EST Oct-24 (h)	EST Nov-24 (c)	EST Dec-24 (d)	EST Jan-25 (e)	EST Feb-25 (f)	EST Mar-25 (g)	EST Apr-25 (h)	Total (i)
Volumes (Dekatherms)														
58	Pipeline Gas:													
59	Dawn Iroquois Supply													
60	Dawn PXP Supply													
61	Niagara Supply													
62	TGP Supply (Gulf)													
63	TGP Supply (Z4)													
64	PNGTS - Berlin													
65	Dracut Baseload													
66	Dracut Swing 1													
67	Dracut Swing 2													
68	LNG Truck													
69	Propane Truck													
70														
71	Subtotal Pipeline Volumes													
72														
73	Less - Gas Refill:													
74	LNG Truck - Refills													
75	Propane - Refills													
76	TGP Storage Refill													
77														
78	Subtotal Refills													
79														
80	Storage Gas:													
81	TGP Storage													
82														
83	Produced Gas:													
84	LNG Vapor													
85	Propane													
86														
87	Subtotal Produced Gas													
88														
89	Total Sendout Volumes													
90														
91														
92														

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
 Peak 2024 – 2025 Winter Cost of Gas Filing
 Supply and Commodity Costs, Volumes and Rates

REDACTED
 Schedule 6
 Page 3 of 5

For Month of: (a)	Reference (b)	EST May-24 (c)	EST Jun-24 (d)	EST Jul-24 (e)	EST Aug-24 (f)	EST Sep-24 (g)	EST Oct-24 (h)	EST Nov-24 (c)	EST Dec-24 (d)	EST Jan-25 (e)	EST Feb-25 (f)	EST Mar-25 (g)	EST Apr-25 (h)	Peak Nov- Apr (i)
Supply Costs														
93 Pipeline Gas:														
94 Dawn Iroquois Supply														Average Rate
95 NYMEX Price		\$ 1,6140	\$ 2,4930	\$ 2,6280	\$ 2,1870	\$ 2,2240	\$ 2,3450	\$ 2,8160	\$ 3,3490	\$ 3,6380	\$ 3,4850	\$ 3,1140	\$ 2,9280	\$2,7351
96 Basis Differential		\$ (0,2425)	\$ (0,2625)	\$ (0,2700)	\$ (0,4975)	\$ (0,6100)	\$ (0,7500)	\$ (0,4500)	\$ (0,4500)	\$ (0,4700)	\$ (0,2200)	\$ (0,0400)	\$ (0,1950)	(\$0,3715)
97 Net Commodity Costs		\$1,3715	\$2,2305	\$2,3580	\$1,6895	\$1,6140	\$1,5950	\$ 2,3660	\$ 2,8990	\$ 3,1680	\$ 3,2650	\$ 3,0740	\$ 2,7330	\$2,3636
98														
99 Dawn PXP Supply														
100 NYMEX Price		\$ 1,6140	\$ 2,4930	\$ 2,6280	\$ 2,1870	\$ 2,2240	\$ 2,3450	\$ 2,8160	\$ 3,3490	\$ 3,6380	\$ 3,4850	\$ 3,1140	\$ 2,9280	\$2,7351
101 Basis Differential		\$ (0,2425)	\$ (0,2625)	\$ (0,2700)	\$ (0,4975)	\$ (0,6100)	\$ (0,7500)	\$ (0,4500)	\$ (0,4500)	\$ (0,4700)	\$ (0,2200)	\$ (0,0400)	\$ (0,1950)	(\$0,3715)
102 Net Commodity Cost		\$1,3715	\$2,2305	\$2,3580	\$1,6895	\$1,6140	\$1,5950	\$ 2,3660	\$ 2,8990	\$ 3,1680	\$ 3,2650	\$ 3,0740	\$ 2,7330	\$2,3636
103														
104 Niagara Supply														
105 NYMEX Price		\$ 1,6140	\$ 2,4930	\$ 2,6280	\$ 2,1870	\$ 2,2240	\$ 2,3450	\$ 2,8160	\$ 3,3490	\$ 3,6380	\$ 3,4850	\$ 3,1140	\$ 2,9280	\$2,7351
106 Basis Differential		\$ (0,2725)	\$ (0,2925)	\$ (0,3000)	\$ (0,5275)	\$ (0,6400)	\$ (0,7800)	\$ (0,4800)	\$ (0,4800)	\$ (0,5000)	\$ (0,2500)	\$ (0,0700)	\$ (0,2250)	(\$0,4015)
107 Net Commodity Costs		\$1,3415	\$2,2005	\$2,3280	\$1,6595	\$1,5840	\$1,5650	\$ 2,3360	\$ 2,8690	\$ 3,1380	\$ 3,2350	\$ 3,0440	\$ 2,7030	\$2,3336
108														
109 TGP Supply (Gulf)														
110 NYMEX Price		\$ 1,6140	\$ 2,4930	\$ 2,6280	\$ 2,1870	\$ 2,2240	\$ 2,3450	\$ 2,8160	\$ 3,3490	\$ 3,6380	\$ 3,4850	\$ 3,1140	\$ 2,9280	\$2,7351
111 Basis Differential		\$ (0,0570)	\$ (0,0622)	\$ (0,1409)	\$ (0,1409)	\$ (0,2224)	\$ (0,3086)	\$ (0,3038)	\$ (0,1168)	\$ 0,0920	\$ 0,0863	\$ (0,1032)	\$ 0,0178	(\$0,1050)
112 Net Commodity Costs		\$1,5570	\$2,4308	\$2,4871	\$2,0461	\$2,0016	\$2,0364	\$ 2,5122	\$ 3,2322	\$ 3,7300	\$ 3,5713	\$ 3,0108	\$ 2,9458	\$2,6301
113														
114 TGP Supply (Z4)														
115 NYMEX Price		\$ 1,6140	\$ 2,4930	\$ 2,6280	\$ 2,1870	\$ 2,2240	\$ 2,3450	\$ 2,8160	\$ 3,3490	\$ 3,6380	\$ 3,4850	\$ 3,1140	\$ 2,9280	\$2,7351
116 Basis Differential		\$ (0,5025)	\$ (0,7500)	\$ (0,7675)	\$ (0,6400)	\$ (0,7050)	\$ (0,9000)	\$ (0,7350)	\$ (0,4875)	\$ (0,4550)	\$ (0,3775)	\$ (0,3225)	\$ (0,3675)	(\$0,5842)
117 Net Commodity Costs		\$1,1115	\$1,7430	\$1,8605	\$1,5470	\$1,5190	\$1,4450	\$ 2,0810	\$ 2,8615	\$ 3,1830	\$ 3,1075	\$ 2,7915	\$ 2,5605	\$2,1509
118														
119 PNGTS - Berlin														
120 NYMEX Price		\$ 1,6140	\$ 2,4930	\$ 2,6280	\$ 2,1870	\$ 2,2240	\$ 2,3450	\$ 2,8160	\$ 3,3490	\$ 3,6380	\$ 3,4850	\$ 3,1140	\$ 2,9280	\$2,7351
121 Basis Differential		\$ (0,1575)	\$ (0,2125)	\$ 0,1600	\$ (0,2550)	\$ (0,2975)	\$ (0,5750)	\$ 1,2600	\$ 5,9500	\$ 10,7525	\$ 9,6100	\$ 2,7575	\$ 0,6550	\$2,4706
122 Net Commodity Cost		\$1,4565	\$2,2805	\$2,7880	\$1,9320	\$1,9265	\$1,7700	\$ 4,0760	\$ 9,2990	\$ 14,3905	\$ 13,0950	\$ 5,8715	\$ 3,5830	\$5,2057
123														
124 Dracut Baseload														
125 NYMEX Price		\$ 1,6140	\$ 2,4930	\$ 2,6280	\$ 2,1870	\$ 2,2240	\$ 2,3450	\$ 2,8160	\$ 3,3490	\$ 3,6380	\$ 3,4850	\$ 3,1140	\$ 2,9280	\$2,7351
126 Basis Differential		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,2400	\$ 8,9400	\$ -	\$ -	\$1,5983
127 Net Commodity Costs		\$1,6140	\$2,4930	\$2,6280	\$2,1870	\$2,2240	\$2,3450	\$ 2,8160	\$ 3,3490	\$ 13,8780	\$ 12,4250	\$ 3,1140	\$ 2,9280	\$4,3334
128														
129 Dracut Swing 1														
130 Commodity Costs - NYMEX Price		\$ 1,6140	\$ 2,4930	\$ 2,6280	\$ 2,1870	\$ 2,2240	\$ 2,3450	\$ 2,8160	\$ 3,3490	\$ 3,6380	\$ 3,4850	\$ 3,1140	\$ 2,9280	\$2,7351
131 Basis Differential		\$ (0,4775)	\$ (0,7725)	\$ (0,2275)	\$ (0,4075)	\$ (0,4475)	\$ (0,7300)	\$ 1,1600	\$ 11,3000	\$ 20,3050	\$ 18,0150	\$ 4,9150	\$ 0,4550	\$4,4240
132 Net Commodity Costs		\$1,1365	\$1,7205	\$2,4005	\$1,7795	\$1,7765	\$1,6150	\$ 3,9760	\$ 14,6490	\$ 23,9430	\$ 21,5000	\$ 8,0290	\$ 3,3830	\$7,1590
133														
134 Dracut Swing 2														
135 Commodity Costs - NYMEX Price		\$ 1,6140	\$ 2,4930	\$ 2,6280	\$ 2,1870	\$ 2,2240	\$ 2,3450	\$ 2,8160	\$ 3,3490	\$ 3,6380	\$ 3,4850	\$ 3,1140	\$ 2,9280	\$2,7351
136 Basis Differential		\$ (0,4775)	\$ (0,7725)	\$ (0,2275)	\$ (0,4075)	\$ (0,4475)	\$ (0,7300)	\$ 1,1600	\$ 11,3000	\$ 20,3050	\$ 18,0150	\$ 4,9150	\$ 0,4550	\$4,4240
137 Net Commodity Costs		\$1,1365	\$1,7205	\$2,4005	\$1,7795	\$1,7765	\$1,6150	\$ 3,9760	\$ 14,6490	\$ 23,9430	\$ 21,5000	\$ 8,0290	\$ 3,3830	\$7,1590
138														
139 LNG Truck														
140														
141 Propane Truck														
142														
143 Storage Refill:														
144 LNG Truck - Refills	In 139													
145 Propane - Refills	In 141													
146 TGP Storage Refill	Sch 16, In 15													
147														
148 Produced Gas:														
149 LNG Vapor	Sch 16, In 49													
150 Propane	Sch 16, In 32													
151														
152														

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
 Peak 2024 – 2025 Winter Cost of Gas Filing
 Supply and Commodity Costs, Volumes and Rates

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For Month of:	Reference	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST	Peak
(a)	(b)	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	Nov- Apr	
Commodity Costs		(c)	(d)	(e)	(f)	(g)	(h)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	
Per Unit Volumetric Transportation Rates															
153 Dawn Iroquois Supply															
154															
155 Iroquois RTS 470-0 - Commodity (Daily) Zone 1 + ACA		\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.00480
156 TGP 95346 Z5-Z6 - Base Cmdy + EPCR + ACA + PS/GHG		\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310
157 Enbridge Gas M12200 (C2C) - FT (IRO) Carbon Charge		\$0.00309	\$0.00308	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311
158 TransCanada Pipeline 64195 (PXP) - Commodity		\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000
159 Total	In 155 + In 156 + In 157 + In 158	\$0.08099	\$0.08098	\$0.08101	\$0.08101	\$0.08101	\$0.08101	\$0.08101	\$0.08101	\$0.08101	\$0.08101	\$0.08101	\$0.08101	\$0.08101	\$0.08101
160															
161 Commodity Costs	In 97	\$1.3715	\$2.2305	\$2.3580	\$1.6895	\$1.6140	\$1.5950	\$2.3660	\$2.8990	\$3.1680	\$3.2650	\$3.0740	\$2.7330	\$2.3636	\$2.3636
162 Iroquois RTS 470-0 - Fuel Charge %		-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	-0.50%	0.09%
163 TGP 95346 Z5-Z6 - Fuel Charge %		0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%
164 Enbridge Gas M12200 (C2C) - Fuel Charge %		0.72%	0.60%	0.59%	0.48%	0.47%	0.85%	1.01%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	0.87%
165 TransCanada Pipeline 64195 (PXP) - Fuel Charge %		1.47%	1.52%	1.23%	1.69%	1.37%	1.37%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.37%	1.46%
166 Total	In 162 + In 163 + In 164 + In 165	2.38%	2.31%	1.91%	2.06%	2.03%	2.41%	4.21%	4.34%	4.34%	4.34%	4.34%	4.34%	2.70%	3.11%
167 Fuel Charge	In 161 x In 166	\$0.03259	\$0.05161	\$0.04499	\$0.03474	\$0.03280	\$0.03849	\$0.09958	\$0.12573	\$0.13740	\$0.14160	\$0.13332	\$0.07371	\$0.07888	\$0.07888
168 Total Volumetric Transportation Rate	In 159 + In 167	\$0.11357	\$0.13259	\$0.12600	\$0.11574	\$0.11380	\$0.11949	\$0.18059	\$0.20674	\$0.21840	\$0.22261	\$0.21433	\$0.15472	\$0.15988	\$0.15988
169															
170															
171 Dawn PXP Supply															
172															
173 TGP (Dracut) 42076 Z6-Z6 - Base Cmdy + EPCR + ACA + PS/GHG		\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110
174 Portland Natural Gas #233320 (PXP) - ACA		\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140
175 Enbridge Gas M12284 (PXP) - Carbon Charge		\$0.00309	\$0.00308	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311
176 TransCanada Pipeline 64195 (PXP) - Commodity		\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000
177 Total	In 173 + In 174 + In 175 + In 176	\$0.03559	\$0.03558	\$0.03561	\$0.03561	\$0.03561	\$0.03561	\$0.03561	\$0.03561	\$0.03561	\$0.03561	\$0.03561	\$0.03561	\$0.03561	\$0.03561
178															
179 Commodity Costs	In 102	\$1.3715	\$2.2305	\$2.3580	\$1.6895	\$1.6140	\$1.5950	\$2.3660	\$2.8990	\$3.1680	\$3.2650	\$3.0740	\$2.7330	\$2.3636	\$2.3636
180 TGP (Dracut) 42076 Z6-Z6 - Fuel Charge %		0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
181 Portland Natural Gas #233320 (PXP) - Fuel Charge %		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.10%
182 Enbridge Gas M12284 (PXP) - Fuel Charge %		0.72%	0.60%	0.59%	0.48%	0.47%	0.85%	1.01%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	0.87%
183 TransCanada Pipeline 64195 (PXP) - Fuel Charge %		1.47%	1.52%	1.23%	1.69%	1.37%	1.37%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.37%	1.46%
184 Total	In 180 + In 181 + In 182 + In 183	2.22%	2.15%	1.85%	2.20%	1.87%	2.25%	2.75%	2.88%	2.88%	2.88%	2.88%	2.88%	2.74%	2.46%
185 Fuel Charge	In 179 x In 184	\$0.03039	\$0.04804	\$0.04358	\$0.03710	\$0.03021	\$0.03594	\$0.06504	\$0.08340	\$0.09114	\$0.09393	\$0.08844	\$0.07480	\$0.06017	\$0.06017
186 Total Volumetric Transportation Rate	In 177 + In 185	\$0.06598	\$0.08362	\$0.07918	\$0.07271	\$0.06582	\$0.07154	\$0.10065	\$0.11901	\$0.12675	\$0.12954	\$0.12405	\$0.11041	\$0.09577	\$0.09577
187															
188															
189 Niagara Supply															
190															
191 TGP 2302 Z5-Z6 - Base Cmdy + EPCR + ACA + PS/GHG		\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310
192															
193 Commodity Costs	In 107	\$1.3415	\$2.2005	\$2.3280	\$1.6595	\$1.5840	\$1.5650	\$2.3360	\$2.8690	\$3.1380	\$3.2350	\$3.0440	\$2.7030	\$2.3336	\$2.3336
194 TGP 2302 Z5-Z6 - Fuel Charge %		0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%
195 Fuel Charge	In 193 x In 194	\$0.00926	\$0.01518	\$0.01606	\$0.01145	\$0.01093	\$0.01080	\$0.01612	\$0.01980	\$0.02165	\$0.02232	\$0.02100	\$0.01865	\$0.01610	\$0.01610
196 Total Volumetric Transportation Rate	In 191 + In 195	\$0.08236	\$0.08828	\$0.08916	\$0.08455	\$0.08403	\$0.08390	\$0.08922	\$0.09290	\$0.09475	\$0.09542	\$0.09410	\$0.09175	\$0.08920	\$0.08920
197															
198															
199 TGP Supply (Gulf)															
200															
201 TGP 8587 Z0-Z6 - Base Cmdy + EPCR + ACA+ PS/GHG		\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.28110
202															
203 Commodity Costs	In 112	\$1.5570	\$2.4308	\$2.4871	\$2.0461	\$2.0016	\$2.0364	\$2.5122	\$3.2322	\$3.7300	\$3.5713	\$3.0108	\$2.9458	\$2.6301	\$2.6301
204 TGP 8587 Z0-Z6 - Fuel Charge %		3.63%	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%
205 Fuel Charge	In 203 x In 204	\$0.05652	\$0.08824	\$0.09028	\$0.07427	\$0.07266	\$0.07392	\$0.09119	\$0.11733	\$0.13540	\$0.12964	\$0.10929	\$0.10693	\$0.09547	\$0.09547
206 Total Volumetric Transportation Rate	In 201 + In 205	\$0.33762	\$0.36934	\$0.37138	\$0.35537	\$0.35376	\$0.35502	\$0.37229	\$0.39843	\$0.41650	\$0.41074	\$0.39039	\$0.38803	\$0.37657	\$0.37657
207															
208															
209 TGP Supply (Z4)															
210															
211 TGP 8587 Z4-Z6 - Base Cmdy + EPCR + ACA + PS/GHG		\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610
212															
213 Commodity Costs	In 122	\$1.4565	\$2.2805	\$2.7880	\$1.9320	\$1.9265	\$1.7700	\$4.0760	\$9.2990	\$14.3905	\$13.0950	\$5.8715	\$3.5830	\$5.2057	\$5.2057
214 TGP 8587 Z4-Z6 - Fuel Charge %		0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%
215 Fuel Charge	In 213 x In 214	\$0.01413	\$0.02212	\$0.02704	\$0.01874	\$0.01869	\$0.01717	\$0.03954	\$0.09020	\$0.13959	\$0.12702	\$0.05695	\$0.03476	\$0.05050	\$0.05050
216 Total Volumetric Transportation Rate	In 211 + In 215	\$0.11023	\$0.11822	\$0.12314	\$0.11484	\$0.11479	\$0.11327	\$0.13564	\$0.18630	\$0.23569	\$0.22312	\$0.15305	\$0.13086	\$0.14660	\$0.14660

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
 Peak 2024 – 2025 Winter Cost of Gas Filing
 Supply and Commodity Costs, Volumes and Rates

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For Month of: (a)	Reference (b)	EST May-24 (c)	EST Jun-24 (d)	EST Jul-24 (e)	EST Aug-24 (f)	EST Sep-24 (g)	EST Oct-24 (h)	EST Nov-24 (c)	EST Dec-24 (d)	EST Jan-25 (e)	EST Feb-25 (f)	EST Mar-25 (g)	EST Apr-25 (h)	Peak Nov- Apr (i)
Commodity Costs														
Per Unit Volumetric Transportation Rates														
217	PNGTS - Berlin													
218														
219	Portland Natural Gas #208544 (C2C) - ACA	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.0014
220														
221	Commodity Costs In 122	\$1.4565	\$2.2805	\$2.7880	\$1.9320	\$1.9265	\$1.7700	\$4.0760	\$9.2990	\$14.3905	\$13.0950	\$5.8715	\$3.5830	\$5.2057
222	Portland Natural Gas #208544 (C2C) - Fuel Charge %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.05%
223	Fuel Charge In 221 x In 222	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00408	\$0.00930	\$0.01439	\$0.01310	\$0.00587	\$0.00358	\$0.00419
224	Total Volumetric Transportation Rate In 219 + In 223	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00548	\$0.01070	\$0.01579	\$0.01450	\$0.00727	\$0.00498	\$0.00559
225														
226	Dracut Baseload													
227														
228	Commodity Costs In 127	\$1.6140	\$2.4930	\$2.6280	\$2.1870	\$2.2240	\$2.3450	\$2.8160	\$3.3490	\$13.8780	\$12.4250	\$3.1140	\$2.9280	\$4.3334
229	Total Volumetric Transportation Rate In 228	\$1.61400	\$2.49300	\$2.62800	\$2.18700	\$2.22400	\$2.34500	\$2.81600	\$3.34900	\$13.87800	\$12.42500	\$3.11400	\$2.92800	\$4.33342
230														
231														
232	Dracut Swing 1													
233														
234	TGP (Dracut) 358905 Z6-Z6 - Base Cmdy + EPCR + ACA + PS/GHG	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.0311
235														
236	Commodity Costs In 132	\$1.1365	\$1.7205	\$2.4005	\$1.7795	\$1.7765	\$1.6150	\$3.9760	\$14.6490	\$23.9430	\$21.5000	\$8.0290	\$3.3830	\$7.1590
237	TGP (Dracut) 358905 Z6-Z6 - Fuel Charge %	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
238	Fuel Charge In 236 x In 237	\$0.00034	\$0.00052	\$0.00072	\$0.00053	\$0.00053	\$0.00048	\$0.00119	\$0.00439	\$0.00718	\$0.00645	\$0.00241	\$0.00101	\$0.00215
239	Total Volumetric Transportation Rate In 234 + In 238	\$0.03144	\$0.03162	\$0.03182	\$0.03163	\$0.03163	\$0.03158	\$0.03229	\$0.03549	\$0.03828	\$0.03755	\$0.03351	\$0.03211	\$0.03325
240														
241														
242	Dracut Swing 2													
243														
244	TGP (Concord Lateral) Z6-Z6 - Base Cmdy + EPCR + ACA + PS/GHG	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.0311
245														
246	Commodity Costs In 137	\$1.1365	\$1.7205	\$2.4005	\$1.7795	\$1.7765	\$1.6150	\$3.9760	\$14.6490	\$23.9430	\$21.5000	\$8.0290	\$3.3830	\$7.1590
247	TGP (Concord Lateral) Z6-Z6 - Fuel Charge %	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
248	Fuel Charge In 246 x In 247	\$0.00034	\$0.00052	\$0.00072	\$0.00053	\$0.00053	\$0.00048	\$0.00119	\$0.00439	\$0.00718	\$0.00645	\$0.00241	\$0.00101	\$0.00215
249	Total Volumetric Transportation Rate In 244 + In 248	\$0.03144	\$0.03162	\$0.03182	\$0.03163	\$0.03163	\$0.03158	\$0.03229	\$0.03549	\$0.03828	\$0.03755	\$0.03351	\$0.03211	\$0.03325
250														
251														
252	TGP Storage - Withdrawals													
253														
254	TGP 8587 Z4-Z6 - Base Cmdy + EPCR + ACA + PS/GHG	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.0961
255														
256	Commodity Costs In 146	\$1.62383	\$1.64118	\$1.70438	\$1.68519	\$1.66409	\$1.63941	\$1.68199	\$1.68199	\$1.68199	\$1.68199	\$1.68199	\$1.68386	\$1.6710
257	TGP 8587 Z4-Z6 - Fuel Charge %	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%
258	Fuel Charge In 256 x In 257	\$0.01575	\$0.01592	\$0.01653	\$0.01635	\$0.01614	\$0.01590	\$0.01632	\$0.01632	\$0.01632	\$0.01632	\$0.01632	\$0.01633	\$0.01621
259	TGP - Withdrawal Rate	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140
260	Total Volumetric Transportation Rate In 254 + In 258 + In 259	\$0.11325	\$0.11342	\$0.11403	\$0.11385	\$0.11364	\$0.11340	\$0.11382	\$0.11382	\$0.11382	\$0.11382	\$0.11382	\$0.11383	\$0.11371

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
 Peak 2024 – 2025 Winter Cost of Gas Filing
 Capacity Assignment Calculations 2024-2025
Derivation of Class Assignments, Weightings and Correction Factor

Basic assumptions:

- 1 Residential class pays average seasonal gas cost rate (using MBA method to allocate costs to seasons)
- 2 Residual gas costs are allocated to C&I HLF and LLF classes based on MBA method
- 3 The MBA method allocates capacity costs based on design day demands in two pieces:
 - a The base use portion of the class design day demand based on base use
 - b The remaining portion of design day demand based on remaining design day demand
- 4 Base demand is composed solely of pipeline supplies
- 5 Remaining demand consists of a portion of pipeline and all storage and peaking supplies

	Design Day Demand, Dth (a)	Adjusted Design Day Demand, Dth (b)	Percent of Total (c)	Percent of C&I (d)	Avg Daily Base Use Load, Dth (e)	Percent of C&I (f)	Remaining Design Day Demand, Dth (g)	Percent of C&I (h)
1	RATE R-1-Resi Non-Htg	633	633	0.4%	94		539	
2	RATE R-3-Resi Htg	67,357	67,357	41.4%	3,533		63,824	
3	Residential Total	67,990	67,990	41.8%	3,627		64,363	
4								
5	RATE G-41 (T)	29,507	29,507	18.1%	839	11.5%	28,668	32.8%
6	RATE G-42 (V)	2,204	2,204	1.4%	683	9.4%	1,521	1.7%
7	RATE G-43	38,051	38,051	23.4%	1,448	19.8%	36,603	41.8%
8	LLF Total	69,762	69,762	42.9%	2,970	40.7%	66,792	76.4%
9								
10	RATE G-51 (S)	5,253	5,253	3.2%	1,567	21.5%	3,686	4.2%
11	RATE G-52	11,688	11,688	7.2%	787	10.8%	10,901	12.5%
12	RATE G-53	6,747	6,747	4.1%	1,390	19.0%	5,357	6.1%
13	RATE G-54	1,323	1,323	0.8%	588	8.1%	735	0.8%
14	HLF Total	25,011	25,011	15.4%	4,332	59.3%	20,679	23.6%
15	C&I Total	94,773	94,773	58.2%	7,302	100.0%	87,471	100.0%
16								
17	Total	162,763	162,763	100.0%	10,929		151,834	
18								

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2024 – 2025 Winter Cost of Gas Filing
Capacity Assignment Calculations 2024-2025
Derivation of Class Assignments, Weightings and Correction Factor

	Capacity Cost (a)	MDG, Dth (b)	\$/Dth-Mo. (c)	
Pipeline - Baseload	1463152.662	10,929	\$ 11.1565	
Pipeline - Remaining	\$ 14,564,489	108,789	\$ 11.1565	
Pipeline Total	\$ 16,027,642	119,718	\$ 11.1565	
Storage	\$ 4,094,776	28,115	\$ 12.1370	
Peaking				
Total	\$ 21,472,418	162,764	\$ 10.9936	
Residential Allocation				
Pipeline - Baseload	\$ 611,188	4,565	\$ 11.1565	
Pipeline - Remaining	\$ 6,083,863	45,443	\$ 11.1565	
Storage	\$ 1,710,472	11,744	\$ 12.1370	
Peaking				
Total	\$ 8,969,449	67,990	\$ 10.9936	
C&I Allocation				Ratios for COG
Pipeline - Baseload	\$ 851,965	6,364	\$ 11.1565	
Pipeline - Remaining	\$ 8,480,626	63,346	\$ 11.1565	
Storage	\$ 2,384,304	16,371	\$ 12.1370	
Peaking				
Total	\$ 12,502,969	94,774	\$ 10.9936	1.0000
LLF - C&I Allocation				
Pipeline - Baseload	\$ 346,528	2,588	\$ 11.1565	
Pipeline - Remaining	\$ 6,475,721	48,370	\$ 11.1565	
Storage	\$ 1,820,630	12,501	\$ 12.1370	
Peaking				
Total	\$ 9,243,118	70,098	\$ 10.9884	0.9995
HLF - C&I Allocation				
Pipeline - Baseload	\$ 505,437	3,775	\$ 11.1565	
Pipeline - Remaining	\$ 2,004,905	14,976	\$ 11.1565	
Storage	\$ 563,674	3,870	\$ 12.1370	
Peaking				
Total	\$ 3,259,851	24,676	\$ 11.0086	1.0014

	Residential (a)	LLF C&I (b)	HLF C&I (c)	Total (d)
Unit Cost				
Pipeline	\$ 11.1565	\$ 11.1565	\$ 11.1565	
Storage	\$ 12.1370	\$ 12.1370	\$ 12.1370	
Peaking				
Total	\$ 10.9936	\$ 10.9936	\$ 10.9936	
Load Makeup				
Pipeline	73.55%	72.70%	75.99%	
Storage	17.27%	17.83%	15.68%	
Peaking				
Total	100.00%	100.00%	100.00%	
Supply Makeup				
Pipeline	41.77%	42.57%	15.66%	100.00%
Storage	41.77%	44.46%	13.77%	100.00%
Peaking				100.00%

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
 Peak 2024 – 2025 Winter Cost of Gas Filing
 Correction Factor Calculation

		November (a)	December (b)	January (c)	February (d)	March (e)	April (f)	Total Sales (g)
84	G-41	1,907,230	3,011,393	3,794,502	3,186,478	2,635,092	1,405,256	15,939,951
85	G-42	1,451,767	2,168,720	2,661,009	2,246,933	1,929,648	1,162,172	11,620,249
86	G-43	484,636	658,424	798,835	650,349	596,945	404,305	3,593,494
87	High Winter Use	3,843,633	5,838,537	7,254,346	6,083,760	5,161,685	2,971,733	31,153,694
88								
89	G-51	213,674	278,049	302,802	275,076	253,050	229,005	1,551,656
90	G-52	248,449	324,618	351,254	320,402	299,046	268,155	1,811,924
91	G-53	366,300	426,098	512,907	420,095	401,304	344,630	2,471,334
92	G-54	38,178	53,842	69,538	59,664	56,057	46,770	324,049
93	Low Winter Use	866,601	1,082,607	1,236,501	1,075,237	1,009,457	888,560	6,158,963
94								
95	Total	4,710,234	6,921,144	8,490,847	7,158,997	6,171,142	3,860,293	37,312,657
96								
97								
98	Total Sales							37,312,657
99	Low Winter Use							6,158,963
100	Winter Ratio for Low Winter Use							1.0014
101	High Winter Use							31,153,694
102	Winter Ratio for High Winter Use							0.9995
103								
104	Correction Factor = Total Sales/((Low Winter Use x Winter Ratio for Low Winter Use)+(High Winter Use x Winter Ratio for High Winter Use))							
105	Correction Factor =							100.0186%
106								
107	Allocation Calculation for Miscellaneous Overhead							
108								
109	Projected Winter Sales Volume					11/1/2024 - 4/30/2025		88,888,172
110	Projected Annual Sales Volume					11/1/2024 - 10/31/2025		111,310,891
111	Percentage of Winter Sales to Annual Sales							79.86%

Firm Sales		Dry Therms														Subtotal OP 25	Total
		EST Nov-24 (b)	EST Dec-24 (c)	EST Jan-25 (d)	EST Feb-25 (e)	EST Mar-25 (f)	EST Apr-25 (g)	Subtotal PK 24-25 (h)	EST May-25 (i)	EST Jun-25 (j)	EST Jul-25 (k)	EST Aug-25 (l)	EST Sep-25 (m)	EST Oct-25 (n)			
1	R-1	67,528	87,749	98,313	83,448	79,729	60,145	476,912	45,971	35,461	34,327	33,139	34,181	47,558	230,637	707,549	
2	R-3	6,605,226	9,755,243	11,247,680	9,605,229	8,589,008	5,296,217	51,098,603	3,022,704	1,423,593	1,055,307	978,936	1,607,987	4,014,464	12,102,991	63,201,594	
3	R-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	Total Residential.	6,672,754	9,842,992	11,345,993	9,688,677	8,668,737	5,356,362	51,575,515	3,068,675	1,459,054	1,089,634	1,012,075	1,642,168	4,062,022	12,333,628	63,909,143	
5																	
6	G-41	1,907,230	3,011,393	3,794,502	3,186,478	2,635,092	1,405,256	15,939,951	647,283	247,705	182,380	219,642	306,852	911,876	2,515,738	18,455,689	
7	G-42	1,451,767	2,166,720	2,661,009	2,246,933	1,929,648	1,162,172	11,620,249	596,813	252,611	189,820	234,086	304,274	813,450	2,391,054	14,011,303	
8	G-43	484,636	658,424	798,835	650,349	596,945	404,305	3,593,494	260,370	115,571	97,554	126,246	155,207	382,963	1,137,901	4,731,395	
9	G-51	213,674	278,049	302,802	275,076	253,050	229,005	1,551,656	191,960	163,725	163,817	158,238	150,012	176,690	1,004,442	2,556,098	
10	G-52	248,449	324,618	351,254	320,402	299,046	268,155	1,811,924	213,501	181,705	177,982	182,107	166,553	204,017	1,125,865	2,937,789	
11	G-53	366,300	426,098	512,907	420,095	401,304	344,630	2,471,334	294,482	259,770	253,690	262,452	273,240	332,935	1,676,569	4,147,903	
12	G-54	38,178	53,842	69,538	59,664	56,057	46,770	324,049	79,196	29,765	31,362	30,918	29,507	36,774	237,522	561,571	
13	Total C/I	4,710,234	6,921,144	8,490,847	7,158,997	6,171,142	3,860,293	37,312,657	2,283,605	1,250,852	1,096,605	1,213,689	1,385,645	2,858,695	10,089,091	47,401,748	
14																	
15	Sales Volume	11,382,988	16,764,136	19,836,840	16,847,674	14,839,879	9,216,655	88,888,172	5,352,280	2,709,906	2,186,239	2,225,764	3,027,813	6,920,717	22,422,719	111,310,891	
16																	
17	Transportation Sales																
18	G-41	578,114	856,128	1,045,460	878,720	753,973	441,407	4,553,802	245,357	109,205	78,923	96,034	140,097	351,127	1,020,743	5,574,545	
19	G-42	2,164,588	3,023,844	3,632,316	3,082,851	2,713,445	1,660,548	16,277,592	942,015	407,105	316,461	387,914	586,634	1,446,209	4,086,338	20,363,930	
20	G-43	815,365	1,048,729	1,301,075	1,150,330	1,062,783	682,985	6,061,267	469,772	274,390	213,596	263,170	300,671	651,593	2,173,192	8,234,459	
21	G-51	101,234	123,971	138,462	111,832	99,025	75,397	649,921	62,716	53,353	49,876	53,399	66,082	95,059	380,485	1,030,406	
22	G-52	490,002	596,386	658,984	591,518	553,135	443,200	3,333,225	366,155	315,827	310,316	326,475	338,752	417,353	2,074,878	5,408,103	
23	G-53	762,560	879,474	1,006,349	881,540	882,839	610,497	5,023,259	534,986	502,931	446,299	488,299	542,190	628,086	3,142,791	8,166,050	
24	G-54	1,483,201	1,147,149	1,115,912	964,456	1,067,555	1,211,411	6,989,684	1,436,604	1,475,972	1,547,328	1,645,977	1,539,151	1,674,423	9,319,455	16,309,139	
25																	
26	Total Trans. Sales	6,395,064	7,675,681	8,898,558	7,661,247	7,132,755	5,125,445	42,888,750	4,057,605	3,138,783	2,962,799	3,261,268	3,513,577	5,263,850	22,197,882	65,086,632	
27																	
28	Total All Sales	17,778,052	24,439,817	28,735,398	24,508,921	21,972,634	14,342,100	131,776,922	9,409,885	5,848,689	5,149,038	5,487,032	6,541,390	12,184,567	44,620,601	176,397,523	

1/ R-3 sales volumes include R-4 sales volumes. R-4 customers are classified as a subset of R-3 customers in the billing system and get charged different rates when applicable.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
 Peak 2024 – 2025 Winter Cost of Gas Filing
 Normal and Design Year Volumes and Capacity Utilization

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Normal Year Volumes (Therms)

	EST Nov-24	EST Dec-24	EST Jan-25	EST Feb-25	EST Mar-25	EST Apr-25	Peak Nov - Apr
1 Pipeline Gas:							
2 Dawn Iroquois Supply	1,078,731	1,114,992	1,143,917	1,024,873	1,141,302	670,576	6,174,391
3 Dawn PXP Supply	435,717	750,152	860,086	773,637	816,278	567,630	4,203,500
4 Niagara Supply	598,224	640,267	707,962	637,413	699,874	583,358	3,867,098
5 TGP Supply (Gulf)	5,018,214	6,073,775	6,071,944	5,480,464	5,269,554	4,898,098	32,812,049
6 TGP Supply (Z4)	1,569,008	128,200	136,765	123,112	135,203	880,757	2,973,045
7 PNGTS - Berlin	189,473	195,596	224,529	194,502	221,964	183,729	1,209,793
8 Dracut Baseload	-	-	3,100,000	1,400,000	-	-	4,500,000
9 Dracut Swing 1	1,905,635	1,605,012	8,094	1,505,067	3,621,558	1,166,397	9,811,763
10 Dracut Swing 2	-	-	-	-	186,611	-	186,611
11 LNG Truck							
12 Propane Truck							
13 Subtotal Pipeline Volumes	10,827,645	11,372,427	13,936,170	12,252,902	12,308,524	9,032,758	69,730,426
14							
15 Storage Gas:							
16 TGP Storage	2,592,305	4,991,004	5,758,772	4,547,123	2,073,593	-	19,962,797
17							
18 Produced Gas:							
19 LNG Vapor							
20 Propane							
21 Subtotal Produced Gas							
22							
23 Less - Gas Refills:							
24 LNG Truck - Refills							
25 Propane - Refills							
26 TGP Storage Refill							
27 Subtotal Refills							
28							
29 Total Sendout Volumes	11,429,418	16,687,960	19,882,171	16,841,548	14,290,294	8,967,703	88,099,094

Design Year Volumes (Therms)

	EST Nov-24	EST Dec-24	EST Jan-25	EST Feb-25	EST Mar-25	EST Apr-25	Peak Nov - Apr
30 Pipeline Gas:							
31 Dawn Iroquois Supply	1,078,731	1,114,992	1,143,917	1,024,873	1,141,302	666,287	6,170,102
32 Dawn PXP Supply	497,456	750,152	860,086	773,637	822,786	561,196	4,265,313
33 Niagara Supply	598,224	640,267	707,962	637,413	699,874	581,928	3,865,668
34 TGP Supply (Gulf)	5,016,794	6,073,775	6,071,944	5,480,464	5,269,554	4,898,813	32,811,344
35 TGP Supply (Z4)	2,426,959	2,035,814	1,133,617	1,553,831	2,231,932	43,609	9,425,762
36 PNGTS - Berlin	189,473	195,596	224,529	194,502	221,964	183,729	1,209,793
37 Dracut Baseload	-	-	3,100,000	1,400,000	-	-	4,500,000
38 Dracut Swing 1	2,267,291	1,854,136	1,539,574	2,159,963	3,054,718	1,957,791	12,833,473
39 Dracut Swing 2	23,677	492,969	-	-	686,211	-	1,202,857
40 LNG Truck							
41 Propane Truck							
42 Subtotal Pipeline Volumes	12,222,791	14,022,134	16,589,565	14,512,622	14,283,788	8,975,566	80,606,466
43							
44 Storage Gas:							
45 TGP Storage	2,546,178	4,884,781	5,953,316	4,544,938	1,972,372	-	19,901,585
46							
47 Produced Gas:							
48 LNG Vapor							
49 Propane							
50 Subtotal Produced Gas							
51							
52 Less - Gas Refills:							
53 LNG Truck - Refills							
54 Propane - Refills							
55 TGP Storage Refill							
56 Subtotal Refills							
57							
58 Total Sendout Volumes	12,881,334	18,963,324	22,931,236	19,050,276	16,245,315	8,909,081	98,980,566

Capacity Utilization

	Normal Year			
	Peak Period Use (Therms)	MDQ (MMBtu/day)	Seasonal Quantity (Therms)	Utilization Rate
Pipeline Gas:				
59 Dawn Iroquois Supply	6,174,391	4,000	7,240,000	85%
60 Dawn PXP Supply	4,203,500	5,000	9,050,000	46%
61 Niagara Supply	3,867,098	3,122	5,650,820	68%
62 TGP Supply (Gulf less Z4)	35,785,094	21,596	39,088,760	92%
63 PNGTS - Berlin	1,209,793	1,000	1,810,000	67%
64 Dracut (Baseload, Swing 1, Swing 2)	14,498,374	90,000	162,900,000	9%
65 LNG Truck				
66 Propane Truck				
67 Subtotal Pipeline Volumes	69,730,426			
68				
69 Storage Gas:				
70 TGP Storage	19,962,797		25,791,710	77%
71				
72 Produced Gas:				
73 LNG Vapor				
74 Propane				
75 Subtotal Produced Gas				
76				
77 Less - Gas Refills:				
78 LNG Truck - Refills				
79 Propane - Refills				
80 TGP Storage Refill				
81 Subtotal Refills				
82				
83 Total Sendout Volumes	88,099,094			

	Design Year			
	Peak Period Use (Therms)	MDQ (MMBtu/day)	Seasonal Quantity (Therms)	Utilization Rate
Pipeline Gas:				
59 Dawn Iroquois Supply	6,170,102	4,000	7,240,000	85%
60 Dawn PXP Supply	4,265,313	5,000	9,050,000	47%
61 Niagara Supply	3,865,668	3,122	5,650,820	68%
62 TGP Supply (Gulf less Z4)	42,237,106	21,596	39,088,760	108%
63 PNGTS - Berlin	1,209,793	1,000	1,810,000	67%
64 Dracut (Baseload, Swing 1, Swing 2)	18,536,330	90,000	162,900,000	11%
65 LNG Truck				
66 Propane Truck				
67 Subtotal Pipeline Volumes	80,606,466			
68				
69 Storage Gas:				
70 TGP Storage	19,901,585		25,791,710	77%
71				
72 Produced Gas:				
73 LNG Vapor				
74 Propane				
75 Subtotal Produced Gas				
76				
77 Less - Gas Refills:				
78 LNG Truck - Refills				
79 Propane - Refills				
80 TGP Storage Refill				
81 Subtotal Refills				
82				
83 Total Sendout Volumes	98,980,566			

Forecast of Upcoming Winter Period
Design Day Report
2024/2025 Heating Season
(Therms)

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

Requirements

1	Firm Sales	1,180,202
2	Interruptible Sales	0
3	Firm Transportation	447,438
4	Interruptible Transportation	<u>0</u>
5		
6	Total Requirements	1,627,640
7		

Resources

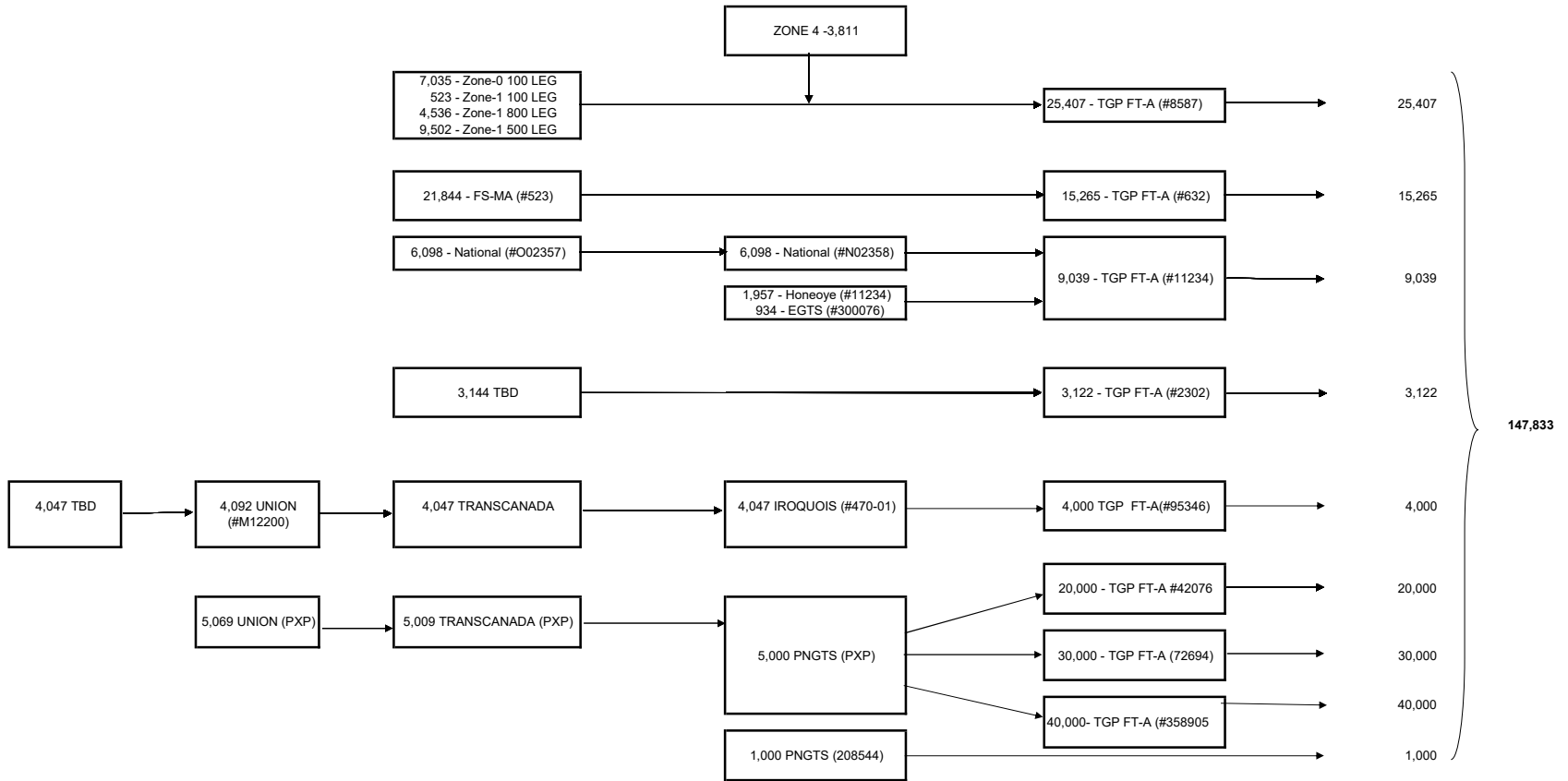
8		
9		
10		
11	Purchased Pipeline Gas	1,197,180
12	Underground Storage Gas	281,150
13	Propane Air Production	23,310
14	LNG Produced Gas	126,000
15	Third-Party Supply	<u>0</u>
16		
17	Total Resources	1,627,640
18		

19
20 Please refer to the ENNG 2022 IRP filing (DG 22-064)
21 for a complete description of the methodology and
22 assumptions used in the derivation of this data.

23
24
25 Preparation of this report was supervised by:

26
27
28
29
30
31 _____
32 Joshua Tilbury
33 Director, Energy Procurement

34 Note: Forecasted Firm Transportation volumes are for customers
35 using utility capacity only.



Agreements for Gas Supply and Transportation

SOURCE	RATE SCHEDULE	CONTRACT NUMBER	TYPE	MDQ MMBTU	MAQ * MMBTU	EXPIRATION DATE	NOTIFICATION DATE	RENEWAL OPTIONS
EGTS Incorporated	GSS	300076	Storage	934	102,700	3/31/2027	12 months notice	Mutually agreed upon
Honeye Storage Corporation	SS-NY	11234	Storage	1,362	245,280	3/31/2025	12 months notice	Evergreen Provision
National Fuel Gas Supply Corporation	FSS	002358	Storage	6,098	670,800	3/31/2025	12 months notice	Evergreen Provision
National Fuel Gas Supply Corporation	FSST	N02358	Transportation	6,098	670,800	3/31/2025	12 months notice	Evergreen Provision
Iroquois Gas Transmission System	RTS	47001	Transportation	4,047	1,477,155	11/1/2027	11/1/2026	Evergreen Provision
Portland Natural Gas Transmission System	FT	208544	Transportation	1,000	365,000	11/30/2032	11/30/2031	Evergreen Provision
Portland Natural Gas Transmission System	FT	PXP	Transportation	5,000	1,825,000	10/31/2040	10/31/2039	Precedent Agreement
Tennessee Gas Pipeline Company	FS-MA	523	Storage	21,844	1,560,391	10/31/2025	10/31/2024	Evergreen Provision
Tennessee Gas Pipeline Company	FTA	8587	Transportation	25,407	9,273,555	10/31/2025	10/31/2024	Evergreen Provision
Tennessee Gas Pipeline Company	FTA	2302	Transportation	3,122	1,139,530	10/31/2025	10/31/2024	Evergreen Provision
Tennessee Gas Pipeline Company	FTA	632	Transportation	15,265	5,571,725	10/31/2025	10/31/2024	Evergreen Provision
Tennessee Gas Pipeline Company	FTA	11234	Transportation	9,039	3,299,235	10/31/2025	10/31/2024	Evergreen Provision
Tennessee Gas Pipeline Company	FTA	72694	Transportation	30,000	10,950,000	10/31/2029	10/31/2028	Evergreen Provision
Tennessee Gas Pipeline Company	FTA	95346	Transportation	4,000	1,460,000	11/30/2026	11/30/2025	Evergreen Provision
Tennessee Gas Pipeline Company	FTA	42076	Transportation	20,000	7,300,000	10/31/2025	10/31/2024	Evergreen Provision
Tennessee Gas Pipeline Company	FTA	358905	Transportation	40,000	14,600,000	10/31/2041	10/31/2040	Evergreen Provision
TransCanada Pipeline	FT	41232	Transportation	4,047	1,477,155	10/31/2026	10/31/2024	Evergreen Provision
TransCanada Pipeline	FT	PXP	Transportation	5,009	1,828,285	10/31/2040	10/31/2038	Precedent Agreement
Union Gas Limited	M12	M12200	Transportation	4,092	1,493,580	10/31/2040	10/31/2038	Evergreen Provision
Union Gas Limited	M12	PXP	Transportation	5,069	1,850,185	10/31/2040	10/31/2038	Precedent Agreement

* MAQ is calculated on a 365 day calendar year.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
 Peak 2024 – 2025 Winter Cost of Gas Filing
 Storage Inventory, Underground, LPG and LNG including Calculation of Money Pool Interest Costs Associated with Natural Gas

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Underground Storage Gas		May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	Total
		ACT	ACT	ACT	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST
1	Beginning Balance (MMBtu)	537,692	816,901	1,049,620	1,294,118	1,514,377	1,734,636	1,954,895	1,904,298	1,405,197	829,320	374,608	167,249	537,692
2	Injections (MMBtu)	284,012	235,043	246,901	220,259	220,259	220,259	208,633	-	-	-	-	357	1,635,324
3	Subtotal	821,704	1,051,944	1,296,521	1,514,377	1,734,636	1,954,895	2,163,528	1,904,298	1,405,197	829,320	374,608	167,606	2,173,016
4	Storage Sale/Adjustments (MMBtu)	(4,803)	(2,324)	(2,003)	-	-	-	-	-	-	-	-	-	(9,130)
5	Withdrawals (MMBtu)	-	-	-	-	-	-	(259,231)	(499,100)	(575,877)	(454,712)	(207,359)	-	(1,998,280)
6	Ending Balance (MMBtu)	816,901	1,049,620	1,294,118	1,514,377	1,734,636	1,954,895	1,904,298	1,405,197	829,320	374,608	167,249	167,606	167,606
8	Beginning Balance (\$)	\$ 944,386	\$ 1,332,761	\$ 1,727,906	\$ 2,211,279	\$ 2,552,020	\$ 2,886,593	\$ 3,204,867	\$ 3,203,010	\$ 2,363,528	\$ 1,394,908	\$ 630,087	\$ 281,310	\$ 944,386
9	Injections (\$)	\$ 389,923	\$ 393,673	\$ 481,178	\$ 340,741	\$ 334,573	\$ 318,274	\$ 434,166	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 915
10	Subtotal	\$ 1,334,309	\$ 1,726,434	\$ 2,209,084	\$ 2,552,020	\$ 2,886,593	\$ 3,204,867	\$ 3,639,033	\$ 3,203,010	\$ 2,363,528	\$ 1,394,908	\$ 630,087	\$ 282,226	\$ 3,637,829
11	Storage Sale/Adjustments (\$)	\$ (1,547)	\$ 1,472	\$ 2,194	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (2,119)
12	Withdrawals (\$)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (436,023)	\$ (839,482)	\$ (968,620)	\$ (764,822)	\$ (348,776)	\$ -	\$ (3,357,723)
13	Ending Balance	\$ 1,332,761	\$ 1,727,906	\$ 2,211,279	\$ 2,552,020	\$ 2,886,593	\$ 3,204,867	\$ 3,203,010	\$ 2,363,528	\$ 1,394,908	\$ 630,087	\$ 281,310	\$ 282,226	\$ 282,226
14	Average Rate For Withdrawals	In 10 / In 3	\$ 1.6238	\$ 1.6412	\$ 1.7044	\$ 1.6852	\$ 1.6641	\$ 1.6394	\$ 1.6820	\$ 1.6820	\$ 1.6820	\$ 1.6820	\$ 1.6820	\$ 1.6839
16	TGP Storage Rate for Injections	Actual or NYMEX plus TGP Transportation	\$ 1.3729	\$ 1.6749	\$ 1.9520	\$ 1.5470	\$ 1.5190	\$ 1.4450	\$ 2.0810	\$ 2.8615	\$ 3.1830	\$ 3.1075	\$ 2.7915	\$ 2.5605

Liquid Propane Gas (LPG)		May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	Total
		ACT	ACT	ACT	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST
18	Beginning Balance (MMBtu)													
19	Injections (MMBtu)													
20	Subtotal													
21	Storage Sale/Adjustments (MMBtu)													
22	Withdrawals (MMBtu)													
23	Ending Balance (MMBtu)													
25	Beginning Balance (\$)													
26	Injections (\$)													
27	Subtotal													
28	Storage Sale/Adjustments (\$)													
29	Withdrawals (\$)													
30	Ending Balance													
31	Average Rate For Withdrawals	In 27 / In 20												
34	Propane Rate for Injections	In 26 / In 19 or Sch. 6, In 145												

Liquid Natural Gas (LNG)		May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	Total
		ACT	ACT	ACT	EST	EST	EST	EST	EST	EST	EST	EST	EST	EST
35	Beginning Balance (MMBtu)													
36	Injections (MMBtu)													
37	Subtotal													
38	Storage Sale/Adjustments (MMBtu)													
39	Withdrawals (MMBtu)													
40	Ending Balance (MMBtu)													
41	Beginning Balance (\$)													
42	Injections (\$)													
43	Subtotal													
44	Storage Sale/Adjustments (\$)													
45	Withdrawals (\$)													
46	Ending Balance													
47	Average Rate For Withdrawals	In 44 / In 37												
48	LNG Rate for Injections	In 43 / In 36 or Sch. 6, In 144												

**Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2024 – 2025 Winter Cost of Gas Filing
Calculation of Supplier Balancing Charge
2024-2025**

Rate: \$ 0.1126 /MMBtu

	Rate	Volume	Total
Injection Cost	\$ 0.0087	446,567	\$ 3,885
Fuel 1.38%	\$ 0.0228	446,567	\$ 10,168
Withdrawal Cost	\$ 0.0087	132,916	\$ 1,156
Delivery Rate	\$ 0.0408	132,916	\$ 5,422
FTA Demand Charge	\$ 0.2235	132,916	\$ 29,700
FTA Commodity Charge	\$ 0.0961	132,916	\$ 12,773
Fuel 0.97%	\$ 0.0160	132,916	\$ 2,127
		Total Cost	\$ 65,233
	Absolute Value of the	Sendout Error	579,483 MMBtu
		Rate	\$ 0.1126 /MMBTU

NOTES: See Tennessee Gas Pipeline Tariff Pages in PK Schedule 6

TGP FSMA Injection Charge	\$	0.0087	/ MMBtu
TGP FSMA Withdrawal Charge	\$	0.0087	/ MMBtu
TGP FSMA Deliverability Charge	\$	1.2402	/ MMBtu per month
	\$	0.0408	/ MMBtu per day
TGP Z4-6 Demand Charge	\$	6.7929	/ MMBtu per month
	\$	0.2235	/ MMBtu per day
TGP Z4-6 Commodity Charge	\$	0.0961	/ MMBtu

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2024 – 2025 Winter Cost of Gas Filing
Calculation of Supplier Balancing Charge
2024-2025
Estimated Monthly Imbalances

Date	Forecasted DD	Actual DD	Forecaster Error DD	Forecasted Sendout (MMBtu)	Actual Sendout (MMBtu)	Sendout Error (MMBtu)	Abs.Value	Injections (MMBtu)	Withdrawals (MMBtu)
							Sendout Error (MMBtu)		
1 Nov	790	755	35	1,768,588	1,708,204	60,383	98,339	79,361	18,978
2 Dec	861	832	29	1,984,142	1,929,459	54,684	88,626	71,655	16,971
3 Jan	1,095	1,077	18	2,578,370	2,542,682	35,688	99,132	67,410	31,722
4 Feb	890	875	15	2,080,014	2,050,732	29,282	52,707	40,995	11,713
5 Mar	768	747	21	1,813,231	1,767,003	46,229	84,553	65,391	19,162
6 Apr	452	433	19	1,051,903	1,022,630	29,273	63,168	46,220	16,947
7 May	203	190	13	631,622	617,725	13,897	28,864	21,380	7,483
8 Jun	79	79	0	420,668	420,668	0	7,991	3,995	3,995
9 Jul	0	0	0	358,777	358,777	0	0	0	0
10 Aug	4	2	2	376,692	376,350	342	342	342	-
11 Sep	96	82	14	432,973	423,002	9,970	12,819	11,395	1,424
12 Oct	301	271	30	744,298	710,396	33,903	42,943	38,423	4,520
13									
14 Total	5,539	5,343	196	14,241,279	13,927,628	313,650	579,483	446,567	132,916

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2024 – 2025 Winter Cost of Gas Filing
Calculation of Supplier Balancing Charge
2024-2025
Estimated Daily Imbalances

Date	Predicted MAN HDD	Actual MAN HDD	Forecaster Error MAN HDD	Calculated on Predicted MAN HDD	Calculated on Actual MAN HDD	Sendout Error (MMBtu)	Abs.Value Sendout Error (MMBtu)	Injections (MMBtu)	Withdrawals (MMBtu)
1 Apr 1, 2023	17	19	(2)	38,042.05842	41,123.40952	(3,081.35110)	3,081.35110	0.00000	3,081.35110
2 Apr 2, 2023	30	30	0	58,070.84059	58,070.84059	0.00000	0.00000	0.00000	0.00000
3 Apr 3, 2023	17	15	2	38,042.05842	34,960.70732	3,081.35110	3,081.35110	3,081.35110	0.00000
4 Apr 4, 2023	17	14	3	38,042.05842	33,420.03177	4,622.02665	4,622.02665	4,622.02665	0.00000
5 Apr 5, 2023	25	26	(1)	50,367.46283	51,908.13838	(1,540.67555)	1,540.67555	0.00000	1,540.67555
6 Apr 6, 2023	12	12	0	30,338.68067	30,338.68067	0.00000	0.00000	0.00000	0.00000
7 Apr 7, 2023	25	23	2	50,367.46283	47,286.11173	3,081.35110	3,081.35110	3,081.35110	0.00000
8 Apr 8, 2023	27	27	0	53,448.81393	53,448.81393	0.00000	0.00000	0.00000	0.00000
9 Apr 9, 2023	23	22	1	47,286.11173	45,745.43618	1,540.67555	1,540.67555	1,540.67555	0.00000
10 Apr 10, 2023	13	12	1	31,879.35622	30,338.68067	1,540.67555	1,540.67555	1,540.67555	0.00000
11 Apr 11, 2023	4	0	4	18,013.27626	11,850.57405	6,162.70220	6,162.70220	6,162.70220	0.00000
12 Apr 12, 2023	6	6	0	21,094.62736	21,094.62736	0.00000	0.00000	0.00000	0.00000
13 Apr 13, 2023	0	0	0	11,850.57405	11,850.57405	0.00000	0.00000	0.00000	0.00000
14 Apr 14, 2023	2	0	2	14,931.92515	11,850.57405	3,081.35110	3,081.35110	3,081.35110	0.00000
15 Apr 15, 2023	6	6	0	21,094.62736	21,094.62736	0.00000	0.00000	0.00000	0.00000
16 Apr 16, 2023	10	9	1	27,257.32956	25,716.65401	1,540.67555	1,540.67555	1,540.67555	0.00000
17 Apr 17, 2023	13	15	(2)	31,879.35622	34,960.70732	(3,081.35110)	3,081.35110	0.00000	3,081.35110
18 Apr 18, 2023	17	16	1	38,042.05842	36,501.38287	1,540.67555	1,540.67555	1,540.67555	0.00000
19 Apr 19, 2023	19	20	(1)	41,123.40952	42,664.08507	(1,540.67555)	1,540.67555	0.00000	1,540.67555
20 Apr 20, 2023	14	14	0	33,420.03177	33,420.03177	0.00000	0.00000	0.00000	0.00000
21 Apr 21, 2023	14	15	(1)	33,420.03177	34,960.70732	(1,540.67555)	1,540.67555	0.00000	1,540.67555
22 Apr 22, 2023	15	17	(2)	34,960.70732	38,042.05842	(3,081.35110)	3,081.35110	0.00000	3,081.35110
23 Apr 23, 2023	18	18	0	39,582.73397	39,582.73397	0.00000	0.00000	0.00000	0.00000
24 Apr 24, 2023	18	15	3	39,582.73397	34,960.70732	4,622.02665	4,622.02665	4,622.02665	0.00000
25 Apr 25, 2023	17	15	2	38,042.05842	34,960.70732	3,081.35110	3,081.35110	3,081.35110	0.00000
26 Apr 26, 2023	18	16	2	39,582.73397	36,501.38287	3,081.35110	3,081.35110	3,081.35110	0.00000
27 Apr 27, 2023	17	14	3	38,042.05842	33,420.03177	4,622.02665	4,622.02665	4,622.02665	0.00000
28 Apr 28, 2023	13	10	3	31,879.35622	27,257.32956	4,622.02665	4,622.02665	4,622.02665	0.00000
29 Apr 29, 2023	15	15	0	34,960.70732	34,960.70732	0.00000	0.00000	0.00000	0.00000
30 Apr 30, 2023	10	12	(2)	27,257.32956	30,338.68067	(3,081.35110)	3,081.35110	0.00000	3,081.35110
31 May 1, 2023	12	12	0	26,202.80111	26,202.80111	0.00000	0.00000	0.00000	0.00000
32 May 2, 2023	16	15	1	30,478.88076	29,409.88085	1,069.01991	1,069.01991	1,069.01991	0.00000
33 May 3, 2023	17	18	(1)	31,547.90067	32,616.92058	(1,069.01991)	1,069.01991	0.00000	1,069.01991
34 May 4, 2023	17	16	1	31,547.90067	30,478.88076	1,069.01991	1,069.01991	1,069.01991	0.00000
35 May 5, 2023	12	10	2	26,202.80111	24,064.76129	2,138.03982	2,138.03982	2,138.03982	0.00000
36 May 6, 2023	3	2	1	16,581.62191	15,512.60200	1,069.01991	1,069.01991	1,069.01991	0.00000
37 May 7, 2023	0	0	0	13,374.56218	13,374.56218	0.00000	0.00000	0.00000	0.00000
38 May 8, 2023	8	7	1	21,926.72147	20,857.70156	1,069.01991	1,069.01991	1,069.01991	0.00000
39 May 9, 2023	11	13	(2)	25,133.78120	27,271.82103	(2,138.03982)	2,138.03982	0.00000	2,138.03982
40 May 10, 2023	2	3	(1)	15,512.60200	16,581.62191	(1,069.01991)	1,069.01991	0.00000	1,069.01991
41 May 11, 2023	0	0	0	13,374.56218	13,374.56218	0.00000	0.00000	0.00000	0.00000
42 May 12, 2023	0	0	0	13,374.56218	13,374.56218	0.00000	0.00000	0.00000	0.00000
43 May 13, 2023	3	2	1	16,581.62191	15,512.60200	1,069.01991	1,069.01991	1,069.01991	0.00000
44 May 14, 2023	10	10	0	24,064.76129	24,064.76129	0.00000	0.00000	0.00000	0.00000
45 May 15, 2023	0	0	0	13,374.56218	13,374.56218	0.00000	0.00000	0.00000	0.00000
46 May 16, 2023	3	1	2	16,581.62191	14,443.58209	2,138.03982	2,138.03982	2,138.03982	0.00000
47 May 17, 2023	19	21	(2)	33,685.94049	35,823.98032	(2,138.03982)	2,138.03982	0.00000	2,138.03982
48 May 18, 2023	11	9	2	25,133.78120	22,995.74138	2,138.03982	2,138.03982	2,138.03982	0.00000
49 May 19, 2023	5	3	2	18,719.66173	16,581.62191	2,138.03982	2,138.03982	2,138.03982	0.00000
50 May 20, 2023	2	1	1	15,512.60200	14,443.58209	1,069.01991	1,069.01991	1,069.01991	0.00000
51 May 21, 2023	3	1	2	16,581.62191	14,443.58209	2,138.03982	2,138.03982	2,138.03982	0.00000
52 May 22, 2023	9	8	1	22,995.74138	21,926.72147	1,069.01991	1,069.01991	1,069.01991	0.00000
53 May 23, 2023	6	7	(1)	19,788.68165	20,857.70156	(1,069.01991)	1,069.01991	0.00000	1,069.01991
54 May 24, 2023	8	6	2	21,926.72147	19,788.68165	2,138.03982	2,138.03982	2,138.03982	0.00000
55 May 25, 2023	10	10	0	24,064.76129	24,064.76129	0.00000	0.00000	0.00000	0.00000
56 May 26, 2023	6	5	1	19,788.68165	18,719.66173	1,069.01991	1,069.01991	1,069.01991	0.00000
57 May 27, 2023	0	0	0	13,374.56218	13,374.56218	0.00000	0.00000	0.00000	0.00000
58 May 28, 2023	0	0	0	13,374.56218	13,374.56218	0.00000	0.00000	0.00000	0.00000
59 May 29, 2023	7	7	0	20,857.70156	20,857.70156	0.00000	0.00000	0.00000	0.00000
60 May 30, 2023	3	3	0	16,581.62191	16,581.62191	0.00000	0.00000	0.00000	0.00000
61 May 31, 2023	0	0	0	13,374.56218	13,374.56218	0.00000	0.00000	0.00000	0.00000
62 Jun 1, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
63 Jun 2, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
64 Jun 3, 2023	15	15	0	20,198.59007	20,198.59007	0.00000	0.00000	0.00000	0.00000
65 Jun 4, 2023	13	13	0	19,199.72628	19,199.72628	0.00000	0.00000	0.00000	0.00000
66 Jun 5, 2023	7	7	0	16,203.13493	16,203.13493	0.00000	0.00000	0.00000	0.00000
67 Jun 6, 2023	3	1	2	14,205.40735	13,206.54357	998.86379	998.86379	998.86379	0.00000
68 Jun 7, 2023	7	8	(1)	16,203.13493	16,702.56682	(499.43189)	499.43189	0.00000	499.43189
69 Jun 8, 2023	8	9	(1)	16,702.56682	17,201.99871	(499.43189)	499.43189	0.00000	499.43189
70 Jun 9, 2023	8	8	0	16,702.56682	16,702.56682	0.00000	0.00000	0.00000	0.00000
71 Jun 10, 2023	3	6	(3)	14,205.40735	15,703.70303	(1,498.29568)	1,498.29568	0.00000	1,498.29568
72 Jun 11, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
73 Jun 12, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
74 Jun 13, 2023	0	2	(2)	12,707.11168	13,705.97546	(998.86379)	998.86379	0.00000	998.86379
75 Jun 14, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
76 Jun 15, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
77 Jun 16, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
78 Jun 17, 2023	4	4	0	14,704.83925	14,704.83925	0.00000	0.00000	0.00000	0.00000
79 Jun 18, 2023	2	0	2	13,705.97546	12,707.11168	998.86379	998.86379	998.86379	0.00000
80 Jun 19, 2023	2	1	1	13,705.97546	13,206.54357	499.43189	499.43189	499.43189	0.00000
81 Jun 20, 2023	3	1	2	14,205.40735	13,206.54357	998.86379	998.86379	998.86379	0.00000
82 Jun 21, 2023	3	4	(1)	14,205.40735	14,704.83925	(499.43189)	499.43189	0.00000	499.43189
83 Jun 22, 2023	1	0	1	13,206.54357	12,707.11168	499.43189	499.43189	499.43189	0.00000
84 Jun 23, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
85 Jun 24, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
86 Jun 25, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
87 Jun 26, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
88 Jun 27, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
89 Jun 28, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
90 Jun 29, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000
91 Jun 30, 2023	0	0	0	12,707.11168	12,707.11168	0.00000	0.00000	0.00000	0.00000

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2024 – 2025 Winter Cost of Gas Filing
Calculation of Supplier Balancing Charge
2024-2025
Estimated Daily Imbalances

Date	Predicted MAN HDD	Actual MAN HDD	Forecaster Error MAN HDD	Calculated on Predicted MAN HDD	Calculated on Actual MAN HDD	Sendout Error (MMBtu)	Abs.Value Sendout Error (MMBtu)	Injections (MMBtu)	Withdrawals (MMBtu)
92 Jul 1, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
93 Jul 2, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
94 Jul 3, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
95 Jul 4, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
96 Jul 5, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
97 Jul 6, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
98 Jul 7, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
99 Jul 8, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
100 Jul 9, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
101 Jul 10, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
102 Jul 11, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
103 Jul 12, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
104 Jul 13, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
105 Jul 14, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
106 Jul 15, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
107 Jul 16, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
108 Jul 17, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
109 Jul 18, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
110 Jul 19, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
111 Jul 20, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
112 Jul 21, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
113 Jul 22, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
114 Jul 23, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
115 Jul 24, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
116 Jul 25, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
117 Jul 26, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
118 Jul 27, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
119 Jul 28, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
120 Jul 29, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
121 Jul 30, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
122 Jul 31, 2023	0	0	0	11,573.44743	11,573.44743	0.00000	0.00000	0.00000	0.00000
123 Aug 1, 2023	1	0	1	12,300.26078	12,129.29991	170.96087	170.96087	170.96087	0.00000
124 Aug 2, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
125 Aug 3, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
126 Aug 4, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
127 Aug 5, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
128 Aug 6, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
129 Aug 7, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
130 Aug 8, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
131 Aug 9, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
132 Aug 10, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
133 Aug 11, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
134 Aug 12, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
135 Aug 13, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
136 Aug 14, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
137 Aug 15, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
138 Aug 16, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
139 Aug 17, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
140 Aug 18, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
141 Aug 19, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
142 Aug 20, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
143 Aug 21, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
144 Aug 22, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
145 Aug 23, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
146 Aug 24, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
147 Aug 25, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
148 Aug 26, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
149 Aug 27, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
150 Aug 28, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
151 Aug 29, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
152 Aug 30, 2023	0	0	0	12,129.29991	12,129.29991	0.00000	0.00000	0.00000	0.00000
153 Aug 31, 2023	3	2	1	12,642.18252	12,471.22165	170.96087	170.96087	170.96087	0.00000
154 Sep 1, 2023	0	2	(2)	12,153.45557	13,577.81006	(1,424.35449)	1,424.35449	0.00000	1,424.35449
155 Sep 2, 2023	0	0	0	12,153.45557	12,153.45557	0.00000	0.00000	0.00000	0.00000
156 Sep 3, 2023	0	0	0	12,153.45557	12,153.45557	0.00000	0.00000	0.00000	0.00000
157 Sep 4, 2023	0	0	0	12,153.45557	12,153.45557	0.00000	0.00000	0.00000	0.00000
158 Sep 5, 2023	0	0	0	12,153.45557	12,153.45557	0.00000	0.00000	0.00000	0.00000
159 Sep 6, 2023	0	0	0	12,153.45557	12,153.45557	0.00000	0.00000	0.00000	0.00000
160 Sep 7, 2023	0	0	0	12,153.45557	12,153.45557	0.00000	0.00000	0.00000	0.00000
161 Sep 8, 2023	0	0	0	12,153.45557	12,153.45557	0.00000	0.00000	0.00000	0.00000
162 Sep 9, 2023	0	0	0	12,153.45557	12,153.45557	0.00000	0.00000	0.00000	0.00000
163 Sep 10, 2023	0	0	0	12,153.45557	12,153.45557	0.00000	0.00000	0.00000	0.00000
164 Sep 11, 2023	0	0	0	12,153.45557	12,153.45557	0.00000	0.00000	0.00000	0.00000
165 Sep 12, 2023	0	0	0	12,153.45557	12,153.45557	0.00000	0.00000	0.00000	0.00000
166 Sep 13, 2023	0	0	0	12,153.45557	12,153.45557	0.00000	0.00000	0.00000	0.00000
167 Sep 14, 2023	3	0	3	14,289.98731	12,153.45557	2,136.53174	2,136.53174	2,136.53174	0.00000
168 Sep 15, 2023	2	1	1	13,577.81006	12,865.63282	712.17725	712.17725	712.17725	0.00000
169 Sep 16, 2023	1	1	0	12,865.63282	12,865.63282	0.00000	0.00000	0.00000	0.00000
170 Sep 17, 2023	0	0	0	12,153.45557	12,153.45557	0.00000	0.00000	0.00000	0.00000
171 Sep 18, 2023	3	1	2	14,289.98731	12,865.63282	1,424.35449	1,424.35449	1,424.35449	0.00000
172 Sep 19, 2023	2	0	2	13,577.81006	12,153.45557	1,424.35449	1,424.35449	1,424.35449	0.00000
173 Sep 20, 2023	4	3	1	15,002.16455	14,289.98731	712.17725	712.17725	712.17725	0.00000
174 Sep 21, 2023	4	4	0	15,002.16455	15,002.16455	0.00000	0.00000	0.00000	0.00000
175 Sep 22, 2023	7	7	0	17,138.69629	17,138.69629	0.00000	0.00000	0.00000	0.00000
176 Sep 23, 2023	8	8	0	17,850.87354	17,850.87354	0.00000	0.00000	0.00000	0.00000
177 Sep 24, 2023	7	5	2	17,138.69629	15,714.34180	1,424.35449	1,424.35449	1,424.35449	0.00000
178 Sep 25, 2023	8	7	1	17,850.87354	17,138.69629	712.17725	712.17725	712.17725	0.00000
179 Sep 26, 2023	12	10	2	20,699.58252	19,275.22803	1,424.35449	1,424.35449	1,424.35449	0.00000
180 Sep 27, 2023	10	10	0	19,275.22803	19,275.22803	0.00000	0.00000	0.00000	0.00000
181 Sep 28, 2023	9	8	1	18,563.05078	17,850.87354	712.17725	712.17725	712.17725	0.00000
182 Sep 29, 2023	9	9	0	18,563.05078	18,563.05078	0.00000	0.00000	0.00000	0.00000
183 Sep 30, 2023	7	6	1	17,138.69629	16,426.51904	712.17725	712.17725	712.17725	0.00000

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2024 – 2025 Winter Cost of Gas Filing
Calculation of Supplier Balancing Charge
2024-2025
Estimated Daily Imbalances

Date	Predicted MAN HDD	Actual MAN HDD	Forecaster Error MAN HDD	Calculated on Predicted MAN HDD	Calculated on Actual MAN HDD	Sendout Error (MMBtu)	Abs.Value Sendout Error (MMBtu)	Injections (MMBtu)	Withdrawals (MMBtu)
184 Oct 1, 2023	0	0	0	13,036.80295	13,036.80295	0.00000	0.00000	0.00000	0.00000
185 Oct 2, 2023	3	6	(3)	16,427.07765	19,817.35235	(3,390.27470)	3,390.27470	0.00000	3,390.27470
186 Oct 3, 2023	0	0	0	13,036.80295	13,036.80295	0.00000	0.00000	0.00000	0.00000
187 Oct 4, 2023	0	0	0	13,036.80295	13,036.80295	0.00000	0.00000	0.00000	0.00000
188 Oct 5, 2023	0	0	0	13,036.80295	13,036.80295	0.00000	0.00000	0.00000	0.00000
189 Oct 6, 2023	0	0	0	13,036.80295	13,036.80295	0.00000	0.00000	0.00000	0.00000
190 Oct 7, 2023	6	4	2	19,817.35235	17,557.16922	2,260.18313	2,260.18313	2,260.18313	0.00000
191 Oct 8, 2023	12	11	1	26,597.90175	25,467.81019	1,130.09157	1,130.09157	1,130.09157	0.00000
192 Oct 9, 2023	14	13	1	28,858.08489	27,727.99332	1,130.09157	1,130.09157	1,130.09157	0.00000
193 Oct 10, 2023	14	14	0	28,858.08489	28,858.08489	0.00000	0.00000	0.00000	0.00000
194 Oct 11, 2023	11	9	2	25,467.81019	23,207.62705	2,260.18313	2,260.18313	2,260.18313	0.00000
195 Oct 12, 2023	12	10	2	26,597.90175	24,337.71862	2,260.18313	2,260.18313	2,260.18313	0.00000
196 Oct 13, 2023	13	14	(1)	27,727.99332	28,858.08489	(1,130.09157)	1,130.09157	0.00000	1,130.09157
197 Oct 14, 2023	13	12	1	27,727.99332	26,597.90175	1,130.09157	1,130.09157	1,130.09157	0.00000
198 Oct 15, 2023	13	11	2	27,727.99332	25,467.81019	2,260.18313	2,260.18313	2,260.18313	0.00000
199 Oct 16, 2023	14	12	2	28,858.08489	26,597.90175	2,260.18313	2,260.18313	2,260.18313	0.00000
200 Oct 17, 2023	14	10	4	28,858.08489	24,337.71862	4,520.36627	4,520.36627	4,520.36627	0.00000
201 Oct 18, 2023	12	10	2	26,597.90175	24,337.71862	2,260.18313	2,260.18313	2,260.18313	0.00000
202 Oct 19, 2023	10	8	2	24,337.71862	22,077.53549	2,260.18313	2,260.18313	2,260.18313	0.00000
203 Oct 20, 2023	6	5	1	19,817.35235	18,687.26079	1,130.09157	1,130.09157	1,130.09157	0.00000
204 Oct 21, 2023	11	9	2	25,467.81019	23,207.62705	2,260.18313	2,260.18313	2,260.18313	0.00000
205 Oct 22, 2023	16	15	1	31,118.26802	29,988.17645	1,130.09157	1,130.09157	1,130.09157	0.00000
206 Oct 23, 2023	18	18	0	33,378.45115	33,378.45115	0.00000	0.00000	0.00000	0.00000
207 Oct 24, 2023	14	14	0	28,858.08489	28,858.08489	0.00000	0.00000	0.00000	0.00000
208 Oct 25, 2023	3	1	2	16,427.07765	14,166.89452	2,260.18313	2,260.18313	2,260.18313	0.00000
209 Oct 26, 2023	3	2	1	16,427.07765	15,296.98609	1,130.09157	1,130.09157	1,130.09157	0.00000
210 Oct 27, 2023	0	0	0	13,036.80295	13,036.80295	0.00000	0.00000	0.00000	0.00000
211 Oct 28, 2023	4	1	3	17,557.16922	14,166.89452	3,390.27470	3,390.27470	3,390.27470	0.00000
212 Oct 29, 2023	18	18	0	33,378.45115	33,378.45115	0.00000	0.00000	0.00000	0.00000
213 Oct 30, 2023	21	21	0	36,768.72585	36,768.72585	0.00000	0.00000	0.00000	0.00000
214 Oct 31, 2023	26	23	3	42,419.18369	39,028.90899	3,390.27470	3,390.27470	3,390.27470	0.00000
215 Nov 1, 2023	29	27	2	63,553.55631	60,103.08135	3,450.47496	3,450.47496	3,450.47496	0.00000
216 Nov 2, 2023	28	27	1	61,828.31883	60,103.08135	1,725.23748	1,725.23748	1,725.23748	0.00000
217 Nov 3, 2023	18	15	3	44,575.94401	39,400.23156	5,175.71245	5,175.71245	5,175.71245	0.00000
218 Nov 4, 2023	16	16	0	41,125.46904	41,125.46904	0.00000	0.00000	0.00000	0.00000
219 Nov 5, 2023	20	19	1	48,026.41897	46,301.18149	1,725.23748	1,725.23748	1,725.23748	0.00000
220 Nov 6, 2023	18	17	1	44,575.94401	42,850.70653	1,725.23748	1,725.23748	1,725.23748	0.00000
221 Nov 7, 2023	18	14	4	44,575.94401	37,674.99408	6,900.94993	6,900.94993	6,900.94993	0.00000
222 Nov 8, 2023	28	28	0	61,828.31883	61,828.31883	0.00000	0.00000	0.00000	0.00000
223 Nov 9, 2023	25	29	(4)	56,652.60638	63,553.55631	(6,900.94993)	6,900.94993	0.00000	6,900.94993
224 Nov 10, 2023	24	25	(1)	54,927.36890	56,652.60638	(1,725.23748)	1,725.23748	0.00000	1,725.23748
225 Nov 11, 2023	30	31	(1)	65,278.79379	67,004.03128	(1,725.23748)	1,725.23748	0.00000	1,725.23748
226 Nov 12, 2023	28	28	0	61,828.31883	61,828.31883	0.00000	0.00000	0.00000	0.00000
227 Nov 13, 2023	30	28	2	65,278.79379	61,828.31883	3,450.47496	3,450.47496	3,450.47496	0.00000
228 Nov 14, 2023	29	27	2	63,553.55631	60,103.08135	3,450.47496	3,450.47496	3,450.47496	0.00000
229 Nov 15, 2023	24	24	0	54,927.36890	54,927.36890	0.00000	0.00000	0.00000	0.00000
230 Nov 16, 2023	21	23	(2)	49,751.65646	53,202.13142	(3,450.47496)	3,450.47496	0.00000	3,450.47496
231 Nov 17, 2023	11	6	5	32,499.28163	23,873.09422	8,626.18741	8,626.18741	8,626.18741	0.00000
232 Nov 18, 2023	27	29	(2)	60,103.08135	63,553.55631	(3,450.47496)	3,450.47496	0.00000	3,450.47496
233 Nov 19, 2023	28	25	3	61,828.31883	56,652.60638	5,175.71245	5,175.71245	5,175.71245	0.00000
234 Nov 20, 2023	36	36	0	75,630.21869	75,630.21869	0.00000	0.00000	0.00000	0.00000
235 Nov 21, 2023	28	28	0	61,828.31883	61,828.31883	0.00000	0.00000	0.00000	0.00000
236 Nov 22, 2023	24	23	1	54,927.36890	53,202.13142	1,725.23748	1,725.23748	1,725.23748	0.00000
237 Nov 23, 2023	27	21	6	60,103.08135	49,751.65646	10,351.42489	10,351.42489	10,351.42489	0.00000
238 Nov 24, 2023	35	33	2	73,904.98121	70,454.50624	3,450.47496	3,450.47496	3,450.47496	0.00000
239 Nov 25, 2023	35	36	(1)	73,904.98121	75,630.21869	(1,725.23748)	1,725.23748	0.00000	1,725.23748
240 Nov 26, 2023	24	21	3	54,927.36890	49,751.65646	5,175.71245	5,175.71245	5,175.71245	0.00000
241 Nov 27, 2023	30	26	4	65,278.79379	58,377.84387	6,900.94993	6,900.94993	6,900.94993	0.00000
242 Nov 28, 2023	36	34	2	75,630.21869	72,179.74372	3,450.47496	3,450.47496	3,450.47496	0.00000
243 Nov 29, 2023	36	36	0	75,630.21869	75,630.21869	0.00000	0.00000	0.00000	0.00000
244 Nov 30, 2023	27	23	4	60,103.08135	53,202.13142	6,900.94993	6,900.94993	6,900.94993	0.00000
245 Dec 1, 2023	22	18	4	53,116.49018	45,573.89438	7,542.59580	7,542.59580	7,542.59580	0.00000
246 Dec 2, 2023	21	21	0	51,230.84123	51,230.84123	0.00000	0.00000	0.00000	0.00000
247 Dec 3, 2023	25	27	(2)	58,773.43703	62,544.73492	(3,771.29790)	3,771.29790	0.00000	3,771.29790
248 Dec 4, 2023	27	27	0	62,544.73492	62,544.73492	0.00000	0.00000	0.00000	0.00000
249 Dec 5, 2023	34	34	0	75,744.27757	75,744.27757	0.00000	0.00000	0.00000	0.00000
250 Dec 6, 2023	39	40	(1)	85,172.52232	87,058.17127	(1,885.64895)	1,885.64895	0.00000	1,885.64895
251 Dec 7, 2023	39	41	(2)	85,172.52232	88,943.82022	(3,771.29790)	3,771.29790	0.00000	3,771.29790
252 Dec 8, 2023	34	30	4	75,744.27757	68,201.68177	7,542.59580	7,542.59580	7,542.59580	0.00000
253 Dec 9, 2023	24	19	5	56,887.78808	47,459.54333	9,428.24475	9,428.24475	9,428.24475	0.00000
254 Dec 10, 2023	13	13	0	36,145.64963	36,145.64963	0.00000	0.00000	0.00000	0.00000
255 Dec 11, 2023	30	27	3	68,201.68177	62,544.73492	5,656.94685	5,656.94685	5,656.94685	0.00000
256 Dec 12, 2023	30	28	2	68,201.68177	64,430.38387	3,771.29790	3,771.29790	3,771.29790	0.00000
257 Dec 13, 2023	34	33	1	75,744.27757	73,858.62862	1,885.64895	1,885.64895	1,885.64895	0.00000
258 Dec 14, 2023	33	34	(1)	73,858.62862	75,744.27757	(1,885.64895)	1,885.64895	0.00000	1,885.64895
259 Dec 15, 2023	23	23	0	55,002.13913	55,002.13913	0.00000	0.00000	0.00000	0.00000
260 Dec 16, 2023	27	26	1	62,544.73492	60,659.08598	1,885.64895	1,885.64895	1,885.64895	0.00000
261 Dec 17, 2023	14	12	2	38,031.29858	34,260.00068	3,771.29790	3,771.29790	3,771.29790	0.00000
262 Dec 18, 2023	17	15	2	43,688.24543	39,916.94753	3,771.29790	3,771.29790	3,771.29790	0.00000
263 Dec 19, 2023	30	29	1	68,201.68177	66,316.03282	1,885.64895	1,885.64895	1,885.64895	0.00000
264 Dec 20, 2023	31	30	1	70,087.33072	68,201.68177	1,885.64895	1,885.64895	1,885.64895	0.00000
265 Dec 21, 2023	39	40	(1)	85,172.52232	87,058.17127	(1,885.64895)	1,885.64895	0.00000	1,885.64895
266 Dec 22, 2023	39	41	(2)	85,172.52232	88,943.82022	(3,771.29790)	3,771.29790	0.00000	3,771.29790
267 Dec 23, 2023	32	29	3	71,972.97967	66,316.03282	5,656.94685	5,656.94685	5,656.94685	0.00000
268 Dec 24, 2023	26	25	1	60,659.08598	58,773.43703	1,885.64895	1,885.64895	1,885.64895	0.00000
269 Dec 25, 2023	25	24	1	58,773.43703	56,887.78808	1,885.64895	1,885.64895	1,885.64895	0.00000
270 Dec 26, 2023	23	23	0	55,002.13913	55,002.13913	0.00000	0.00000	0.00000	0.00000
271 Dec 27, 2023	21	19	2	51,230.84123	47,459.54333	3,771.29790	3,771.29790	3,771.29790	0.00000
272 Dec 28, 2023	23	22	1	55,002.13913	53,116.49018	1,885.64895	1,885.64895	1,885.64895	0.00000
273 Dec 29, 2023	23	21	2	55,002.13913	51,230.84123	3,771.29790	3,771.29790	3,771.29790	0.00000
274 Dec 30, 2023	29	28	1	66,316.0					

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2024 – 2025 Winter Cost of Gas Filing
Calculation of Supplier Balancing Charge
2024-2025
Estimated Daily Imbalances

Date	Predicted MAN HDD	Actual MAN HDD	Forecaster Error MAN HDD	Calculated on Predicted MAN HDD	Calculated on Actual MAN HDD	Sendout Error (MMBtu)	Abs.Value Sendout Error (MMBtu)	Injections (MMBtu)	Withdrawals (MMBtu)
276 Jan 1, 2024	37	38	(1)	86,498.94532	88,481.58947	(1,982.64416)	1,982.64416	0.00000	1,982.64416
277 Jan 2, 2024	34	33	1	80,551.01284	78,568.36868	1,982.64416	1,982.64416	1,982.64416	0.00000
278 Jan 3, 2024	32	29	3	76,585.72452	70,637.79205	5,947.93248	5,947.93248	5,947.93248	0.00000
279 Jan 4, 2024	38	39	(1)	88,481.58947	90,464.23363	(1,982.64416)	1,982.64416	0.00000	1,982.64416
280 Jan 5, 2024	37	34	3	86,498.94532	80,551.01284	5,947.93248	5,947.93248	5,947.93248	0.00000
281 Jan 6, 2024	33	36	(3)	78,568.36868	84,516.30116	(5,947.93248)	5,947.93248	0.00000	5,947.93248
282 Jan 7, 2024	41	40	1	94,429.52195	92,446.87779	1,982.64416	1,982.64416	1,982.64416	0.00000
283 Jan 8, 2024	41	41	0	94,429.52195	94,429.52195	0.00000	0.00000	0.00000	0.00000
284 Jan 9, 2024	25	25	0	62,707.21541	62,707.21541	0.00000	0.00000	0.00000	0.00000
285 Jan 10, 2024	26	22	4	64,689.85957	56,759.28294	7,930.57663	7,930.57663	7,930.57663	0.00000
286 Jan 11, 2024	31	28	3	74,603.08037	68,655.14789	5,947.93248	5,947.93248	5,947.93248	0.00000
287 Jan 12, 2024	26	23	3	64,689.85957	58,741.92710	5,947.93248	5,947.93248	5,947.93248	0.00000
288 Jan 13, 2024	25	24	1	62,707.21541	60,724.57126	1,982.64416	1,982.64416	1,982.64416	0.00000
289 Jan 14, 2024	37	38	(1)	86,498.94532	88,481.58947	(1,982.64416)	1,982.64416	0.00000	1,982.64416
290 Jan 15, 2024	39	39	0	90,464.23363	90,464.23363	0.00000	0.00000	0.00000	0.00000
291 Jan 16, 2024	41	43	(2)	94,429.52195	98,394.81027	(3,965.28832)	3,965.28832	0.00000	3,965.28832
292 Jan 17, 2024	46	46	0	104,342.74270	104,342.74270	0.00000	0.00000	0.00000	0.00000
293 Jan 18, 2024	42	45	(3)	96,412.16611	102,360.09860	(5,947.93248)	5,947.93248	0.00000	5,947.93248
294 Jan 19, 2024	47	47	0	106,325.38690	106,325.38690	0.00000	0.00000	0.00000	0.00000
295 Jan 20, 2024	49	50	(1)	110,290.67520	112,273.31940	(1,982.64416)	1,982.64416	0.00000	1,982.64416
296 Jan 21, 2024	47	46	1	106,325.38690	104,342.74270	1,982.64416	1,982.64416	1,982.64416	0.00000
297 Jan 22, 2024	33	30	3	78,568.36868	72,620.43621	5,947.93248	5,947.93248	5,947.93248	0.00000
298 Jan 23, 2024	32	31	1	76,585.72452	74,603.08037	1,982.64416	1,982.64416	1,982.64416	0.00000
299 Jan 24, 2024	28	30	(2)	68,655.14789	72,620.43621	(3,965.28832)	3,965.28832	0.00000	3,965.28832
300 Jan 25, 2024	25	25	0	62,707.21541	62,707.21541	0.00000	0.00000	0.00000	0.00000
301 Jan 26, 2024	30	28	2	72,620.43621	68,655.14789	3,965.28832	3,965.28832	3,965.28832	0.00000
302 Jan 27, 2024	30	28	2	72,620.43621	68,655.14789	3,965.28832	3,965.28832	3,965.28832	0.00000
303 Jan 28, 2024	30	31	(1)	72,620.43621	74,603.08037	(1,982.64416)	1,982.64416	0.00000	1,982.64416
304 Jan 29, 2024	37	33	4	86,498.94532	78,568.36868	7,930.57663	7,930.57663	7,930.57663	0.00000
305 Jan 30, 2024	42	40	2	96,412.16611	92,446.87779	3,965.28832	3,965.28832	3,965.28832	0.00000
306 Jan 31, 2024	34	35	(1)	80,551.01284	82,533.65700	(1,982.64416)	1,982.64416	0.00000	1,982.64416
307 Feb 1, 2024	29	30	(1)	68,848.16383	70,800.28813	(1,952.12430)	1,952.12430	0.00000	1,952.12430
308 Feb 2, 2024	32	31	1	74,704.53672	72,752.41242	1,952.12430	1,952.12430	1,952.12430	0.00000
309 Feb 3, 2024	37	36	1	84,465.15819	82,513.03390	1,952.12430	1,952.12430	1,952.12430	0.00000
310 Feb 4, 2024	36	34	2	82,513.03390	78,608.78531	3,904.24859	3,904.24859	3,904.24859	0.00000
311 Feb 5, 2024	36	34	2	82,513.03390	78,608.78531	3,904.24859	3,904.24859	3,904.24859	0.00000
312 Feb 6, 2024	35	35	0	80,560.90960	80,560.90960	0.00000	0.00000	0.00000	0.00000
313 Feb 7, 2024	33	33	0	76,656.66101	76,656.66101	0.00000	0.00000	0.00000	0.00000
314 Feb 8, 2024	31	29	2	72,752.41242	68,848.16383	3,904.24859	3,904.24859	3,904.24859	0.00000
315 Feb 9, 2024	26	26	0	62,991.79095	62,991.79095	0.00000	0.00000	0.00000	0.00000
316 Feb 10, 2024	19	15	4	49,326.92089	41,518.42371	7,808.49718	7,808.49718	7,808.49718	0.00000
317 Feb 11, 2024	28	27	1	66,896.03954	64,943.91524	1,952.12430	1,952.12430	1,952.12430	0.00000
318 Feb 12, 2024	29	27	2	68,848.16383	64,943.91524	3,904.24859	3,904.24859	3,904.24859	0.00000
319 Feb 13, 2024	34	35	(1)	78,608.78531	80,560.90960	(1,952.12430)	1,952.12430	0.00000	1,952.12430
320 Feb 14, 2024	40	38	2	90,321.53108	86,417.28249	3,904.24859	3,904.24859	3,904.24859	0.00000
321 Feb 15, 2024	33	33	0	76,656.66101	76,656.66101	0.00000	0.00000	0.00000	0.00000
322 Feb 16, 2024	35	36	(1)	80,560.90960	82,513.03390	(1,952.12430)	1,952.12430	0.00000	1,952.12430
323 Feb 17, 2024	39	40	(1)	88,369.40678	90,321.53108	(1,952.12430)	1,952.12430	0.00000	1,952.12430
324 Feb 18, 2024	34	34	0	78,608.78531	78,608.78531	0.00000	0.00000	0.00000	0.00000
325 Feb 19, 2024	40	40	0	90,321.53108	90,321.53108	0.00000	0.00000	0.00000	0.00000
326 Feb 20, 2024	38	39	(1)	86,417.28249	88,369.40678	(1,952.12430)	1,952.12430	0.00000	1,952.12430
327 Feb 21, 2024	35	35	0	80,560.90960	80,560.90960	0.00000	0.00000	0.00000	0.00000
328 Feb 22, 2024	28	27	1	66,896.03954	64,943.91524	1,952.12430	1,952.12430	1,952.12430	0.00000
329 Feb 23, 2024	28	28	0	66,896.03954	66,896.03954	0.00000	0.00000	0.00000	0.00000
330 Feb 24, 2024	41	42	(1)	92,273.65537	94,225.77967	(1,952.12430)	1,952.12430	0.00000	1,952.12430
331 Feb 25, 2024	33	33	0	76,656.66101	76,656.66101	0.00000	0.00000	0.00000	0.00000
332 Feb 26, 2024	26	25	1	62,991.79095	61,039.86665	1,952.12430	1,952.12430	1,952.12430	0.00000
333 Feb 27, 2024	13	12	1	37,614.17512	35,662.05082	1,952.12430	1,952.12430	1,952.12430	0.00000
334 Feb 28, 2024	22	21	1	55,183.29377	53,231.16948	1,952.12430	1,952.12430	1,952.12430	0.00000
335 Feb 29, 2024	38	40	(2)	86,417.28249	90,321.53108	(3,904.24859)	3,904.24859	0.00000	3,904.24859
336 Mar 1, 2024	29	27	2	67,323.33120	63,372.95766	4,359.37354	4,359.37354	4,359.37354	0.00000
337 Mar 2, 2024	20	20	0	48,115.15027	48,115.15027	0.00000	0.00000	0.00000	0.00000
338 Mar 3, 2024	16	13	3	39,396.40319	32,857.34288	6,539.06031	6,539.06031	6,539.06031	0.00000
339 Mar 4, 2024	21	22	(1)	50,294.83704	52,474.52381	(2,179.68677)	2,179.68677	0.00000	2,179.68677
340 Mar 5, 2024	22	24	(2)	52,474.52381	56,833.89735	(4,359.37354)	4,359.37354	0.00000	4,359.37354
341 Mar 6, 2024	15	17	(2)	37,216.71642	41,576.08996	(4,359.37354)	4,359.37354	0.00000	4,359.37354
342 Mar 7, 2024	24	23	1	56,833.89735	54,654.21058	2,179.68677	2,179.68677	2,179.68677	0.00000
343 Mar 8, 2024	26	26	0	61,193.27089	61,193.27089	0.00000	0.00000	0.00000	0.00000
344 Mar 9, 2024	24	25	(1)	56,833.89735	59,013.58412	(2,179.68677)	2,179.68677	0.00000	2,179.68677
345 Mar 10, 2024	25	24	1	59,013.58412	56,833.89735	2,179.68677	2,179.68677	2,179.68677	0.00000
346 Mar 11, 2024	27	25	2	63,372.95766	59,013.58412	4,359.37354	4,359.37354	4,359.37354	0.00000
347 Mar 12, 2024	23	22	1	54,654.21058	52,474.52381	2,179.68677	2,179.68677	2,179.68677	0.00000
348 Mar 13, 2024	21	20	1	50,294.83704	48,115.15027	2,179.68677	2,179.68677	2,179.68677	0.00000
349 Mar 14, 2024	17	17	0	41,576.08996	41,576.08996	0.00000	0.00000	0.00000	0.00000
350 Mar 15, 2024	25	24	1	59,013.58412	56,833.89735	2,179.68677	2,179.68677	2,179.68677	0.00000
351 Mar 16, 2024	19	17	2	45,935.46350	41,576.08996	4,359.37354	4,359.37354	4,359.37354	0.00000
352 Mar 17, 2024	22	21	1	52,474.52381	50,294.83704	2,179.68677	2,179.68677	2,179.68677	0.00000
353 Mar 18, 2024	26	26	0	61,193.27089	61,193.27089	0.00000	0.00000	0.00000	0.00000
354 Mar 19, 2024	27	26	1	63,372.95766	61,193.27089	2,179.68677	2,179.68677	2,179.68677	0.00000
355 Mar 20, 2024	27	27	0	63,372.95766	63,372.95766	0.00000	0.00000	0.00000	0.00000
356 Mar 21, 2024	36	34	2	82,990.13858	78,630.76504	4,359.37354	4,359.37354	4,359.37354	0.00000
357 Mar 22, 2024	31	31	0	72,091.70473	72,091.70473	0.00000	0.00000	0.00000	0.00000
358 Mar 23, 2024	33	34	(1)	76,451.07827	78,630.76504	(2,179.68677)	2,179.68677	0.00000	2,179.68677
359 Mar 24, 2024	35	32	3	80,810.45181	74,271.39150	6,539.06031	6,539.06031	6,539.06031	0.00000
360 Mar 25, 2024	30	28	2	69,912.01797	65,552.64443	4,359.37354	4,359.37354	4,359.37354	0.00000
361 Mar 26, 2024	27	27	0	63,372.95766	63,372.95766	0.00000	0.00000	0.00000	0.00000
362 Mar 27, 2024	16	16	0	39,396.40319	39,396.40319	0.00000	0.00000	0.00000	0.00000
363 Mar 28, 2024	20	20	0	48,115.15027	48,115.15027	0.00000	0.00000	0.00000	0.00000
364 Mar 29, 2024	24	21	3	56,833.89735	50,294.83704	6,539.06031	6,539.06031	6,539.06031	0.00000
365 Mar 30, 2024	22	18	4	52,474.52381	43,755.77673	8,718.74708	8,718.74708	8,718.74708	0.00000
366 Mar 31, 202									

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2024 – 2025 Winter Cost of Gas Filing
Docket DE 98-124 Gas Restructuring
Peaking Demand Rate

1	Peak Day		162,764	Dekatherm
2				
3	Pipeline MDQ			
4		PNGTS	1,000	Dekatherm
5		TGP NET-NE 95346	4,000	
6		TGP FT-A (Z5-Z6) 2302	3,122	
7		TGP FT-A (Z0-Z6) 8587	7,035	
8		TGP FT-A (Z1-Z6) 8587	14,561	
9		TGP FT-A (Z6-Z6) 42076	20,000	
10		TGP FT-A (Z6-Z6) 358905	40,000	
11		TGP FT-A (Z6-Z6) 72694	30,000	
12			<u>119,718</u>	Dekatherm
13				
14	Underground Storage MDQ			
15		TGP FT-A (Z4-Z6) 632	15,265	Dekatherm
16		TGP FT-A (Z4-Z6) 8587	3,811	
17		TGP FT-A (Z4-Z6) 11234	7,082	
18		TGP FT-A (Z5-Z6) 11234	1,957	
19			<u>28,115</u>	Dekatherm
20				
21				
22	Peaking MDQ		14,931	Dekatherm
23				
24				
25	Peaking Costs			
26				
27	Gas Supply		\$ 1,350,000	
28	Indirect Production & Storage Capacity		\$ 3,685,459	
29	Granite Ridge		\$ -	
30	Total		<u>\$ 5,035,459</u>	
31				
32	Annual Peaking Rate per MDQ		\$ 337.25	
33				
34	Monthly Peaking MDQ		\$ 56.21	/Dekatherm

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2024 – 2025 Winter Cost of Gas Filing

Tennessee Allocations

Resource Type	High Load Factor	Low Load Factor
Pipeline	80.1%	72.9%
Storage	13.0%	17.7%
Peaking	6.9%	9.4%
TOTAL:	100.00%	100.00%

Capacity Resources effective November 1, 2023*

*proposed

Resource	Pipeline Company	Rate Schedule	Contract #	Peak MDQ/ MDWQ	Storage MSQ	Rate \$/Dth/Month Demand	Storage Capacity	Termination Date	LDC Managed	
Pipeline	Enbridge	Dawn to Parkway	M12200	4,317		\$3.7600		10/31/2026		
	TCPL	Parkway to Iroquois	41232	4,270		\$12.5438		10/31/2026		
	Iroquois	RTS to Wright	470-01	4,047		\$4.8393		11/1/2027		
	TGP	NET-NE (Z5-Z6)	95346	4,000		\$6.0905		11/30/2026		
	TGP	FT-A (Z5-Z6)	2302	3,122		\$6.0905		10/31/2025		
	TGP	FT-A (Z0-Z6)	8587	7,035		\$19.6964		10/31/2025		
	TGP	FT-A (Z1-Z6)	8587	14,561		\$17.4870		10/31/2025		
	Enbridge	Dawn to Parkway	M12284	5,348		\$3.7600		10/31/2040		
	TCPL	Parkway to E. Hereford	64195	5,285		\$12.5438		10/31/2040		
	PNGTS	FT	225800	5,000		\$22.7943		10/31/2040		
	TGP	FT-A (Z6-Z6)	42076	20,000		\$4.0474		10/31/2025		
	TGP	FT-A (Z6-Z6)	358905	40,000		\$4.0474		10/31/2041		
	TGP	FT-A (Z6-Z6)	72694	30,000		\$12.2157		10/31/2029		
	Storage	TGP	FS-MA (Storage)	523*	21,844	1,560,391	\$1.2655	\$0.0173	10/31/2025	
		TGP	FT-A (Z4-Z6)	632	15,265		\$6.9301		10/31/2025	
		TGP	FT-A (Z4-Z6)	8587	3,811		\$6.9301		10/31/2025	
		National Fuel	FSS-1 (Storage)	O02357*	6,098	670,800	\$2.6469	\$0.0478	3/31/2025	
		National Fuel	FST (Transport)	N02358	6,098		\$5.0175		3/31/2025	
TGP		FT-A (Z4-Z6)	11234	6,150		\$6.9301		10/31/2025		
Honeoye		SS-NY (Storage)	SS-NY**	1,957	245,380	\$4.8254	\$0.0000	3/31/2025		
TGP		FT-A (Z5-Z6)	11234	1,957		\$6.0905		10/31/2025	X	
Dominion		GSS (Storage)	300076*	934	102,700	\$2.6784	\$0.0258	3/31/2026		
TGP		FT-A (Z4-Z6)	11234	932		\$6.9301		10/31/2025		
Peaking		Energy North	LNG/Propane****		19,855	-	\$43.9500	\$0.0000		
		Energy North	LNG/Propane****		14,931	-	\$56.2100	\$0.0000		X

* All gas transferred for storage contracts will be based on LDC's monthly WACOG

**All commodity volumes nominated will be invoiced at LDC's WACOG + fuel retention. Demand charge applicable for 6 months

Note All capacity will be released at maximum tariff rates. Above rates are maximum tariff rates effective 11/01/23. Because rates can change, please refer to the applicable pipeline tariff for current rates.

Above capacity is for all customers in the EnergyNorth Service territory with the exception of Berlin, NH. Any customers behind the Berlin citygate will be allocated 100% PNGTS capacity at a demand rate of \$18.2633 /dth.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2024 – 2025 Winter Cost of Gas Filing
Docket 98-124 Gas Restructuring
Peaking Demand Rate
Peaking Costs

	Volume	Rate	Monthly Cost	Months/Year	Annual Cost
1					
2					
3					
4 Subtotal					\$ 1,350,000.00 *
5					
6 Total					\$ 1,350,000.00

* Effective November 2023

1 Capacity Assignment Table

			Pipeline	% of Peak Day Requirement		Total
				Storage	Peaking	
6	G-41 LAHW	Low Annual C&I - High Winter Use	72.9%	17.7%	9.4%	100.0%
7	G-51 LALW	Low Annual C&I - Low Winter Use	80.1%	13.0%	6.9%	100.0%
8	G-42 MAHW	Medium C&I - High Winter Use	72.9%	17.7%	9.4%	100.0%
9	G-52 MALW	Medium C&I - Low Winter Use	80.1%	13.0%	6.9%	100.0%
10	G-43 HAHW	High Annual C&I - High Winter Use	72.9%	17.7%	9.4%	100.0%
11	G-53 HALW90	High Annual C&I - LF < 90%	80.1%	13.0%	6.9%	100.0%
12	G-54 HALWG90	High Annual C&I - LF > 90%	80.1%	13.0%	6.9%	100.0%

16 Allocation of Peak Day

18 Design Day Throughput Allocated to Rate Classes

Design DD 69.39			Base Load	Heat Load	Total
22	HLF	R-1 RNSH	94	543	637
23	LLF	R-3 RSH	3,533	64,294	67,827
24	LLF	G-41 SL	839	28,879	29,718
25	HLF	G-51 SH	683	1,533	2,216
26	LLF	G-42 ML	1,541	36,607	38,147
27	HLF	G-52 MH	1,660	3,284	4,944
28	LLF	G-43 LL	832	10,835	11,667
29	HLF	G-53 LLL90	1,476	5,000	6,476
30	HLF	G-54 LLL90	684	449	1,134
31		TOTAL	11,340	151,424	162,764
33		HLF	4,596	10,809	15,405
34		LLF	6,744	140,615	147,359
35		Total	11,340	151,424	162,764

37 Allocate Class Design Day Throughput to Supply Sources

			Base Pipeline	Remaining Pipeline	Sub-total Pipeline	Storage	Peaking	Total
41	HLF	R-1 RNSH	94	389	483	101	54	637
42	LLF	R-3 RSH	3,533	46,017	49,550	11,938	6,340	67,827
43	LLF	G-41 SL	839	20,669	21,508	5,362	2,848	29,718
44	HLF	G-51 SH	683	1,097	1,780	285	151	2,216
45	LLF	G-42 ML	1,541	26,200	27,741	6,797	3,610	38,147
46	HLF	G-52 MH	1,660	2,350	4,010	610	324	4,944
47	LLF	G-43 LL	832	7,755	8,586	2,012	1,068	11,667
48	HLF	G-53 LLL90	1,476	3,578	5,054	928	493	6,476
49	HLF	G-54 LLL90	684	322	1,006	83	44	1,134
50		TOTAL	11,340	108,378	119,718	28,115	14,931	162,764
52		HLF	4,596	7,737	12,333	2,007	1,066	15,405
53		LLF	6,744	100,642	107,385	26,108	13,865	147,359
54		Total	11,340	108,378	119,718	28,115	14,931	162,764

56 % of Peak Day Requirement

			Pipeline	Storage	Peaking	Total
59	HLF	R-1 RNSH	75.8%	15.8%	8.4%	100.0%
60	LLF	R-3 RSH	73.1%	17.6%	9.3%	100.0%
61	LLF	G-41 SL	72.4%	18.0%	9.6%	100.0%
62	HLF	G-51 SH	80.3%	12.8%	6.8%	100.0%
63	LLF	G-42 ML	72.7%	17.8%	9.5%	100.0%
64	HLF	G-52 MH	81.1%	12.3%	6.6%	100.0%
65	LLF	G-43 LL	73.6%	17.2%	9.2%	100.0%
66	HLF	G-53 LLL90	78.1%	14.3%	7.6%	100.0%
67	HLF	G-54 LLL90	88.7%	7.4%	3.9%	100.0%
68		TOTAL	73.6%	17.3%	9.2%	100.0%
70		HLF	80.1%	13.0%	6.9%	100.0%
71		LLF	72.9%	17.7%	9.4%	100.0%
72		Total	73.6%	17.3%	9.2%	100.0%

73 Allocate Design Day Sendout

74

75 Calculate Design Day Throughput (BBTU)

76

77 Design DD 69.39

78

	Daily Baseload * 1000	Heating Factor * 1000	Heat Load Heating Factor * Design DD	Total
79				
80	94	7.08	491	585
81	3,533	838.00	58,149	61,682
82	839	376.40	26,119	26,957
83	683	19.98	1,386	2,069
84	1,541	477.13	33,108	34,649
85	1,660	42.80	2,970	4,630
86	832	141.22	9,799	10,631
87	1,476	65.16	4,522	5,998
88	684	5.86	406	1,091
89	TOTAL	11,340	136,951	148,291

90

91	HLF	4,596	141	9,776	14,372
92	LLF	6,744	1,833	127,175	133,918
93	Total	11,340	1,974	136,951	148,291

94

95	Design Day from 2024-2025 COG	162,764
96	Design Day from Gas Load Calculation	148,291
97	Variance	14,473

98

99 Allocate Design Day Sendout to Rate Classes

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113

	Baseload as a % of Total Class Load	Heat Load as a % of Total	Base Load	Heat Load	Total
104	16%	0.359%	94	543	637
105	6%	42.460%	3,533	64,294	67,827
106	3%	19.072%	839	28,879	29,718
107	33%	1.012%	683	1,533	2,216
108	4%	24.175%	1,541	36,607	38,147
109	36%	2.169%	1,660	3,284	4,944
110	8%	7.155%	832	10,835	11,667
111	25%	3.302%	1,476	5,000	6,476
112	63%	0.297%	684	449	1,134
113	TOTAL	100.000%	11,340	151,424	162,764

1 Calculation of Normal Sales Volumes

2
 3 Actual Volumes

4 Total Core Sales Volumes (000's) MMBTU

	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Total	Monthly Baseload (Jul+Aug)/2	Daily Baseload
7 HLF R-1 RNSH	8	9	10	9	8	6	4	3	3	3	3	4	70	2,905	0.094
8 LLF R-3 RSH	657	807	969	843	712	456	222	137	103	116	127	235	5,383	109,514	3.533
9 LLF G-41 SL	263	339	419	359	290	183	68	37	24	28	34	80	2,124	26,000	0.839
10 HLF G-51 SH	32	35	39	36	33	30	25	22	20	22	21	24	340	21,161	0.683
11 LLF G-42 ML	368	445	527	461	389	274	115	65	45	51	64	135	2,939	47,759	1.541
12 HLF G-52 MH	78	85	95	86	82	71	59	53	49	54	53	60	823	51,448	1.660
13 LLF G-43 LL	119	135	169	147	129	93	53	32	24	27	31	58	1,018	25,782	0.832
14 HLF G-53 LLL90	68	68	77	67	65	77	58	53	43	48	47	55	725	45,752	1.476
15 HLF G-54 LLL90	25	21	28	24	22	21	22	18	21	21	20	24	267	21,215	0.684
16 TOTAL	1,617	1,944	2,333	2,030	1,729	1,211	627	419	332	371	400	675	13,689	351,534	11.340

18 HLF	210	217	248	221	210	205	168	149	136	149	143	168	2,225	142,479	4.596
19 LLF	1,407	1,726	2,084	1,809	1,520	1,006	458	270	196	222	256	508	11,464	209,055	6.744

20
 21
 22 Baseload (= the lesser of actual volumes or the average of July and August volumes)

	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Total
25 HLF R-1 RNSH	30	31	31	28	31	30	31	30	31	31	30	31	365
26 LLF R-3 RSH	3	3	3	3	3	3	3	3	3	3	3	3	34
27 LLF G-41 SL	106	110	110	99	110	106	110	106	103	116	106	110	1,289
28 HLF G-51 SH	25	26	26	23	26	25	26	25	24	28	25	26	306
29 LLF G-42 ML	20	21	21	19	21	20	21	20	20	22	20	21	249
30 HLF G-52 MH	46	48	48	43	48	46	48	46	45	51	46	48	562
31 LLF G-43 LL	50	51	51	46	51	50	51	50	49	54	50	51	606
32 HLF G-53 LLL90	25	26	26	23	26	25	26	25	24	27	25	26	304
33 HLF G-54 LLL90	44	46	46	41	46	44	46	44	43	48	44	46	539
34 TOTAL	340	351	352	318	352	340	352	338	332	371	339	352	4,139

37 HLF	138	142	142	129	142	138	142	136	136	149	137	142	1,678
38 LLF	202	209	209	189	209	202	209	202	196	222	202	209	2,461

39
 40
 41 Heating Volumes (= Actual Volumes - Baseload)

	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Total
44 HLF R-1 RNSH	5	6	7	6	5	3	1	1	0	0	0	1	35
45 LLF R-3 RSH	551	697	859	744	602	350	112	31	0	0	21	125	4,094
46 LLF G-41 SL	238	313	393	335	264	158	42	11	0	0	9	54	1,818
47 HLF G-51 SH	11	14	18	16	12	10	4	2	0	0	1	3	91
48 LLF G-42 ML	322	397	480	417	342	228	68	19	0	0	18	88	2,377
49 HLF G-52 MH	28	34	43	39	30	21	7	3	0	0	3	9	217
50 LLF G-43 LL	95	110	143	124	103	68	27	7	0	0	6	32	714
51 HLF G-53 LLL90	24	22	31	26	19	32	12	8	0	0	2	10	187
52 HLF G-54 LLL90	4	0	6	5	1	0	1	0	0	0	0	3	17
53 TOTAL	1,277	1,592	1,981	1,713	1,378	871	275	81	0	0	60	324	9,550

55 HLF	72	75	106	93	67	67	26	13	0	0	6	25	547
56 LLF	1,205	1,517	1,875	1,620	1,311	804	249	68	0	0	54	299	9,002

58 Actual HDD	762	832	1,077	915	728	497	150	79	0	2	82	271	5,395
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59 Heat Factors

	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Max	AVG	Max Peak	AVG Peak	
61																	
62	HLF R-1 RNSH	0.0062	0.0068	0.0064	0.0067	0.0071	0.0067	0.0099	0.0073	0.0000	0.0000	0.0036	0.0041	0.0071	0.0054	0.0071	0.0066
63	LLF R-3 RSH	0.7234	0.8380	0.7978	0.8127	0.8275	0.7048	0.7486	0.3869	0.0000	0.0000	0.2597	0.4630	0.8275	0.5469	0.8380	0.7841
64	LLF G-41 SL	0.3119	0.3764	0.3654	0.3664	0.3625	0.3178	0.2808	0.1455	0.0000	0.0000	0.1121	0.1986	0.3664	0.2365	0.3764	0.3501
65	HLF G-51 SH	0.0145	0.0169	0.0169	0.0180	0.0167	0.0200	0.0267	0.0192	0.0000	0.0000	0.0116	0.0097	0.0180	0.0142	0.0200	0.0171
66	LLF G-42 ML	0.4220	0.4771	0.4453	0.4563	0.4693	0.4578	0.4514	0.2351	0.0000	0.0000	0.2181	0.3234	0.4693	0.3296	0.4771	0.4546
67	HLF G-52 MH	0.0372	0.0403	0.0400	0.0427	0.0413	0.0428	0.0497	0.0351	0.0000	0.0000	0.0336	0.0322	0.0427	0.0329	0.0428	0.0407
68	LLF G-43 LL	0.1241	0.1318	0.1328	0.1351	0.1412	0.1369	0.1821	0.0943	0.0000	0.0000	0.0690	0.1177	0.1412	0.1054	0.1412	0.1337
69	HLF G-53 LLL90	0.0310	0.0265	0.0291	0.0281	0.0263	0.0652	0.0803	0.1064	0.0000	0.0000	0.0272	0.0354	0.0291	0.0380	0.0652	0.0344
70	HLF G-54 LLL90	0.0059	0.0000	0.0058	0.0057	0.0009	0.0007	0.0053	0.0000	0.0000	0.0000	0.0000	0.0113	0.0058	0.0030	0.0059	0.0032
71	TOTAL	1.6762	1.9138	1.8395	1.8717	1.8928	1.7527	1.8349	1.0298	0.0000	0.0000	0.7348	1.1953	1.9072	1.3118	1.9736	1.8245

72																
73	Actual HDD	762	832	1,077	915	728	497	150	79	0	2	82	271	5,395		
74	Normal HDD	717	1,044	1,220	1,041	896	516	231	49	5	8	101	405	6,233		

75
76
77 Normal Volumes (= Heating Volumes * Normal HDD/Actual HDD + Baseload)

	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Total
78													
79	HLF R-1 RNSH	7	10	11	10	9	6	5	3	3	3	5	75
80	LLF R-3 RSH	625	984	1,083	945	851	470	282	125	103	116	132	297
81	LLF G-41 SL	249	419	472	405	351	189	91	32	24	28	36	106
82	HLF G-51 SH	31	39	42	38	36	31	27	21	20	22	25	354
83	LLF G-42 ML	349	546	591	518	468	282	152	58	45	51	68	179
84	HLF G-52 MH	76	94	100	91	88	72	63	52	49	54	53	857
85	LLF G-43 LL	114	163	188	164	152	96	68	30	24	27	32	73
86	HLF G-53 LLL90	67	73	81	71	69	78	64	49	43	48	47	60
87	HLF G-54 LLL90	25	21	28	25	22	21	22	18	21	21	20	270
88	TOTAL	1,542	2,349	2,596	2,266	2,047	1,245	775	388	332	371	414	15,161
89													
90													
91	HLF	206	237	262	234	225	208	182	144	136	149	145	180
92	LLF	1,336	2,113	2,333	2,032	1,822	1,037	593	245	196	222	269	12,854

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Off-Peak 2025 Summer Cost of Gas Filing
Demand Costs, Volumes and Rates

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Demand Costs

Reference	EST May-25	EST Jun-25	EST Jul-25	EST Aug-25	EST Sep-25	EST Oct-25	Total
(a)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
1 Pipeline Demand							
2 Iroquois Gas Trans Service RTS 470-0	In 36 * In 57	\$ 17,369	\$ 17,369	\$ 17,369	\$ 17,369	\$ 17,369	\$ 104,213
3 Tenn Gas Pipeline 95346 Z5-Z6	In 37 * In 58	23,880	23,880	23,880	23,880	23,880	143,282
4 Tenn Gas Pipeline 2302 Z5-Z6	In 38 * In 59	18,639	18,639	18,639	18,639	18,639	111,832
5 Tenn Gas Pipeline 8587 Z0-Z6	In 39 * In 60	135,803	135,803	135,803	135,803	135,803	814,818
6 Tenn Gas Pipeline 8587 Z1-Z6	In 40 * In 61	249,557	249,557	249,557	249,557	249,557	1,497,340
7 Tenn Gas Pipeline 8587 Z4-Z6	In 41 * In 62	25,888	25,888	25,888	25,888	25,888	155,326
8 Tenn Gas Pipeline (Dracut) 42076 Z6-Z6	In 42 * In 63						
9 Tenn Gas Pipeline (Dracut) 358905 Z6-Z6	In 43 * In 64						
10 Tenn Gas Pipeline (Concord Lateral) Z6-Z6	In 44 * In 65						
11 Portland Natural Gas (C2C)	In 45 * In 66						
12 Portland Natural Gas (PXP)	In 46 * In 67						
13 Enbridge Gas M12200 (C2C)	In 47 * In 68	12,283	12,283	12,283	12,283	12,283	73,698
14 Enbridge Gas M12284 (PXP)	In 48 * In 69	15,216	15,216	15,216	15,216	15,216	91,294
15 TransCanada Pipeline 41232 (IRO)	In 49 * In 70	39,297	39,297	39,297	39,297	39,297	235,780
16 TransCanada Pipeline 64195 (PXP)	In 50 * In 71	76,835	76,835	76,835	76,835	76,835	461,011
17 Tenn Gas Pipeline Z4-Z6 stg 632	In 51 * In 72	103,694	103,694	103,694	103,694	103,694	622,162
18 Tenn Gas Pipeline Z4-Z6 stg 11234	In 52 * In 73	48,107	48,107	48,107	48,107	48,107	288,644
19 Tenn Gas Pipeline Z5-Z6 stg 11234	In 53 * In 74	11,683	11,683	11,683	11,683	11,683	70,101
20 National Fuel FST 2358	In 54 * In 75	37,411	37,411	37,411	37,411	37,411	224,467
21 Subtotal Pipeline Demand Charges		\$ 1,552,456	\$ 1,552,456	\$ 1,552,456	\$ 1,552,456	\$ 1,552,456	\$ 9,314,737
22							
23 Seasonal Allocation - % allocated to Off-Peak		20%	20%	20%	20%	20%	
24							
25 Off-Peak Total	In 21 * In 23	\$ 312,730	\$ 312,730	\$ 312,730	\$ 312,730	\$ 312,730	\$ 1,876,382
26							
27 Peak Subtotal	In 21 - In 25	\$ 1,239,726	\$ 1,239,726	\$ 1,239,726	\$ 1,239,726	\$ 1,239,726	\$ 7,438,355
28							
29 Total Demand Charges	In 25	\$ 312,730	\$ 312,730	\$ 312,730	\$ 312,730	\$ 312,730	\$ 1,876,382
30							
31 Capacity Credit Adjustment Factor		-35.49%	-35.49%	-35.49%	-35.49%	-35.49%	
32 Less Transportation Capacity Credit	In 29 * In 31	\$ (110,988)	\$ (110,988)	\$ (110,988)	\$ (110,988)	\$ (110,988)	\$ (665,928)
33							
34 Total Demand Charges less Cap. Cr.	In 29 + In 32	\$ 201,742	\$ 201,742	\$ 201,742	\$ 201,742	\$ 201,742	\$ 1,210,454

Reference	EST May-25	EST Jun-25	EST Jul-25	EST Aug-25	EST Sep-25	EST Oct-25	Total
(a)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
35 Pipeline Demand							
36 Iroquois Gas Trans Service RTS 470-0	4,047	4,047	4,047	4,047	4,047	4,047	24,282
37 Tenn Gas Pipeline 95346 Z5-Z6	4,000	4,000	4,000	4,000	4,000	4,000	24,000
38 Tenn Gas Pipeline 2302 Z5-Z6	3,122	3,122	3,122	3,122	3,122	3,122	18,732
39 Tenn Gas Pipeline 8587 Z0-Z6	7,035	7,035	7,035	7,035	7,035	7,035	42,210
40 Tenn Gas Pipeline 8587 Z1-Z6	14,561	14,561	14,561	14,561	14,561	14,561	87,366
41 Tenn Gas Pipeline 8587 Z4-Z6	3,811	3,811	3,811	3,811	3,811	3,811	22,866
42 Tenn Gas Pipeline (Dracut) 42076 Z6-Z6							
43 Tenn Gas Pipeline (Dracut) 358905 Z6-Z6							
44 Tenn Gas Pipeline (Concord Lateral) Z6-Z6							
45 Portland Natural Gas (C2C)							
46 Portland Natural Gas (PXP)							
47 Enbridge Gas M12200 (C2C)	4,092	4,092	4,092	4,092	4,092	4,092	24,552
48 Enbridge Gas M12284 (PXP)	5,069	5,069	5,069	5,069	5,069	5,069	30,414
49 TransCanada Pipeline 41232 (IRO)	4,047	4,047	4,047	4,047	4,047	4,047	24,282
50 TransCanada Pipeline 64195 (PXP)	5,009	5,009	5,009	5,009	5,009	5,009	30,054
51 Tenn Gas Pipeline Z4-Z6 stg 632	15,265	15,265	15,265	15,265	15,265	15,265	91,590
52 Tenn Gas Pipeline Z4-Z6 stg 11234	7,082	7,082	7,082	7,082	7,082	7,082	42,492
53 Tenn Gas Pipeline Z5-Z6 stg 11234	1,957	1,957	1,957	1,957	1,957	1,957	11,742
54 National Fuel FST 2358	6,098	6,098	6,098	6,098	6,098	6,098	36,588
55 Total Demand Volumes	181,195	181,195	181,195	181,195	181,195	181,195	1,087,170

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Off-Peak 2025 Summer Cost of Gas Filing
Firm Transportation Rates (Per Month)

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Reference	31 EST May-25	30 EST Jun-25	31 EST Jul-25	31 EST Aug-25	30 EST Sep-25	31 EST Oct-25	Total
(a)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
56 Pipeline Demand							
57 Iroquois Gas Trans Service RTS 470-0	\$ 4.2918	\$ 4.2918	\$ 4.2918	\$ 4.2918	\$ 4.2918	\$ 4.2918	\$ 4.2918
58 Tenn Gas Pipeline 95346 Z5-Z6	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701
59 Tenn Gas Pipeline 2302 Z5-Z6	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701
60 Tenn Gas Pipeline 8587 Z0-Z6	19.3039	19.3039	19.3039	19.3039	19.3039	19.3039	19.3039
61 Tenn Gas Pipeline 8587 Z1-Z6	17.1387	17.1387	17.1387	17.1387	17.1387	17.1387	17.1387
62 Tenn Gas Pipeline 8587 Z4-Z6	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929
63 Tenn Gas Pipeline (Dracut) 42076 Z6-Z6							
64 Tenn Gas Pipeline (Dracut) 358905 Z6-Z6							
65 Tenn Gas Pipeline (Concord Lateral) Z6-Z6							
66 Portland Natural Gas (C2C)							
67 Portland Natural Gas (PXP)							
68 Enbridge Gas M12200 (C2C)	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017
69 Enbridge Gas M12284 (PXP)	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017	3.0017
70 TransCanada Pipeline 41232 (IRO)	9.7101	9.7101	9.7101	9.7101	9.7101	9.7101	9.7101
71 TransCanada Pipeline 64195 (PXP)	15.3394	15.3394	15.3394	15.3394	15.3394	15.3394	15.3394
72 Tenn Gas Pipeline Z4-Z6 stg 632	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929
73 Tenn Gas Pipeline Z4-Z6 stg 11234	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929	6.7929
74 Tenn Gas Pipeline Z5-Z6 stg 11234	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701	5.9701
75 National Fuel FST 2358	6.1350	6.1350	6.1350	6.1350	6.1350	6.1350	6.1350

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Off-Peak 2025 Summer Cost of Gas Filing
Supply and Commodity Costs, Volumes and Rates

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For Month of: (a)	Reference (b)	EST May-25 (c)	EST Jun-25 (d)	EST Jul-25 (e)	EST Aug-25 (f)	EST Sep-25 (g)	EST Oct-25 (h)	Total (i)
Supply and Commodity Costs								
1	Pipeline Gas:							
2	Dawn Iroquois Supply	In 41 * In 67						
3	Dawn PXP Supply	In 42 * In 72						
4	Niagara Supply	In 43 * In 77						
5	TGP Supply (Gulf)	In 44 * In 82						
6	TGP Supply (Z4)	In 45 * In 87						
7	PNGTS - Berlin	In 46 * In 92						
8	Dracut Baseload	In 47 * In 97						
9	Dracut Swing 1	In 48 * In 102						
10	Dracut Swing 2	In 49 * In 107						
11	LNG Truck	In 50 * In 109						
12	Propane Truck	In 51 * In 111						
13								
14	Subtotal Pipeline Gas Costs							
15								
16	Volumetric Transportation Costs							
17	Dawn Iroquois Supply	In 41 * In 132						
18	Dawn PXP Supply	In 42 * In 150						
19	Niagara Supply	In 43 * In 160						
20	TGP Supply (Gulf)	In 44 * In 170						
21	TGP Supply (Z4)	In 45 * In 178						
22	PNGTS - Berlin	In 46 * In 188						
23	Dracut Baseload	In 47 * In 193						
24	Dracut Swing 1	In 48 * In 203						
25	Dracut Swing 2	In 49 * In 107						
26								
27	Total Volumetric Transportation Costs							
28								
29	Less - Gas Refill:							
30	LNG Truck - Refills	In 56 * In 114						
31	Propane - Refills	In 57 * In 115						
32	TGP Storage Refill	In 58 * In 116						
33								
34	Subtotal Refills							
35								
36	Total Supply & Pipeline Commodity Costs	In 14 + In 27 + In 34						
37								
38	AMA Credits							
39	Total Commodity Gas & Trans. Costs	In 36 + In 38						

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
 Off-Peak 2025 Summer Cost of Gas Filing
 Supply and Commodity Costs, Volumes and Rates

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 Schedule 6
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For Month of: (a)	Reference (b)	EST May-25 (c)	EST Jun-25 (d)	EST Jul-25 (e)	EST Aug-25 (f)	EST Sep-25 (g)	EST Oct-25 (h)	Total (i)
Volumes (Therms)								
40	Pipeline Gas:							
41	Dawn Iroquois Supply							
42	Dawn PXP Supply							
43	Niagara Supply							
44	TGP Supply (Gulf)							
45	TGP Supply (Z4)							
46	PNGTS - Berlin							
47	Dracut Baseload							
48	Dracut Swing 1							
49	Dracut Swing 2							
50	LNG Truck							
51	Propane Truck							
52								
53	Subtotal Pipeline Volumes							
54								
55	Less - Gas Refill:							
56	LNG Truck							
57	Propane							
58	TGP Storage Refill							
59								
60	Subtotal Refills							
61								
62	Total Sendout Volumes							

For Month of: (a)	Reference (b)	EST May-25 (c)	EST Jun-25 (d)	EST Jul-25 (e)	EST Aug-25 (f)	EST Sep-25 (g)	EST Oct-25 (h)	Peak Nov- Apr (i)
Supply Costs								
63 Pipeline Gas:								
64 Dawn Iroquois Supply								Average Rate
65 NYMEX Price		\$ 2.9670	\$ 3.1260	\$ 3.3040	\$ 3.3440	\$ 3.3070	\$ 3.3690	\$3.2362
66 Basis Differential		\$ (0.3100)	\$ (0.4200)	\$ (0.4500)	\$ (0.4800)	\$ (0.5800)	\$ (0.5750)	(\$0.4692)
67 Net Commodity Costs		\$ 2.6570	\$ 2.7060	\$ 2.8540	\$ 2.8640	\$ 2.7270	\$ 2.7940	\$2.7670
68								
69 Dawn PXP Supply								
70 NYMEX Price		\$ 2.9670	\$ 3.1260	\$ 3.3040	\$ 3.3440	\$ 3.3070	\$ 3.3690	\$3.2362
71 Basis Differential		\$ (0.3100)	\$ (0.4200)	\$ (0.4500)	\$ (0.4800)	\$ (0.5800)	\$ (0.5750)	(\$0.4692)
72 Net Commodity Costs		\$ 2.6570	\$ 2.7060	\$ 2.8540	\$ 2.8640	\$ 2.7270	\$ 2.7940	\$2.7670
73								
74 Niagara Supply								
75 NYMEX Price		\$ 2.9670	\$ 3.1260	\$ 3.3040	\$ 3.3440	\$ 3.3070	\$ 3.3690	\$3.2362
76 Basis Differential		\$ (0.3400)	\$ (0.4500)	\$ (0.4800)	\$ (0.5100)	\$ (0.6100)	\$ (0.6050)	(\$0.4992)
77 Net Commodity Costs		\$ 2.6270	\$ 2.6760	\$ 2.8240	\$ 2.8340	\$ 2.6970	\$ 2.7640	\$2.7370
78								
79 TGP Supply (Gulf)								
80 Commodity Costs - NYMEX Price		\$ 2.9670	\$ 3.1260	\$ 3.3040	\$ 3.3440	\$ 3.3070	\$ 3.3690	\$3.2362
81 Basis Differential		\$ (0.0472)	\$ (0.0193)	\$ (0.0061)	\$ (0.0315)	\$ (0.1021)	\$ (0.1826)	(\$0.0648)
82 Net Commodity Costs		\$ 2.9198	\$ 3.1067	\$ 3.2979	\$ 3.3125	\$ 3.2049	\$ 3.1865	\$3.1714
83								
84 TGP Supply (Z4)								
85 Commodity Costs - NYMEX Price		\$ 2.9670	\$ 3.1260	\$ 3.3040	\$ 3.3440	\$ 3.3070	\$ 3.3690	\$3.2362
86 Basis Differential		\$ (0.5375)	\$ (0.7250)	\$ (0.7300)	\$ (0.8150)	\$ (1.1300)	\$ (1.2150)	(\$0.8588)
87 Net Commodity Costs		\$ 2.4295	\$ 2.4010	\$ 2.5740	\$ 2.5290	\$ 2.1770	\$ 2.1540	\$2.3774
88								
89 PNGTS - Berlin								
90 Commodity Costs - NYMEX Price		\$ 2.9670	\$ 3.1260	\$ 3.3040	\$ 3.3440	\$ 3.3070	\$ 3.3690	\$3.2362
91 Basis Differential		\$ (0.1750)	\$ (0.1600)	\$ 0.2275	\$ 0.0375	\$ (0.7550)	\$ (0.6900)	(\$0.2525)
92 Net Commodity Costs		\$ 2.7920	\$ 2.9660	\$ 3.5315	\$ 3.3815	\$ 2.5520	\$ 2.6790	\$2.9837
93								
94 Dracut Baseload								
95 NYMEX Price		\$ 2.9670	\$ 3.1260	\$ 3.3040	\$ 3.3440	\$ 3.3070	\$ 3.3690	\$3.2362
96 Basis Differential		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0.0000
97 Net Commodity Costs		\$ 2.9670	\$ 3.1260	\$ 3.3040	\$ 3.3440	\$ 3.3070	\$ 3.3690	\$3.2362
98								
99 Dracut Swing 1								
100 NYMEX Price		\$ 2.9670	\$ 3.1260	\$ 3.3040	\$ 3.3440	\$ 3.3070	\$ 3.3690	\$3.2362
101 Basis Differential		\$ (0.2250)	\$ (0.2100)	\$ 0.1775	\$ (0.0125)	\$ (0.8050)	\$ (0.7400)	(\$0.3025)
102 Net Commodity Cost		\$ 2.7420	\$ 2.9160	\$ 3.4815	\$ 3.3315	\$ 2.5020	\$ 2.6290	\$2.9337
103								
104 Dracut Swing 2								
105 NYMEX Price		\$ 2.9670	\$ 3.1260	\$ 3.3040	\$ 3.3440	\$ 3.3070	\$ 3.3690	\$3.2362
106 Basis Differential		\$ (0.2250)	\$ (0.2100)	\$ 0.1775	\$ (0.0125)	\$ (0.8050)	\$ (0.7400)	(\$0.3025)
107 Net Commodity Cost		\$ 2.7420	\$ 2.9160	\$ 3.4815	\$ 3.3315	\$ 2.5020	\$ 2.6290	\$2.9337
108								
109 LNG Truck		\$ 11.5000	\$ 11.5000	\$ 11.5000	\$ 11.5000	\$ 11.5000	\$ 11.5000	\$11.5000
110								
111 Propane Truck		\$ 13.7200	\$ 13.7200	\$ 13.7200	\$ 13.7200	\$ 13.7200	\$ 13.7200	\$13.7200
112								
113 Storage Refill:								
114 LNG Truck - Refills	In 109							
115 Propane - Refills	In 111							
116 TGP Storage Refill	Sch 16, In 15							

For Month of:	Reference	EST	EST	EST	EST	EST	EST	EST	Peak
(a)	(b)	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov- Apr	(i)
(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Commodity Costs									
Per Unit Volumetric Transportation Rates									
									Average Rate
117 Dawn Iroquois Supply									
118									
119	Iroquois RTS 470-0 - Commodity (Daily) Zone 1 + ACA	\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.00480	\$0.0048
120	TGP 95346 Z5-Z6 - Base Cmdy + EPCR + ACA + PS/GHG	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.0731
121	Enbridge Gas M12200 (C2C) - FT (IRO) Carbon Charge	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.0031
122	TransCanada Pipeline 64195 (PXP) - Commodity	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.0000
123	Total In 119 + In 120 + In 121 + In 122	\$0.08101	\$0.08101	\$0.08101	\$0.08101	\$0.08101	\$0.08101	\$0.08101	\$0.0810
124									
125	Commodity Costs In 67	\$2.6570	\$2.7060	\$2.8540	\$2.8640	\$2.7270	\$2.7940	\$2.7670	\$2.7670
126	Iroquois RTS 470-0 - Fuel Charge %	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%
127	TGP 95346 Z5-Z6 - Fuel Charge %	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%
128	Enbridge Gas M12200 (C2C) - Fuel Charge %	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%
129	TransCanada Pipeline 64195 (PXP) - Fuel Charge %	1.37%	1.37%	1.37%	1.37%	1.37%	1.37%	1.37%	1.37%
130	Total In 126 + In 127 + In 128 + In 129	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%	2.70%
131	Fuel Charge In 125 x In 130	\$0.07166	\$0.07298	\$0.07697	\$0.07724	\$0.07355	\$0.07535	\$0.07463	\$0.07463
132	Total Volumetric Transportation Rate In 123 + In 131	\$0.15267	\$0.15399	\$0.15798	\$0.15825	\$0.15455	\$0.15636	\$0.15663	\$0.15663
133									
134									
135 Dawn PXP Supply									
136									
137	TGP (Dracut) 42076 Z6-Z6 - Base Cmdy + EPCR + ACA + PS/GHG	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.0311
138	Portland Natural Gas #233320 (PXP) - ACA	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.0014
139	Enbridge Gas M12284 (PXP) - Carbon Charge	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.00311	\$0.0031
140	TransCanada Pipeline 64195 (PXP) - Commodity	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.0000
141	Total In 137 + In 138 + In 139 + In 140	\$0.03561	\$0.03561	\$0.03561	\$0.03561	\$0.03561	\$0.03561	\$0.03561	\$0.0356
142									
143	Commodity Costs In 72	\$2.6570	\$2.7060	\$2.8540	\$2.8640	\$2.7270	\$2.7940	\$2.7670	\$2.7670
144	TGP (Dracut) 42076 Z6-Z6 - Fuel Charge %	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
145	Portland Natural Gas #233320 (PXP) - Fuel Charge %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
146	Enbridge Gas M12284 (PXP) - Fuel Charge %	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%	1.14%
147	TransCanada Pipeline 64195 (PXP) - Fuel Charge %	1.37%	1.37%	1.37%	1.37%	1.37%	1.37%	1.37%	1.37%
148	Total In 144 + In 145 + In 146 + In 147	2.54%	2.54%	2.54%	2.54%	2.54%	2.54%	2.54%	2.54%
149	Fuel Charge In 143 x In 148	\$0.06741	\$0.06865	\$0.07241	\$0.07266	\$0.06918	\$0.07088	\$0.07020	\$0.07020
150	Total Volumetric Transportation Rate In 141 + In 149	\$0.10302	\$0.10426	\$0.10801	\$0.10827	\$0.10479	\$0.10649	\$0.10581	\$0.10581
151									
152									
153 Niagara Supply									
154									
155	TGP 2302 Z5-Z6 - Base Cmdy + EPCR + ACA + PS/GHG	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.07310	\$0.0731
156									
157	Commodity Costs In 77	\$2.6270	\$2.6760	\$2.8240	\$2.8340	\$2.6970	\$2.7640	\$2.7370	\$2.7370
158	TGP 2302 Z5-Z6 - Fuel Charge %	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%	0.69%
159	Fuel Charge In 157 x In 158	\$0.01813	\$0.01846	\$0.01949	\$0.01955	\$0.01861	\$0.01907	\$0.01889	\$0.01889
160	Total Volumetric Transportation Rate In 155 + In 159	\$0.09123	\$0.09156	\$0.09259	\$0.09265	\$0.09171	\$0.09217	\$0.09199	\$0.09199
161									
162									
163 TGP Supply (Gulf)									
164									
165	TGP 8587 Z0-Z6 - Base Cmdy + EPCR + ACA+ PS/GHG	\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.28110	\$0.2811
166									
167	Commodity Costs In 82	\$2.9198	\$3.1067	\$3.2979	\$3.3125	\$3.2049	\$3.1865	\$3.1714	\$3.1714
168	TGP 8587 Z0-Z6 - Fuel Charge %	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%	3.63%
169	Fuel Charge In 167 x In 168	\$0.10599	\$0.11277	\$0.11971	\$0.12024	\$0.11634	\$0.11567	\$0.11512	\$0.11512
170	Total Volumetric Transportation Rate In 165 + In 169	\$0.38709	\$0.39387	\$0.40081	\$0.40134	\$0.39744	\$0.39677	\$0.39622	\$0.39622

For Month of: (a)	Reference (b)	EST May-25 (c)	EST Jun-25 (d)	EST Jul-25 (e)	EST Aug-25 (f)	EST Sep-25 (g)	EST Oct-25 (h)	Peak Nov- Apr (i)
Commodity Costs								
Per Unit Volumetric Transportation Rates								Average Rate
171	TGP Supply (Z4)							
172								
173	TGP 8587 Z4-Z6 - Base Cmdy + EPCR + ACA + PS/GHG	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.09610	\$0.0961
174								
175	Commodity Costs In 87	\$2.4295	\$2.4010	\$2.5740	\$2.5290	\$2.1770	\$2.1540	\$2.3774
176	TGP 8587 Z4-Z6 - Fuel Charge %	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%	0.97%
177	Fuel Charge In 175 x In 176	\$0.02357	\$0.02329	\$0.02497	\$0.02453	\$0.02112	\$0.02089	\$0.02306
178	Total Volumetric Transportation Rate In 173 + In 177	\$0.11967	\$0.11939	\$0.12107	\$0.12063	\$0.11722	\$0.11699	\$0.11916
179								
180								
181	PNGTS - Berlin							
182								
183	Portland Natural Gas #208544 (C2C) - ACA	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.0014
184								
185	Commodity Costs In 92	\$2.7920	\$2.9660	\$3.5315	\$3.3815	\$2.5520	\$2.6790	\$2.9837
186	Portland Natural Gas #208544 (C2C) - Fuel Charge %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
187	Fuel Charge In 185 x In 186	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000
188	Total Volumetric Transportation Rate In 183 + In 187	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140	\$0.00140
189								
190	Dracut Baseload							
191								
192	Commodity Costs In 97	\$2.9670	\$3.1260	\$3.3040	\$3.3440	\$3.3070	\$3.3690	\$3.2362
193	Total Volumetric Transportation Rate In 192	\$2.96700	\$3.12600	\$3.30400	\$3.34400	\$3.30700	\$3.36900	\$3.23617
194								
195								
196	Dracut Swing 1							
197								
198	TGP (Dracut) 358905 Z6-Z6 - Base Cmdy + EPCR + ACA + PS/GHG	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.0311
199								
200	Commodity Costs In 102	\$2.7420	\$2.9160	\$3.4815	\$3.3315	\$2.5020	\$2.6290	\$2.9337
201	TGP (Dracut) 358905 Z6-Z6 - Fuel Charge %	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
202	Fuel Charge In 200 x In 201	\$0.00082	\$0.00087	\$0.00104	\$0.00100	\$0.00075	\$0.00079	\$0.00088
203	Total Volumetric Transportation Rate In 198 + In 202	\$0.03192	\$0.03197	\$0.03214	\$0.03210	\$0.03185	\$0.03189	\$0.03198
204								
205								
206	Dracut Swing 2							
207								
208	TGP (Concord Lateral) Z6-Z6 - Base Cmdy + EPCR + ACA + PS/GHG	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.03110	\$0.0311
209								
210	Commodity Costs In 107	\$2.7420	\$2.9160	\$3.4815	\$3.3315	\$2.5020	\$2.6290	\$2.9337
211	TGP (Concord Lateral) Z6-Z6 - Fuel Charge %	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
212	Fuel Charge In 210 x In 211	\$0.00082	\$0.00087	\$0.00104	\$0.00100	\$0.00075	\$0.00079	\$0.00088
213	Total Volumetric Transportation Rate In 208 + In 212	\$0.03192	\$0.03197	\$0.03214	\$0.03210	\$0.03185	\$0.03189	\$0.03198

Basic assumptions:

- 1 Residential class pays average seasonal gas cost rate (using MBA method to allocate costs to seasons)
- 2 Residual gas costs are allocated to C&I HLF and LLF classes based on MBA method
- 3 The MBA method allocates capacity costs based on design day demands in two pieces:
 - a The base use portion of the class design day demand based on base use
 - b The remaining portion of design day demand based on remaining design day demand
- 4 Base demand is composed solely of pipeline supplies
- 5 Remaining demand consists of a portion of pipeline and all storage and peaking supplies

	Design Day Demand, Dth (a)	Adjusted Design Day Demand, Dth (b)	Percent of Total (c)	Percent of C&I (d)	Avg Daily Base Use Load, Dth (e)	Percent of C&I (f)	Remaining Design Day Demand, Dth (g)	Percent of C&I (h)
1		633	0.4%		94		539	
2		67,357	41.4%		3,533		63,824	
3		67,990	41.8%		3,627		64,363	
4								
5		29,507	18.1%	31.1%	839	11.5%	28,668	32.8%
6		2,204	1.4%	2.3%	683	9.4%	1,521	1.7%
7		38,051	23.4%	40.2%	1,448	19.8%	36,603	41.8%
8		69,762	42.9%	73.6%	2,970	40.7%	66,792	76.4%
9								
10		5,253	3.2%	5.5%	1,567	21.5%	3,686	4.2%
11		11,688	7.2%	12.3%	787	10.8%	10,901	12.5%
12		6,747	4.1%	7.1%	1,390	19.0%	5,357	6.1%
13		1,323	0.8%	1.4%	588	8.1%	735	0.8%
14		25,011	15.4%	26.4%	4,332	59.3%	20,679	23.6%
15		94,773	58.2%	100.0%	7,302	100.0%	87,471	100.0%
16								
17		162,763	100.0%		10,929		151,834	
18								

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Off-Peak 2025 Summer Cost of Gas Filing
Capacity Assignment Calculations 2024-2025
Derivation of Class Assignments, Weightings and Correction Factor

	Capacity Cost (a)	MDG, Dth (b)	\$/Dth-Mo. (c)	
Pipeline - Baseload	1463152.662	10,929	\$ 11.1565	
Pipeline - Remaining	\$ 14,564,489	108,789	\$ 11.1565	
Pipeline Total	\$ 16,027,642	119,718	\$ 11.1565	
Storage	\$ 4,094,776	28,115	\$ 12.1370	
Peaking				
Total	\$ 21,472,418	162,764	\$ 10.9936	
Residential Allocation				
Pipeline - Baseload	\$ 611,188	4,565	\$ 11.1565	
Pipeline - Remaining	\$ 6,083,863	45,443	\$ 11.1565	
Storage	\$ 1,710,472	11,744	\$ 12.1370	
Peaking				
Total	\$ 8,969,449	67,990	\$ 10.9936	
C&I Allocation				Ratios for COG
Pipeline - Baseload	\$ 851,965	6,364	\$ 11.1565	
Pipeline - Remaining	\$ 8,480,626	63,346	\$ 11.1565	
Storage	\$ 2,384,304	16,371	\$ 12.1370	
Peaking				
Total	\$ 12,502,969	94,774	\$ 10.9936	1.0000
LLF - C&I Allocation				
Pipeline - Baseload	\$ 346,528	2,588	\$ 11.1565	
Pipeline - Remaining	\$ 6,475,721	48,370	\$ 11.1565	
Storage	\$ 1,820,630	12,501	\$ 12.1370	
Peaking				
Total	\$ 9,243,118	70,098	\$ 10.9884	0.9995
HLF - C&I Allocation				
Pipeline - Baseload	\$ 505,437	3,775	\$ 11.1565	
Pipeline - Remaining	\$ 2,004,905	14,976	\$ 11.1565	
Storage	\$ 563,674	3,870	\$ 12.1370	
Peaking				
Total	\$ 3,259,851	24,676	\$ 11.0086	1.0014

	Residential (a)	LLF C&I (b)	HLF C&I (c)	Total (d)
Unit Cost				
Pipeline	\$ 11.1565	\$ 11.1565	\$ 11.1565	
Storage	\$ 12.1370	\$ 12.1370	\$ 12.1370	
Peaking				
Total	\$ 10.9936	\$ 10.9936	\$ 10.9936	
Load Makeup				
Pipeline	73.55%	72.70%	75.99%	
Storage	17.27%	17.83%	15.68%	
Peaking				
Total	100.00%	100.00%	100.00%	
Supply Makeup				
Pipeline	41.77%	42.57%	15.66%	100.00%
Storage	41.77%	44.46%	13.77%	100.00%
Peaking				100.00%

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Off-Peak 2025 Summer Cost of Gas Filing
Correction Factor Calculation

		May (a)	June (b)	July (c)	August (d)	September (e)	October (f)	Total Sales (g)
84	G-41	647,283	247,705	182,380	219,642	306,852	911,876	2,515,738
85	G-42	596,813	252,611	189,820	234,086	304,274	813,450	2,391,054
86	G-43	260,370	115,571	97,554	126,246	155,207	382,953	1,137,901
87	High Winter Use	1,504,466	615,887	469,754	579,974	766,333	2,108,279	6,044,693
88								
89	G-51	191,960	163,725	163,817	158,238	150,012	176,690	1,004,442
90	G-52	213,501	181,705	177,982	182,107	166,553	204,017	1,125,865
91	G-53	294,482	259,770	253,690	262,452	273,240	332,935	1,676,569
92	G-54	79,196	29,765	31,362	30,918	29,507	36,774	237,522
93	Low Winter Use	779,139	634,965	626,851	633,715	619,312	750,416	4,044,398
94								
95	Total	2,283,605	1,250,852	1,096,605	1,213,689	1,385,645	2,858,695	10,089,091
96								
97								
98	Total Sales							10,089,091
99	Low Winter Use							4,044,398
100	Summer Ratio for Low Winter Use							1.0014
101	High Winter Use							6,044,693
102	Summer Ratio for High Winter Use							0.9995
103								
104	Correction Factor = Total Sales/((Low Winter Use x Summer Ratio for Low Winter Use)+(High Winter Use x Summer Ratio for High Winter Use))							
105	Correction Factor =							99.9738%
106								
107	Allocation Calculation for Miscellaneous Overhead							
108								
109	Projected Summer Sales Volume				5/1/2025 - 10/31/2025			22,422,719
110	Projected Annual Sales Volume				11/1/2024 - 10/31/2025			111,310,891
111	Percentage of Summer Sales to Annual Sales							20.14%

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Off-Peak 2025 Summer Cost of Gas Filing
Normal and Design Year Volumes and Capacity Utilization

REDACTED
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Normal Year Volumes (Therms)

	EST May-25	EST Jun-25	EST Jul-25	EST Aug-25	EST Sep-25	EST Oct-25	Off Peak May - Oct
1 Pipeline Gas:							
2 Dawn Iroquois Supply	128,558	27,125	-	-	-	406,775	562,458
3 Dawn PXP Supply	59,492	-	-	-	-	285,409	344,901
4 Niagara Supply	661,939	39,111	-	-	25,333	377,434	1,103,817
5 TGP Supply (Gulf)	1,028,467	1,162,602	1,488,098	1,413,488	1,673,832	1,349,026	8,115,513
6 TGP Supply (Z4)	5,336,541	4,760,802	4,785,979	4,574,326	4,663,746	5,206,719	29,328,113
7 PNGTS - Berlin	60,860	12,616	-	-	1,854	112,030	187,360
8 Dracut Baseload	-	-	-	-	-	-	-
9 Dracut Swing 1	-	-	-	-	-	407,442	407,442
10 Dracut Swing 2	-	-	-	-	-	-	-
11 LNG Truck							
12 Propane Truck							
13 Subtotal Pipeline Volumes	7,354,496	6,074,800	6,344,676	6,066,439	6,456,211	8,292,874	40,589,496
14							
15 Less - Gas Refills:							
16 LNG Truck - Refills							
17 Propane - Refills							
18 TGP Storage Refill							
19 Subtotal Refills							
20							
21 Total Sendout Volumes	5,165,585	3,326,947	3,037,586	2,894,453	3,567,630	6,563,081	24,555,282

Design Year Volumes (Therms)

	EST May-25	EST Jun-25	EST Jul-25	EST Aug-25	EST Sep-25	EST Oct-25	Off Peak May - Oct
22 Pipeline Gas:							
23 Dawn Iroquois Supply	123,088	24,602	-	-	-	400,773	548,463
24 Dawn PXP Supply	54,706	-	-	-	-	280,741	335,447
25 Niagara Supply	661,939	39,111	-	-	22,861	374,766	1,098,677
26 TGP Supply (Gulf)	1,137,195	1,336,078	1,287,352	1,362,440	1,514,420	1,423,712	8,061,197
27 TGP Supply (Z4)	2,238,831	2,867,079	3,056,004	3,061,090	2,658,113	1,667,110	15,548,227
28 PNGTS - Berlin	58,125	12,616	-	-	618	112,030	183,389
29 Dracut Baseload	-	-	-	-	-	-	-
30 Dracut Swing 1	3,097,026	1,893,092	1,729,976	1,513,236	2,006,869	3,833,020	14,073,219
31 Dracut Swing 2	-	-	-	-	-	94,025	94,025
32 LNG Truck							
33 Propane Truck							
34 Subtotal Pipeline Volumes	7,449,549	6,245,122	6,143,931	6,015,978	6,291,238	8,313,544	40,459,362
35							
36 Less - Gas Refills:							
37 LNG Truck - Refills							
38 Propane - Refills							
39 TGP Storage Refill							
40 Subtotal Refills							
41							
42 Total Sendout Volumes	5,132,079	3,305,499	3,017,328	2,875,676	3,544,768	6,519,067	24,394,417

Capacity Utilization

	Normal Year			
	Off-Peak Period Use (Therms)	MDQ (MMBtu/day)	Seasonal Quantity (Therms)	Utilization Rate
Pipeline Gas:				
43 Dawn Iroquois Supply	562,458	4,000	7,240,000	8%
44 Dawn PXP Supply	344,901	5,000	9,050,000	4%
45 Niagara Supply	1,103,817	3,122	5,650,820	20%
46 TGP Supply (Gulf less Z4)	37,443,626	21,596	39,088,760	96%
47 PNGTS - Berlin	187,360	1,000	1,810,000	10%
48 Dracut (Baseload, Swing 1, Swing 2)	407,442	90,000	162,900,000	0%
49 LNG Truck				
50 Propane Truck				
51 Subtotal Pipeline Volumes	40,589,496			
52				
53 Less - Gas Refills:				
54 LNG Truck - Refills				
55 Propane - Refills				
56 TGP Storage Refill				
57 Subtotal Refills				
58				
59 Total Sendout Volumes	24,555,282			

	Design Year			
	Off-Peak Period Use (Therms)	MDQ (MMBtu/day)	Seasonal Quantity (Therms)	Utilization Rate
	548,463	4,000	7,240,000	8%
	335,447	5,000	9,050,000	4%
	1,098,677	3,122	5,650,820	19%
	23,609,424	21,596	39,088,760	60%
	183,389	1,000	1,810,000	10%
	14,167,244	90,000	162,900,000	9%
	40,459,362			
	24,394,417			

Underground Storage Gas		May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Total
		EST	EST	EST	EST	EST	EST	
1	Beginning Balance (MMBtu)	167,606	378,633	646,164	969,813	1,279,149	1,558,863	5,000,229
2	Injections (MMBtu)	211,027	267,531	323,649	309,336	279,714	158,175	1,549,432
3	Subtotal	378,633	646,164	969,813	1,279,149	1,558,863	1,717,038	6,549,661
4	Storage Sale/Adjustments (MMBtu)	-	-	-	-	-	-	-
5	Withdrawals (MMBtu)	-	-	-	-	-	-	-
6	Ending Balance (MMBtu)	378,633	646,164	969,813	1,279,149	1,558,863	1,717,038	6,549,661
7								
8	Beginning Balance (\$)	\$ 282,226	\$ 708,712	\$ 1,508,897	\$ 2,571,760	\$ 3,604,633	\$ 4,480,696	\$ 13,156,923
9	Injections (\$)	In 2 * In 17	\$ 426,486	\$ 800,185	\$ 1,062,864	\$ 1,032,873	\$ 876,063	\$ 4,603,874
10	Subtotal	\$ 708,712	\$ 1,508,897	\$ 2,571,760	\$ 3,604,633	\$ 4,480,696	\$ 4,886,100	\$ 17,760,797
11	Storage Sale/Adjustments (\$)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Withdrawals (\$)	In 5 * In 15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Ending Balance	\$ 708,712	\$ 1,508,897	\$ 2,571,760	\$ 3,604,633	\$ 4,480,696	\$ 4,886,100	\$ 17,760,797
14								
15	Average Rate For Withdrawals	In 10 / In 3	\$ 1,8718	\$ 2,3352	\$ 2,6518	\$ 2,8180	\$ 2,8743	\$ 2,8457
16								
17	TGP Storage Rate for Injections	Actual or NYMEX plus TGP Transportation	\$ 2,0210	\$ 2,9910	\$ 3,2840	\$ 3,3390	\$ 3,1320	\$ 2,5630

Liquid Propane Gas (LPG)		May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Total
		EST	EST	EST	EST	EST	EST	
18	Beginning Balance (MMBtu)							
19	Injections (MMBtu)							
20	Subtotal							
21	Storage Sale/Adjustments (MMBtu)							
22	Withdrawals (MMBtu)							
23	Ending Balance (MMBtu)							
24								
25	Beginning Balance (\$)							
26	Injections (\$)	In 19 * In 34						
27	Subtotal							
28	Storage Sale/Adjustments (\$)							
29	Withdrawals (\$)	In 22 * In 32						
30	Ending Balance							
31								
32	Average Rate For Withdrawals	In 27 / In 20						
33								
34	Propane Rate for Injections	In 26 / In 19 or Sch. 6, In 115						

Liquid Natural Gas (LNG)		May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Total
		EST	EST	EST	EST	EST	EST	
35	Beginning Balance (MMBtu)							
36	Injections (MMBtu)							
37	Subtotal							
38	Storage Sale/Adjustments (MMBtu)							
39	Withdrawals (MMBtu)							
40	Ending Balance (MMBtu)							
41								
42	Beginning Balance (\$)							
43	Injections (\$)	In 36 * In 51						
44	Subtotal							
45	Storage Sale/Adjustments (\$)							
46	Withdrawals (\$)	In 39 * In 49						
47	Ending Balance							
48								
49	Average Rate For Withdrawals	In 44 / In 37						
50								
51	LNG Rate for Injections	In 43 / In 36 or Sch. 6, In 114						