Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2022 – 2023 Winter Cost of Gas Filing
Summary

Ln	(a)	Reference (b)		PK 22–23 Nov - Apr (c)
9	**Anticipated Direct Cost of Gas**			
10	Purchased Gas:			
11	Demand Costs:	Sch. 5A, col (k), ln 46	$	11,510,320
12	Supply Costs	Sch. 6, col (i), ln 47		93,418,619
14	Storage Gas:			
15	Demand, Capacity:	Sch. 5A, col (k), ln 61	$	999,899
16	Commodity Costs:	Sch. 6, col (i), ln 50		11,469,453
18	Produced Gas:	Sch. 6, col (i), ln 56	$	12,645,303
20	Hedge Contract (Savings)	Sch. 6, col (i), ln 58	$	(6,022,210)
21	Hedge Underground Storage Contract (Savings)/Loss	Sch. 16, col (e), ln 172	$	-
23	**Total Unadjusted Cost of Gas**		$	124,021,383
25	**Adjustments**			
27	Prior Period (Over)/Under Recovery)	Sch. 3, col (c) ln 28	$	5,378,797
28	Interest 05/01/22 - 4/30/23	Sch. 3, col (q) ln 189		(283,633)
29	Fuel Inventory Revenue Req	Sch. 26, col (b) ln 8		515,609
30	Refunds from Suppliers	Sch. 4, ln 26 col (c)		-
31	Broker Revenues	Sch. 4, ln 26 col (d)		(3,600)
32	Fuel Financing	Sch. 4, ln 26 col (e)		-
33	Transportation CGA Revenues	Sch. 4, ln 26 col (f)		(422,021)
34	Interruptible Sales Margin	Sch. 4, ln 26 col (g)		-
35	Capacity Release and Off System Sales Margins	Sch. 4, ln 26 col (h) + col (i)		(1,676,512)
36	Hedging Costs	Sch. 4, ln 26 col (j)		-
37	Fixed Price Option Administrative Costs	Sch. 4, ln 26 col (k)		59,917
39	**Total Adjustments**		$	3,568,556
41	**Total Anticipated Direct Costs**	lns 23 + 39	$	127 589 939
43	**Anticipated Indirect Cost of Gas**			
44	**Working Capital**			
45	Total Unadjusted Anticipated Cost of Gas	Ln 23	$	124,021,383
46	Lead Lag Days / 365	DG 20-105, 25.72/ 365		0.0705
47	Prime Rate			5 50%
48	Working Capital Percentage	per GTC 18(f), ln 47 * ln 48		0.388%
49	Working Capital	ln 45 * ln 48		480,659
50	Plus: Working Capital Reconciliation	Sch. 3, col (c), ln 92		(30,998)
52	**Total Working Capital Allowance**	lns 49 + 50	$	449,661
54	**Bad Debt**			
55	Total Unadjusted Anticipated Cost of Gas	ln 23	$	124,021,383
56	Less Refunds	ln 30		-
57	Plus Working Capital	ln 52		449,661
58	Plus Prior Period (Over) Under Recovery	ln 27		5,378,797
59	Subtotal		$	129,849,841
60	Bad Debt Percentage	per GTC 18(f)		0 86%
62	Bad Debt Allowance	ln 59 * ln 60	$	1,118,204
63	Prior Period Bad Debt Allowance	Sch. 3, col (c), ln 169		(170 566)
65	**Total Bad Debt Allowance**	lns 62 + 63	$	947 639
67	**Production and Storage Capacity**	per GTC18(f)	$	3 685 458
69	**Miscellaneous Overhead**	per GTC 18(f)	$	-
70	Sales Volume	Sch. 10B, ln 23/1000		92,781
71	Divided by Total Sales	Sch. 10B, ln 23/1000		116,430
72	Ratio			79 69%
74	**Miscellaneous Overhead**	lns 69 * 72	$	-
76	**Total Anticipated Indirect Cost of Gas**	lns 52 + 65 + 67 + 74	$	5,082,758
78	**Total Cost of Gas**	lns 41 + 76	$	132,672,697
80	**Projected Forecast Sales (Therms)**	Sch. 3, col (q), ln 52		92,780,984

1 **Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**
2 **Peak 2022 – 2023 Winter Cost of Gas Filing**
3 **Summary of Supply and Demand Forecast**

Ln												
4												
5												
6				Peak Costs								Peak Period
7	For Month of:			May 21 - Oct 21	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Nov - Apr
8		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
9	**I. Gas Volumes (Therms)**											
10											2,292,267	2.5%
11	**A.**	**Firm Demand Volumes**										
12		Firm Gas Sales	Sch. 10B, ln 23	-	3,196,308	17,917,229	21,029,207	17,732,977	15,124,179	9,139,216	4,380,770	88,519,885
13		Lost Gas (Unaccounted for)		-	285,912	384,395	488,262	419,171	353,351	241,485		2,172,577
14		Company Use		-	15,751	21,177	26,899	23,093	19,466	13,304		119,689
15		Unbilled Therms		-	8,661,334	(1,975,210)	(779,531)	(348,687)	(469,669)	875,901	(4,380,770)	1,583,367
16												
17	**Total Firm Volumes**		Sch. 6, ln 97	-	12,159,305	16,347,591	20,764,836	17,826,554	15,027,327	10,269,906		92,395,519
18												
19	**B.**	**Supply Volumes (Therms)**										
20	Pipeline Gas:											
21		Dawn Supply	Sch. 6, ln 66	-	874,251	924,161	926,671	839,868	910,477	771,345		5,246,775
22		Niagara Supply	Sch. 6, ln 67	-	689,540	728,492	730,471	661,898	717,705	678,639		4,206,745
23		TGP Supply (Direct)	Sch. 6, ln 68	-	4,621,463	3,096,843	3,105,255	2,814,958	3,050,989	641,701		17,331,210
24		Dracut Supply 1 - Baseload	Sch. 6, ln 69	-	-	-	3,100,000	1,400,000	-	-		4,500,000
25		Dracut Supply 2 - Swing	Sch. 6, ln 70	-	2,068,620	1,628,571	574,992	2,290,420	4,186,862	1,559,349		12,308,813
26		Dracut Supply 3 - Swing	Sch. 6, ln 71		1,267,959	112,886	75,462	292,325	1,410,944	36,213		3,195,790
27		Constellation COMBO	Sch. 6, ln 72	-	-	-	-	-	-	-		-
28		LNG Truck	Sch. 6, ln 73	-	117,744	1,270,345	1,451,131	1,484,347	110,473	-		4,434,041
29		Propane Truck	Sch. 6, ln 74	-	-	-	691,985	-	-	55,769		747,754
30		PNGTS	Sch. 6, ln 75	-	218,563	231,040	231,668	209,778	227,619	196,277		1,314,945
31		Portland Natural Gas	Sch. 6, ln 76		1,067,793	1,128,109	1,131,173	1,025,411	1,111,405	840,151		6,304,043
32		TGP Supply (Z4)	Sch. 6, ln 77	-	1,816,941	1,919,817	1,925,032	1,744,865	1,891,391	5,458,808		14,756,854
33		Subtotal Pipeline Volumes		-	12,742,875	11,040,265	13,943,840	12,763,870	13,617,866	10,238,252		74,346,969
34												
35	Storage Gas:											
36		TGP Storage	Sch. 6, ln 82	-	1,157,573	5,220,027	6,244,468	5,052,839	1,498,432	1,000,000		20,173,339
37												
38	Produced Gas:											
39		LNG Vapor	Sch. 6, ln 85	-	119,952	1,357,644	1,456,414	1,485,862	21,502	21,004		4,462,377
40		Propane	Sch. 6, ln 86	-	-	-	1,263,231	8,331	-	-		1,271,562
41		Subtotal Produced Gas		-	119,952	1,357,644	2,719,645	1,494,192	21,502	21,004		5,733,939
42												
43	Less - Gas Refill:											
44		LNG Truck	Sch. 6, ln 91	-	(117,744)	(1,270,345)	(1,451,131)	(1,484,347)	(110,473)	-		(4,434,041)
45		Propane	Sch. 6, ln 92	-	-	-	(691,985)	-	-	(55,769)		(747,754)
46		TGP Storage Refill	Sch. 6, ln 93	-	(1,743,351)	-	-	-	-	(933,581)		(2,676,933)
47		Subtotal Refills		-	(1,861,095)	(1,270,345)	(2,143,116)	(1,484,347)	(110,473)	(989,350)		(7,858,728)
48												
49	Total Firm Sendout Volumes		lns 33 + 36 + 41 + 47	-	12,159,305	16,347,591	20,764,836	17,826,554	15,027,327	10,269,906		92,395,519

1 **Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**
2 **Peak 2022 – 2023 Winter Cost of Gas Filing**
3 **Summary of Supply and Demand Forecast**

REDACTED
Schedule 1

Ln												
50												
51	**II. Gas Costs**											
52	**A.**	**Demand Costs**										
53												
54												
55				Peak Costs								Peak Period
56	For Month of:			May 21 - Oct 21	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Nov - Apr
57		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
58	Supply											
59		Niagara Supply	Sch.5A, ln 12	[redacted]								
60		Subtotal Supply Demand										
61		Less Capacity Credit										
62		Net Pipeline Demand Costs										
63												
64	Pipeline:											
65		Iroquois Gas Trans Service RTS 470-0	Sch.5A, ln 16	[redacted]								
66		Tenn Gas Pipeline 95346 Z5-Z6	Sch.5A, ln 17									
67		Tenn Gas Pipeline 2302 Z5-Z6	Sch.5A, ln 18									
68		Tenn Gas Pipeline 8587 Z0-Z6	Sch.5A, ln 19									
69		Tenn Gas Pipeline 8587 Z1-Z6	Sch.5A, ln 20									
70		Tenn Gas Pipeline 8587 Z4-Z6	Sch.5A, ln 21									
71		Tenn Gas Pipeline (Dracut) 42076 Z6-Z6	Sch.5A, ln 22									
72		Tenn Gas Pipeline (Dracut) 358905 Z6-Z7	Sch.5A, ln 23									
73		Tenn Gas Pipeline (Concord Lateral) Z6-Z6	Sch.5A, ln 24									
74		Portland Natural Gas Trans Service	Sch.5A, ln 25									
75		Portland Natural Gas	Sch.5A, ln 26									
76		ANE (TransCanada via Union to Iroquois)	Sch.5A, ln 27									
77		TransCanada via Union to Portland	Sch.5A, ln 28									
78		Tenn Gas Pipeline Z4-Z6 stg 632	Sch.5A, ln 29									
79		Tenn Gas Pipeline Z4-Z6 stg 11234	Sch.5A, ln 30									
80		Tenn Gas Pipeline Z5-Z6 stg 11234	Sch.5A, ln 31									
81		National Fuel FST 2358	Sch.5A, ln 32									
82		Subtotal Pipeline Demand		$ 3,907,220	$ 1,596,276	$ 1,596,276	$ 1,596,276	$ 1,596,276	$ 1,596,276	$ 1,596,276		$ 13,484,875
83		Less Capacity Credit		(1,323,375)	(403,698)	(403,698)	(403,698)	(403,698)	(403,698)	(403,698)		(3,745,564)
84		Net Pipeline Demand Costs		$ 2,583,844	$ 1,192,578	$ 1,192,578	$ 1,192,578	$ 1,192,578	$ 1,192,578	$ 1,192,578		$ 9,739,311
85												
86	Peaking Supply:											
87		Tenn Gas Pipeline (Concord Lateral) Z6-Z6	Sch.5A, ln 37	[redacted]								
88		Demand FLS	Sch.5A, ln 38									
89		Peaking Demand	Sch.5A, ln 39									
90		Subtotal Peaking Demand										
91		Less Capacity Credit										
92		Net Peaking Supply Demand Costs										
93												
94	Storage:											
95		Dominion - Demand	Sch.5A, ln 49	[redacted]								
96		Dominion - Storage	Sch.5A, ln 50									
97		Honeoye - Demand	Sch.5A, ln 51									
98		National Fuel - Demand	Sch.5A, ln 52									
99		National Fuel - Capacity	Sch.5A, ln 53									
100		Tenn Gas Pipeline - Demand	Sch.5A, ln 54									
101		Tenn Gas Pipeline - Capacity	Sch.5A, ln 55									
102		Subtotal Storage Demand		$ 709,954	$ 118,326	$ 118,326	$ 118,326	$ 118,326	$ 118,326	$ 118,326		$ 1,419,908
103		Less Capacity Credit		(240,461)	(29,925)	(29,925)	(29,925)	(29,925)	(29,925)	(29,925)		(420,009)
104		Net Storage Demand Costs		$ 469,493	$ 88,401	$ 88,401	$ 88,401	$ 88,401	$ 88,401	$ 88,401		$ 999,899
105												
106		Total Demand Charges	lns 60 + 82 + 90 + 102	$ 4,617,174	$ 2,188,704	$ 2,188,704	$ 2,188,704	$ 2,188,704	$ 2,188,704	$ 1,714,602		$ 17,275,294
107		Total Capacity Credit	lns 61 + 83 + 91 + 103	(1,563,837)	(553,523)	(553,523)	(553,523)	(553,523)	(553,523)	(433,623)		(4,765,075)
108		Net Demand Charges		$ 3,053,337	$ 1,635,181	$ 1,635,181	$ 1,635,181	$ 1,635,181	$ 1,635,181	$ 1,280,979		$ 12,510,219
109												
110												

1 **Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**
2 **Peak 2022 – 2023 Winter Cost of Gas Filing**
3 **Summary of Supply and Demand Forecast**

Ln												
111	**B.**	**Commodity Costs**										**REDACTED**
112												Schedule 1
113												Page 3 of 4
114												
115				Peak Costs								Peak Period
116				May 21 - Oct 21	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Nov - Apr
117		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
118	Pipeline:											
119		Dawn Supply	Sch. 6, ln 12	[redacted]								
120		Niagara Supply	Sch. 6, ln 13									
121		TGP Supply (Direct)	Sch. 6, ln 14									
122		Dracut Supply 1 - Baseload	Sch. 6, ln 15									
123		Dracut Supply 2 - Swing	Sch. 6, ln 16									
124		Dracut Supply 3 - Swing	Sch. 6, ln 17									
125		Constellation COMBO	Sch. 6, ln 18									
126		LNG Truck	Sch. 6, ln 19									
127		Propane Truck	Sch. 6, ln 20									
128		PNGTS	Sch. 6, ln 21									
129		Portland Natural Gas	Sch. 6, ln 22									
130		TGP Supply (Z4)	Sch. 6, ln 23									
131		Subtotal Pipeline Commodity Costs		$ -	$ 9,197,119	$ 15,672,833	$ 26,023,347	$ 30,089,330	$ 19,515,529	$ 4,811,924		$ 105,310,081
132												
133	Storage:											
134		TGP Storage - Withdrawals	Sch. 6, ln 50	$ -	$ 661,679	$ 2,983,813	$ 3,569,392	$ 2,888,247	$ 856,517	$ 509,805		$ 11,469,453
135												
136	Produced Gas Costs:											
137		LNG Vapor	Sch. 6, ln 53	[redacted]								
138		Propane	Sch. 6, ln 54									
139		Subtotal Produced Gas Costs		$ -	$ 165,051	$ 3,099,142	$ 5,778,047	$ 3,535,110	$ 34,374	$ 33,579		$ 12,645,303
140												
141	Less Storage Refills:											
142		LNG Truck	Sch. 6, ln 40	[redacted]								
143		Propane	Sch. 6, ln 41									
144		TGP Storage Refill	Sch. 6, ln 42									
145		Storage Refill (Trans.)	Sch. 6, ln 43									
146		Subtotal Storage Refill		$ -	$ (1,447,433)	$ (3,046,288)	$ (4,799,129)	$ (3,514,340)	$ (124,702)	$ (601,872)		$ (13,533,764)
147												
148	Total Supply Commodity Costs			$ -	$ 8,576,416	$ 18,709,499	$ 30,571,657	$ 32,998,346	$ 20,281,718	$ 4,753,435		$ 115,891,072
149												
150	**C. Supply Volumetric Transportation Costs:**											
151		Dawn Supply	Sch. 6, ln 28	[redacted]								
152		Niagara Supply	Sch. 6, ln 29									
153		TGP Supply (Direct)	Sch. 6, ln 30									
154		Dracut Supply 1 - Baseload	Sch. 6, ln 31									
155		Dracut Supply 2 - Swing	Sch. 6, ln 32									
156		Dracut Supply 3 - Swing	Sch. 6, ln 33									
157		Subtotal Pipeline Volumetric Trans. Costs		$ -	$ 306,097	$ 219,991	$ 246,947	$ 223,412	$ 214,578	$ 56,026		$ 1,267,051
158												
159		TGP Storage - Withdrawals	Sch. 6, ln 35	$ -	$ 21,585	$ 97,338	$ 116,440	$ 94,220	$ 27,941	$ 17,726		$ 375,251
160												
161		Total Supply Volumetric Trans. Costs	lns 157 + 159	$ -	$ 327,682	$ 317,329	$ 363,387	$ 317,632	$ 242,519	$ 73,752		$ 1,642,302
162												
163	Total Commodity Gas & Trans. Costs		lns 148 + 161	$ -	$ 8,904,098	$ 19,026,828	$ 30,935,045	$ 33,315,979	$ 20,524,237	$ 4,827,187		$ 117,533,374
164												
165												

1 **Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**
2 **Peak 2022 – 2023 Winter Cost of Gas Filing**
3 **Summary of Supply and Demand Forecast**

166 **D. Supply and Demand Costs by Source** **REDACTED**
167 Schedule 1
168 Page 4 of 4
169

Line			Peak Costs								Peak Period
170			Peak Costs								Peak Period
171				Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Nov - Apr
172	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
173	Purchased Gas Demand Costs										
174	Pipeline Gas Demand Costs	Ins 60 + 82	$ 3,907,220	$ 1,596,276	$ 1,596,276	$ 1,596,276	$ 1,596,276	$ 1,596,276	$ 1,596,276		$ 13,484,875
175	Peaking Gas Demand Costs	In 90	-	474,102	474,102	474,102	474,102	474,102	-		2,370,511
176	Subtotal Purchased Gas Demand Costs		$ 3,907,220	$ 2,070,378	$ 2,070,378	$ 2,070,378	$ 2,070,378	$ 2,070,378	$ 1,596,276		$ 15,855,386
177	Less Capacity Credit	Ins 61 + 83 + 91	(1,323,375)	(523,599)	(523,599)	(523,599)	(523,599)	(523,599)	(403,698)		(4,345,067)
178	Net Purchased Gas Demand Costs		$ 2,583,844	$ 1,546,780	$ 1,546,780	$ 1,546,780	$ 1,546,780	$ 1,546,780	$ 1,192,578		$ 11,510,320
179											
180	Storage Gas Demand Costs										
181	Storage Demand	In 102	$ 709,954	$ 118,326	$ 118,326	$ 118,326	$ 118,326	$ 118,326	$ 118,326		$ 1,419,908
182	Less Capacity Credit	In 103	(240,461)	(29,925)	(29,925)	(29,925)	(29,925)	(29,925)	(29,925)		(420,009)
183	Net Storage Demand Costs		$ 469,493	$ 88,401	$ 88,401	$ 88,401	$ 88,401	$ 88,401	$ 88,401		$ 999,899
184											
185	**Total Demand Costs**	Ins 178 + 183	$ 3,053,337	$ 1,635,181	$ 1,635,181	$ 1,635,181	$ 1,635,181	$ 1,635,181	$ 1,280,979		$ 12,510,219
186											
187	Purchased Gas Supply										
188	Commodity Costs	In 131	[redacted]								
189	Less Storage Inj.(TGP Storage)	In 144									
190	Less Storage Transportation	In 145									
191	Less LNG Truck	In 142									
192	Less Propane Truck	In 143									
193	Plus Transportation Costs	In 157									
194	Subtotal Purchased Gas Supply		$ -	$ 8,055,783	$ 12,846,535	$ 21,471,165	$ 26,798,402	$ 19,605,404	$ 4,266,078		$ 93,043,368
195											
196	Storage Commodity Costs										
197	Commodity Costs	In 134	$ -	$ 661,679	$ 2,983,813	$ 3,569,392	$ 2,888,247	$ 856,517	$ 509,805		$ 11,469,453
198	Transportation Costs	In 159	-	21,585	97,338	116,440	94,220	27,941	17,726		375,251
199	Subtotal Storage Commodity Costs		$ -	$ 683,264	$ 3,081,151	$ 3,685,833	$ 2,982,467	$ 884,458	$ 527,531		$ 11,844,703
200											
201	Produced Gas Commodity Costs	In 139	$ -	$ 165,051	$ 3,099,142	$ 5,778,047	$ 3,535,110	$ 34,374	$ 33,579		$ 12,645,303
202											
203	**Subtotal Commodity Costs**	Ins 194 + 199 + 201	$ -	$ 8,904,098	$ 19,026,828	$ 30,935,045	$ 33,315,979	$ 20,524,237	$ 4,827,187		############ #
204											
205	Hedge Contract (Savings)/Loss		$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ -
206											
207	**Total Commodity Costs**	Ins 203 + 205	$ -	$ 8,904,098	$ 19,026,828	$ 30,935,045	$ 33,315,979	$ 20,524,237	$ 4,827,187		$ 117,533,374
208											
209	**Total Demand Costs**	In 108	$ 3,053,337	$ 1,635,181	$ 1,635,181	$ 1,635,181	$ 1,635,181	$ 1,635,181	$ 1,280,979		$ 12,510,219
210	**Total Supply Costs**	In 207	-	8,904,098	19,026,828	30,935,045	33,315,979	20,524,237	4,827,187		117,533,374
211											
212	**Total Direct Gas Costs**	Ins 209 + 210	$ 3,053,337	$ 10,539,279	$ 20,662,009	$ 32,570,225	$ 34,951,159	$ 22,159,418	$ 6,108,166		$ 130,043,593

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

Peak 2022 – 2023 Winter Cost of Gas Filing
Contracts Ranked on a per Unit Cost Basis

Supplier	Contract	Contract Type	Contract Unit	Unit Dth (MDQ/ACQ)	Peak Period Cost per Unit Dth
(a)	(b)	(c)	(d)	(e)	(f)
Demand Costs					
Dominion - Capacity Reservation	GSS 300076	Storage	ACQ	102,700	[redacted]
Tenn Gas Pipeline - Cap. Reservations	FS-MA 523	Storage	ACQ	1,560,391	[redacted]
National Fuel - Capacity Reservation	FSS-O02357	Storage	ACQ	670,800	[redacted]
Tenn Gas Pipeline - Demand	FS-MA 523	Storage	MDQ	21,844	[redacted]
Dominion - Demand	GSS 300076	Storage	MDQ	934	[redacted]
National Fuel - Demand	FSS-O02357	Storage	MDQ	6,098	[redacted]
National Fuel	FST N02358	Transportation	MDQ	6,098	[redacted]
Tenn Gas Pipeline	42076 FTA Z6-Z6	Transportation	MDQ	20,000	[redacted]
Tenn Gas Pipeline	358905 FTA Z6-Z6	Transportation	MDQ	40,000	[redacted]
Iroquois Gas Trans Service	RTS 470-01	Transportation	MDQ	4,047	[redacted]
Honeoye - Demand	SS-NY	Storage	MDQ	1,362	[redacted]
Tenn Gas Pipeline	2302 Z5-Z6	Transportation	MDQ	3,122	[redacted]
Tenn Gas Pipeline	95346 Z5-Z6	Transportation	MDQ	4,000	[redacted]
Tenn Gas Pipeline (short haul)	11234 Z5-Z6(stg)	Transportation	MDQ	1,957	[redacted]
Tenn Gas Pipeline (short haul)	11234 Z4-Z6(stg)	Transportation	MDQ	7,082	[redacted]
Tenn Gas Pipeline (short haul)	8587 Z4-Z6	Transportation	MDQ	3,811	[redacted]
Tenn Gas Pipeline (short haul)	632 Z4-Z6 (stg)	Transportation	MDQ	15,265	[redacted]
Tenn Gas Pipeline (Concord Lateral) Z6-Z6	Firm Transportation	Transportation	MDQ	30,000	[redacted]
ANE (TransCanada via Union to Iroquois)	Dawn - Parkway to Iroquois	Transportation	MDQ	4,047	[redacted]
TransCanada via Union to Portland	Dawn -Parkway to Portland	Transportation	MDQ	5,077	[redacted]
Tenn Gas Pipeline (long haul)	8587 Z1-Z6	Transportation	MDQ	14,561	[redacted]
Tenn Gas Pipeline (long haul)	8587 Z0-Z6	Transportation	MDQ	7,035	[redacted]
Portland Natural Gas Trans Service	FT-208544	Transportation	MDQ	1,000	[redacted]
Portland Natural Gas	FT 233320	Transportation	MDQ	5,000	[redacted]
Peaking Demand	NSB041	Peaking	MDQ	4,000	[redacted]
Supply Costs - Commodity					
TGP Supply (Z4)		Pipeline	Dkt	1,475,685	[redacted]
Niagara Supply		Pipeline	Dkt	420,674	[redacted]
Constellation COMBO		Pipeline	Dkt	-	[redacted]
TGP Supply (Direct)		Pipeline	Dkt	1,733,121	[redacted]
Dawn Supply		Pipeline	Dkt	524,677	[redacted]
Dracut Supply 1 - Baseload		Pipeline	Dkt	450,000	[redacted]
TGP Storage		Storage	Dkt	2,017,334	[redacted]
PNGTS		Pipeline	Dkt	131,494	[redacted]
Propane Truck		Pipeline	Dkt	74,775	[redacted]
LNG Truck		Pipeline	Dkt	443,404	[redacted]
Dracut Supply 2 - Swing		Pipeline	Dkt	1,230,881	[redacted]
Dracut Supply 3 - Swing		Pipeline	Dkt	319,579	[redacted]
Portland Natural Gas		Pipeline	Dkt	630,404	[redacted]
Propane		Produced	Dkt	127,156	[redacted]
LNG Vapor (Storage)		Produced	Dkt	446,238	[redacted]
Supply Costs - Volumetric Transportation					
Dracut Supply 1 - Baseload		Pipeline	Dkt	450,000	[redacted]
Dracut Supply 2 - Swing		Pipeline	Dkt	1,230,881	[redacted]
Niagara Supply		Pipeline	Dkt	420,674	[redacted]
Dawn Supply		Pipeline	Dkt	524,677	[redacted]
TGP Storage - Withdrawals		Pipeline	Dkt	2,017,334	[redacted]
TGP Supply (Direct)		Pipeline	Dkt	1,733,121	[redacted]

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

3 **Peak 2022 2023 Winter Cost of Gas Filing**
4 **COG (Over)/Under Cumulative Recovery Balances and Interest Calculation**

5			Prior Period Bal														
6			Apr-22														
7			Ending Bal	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Peak Period
8		Days in Month	Plus May Billings	31	30	31	31	30	31	30	31	31	28	31	30	31	Total
9	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
10	**Account 1920 1740 COG (Over)/Under Balance Interest Calculation**																
11																	
12	**Beginning Balance**	Account 1920-1740	**$ 5,378,797**	$ 5,378,797	$ 3,736,652	$ 3,151,515	$ 549,306	$ (1,060,603)	$ (555,357)	$ (47,873)	$ (6,921,877)	$ (9,535,227)	$ (6,324,983)	$ 3,354,260	$ 4,122,692	$ (4,616,397)	$ 5,378,797
13	Fcst Direct Gas Costs(Inc U/G Hedges)	Schedule 5A		508,889	508,889	508,889	508,889	508,889	508,889	9,535,577	19,658,307	31,566,524	33,947,458	21,155,716	5,104,465	-	124,021,383
14	Production & Storage & Misc Overhead			-	-	-	-	-	-	614,243	614,243	614,243	614,243	614,243	614,243		3,685,458
15	Projected Revenues w/o Int.	ln 52 * 59		(6,301,686)	(382,999)	(29,683)	(2,785)	-	-	(16,698,825)	(25,273,883)	(29,663,612)	(25,013,979)	(21,334,032)	(12,891,697)	-	(137,593,181)
16	Projected Unbilled Revenue									(27,457)	2,758,756	3,858,356	4,350,212	5,012,723	3,777,185		19,729,774
17	Reverse Prior Month Unbilled			5,574,361							27,457	(2,758,756)	(3,858,356)	(4,350,212)	(5,012,723)	(3,777,185)	(14,155,414)
18	Adjustment			(147,338)	(5,348)	-7393.75	-7313.58			-							(167,393)
19	Add Net Adjustments	Schedule 4		-	-	-	-	-	-	(281 823)	(359 882)	(369 554)	(354 081)	(347 428)	(329 449)	-	(2 042 217)
20	Gas Cost Billed	Account 1920-1740		(1,289,143)	(714,479)	(1,552,754)	(2,106,418)	-	-	-	-	-	-	-	-	-	(5,662,794)
21	Monthly (Over)/Under Recovery		$ 5 378 797	$ 3 723 879	$ 3 142 716	$ 2 070 574	$ (1 058 320)	$ (551 713)	$ (46 468)	$ (6 906 159)	$ (9 496 879)	$ (6 288 026)	$ 3 360 513	$ 4 105 270	$ (4 615 283)	$ (8 393 582)	$ (6 805 586)
22	Average Monthly Balance	(ln 12 + 21)/2		$ 4,551,338	$ 3,439,684	$ 2,611,044	$ (254,507)	$ (806,158)	$ (300,913)	$ (3,477,016)	$ (8,209,378)	$ (7,911,626)	$ (1,482,235)	$ 3,729,765	$ (246,296)	$ (6,504,989)	
23																	
24	Interest Rate	Prime Rate		3.50%	4.00%	4.75%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%		
25																	
26	Interest Applied	ln 22 * ln 24 / 365 * Days of Month		$ 12,773	$ 8,799	$ 5,401	$ (2,282)	$ (3,644)	$ (1,406)	$ (15,718)	$ (38,348)	$ (36,957)	$ (6,254)	$ 17,423	$ (1,113)	$ -	$ (61,327)
27																	
28	**(Over)/Under Balance**	ln 21 + ln 26	$ 5 378 797	$ 3 736 652	$ 3 151 515	$ 2 075 975	$ (1 060 603)	$ (555 357)	$ (47 873)	$ (6 921 877)	$ (9 535 227)	$ (6 324 983)	$ 3 354 260	$ 4 122 692	$ (4 616 397)	$ (8 393 582)	(6 866 913)
29																	
30																	
31	**Calculation of COG with Interest**																
32																	
33	**Beginning Balance**	ln 12	$ 5,378,797	$ 5,378,797	$ (1,845,237)	$ (2,446,216)	$ (3,561,541)	$ (5,185,020)	$ (4,698,419)	$ (4,210,289)	$ (11,103,154)	$ (13,735,049)	$ (10,544,084)	$ (882,466)	$ (133,528)	$ (8,892,337)	$ 5,378,797
34	Fcst Direct Gas Costs(Inc U/G Hedges)	ln 13		508,889	508,889	508,889	508,889	508,889	508,889	9,535,577	19,658,307	31,566,524	33,947,458	21,155,716	5,104,465	-	124,021,383
35	Prod Storage & Misc Overhead	ln 14		-	-	-	-	-	-	614,243	614,243	614,243	614,243	614,243	614,243	-	3,685,458
36	Projected Revenues with int.	ln 52 * ln 61		(6,301,686)	(382,999)	(29,683)	(2,785)	-	-	(16,698,825)	(25,273,883)	(29,663,612)	(25,013,979)	(21,334,032)	(12,891,697)	-	(137,593,181)
37	Projected Unbilled Revenue									(27,468)	2,759,820	3,859,844	4,351,889	5,014,656	3,778,641		19,737,382
38	Reverse Prior Month Unbilled										27,468	(2,759,820)	(3,859,844)	(4,351,889)	(5,014,656)	(3,778,641)	(19,737,382)
39	Add Net Adjustments	ln 19		(147,338)	(5,348)	(29,683)	(2,785)	-	-	(281,823)	(359,882)	(369,554)	(354,081)	(347,428)	(329,449)	-	(2,227,371)
40	Gas Cost Billed	ln 20		(1,289,143)	(714,479)	(1,552,754)	(2,106,418)	-	-	-	-	-	-	-	-	-	(5,662,794)
41	Add Interest	ln 26		-	-	-	-	-	-	(15,718)	(38,348)	(36,957)	(6,254)	17,423	(1,113)	-	(80,968)
42	**(Over)/Under Balance**		$ 5 378 797	$ (1 850 481)	$ (2 439 173)	$ (3 549 447)	$ (5 164 639)	$ (4 676 130)	$ (4 189 530)	$ (11 084 303)	$ (13 715 430)	$ (10 524 381)	$ (864 653)	$ (113 778)	$ (8 873 093)	$ (12 670 978)	$ (12 478 675)
43																	
44	Average Monthly Balance			$ 1,764,158	$ (2,142,205)	$ (2,997,832)	$ (4,363,090)	$ (4,930,575)	$ (4,443,975)	$ (7,647,296)	$ (12,409,292)	$ (12,129,715)	$ (5,704,368)	$ (498,122)	$ (4,503,310)	$ (10,781,658)	
45																	
46	Interest Applied	ln 24 * ln 44 / 365 * Days of Month		5,244	(7,043)	(12,094)	(20,381)	(22,289)	(20,759)	(34,570)	(57,967)	(56,661)	(24,068)	(2,327)	(20,357)	-	(273,271)
47																	
48	**(Over)/Under Balance**	-ln 41 +ln 42 + ln 46	$ 5,378,797	$ (1,845,237)	$ (2,446,216)	$ (3,561,541)	$ (5,185,020)	$ (4,698,419)	$ (4,210,289)	$ (11,103,154)	$ (13,735,049)	$ (10,544,084)	$ (882,466)	$ (133,528)	$ (8,892,337)	$ (12,670,978)	(12,670,978)
49																	
50																	
51	Forecast Sendout Therms	Sch 1								12 159 305	16 347 591	20 764 836	17 826 554	15 027 327	10 269 906		92 395 519
52	Less Forecast Billing Therm Sales	Sch. 10B, ln 23 Nov - May								11,838,176	17,917,229	21,029,207	17,732,977	15,124,179	9,139,216		92,780,984
53	Less Forecast Unaccounted For	Sch 1								285,912	384,395	488,262	419,171	353,351	241,485		2,172,577
54	Less Forecast Company Use	Sch 1								15,751	21,177	26,899	23,093	19,466	13,304		119,689
55	Unbilled Volumes									19,465	-1,975,210	-779,531	-348,687	-469,669	875,901	0	(2,677,732)
56	Gross Unbilled									19,465	-1,955,745	-2,735,276	-3,083,964	-3,553,633	-2,677,732	-2,677,732	
57																	
58																	
59	COB w/o Interest	Sch. 3, pg. 4, ln 203 col. (c)								$1.4106	$1.4106	$1.4106	$1.4106	$1.4106	$1.4106	$1.4106	
60																	
61	COG With Interest	Sch. 3, pg. 4, ln 203 col. (d)								$1.4111	$1.4111	$1.4111	$1.4111	$1.4111	$1.4111	$1.4111	

62																	
63			Prior Period Bal														
64			Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Peak Period
65		Days in Month	Ending Bal	31	30	31	31	30	31	30	31	31	28	31	30	31	Total
66	(a)	(b)	+ May Collections	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
67																	
68	**Account 1163 1422 Working Capital (Over)/Under Balance Interest Calculation**																
69																	
70	**Beginning Balance**	Account 1163-1422	**$ (30,998)**	$ (30,998)	$ (45,677)	$ (47,007)	$ (49,156)	$ (52,274)	$ (50,534)	$ (48,793)	$ (67,714)	$ (66,610)	$ (39,493)	$ 10,477	$ 23,816	$ (3,328)	$ (30,998)
71																	
72	Days Lag			0.0705	0.0705	0.0705	0.0705	0.0705	0.0705	0.0705	0.0705	0.0705	0.0705	0.0705	0.0705		
73	Prime Rate			3.50%	4.00%	4.75%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%		
74	Forecast Working Capital	ln 34 * 0.091%		1,255	1,434	1,703	1,972	1,972	1,972	36,956	76,188	122,340	131,567	81,991	19,783	-	479,135
75																	
76	Projected Revenues w/o Int.	ln 114 * ln 118		-	-	-	-	-	-	(55 523)	(84 035)	(98 631)	(83 171)	(70 935)	(42 865)	-	(435 162)
77	Projected Unbilled Revenue									(91)	9,173	12,829	14,464	16,667	12,559		65,601
78	Reverse Prior Month Unbilled										91	(9,173)	(12,829)	(14,464)	(16,667)	(12,559)	(65,601)
79																	
80	Add Net Adjustments			(2,954)	(1,637)	(3,558)	(4,826)	-	-	-	-	-	-	-	-	-	(12,975)
81																	
82	Working Capital Billed	Account 1163-1422		(12,866)	(975)	(101)	(27)										(13,970)
83																	
84	Monthly (Over)/Under Recovery		$ (30 998)	$ (45 563)	$ (46 855)	$ (48 962)	$ (52 038)	$ (50 302)	$ (48 561)	$ (67 451)	$ (66 297)	$ (39 246)	$ 10 538	$ 23 736	$ (3 374)	$ (15 887)	$ (13 970)
85																	
86	Average Monthly Balance	(ln 70 + ln 84)/2		$ (38,281)	$ (46,266)	$ (47,985)	$ (50,597)	$ (51,288)	$ (49,547)	$ (58,122)	$ (67,006)	$ (52,928)	$ (14,477)	$ 17,107	$ 10,221	$ (9,607)	
87																	
88	Interest Rate	Prime Rate		3.50%	4.00%	4.75%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%		
89																	
90	Interest Applied	ln 86 * ln 88 / 365 * Days of Month		$ (114)	$ (152)	$ (194)	$ (236)	$ (232)	$ (231)	$ (263)	$ (313)	$ (247)	$ (61)	$ 80	$ 46	$ -	$ (1,917)

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

2

3 **Peak 2022 2023 Winter Cost of Gas Filing**

4 **COG (Over)/Under Cumulative Recovery Balances and Interest Calculation**

91																	
92	**(Over)/Under Balance**	ln 84 + ln 90	$ (30 998)	$ (45 677)	$ (47 007)	$ (49 156)	$ (52 274)	$ (50 534)	$ (48 793)	$ (67 714)	$ (66 610)	$ (39 493)	$ 10 477	$ 23 816	$ (3 328)	$ (15 887)	(15 887)
93																	
94																	
95	**Calculation of Working Capital with Interest**																
96																	
97																	
98	**Beginning Balance**	ln 70	$ (30 998)	$ (30 998)	$ (45 677)	$ (47 007)	$ (49 156)	$ (52 274)	$ (50 534)	$ (48 793)	$ (67 681)	$ (66 532)	$ (39 357)	$ 10 664	$ 24 046	$ (3 068)	$ (30 998)
99	Forecast Working Cap tal	ln 74		1,255	1,434	1,703	1,972	1,972	1,972	36,956	76,188	122,340	131,567	81,991	19,783	-	479,135
100	Projected Rev. with interest	ln 114 * ln 120		-	-	-	-	-	-	(55,490)	(83,984)	(98,571)	(83,121)	(70,892)	(42,839)	-	(434,897)
101	Projected Unbi led Revenue									(91)	9,167	12,821	14,456	16,657	12,551		65,561
102	Reverse Prior Month Unbilled										91	(9,167)	(12,821)	(14,456)	(16,657)	(12,551)	(65,561)
103	Add Net Adjustments	ln 80	-	(2,954)	(1,637)	(3,558)	(4,826)	-	-	-	-	-	-	-	-	-	(12,975)
104	Working Cap tal Billed	ln 82		(12,866)	(975)	(101)	(27)	-	-								(13,970)
105	Add Interest	ln 90		-	-	-	-	-	-	(263)	(313)	(247)	(61)	80	46	-	(758)
106	Monthly (Over)/Under Recovery		$ (30 998)	$ (45 563)	$ (46 855)	$ (48 962)	$ (52 038)	$ (50 302)	$ (48 561)	$ (67 680)	$ (66 531)	$ (39 357)	$ 10 663	$ 24 045	$ (3 069)	$ (15 620)	$ (14 462)
107																	
108	Average Monthly Balance			$ (38,281)	$ (46,266)	$ (47,985)	$ (50,597)	$ (51,288)	$ (49,547)	$ (58,236)	$ (67,106)	$ (52,944)	$ (14,347)	$ 17,354	$ 10,488	$ (9,344)	
109																	
110	Interest Applied	ln 88 * ln 108 / 365 * Days of Month		(114)	(152)	(194)	(236)	(232)	(231)	(263)	(313)	(247)	(61)	81	47	-	$ (1,915)
111																	
112	**(Over)/Under Balance**	-ln 105 +ln 106 + ln 110	$ (30,998)	$ (45,677)	$ (47,007)	$ (49,156)	$ (52,274)	$ (50,534)	$ (48,793)	$ (67,681)	$ (66,532)	$ (39,357)	$ 10,664	$ 24,046	$ (3,068)	$ (15,620)	$ (15,620)
113																	
114	Forecast Therm Sales	ln 52								11,838,176	17,917,229	21,029,207	17,732,977	15,124,179	9,139,216	0	92,780,984
115	Unbilled Therm	ln 55								19,465	(1,975,210)	(779,531)	(348,687)	(469,669)	875,901		
116	Gross Unbilled									19,465	(1,955,745)	(2,735,276)	(3,083,964)	(3,553,633)	(2,677,732)		
117																	
118	Working Cap. Rate w/out Int.	Sch. 3, pg. 4, ln 220 col. (c)								$0.0047	$0.0047	$0.0047	$0.0047	$0.0047	$0.0047	$0.0047	
119																	
120	Working Cap tal Rate w/ Int.	Sch. 3 pg. 4 ln 220 col. (d)								$0.0047	$0.0047	$0.0047	$0.0047	$0.0047	$0.0047	$0.0047	

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

2

3 **Peak 2022 2023 Winter Cost of Gas Filing**

4 **COG (Over)/Under Cumulative Recovery Balances and Interest Calculation**

121																	Schedule 3
122																	Page 3 of 3
123			Prior Period Bal														
124			Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	DemandPeriod
125		Days in Month	Ending Bal	31	30	31	31	30	31	30	31	31	28	31	30	31	Total
126	(a)	(b)	+ May Co lections	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
127																	
128	**Account 1920 1743 Bad Debt (Over)/Under Balance**	**Interest Calculation**															
129																	
130	Forecast Direct Gas Costs	ln 34		$ 508,889	$ 508,889	$ 508,889	$ 508,889	$ 508,889	$ 508,889	$ 9,535,577	$ 19,658,307	$ 31,566,524	$ 33,947,458	$ 21,155,716	$ 5,104,465	$ -	124,021,383
131	Forecast Working Cap tal	ln 99		1,255	1,434	1,703	1,972	1,972	1,972	5,958	76,188	122,340	131,567	81,991	19,783		448,137
132	Prior Period Balance	ln 42								896,466	896,466	896,466	896,466	896,466	896,466		5,378,797
133	Total Forecast Direct Gas Costs & Working Capital			510,145	510,324	510,593	510,862	510,862	510,862	10,438,001	20,630,961	32,585,330	34,975,491	22,134,174	6,020,714	-	124,469,520
134																	
135	**Beginning Balance**	Account 1920-1743	**$ (170,566)**	$ (170,566)	$ (204,512)	$ (208,024)	$ (215,611)	$ (227,090)	$ (223,707)	$ (220,343)	$ (247,542)	$ (226,982)	$ (145,391)	$ (14,647)	$ 32,604	$ (13,507)	$ (170,566)
136																	
137	Forecast Bad Debt	ln 133 * 0.00861151933369296		4,393	4,395	4,397	4,399	4,399	4,399	89,887	177,664	280,609	301,192	190,609	51,847		1,118,191
138																	
139	Projected Revenues w/o int	ln 176 * ln 180		-	-	-	-	-	-	(115,841)	(175,327)	(205,778)	(173,524)	(147,996)	(89,431)	-	(907,895)
140	Projected Unbi led Revenue									(190)	19,138	26,766	30,178	34,774	26,203		136,867
141	Reverse Prior Month Unbilled										190	(19,138)	(26,766)	(30,178)	(34,774)	(26,203)	(136,867)
142																	
143	Bad Debt B lled	Account 1920-1743		(28,732)	(2,195)	(237)	(68)	-	-		-	-	-	-	-	-	(31,232)
144																	
145	Add Net Adjustments		-	(9,045)	(5,013)	(10,894)	(14,779)	-	-		-	-	-	-	-	-	(39,730)
146																	
147	Monthly (Over)/Under Recovery		$ (170 566)	$ (203 949)	$ (207 325)	$ (214 758)	$ (226 058)	$ (222 691)	$ (219 308)	$ (246 487)	$ (225 876)	$ (144 523)	$ (14 311)	$ 32 562	$ (13 550)	$ (39 710)	$ (31 232)
148																	
149	Average Monthly Balance	(ln 135 + ln 147)/2		$ (187,257)	$ (205,918)	$ (211,391)	$ (220,834)	$ (224,890)	$ (221,508)	$ (233,415)	$ (236,709)	$ (185,753)	$ (79,851)	$ 8,957	$ 9,527	$ (26,609)	
150																	
151	Interest Rate	Prime Rate		3.50%	4.00%	4.75%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%		
152																	
153	Interest Applied	ln 149 * ln 151 / 365 * Days of Month		$ (563)	$ (699)	$ (853)	$ (1,032)	$ (1,017)	$ (1,035)	$ (1,055)	$ (1,106)	$ (868)	$ (337)	$ 42	$ 43		$ (8,478)
154																	
155	**(Over)/Under Balance**	ln 147 + ln 153	$ (170 566)	$ (204 512)	$ (208 024)	$ (215 611)	$ (227 090)	$ (223 707)	$ (220 343)	$ (247 542)	$ (226 982)	$ (145 391)	$ (14 647)	$ 32 604	$ (13 507)	$ (39 710)	(39 710)
156																	
157																	
158	**Calculation of Bad Debt with Interest**																
159																	
160	**Beginning Balance**	ln 135	$ (170,566)	$ (170,566)	$ (204,505)	$ (207,995)	$ (215,582)	$ (227,061)	$ (223,679)	$ (220,314)	$ (246,787)	$ (225,246)	$ (142,413)	$ (10,603)	$ 37,546	$ (7,950)	$ (170,566)
161	Forecast Bad Debt	ln 137		4,393	4,395	4,397	4,399	4,399	4,399	89,887	177,664	280,609	301,192	190,609	51,847	-	1,118,191
162	Projected Revenues with int.	ln 176 * ln 182		-	-	-	-	-	-	(115,115)	(174,228)	(204,489)	(172,436)	(147,068)	(88,870)	-	(902,206)
163	Projected Unbi led Revenue									(189)	19,018	26,598	29,989	34,556	26,038		136,009
164	Reverse Prior Month Unbilled										189	(19,018)	(26,598)	(29,989)	(34,556)	(26,038)	(136,009)
165	Bad Debt B lled	ln 143		(28,732)	(2,195)	(237)	(68)	-	-	-	-	-	-	-	-	-	(31,232)
166	Add Interest	ln 153		-	-	-	-	-	-	(1,055)	(1,106)	(868)	(337)	42	43	-	(3,281)
167	Add Net Adjustments	ln 145	-	(9,045)	(5,013)	(10,894)	(14,779)	-	-	-	-	-	-	-	-	-	(39,730)
168	Monthly (Over)/Under Recovery		$ (170,566)	$ (203,949)	$ (207,319)	$ (214,730)	$ (226,030)	$ (222,662)	$ (219,279)	$ (246,786)	$ (225,249)	$ (142,413)	$ (10,603)	$ 37,546	$ (7,950)	$ (33,989)	$ (28,823)
169																	
170	Average Monthly Balance			$ (187,257)	$ (205,912)	$ (211,363)	$ (220,806)	$ (224,862)	$ (221,479)	$ (233,550)	$ (236,018)	$ (183,830)	$ (76,508)	$ 13,471	$ 14,798	$ (20,970)	
171																	
172	Interest Applied	ln 151 * ln 170 / 365 * Days of Month		(557)	(677)	(853)	(1 031)	(1 016)	(1 035)	(1 056)	(1 102)	(868)	(337)	42	43	-	(8 447)
173																	
174	**(Over)/Under Balance**	-ln 166 +ln 168 + ln 172	$ (170,566)	$ (204,505)	$ (207,995)	$ (215,582)	$ (227,061)	$ (223,679)	$ (220,314)	$ (246,787)	$ (225,246)	$ (142,413)	$ (10,603)	$ 37,546	$ (7,950)	$ (33,989)	$ (33,989)
175																	
176	Forecast Term Sales	ln 52								11,838,176	17,917,229	21,029,207	17,732,977	15,124,179	9,139,216	0	92,780,984
177	Unbilled Therm	ln 55								19,465	(1,975,210)	(779,531)	(348,687)	(469,669)	875,901		
178	Gross Unbilled									19,465	(1,955,745)	(2,735,276)	(3,083,964)	(3,553,633)	(2,677,732)		
179																	
180	COG Rate Without Interest	Sch. 3, pg. 4, ln 237 col. (c)								$0.0098	$0.0098	$0.0098	$0.0098	$0.0098	$0.0098	$0.0098	
181																	
182	COG With Interest	Sch. 3, pg. 4, ln 237 col. (d)								$0.0097	$0.0097	$0.0097	$0.0097	$0.0097	$0.0097	$0.0097	
183																	
184																	
185	**Total Interest**	lns 46 + 110 + 172	$ -	$ 4 574	$ (7 872)	$ (13 140)	$ (21 649)	$ (23 537)	$ (22 025)	$ (35 889)	$ (59 383)	$ (57 776)	$ (24 465)	$ (2 204)	$ (20 267)	$ -	$ (283 633)

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

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Schedule 4
Page 1 of 1

Peak 2022 – 2023 Winter Cost of Gas Filing
Adjustments to Gas Costs

Adjustments	**Prior Period Adjustments**	**Refunds from Suppliers**	**Broker Revenue**	**Inventory Finance Charges**	**Transportation CGA Revenues (Schedule 17)**	**Interruptible Sales Margin**	**Off System Sales Margin**	**Capacity Release**	**Net Option Premiums**	**Fixed Price Option Administrative Costs**	**Total Adjustments**
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(m)
May-21	$ -	$ -	$ -	$ -	$ -	$ -	[redacted]	[redacted]	$ -	$ -	$ -
Jun-21	-	-	-	-	-	-	[redacted]	[redacted]	-	-	-
Jul-21 1/	-	-	-	-	-	-	[redacted]	[redacted]	-	-	-
Aug-21 1/	-	-	-	-	-	-	[redacted]	[redacted]	-	-	-
Sep-21 1/	-	-	-	-	-	-	[redacted]	[redacted]	-	-	-
Oct-21 1/	-	-	-	-	-	-	[redacted]	[redacted]	-	-	-
Nov-21 1/	-	-	(47)	-	(62,864)	-	[redacted]	[redacted]	-	59,917	(281,823)
Dec-21 1/	-	-	(624)	-	(77,703)	-	[redacted]	[redacted]	-	-	(359,882)
Jan-22 1/	-	-	(751)	-	(87,373)	-	[redacted]	[redacted]	-	-	(369,554)
Feb-22 1/	-	-	(816)	-	(72,905)	-	[redacted]	[redacted]	-	-	(354,081)
Mar-22 1/	-	-	(757)	-	(69,548)	-	[redacted]	[redacted]	-	-	(347,428)
Apr-22 1/	-	-	(605)	-	(51,628)	-	[redacted]	[redacted]	-	-	(329,449)
Subtotal May 21 - Oct 21	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Subtotal Nov 21 - Apr 22	$ -	$ -	$ (3,600)	$ -	$ (422,021)	$ -	$ -	$ (1,676,512)	$ -	$ 59,917	$ (2,042,217)
Total Peak Period	$ -	$ -	$ (3,600)	$ -	$ (422,021)	$ -	$ -	$ (1,676,512)	$ -	$ 59,917	$ (2,042,217)

1/ Estimates are based on prior years actual, except transportation revenue is calculated on Schedule 17. and Inventory Finance Charges for Nov 22 - Apr 23 calculated on Schedule 16

Ln												
1	**Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**											**REDACTED**
2												Schedule 5A
3	**Peak 2022 – 2023 Winter Cost of Gas Filing**											Page 1 of 1
4	**Demand Costs**											
5												
6					Deferred							Peak
7					to Peak							Nov-Apr
8			Peak	Reference	May 22 -Oct 22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Total
9		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
10												
11	**Supply**											
12	Niagara Supply			Sch 5B, ln 9 * Sch 5C ln 9 x days	[redacted]							
13	Subtotal Supply Demand & Reservation Charges											
14												
15	**Pipeline**											
16	Iroquois Gas Trans Service RTS 470-0			Sch 5B, ln 12 * Sch 5C ln 12 x days	[redacted]							
17	Tenn Gas Pipeline 95346 Z5-Z6			Sch 5B, ln 13 * Sch 5C ln 14 x days								
18	Tenn Gas Pipeline 2302 Z5-Z6			Sch 5B, ln 14 * Sch 5C ln 16 x days								
19	Tenn Gas Pipeline 8587 Z0-Z6			Sch 5B, ln 15 * Sch 5C ln 18 x days								
20	Tenn Gas Pipeline 8587 Z1-Z6			Sch 5B, ln 16 * Sch 5C ln 20 x days								
21	Tenn Gas Pipeline 8587 Z4-Z6			Sch 5B, ln 17 * Sch 5C ln 22 x days								
22	Tenn Gas Pipeline (Dracut) 42076 Z6-Z6		peak	Sch 5B, ln 18 * Sch 5C ln 24 x days								
23	Tenn Gas Pipeline (Dracut) 358905 Z6-Z7		peak	Sch 5B, ln 19 * Sch 5C ln 25 x days								
24	Tenn Gas Pipeline (Concord Lateral) Z6-Z6		peak	Sch 5B, ln 20 * Sch 5C ln 28 x days								
25	Portland Natural Gas Trans Service			Sch 5B, ln 21 * Sch 5C ln 30 x days								
26	Portland Natural Gas			Sch 5B, ln 22 * Sch 5C ln 31 x days								
27	ANE (TransCanada via Union to Iroquois)			Sch 5B, ln 23 * Sch 5C ln 32 x days								
28	TransCanada via Union to Portland			Sch 5B, ln 24 * Sch 5C ln 33 x days								
29	Tenn Gas Pipeline Z4-Z6 stg 632		peak	Sch 5B, ln 25 * Sch 5C ln 34 x days								
30	Tenn Gas Pipeline Z4-Z6 stg 11234		peak	Sch 5B, ln 26 * Sch 5C ln 36 x days								
31	Tenn Gas Pipeline Z5-Z6 stg 11234		peak	Sch 5B, ln 27 * Sch 5C ln 38 x days								
32	National Fuel FST 2358		peak	Sch 5B, ln 28 * Sch 5C ln 40 x days								
33												
34	Subtotal Pipeline Demand Charges				$ 3,907,220	$ 1,596,276	$ 1,596,276	$ 1,596,276	$ 1,596,276	$ 1,596,276	$ 1,596,276	$ 13,484,875
35												
36	**Peaking Supply**											
37	Tenn Gas Pipeline (Concord Lateral) Z6-Z6		peak	Sch 5B, ln 31 * Sch 5C ln 28 x days	[redacted]							
38	Demand FLS		peak	Per Contract								
39	Peaking Demand		peak	Per Contract								
40	Subtotal Peaking Demand Charges				$ -	$ 474,102	$ 474,102	$ 474,102	$ 474,102	$ 474,102	$ -	$ 2,370,511
41												
42	**Subtotal Supply, Pipeline & Peaking**			ln 13 + ln 34 + ln 40	$ 3,907,220	$ 2,070,378	$ 2,070,378	$ 2,070,378	$ 2,070,378	$ 2,070,378	$ 1,596,276	$ 15,855,386
43												
44	Less Transportation Capacity Credit				$ (1,323,375)	$ (523,599)	$ (523,599)	$ (523,599)	$ (523,599)	$ (523,599)	$ (403,698)	$ (4,345,067)
45												
46	**Total Supply, Pipeline & Peaking Demand**				$ 2,583,844	$ 1,546,780	$ 1,546,780	$ 1,546,780	$ 1,546,780	$ 1,546,780	$ 1,192,578	$ 11,510,320
47												
48												
49	Dominion - Demand		peak	Sch 5B, ln 36 * Sch 5C ln 64 x days	$ 18,240	$ 3,040	$ 3,040	$ 3,040	$ 3,040	$ 3,040	$ 3,040	$ 36,480
50	Dominion - Storage		peak	Sch 5B, ln 37 * Sch 5C ln 65 x days	19,595	3,266	3,266	3,266	3,266	3,266	3,266	39,190
51	Honeoye - Demand		peak	Sch 5B, ln 38 * Sch 5C ln 68 x days	50,105	8,351	8,351	8,351	8,351	8,351	8,351	100,211
52	National Fuel - Demand		peak	Sch 5B, ln 40 * Sch 5C ln 70 x days	97,207	16,201	16,201	16,201	16,201	16,201	16,201	194,414
53	National Fuel - Capacity		peak	Sch 5B, ln 41 * Sch 5C ln 71 x days	193,190	32,198	32,198	32,198	32,198	32,198	32,198	386,381
54	Tenn Gas Pipeline - Demand		peak	Sch 5B, ln 42 * Sch 5C ln 74 x days	167,775	27,963	27,963	27,963	27,963	27,963	27,963	335,550
55	Tenn Gas Pipeline - Capacity		peak	Sch 5B, ln 43 * Sch 5C ln 75 x days	163,841	27,307	27,307	27,307	27,307	27,307	27,307	327,682
56												
57	**Subtotal Storage Demand Costs**				$ 709,954	$ 118,326	$ 118,326	$ 118,326	$ 118,326	$ 118,326	$ 118,326	$ 1,419,908
58												
59	Less Transportation Capacity Credit				$ (240,461)	$ (29,925)	$ (29,925)	$ (29,925)	$ (29,925)	$ (29,925)	$ (29,925)	$ (420,009)
60												
61	**Total Storage Demand Costs**			ln 57 + ln 59	$ 469,493	$ 88,401	$ 88,401	$ 88,401	$ 88,401	$ 88,401	$ 88,401	$ 999,899
62												
63	**Total Demand Charges**			ln 42 + ln 57	$ 4,617,174	$ 2,188,704	$ 2,188,704	$ 2,188,704	$ 2,188,704	$ 2,188,704	$ 1,714,602	$ 17,275,294
64												
65	Total Transportation Capacity Credit			ln 44 + ln 59	$ (1,563,837)	$ (553,523)	$ (553,523)	$ (553,523)	$ (553,523)	$ (553,523)	$ (433,623)	$ (4,765,075)
66												
67	**Total Demand Charges less Cap. Cr.**			ln 63 + ln 65	$ 3,053,337	$ 1,635,181	$ 1,635,181	$ 1,635,181	$ 1,635,181	$ 1,635,181	$ 1,280,979	$ 12,510,219
68												
69												
70	Monthly Off Peak Demand											
71	Monthly Off Peak Transportation Cap Credit											
72	**Total Off Peak Demand**											
73												
74	Monthly Peak Demand											
75	Monthly Peak Transportation Cap Credit											
76	**Total Peak Demand**											

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

Peak 2022 – 2023 Winter Cost of Gas Filing
Demand Volumes

	Peak	Reference	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Supply								
Niagara Supply			-	-	-	-	-	-
Pipeline								
Iroquois Gas Trans Service		RTS 470-01	4,047	4,047	4,047	4,047	4,047	4,047
Tenn Gas Pipeline		95346 Z5-Z6	4,000	4,000	4,000	4,000	4,000	4,000
Tenn Gas Pipeline		2302 Z5-Z6	3,122	3,122	3,122	3,122	3,122	3,122
Tenn Gas Pipeline (long haul)		8587 Z0-Z6	7,035	7,035	7,035	7,035	7,035	7,035
Tenn Gas Pipeline (long haul)		8587 Z1-Z6	14,561	14,561	14,561	14,561	14,561	14,561
Tenn Gas Pipeline (short haul)		8587 Z4-Z6	3,811	3,811	3,811	3,811	3,811	3,811
Tenn Gas Pipeline	peak	42076 FTA Z6-Z6	20,000	20,000	20,000	20,000	20,000	20,000
Tenn Gas Pipeline	peak	358905 FTA Z6-Z6	40,000	40,000	40,000	40,000	40,000	40,000
Tenn Gas Pipeline (Concord Lateral)	peak	Firm Transportation	30,000	30,000	30,000	30,000	30,000	30,000
Portland Natural Gas Trans Service		FT-208544	1,000	1,000	1,000	1,000	1,000	1,000
Portland Natural Gas		FT 233320	5,000	5,000	5,000	5,000	5,000	5,000
ANE (TransCanada via Union to Iroquois)		Dawn - Parkway to Iroquois	4,047	4,047	4,047	4,047	4,047	4,047
TransCanada via Union to Portland		Dawn -Parkway to Portland	5,077	5,077	5,077	5,077	5,077	5,077
Tenn Gas Pipeline (short haul)	peak	632 Z4-Z6 (stg)	15,265	15,265	15,265	15,265	15,265	15,265
Tenn Gas Pipeline (short haul)	peak	11234 Z4-Z6(stg)	7,082	7,082	7,082	7,082	7,082	7,082
Tenn Gas Pipeline (short haul)	peak	11234 Z5-Z6(stg)	1,957	1,957	1,957	1,957	1,957	1,957
National Fuel	peak	FST N02358	6,098	6,098	6,098	6,098	6,098	6,098
Peaking								
Tenn Gas Pipeline (Concord Lateral)	peak		-	-	-	-	-	-
Demand FLS	peak		-	-	-	-	-	-
Peaking Demand	peak	NSB041	4,000	4,000	4,000	4,000	4,000	-
Storage								
Dominion - Demand	peak	GSS 300076	934	934	934	934	934	934
Dominion - Capacity Reservation	peak	GSS 300076	102,700	102,700	102,700	102,700	102,700	102,700
Honeoye - Demand	peak	SS-NY	1,362	1,362	1,362	1,362	1,362	1,362
Honeoye - Capacity	peak	SS-NY	245,380	245,380	245,380	245,380	245,380	245,380
National Fuel - Demand	peak	FSS-O02357	6,098	6,098	6,098	6,098	6,098	6,098
National Fuel - Capacity Reservation	peak	FSS-O02357	670,800	670,800	670,800	670,800	670,800	670,800
Tenn Gas Pipeline - Demand	peak	FS-MA 523	21,844	21,844	21,844	21,844	21,844	21,844
Tenn Gas Pipeline - Cap. Reservations	peak	FS-MA 523	1,560,391	1,560,391	1,560,391	1,560,391	1,560,391	1,560,391

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

Schedule 5C

Peak 2022 – 2023 Winter Cost of Gas Filing

Demand Rates

					Nov-22	**Dec-22**	**Jan-23**	**Feb-23**	**Mar-23**	**Apr-23**	**Nov - Apr**
<u>Tariff Rates</u>					30	31	31	28	31	30	181
					Unit Rate	Unit Rate	Unit Rate	Unit Rate	Unit Rate	Unit Rate	Avg Rate
Supply											
Niagara Supply		$	-	Per Contract	[redacted]						
Pipeline											
Iroquois Gas Trans Service	RTS 470-01	$	5.2357	Fourth Revised Sheet No. 4	$ 0.1745	$ 0.1689	$ 0.1689	$ 0.1870	$ 0.1689	$ 0.1745	$ 0.1738
Tenn Gas Pipeline	95346 Z5-Z6	$	6.1635	19th Rev Sheet No. 14	$ 0.2055	$ 0.1988	$ 0.1988	$ 0.2201	$ 0.1988	$ 0.2055	$ 0.2046
Tenn Gas Pipeline	2302 Z5-Z6	$	6.1635	19th Rev Sheet No. 14	$ 0.2055	$ 0.1988	$ 0.1988	$ 0.2201	$ 0.1988	$ 0.2055	$ 0.2046
Tenn Gas Pipeline	8587 Z0-Z6	$	19.9267	FT-A (Z0 - Z6)	$ 0.6642	$ 0.6428	$ 0.6428	$ 0.7117	$ 0.6428	$ 0.6642	$ 0.6614
Tenn Gas Pipeline	8587 Z1-Z6	$	17.6917	FT-A (Z1 - Z6)	$ 0.5897	$ 0.5707	$ 0.5707	$ 0.6318	$ 0.5707	$ 0.5897	$ 0.5872
Tenn Gas Pipeline	8587 Z4-Z6	$	7.1720	FT-A (Z4 - Z6)	$ 0.2391	$ 0.2314	$ 0.2314	$ 0.2561	$ 0.2314	$ 0.2391	$ 0.2381
TGP Dracut	42076 FTA Z6-Z6	$	4.0968	19th Rev Sheet No. 14	$ 0.1366	$ 0.1322	$ 0.1322	$ 0.1463	$ 0.1322	$ 0.1366	$ 0.1360
TGP Dracut	358905 FTA Z6-Z6	$	4.0968	19th Rev Sheet No. 14	$ 0.1366	$ 0.1322	$ 0.1322	$ 0.1463	$ 0.1322	$ 0.1366	$ 0.1360
TGP Concord Lateral	Firm Transportatio	$	12.2188	Per contract	$ 0.4073	$ 0.3942	$ 0.3942	$ 0.4364	$ 0.3942	$ 0.4073	$ 0.4056
Portland Natural Gas	FT-208544	$	18.2633	Negot Dmd /CMDY=Part 4.1 V8	$ 0.6088	$ 0.5891	$ 0.5891	$ 0.6523	$ 0.5891	$ 0.6088	$ 0.6062
Portland Natural Gas	FT 233320	$	22.7943	Negot Dmd /CMDY=Part 4.1 V8	$ 0.7598	$ 0.7353	$ 0.7353	$ 0.8141	$ 0.7353	$ 0.7598	$ 0.7566
Tenn Gas Pipeline	632 Z4-Z6 (stg)	$	7.1720	19th Rev Sheet No. 14	$ 0.2391	$ 0.2314	$ 0.2314	$ 0.2561	$ 0.2314	$ 0.2391	$ 0.2381
Tenn Gas Pipeline	11234 Z4-Z6(stg)	$	7.1720	19th Rev Sheet No. 14	$ 0.2391	$ 0.2314	$ 0.2314	$ 0.2561	$ 0.2314	$ 0.2391	$ 0.2381
Tenn Gas Pipeline	11234 Z5-Z6(stg)	$	6.1635	19th Rev Sheet No. 14	$ 0.2055	$ 0.1988	$ 0.1988	$ 0.2201	$ 0.1988	$ 0.2055	$ 0.2046
National Fuel	FST N02358	$	4.9801	4.020 Version 28.0.0 Pg 1	$ 0.1660	$ 0.1606	$ 0.1606	$ 0.1779	$ 0.1606	$ 0.1660	$ 0.1653

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

2

3 **Peak 2022 – 2023 Winter Cost of Gas Filing**

43	ANE Union Gas		$ 3.6890									
44	TransCanada Pipelines Limited		$ 11.9690	Dawn - Parkway to Iroquois								
45	Delivery Pressure Demand Charge		$ 0.6083	Dawn - Parkway to Iroquois								
46	Sub Total Demand Charges		$ 16.2663									
47	Conversion rate GJ to MMBTU		$ 1.0551									
48	Conversion rate to US$		$ 1.2706	1/0/1900								
49	Demand Rate/US$		$ 13.5069		$ 0.4502	$ 0.4357	$ 0.4357	$ 0.4824	$ 0.4357	$ 0.4502	$ 0.4483	
50												
51	Union Gas		$ 3.6890									
52	TransCanada Pipelines Limited		$ 20.3913	Dawn -Parkway to Portland								
53	Delivery Pressure Demand Charge		$ 0.6083	Dawn -Parkway to Portland								
54	Sub Total Demand Charges		$ 24.6887									
55	Conversion rate GJ to MMBTU		$ 1.0551									
56	Conversion rate to US$		$ 1.2706	1/0/1900								
57	Demand Rate/US$		$ 20.5005		$ 0.6833	$ 0.6613	$ 0.6613	$ 0.7322	$ 0.6613	$ 0.6833	$ 0.6805	
58												
59	**Peaking**											
60	Demand FLS			Per Contract	[redacted]							
61	Subtotal Peaking Demand Charges		[redacted]	Per Contract								
62												
63	**Storage**											
64	Dominion - Demand	GSS 300076	$ 3.2548	GSS Settled,Tariff Rec #10.30 \	$ 0.1085	$ 0.1050	$ 0.1050	$ 0.1162	$ 0.1050	$ 0.1085	$ 0.1079	
65	Dominion - Capacity	GSS 300076	$ 0.0318	GSS Settled,Tariff Rec #10.30 \	$ 0.0011	$ 0.0010	$ 0.0010	$ 0.0011	$ 0.0010	$ 0.0011	$ 0.0011	
66			$ 3.2866		$ 0.1096	$ 0.1060	$ 0.1060	$ 0.1174	$ 0.1060	$ 0.1096	$ 0.1090	
67												
68	Honeoye - Demand	SS-NY	$ 6.1299	Sub 1st Rev Sheet No. 5	$ 0.2043	$ 0.1977	$ 0.1977	$ 0.2189	$ 0.1977	$ 0.2043	$ 0.2033	
69												
70	National Fuel - Demand	FSS-O02357	$ 2.6568	4.020 Version 28.0.0 Pg 1	$ 0.0886	$ 0.0857	$ 0.0857	$ 0.0949	$ 0.0857	$ 0.0886	$ 0.0881	
71	National Fuel - Capacity	FSS-O02357	$ 0.0480	4.020 Version 28.0.0 Pg 1	$ 0.0016	$ 0.0015	$ 0.0015	$ 0.0017	$ 0.0015	$ 0.0016	$ 0.0016	
72			$ 2.7048		$ 0.0902	$ 0.0873	$ 0.0873	$ 0.0966	$ 0.0873	$ 0.0902	$ 0.0897	
73												
74	Tenn Gas Pipeline	FS-MA 523	$ 1.2801	22nd Rev Sheet No.61	$ 0.0427	$ 0.0413	$ 0.0413	$ 0.0457	$ 0.0413	$ 0.0427	$ 0.0425	
75	Tenn Gas Pipeline - Space	FS-MA 523	$ 0.0175	22nd Rev Sheet No.61	$ 0.0006	$ 0.0006	$ 0.0006	$ 0.0006	$ 0.0006	$ 0.0006	$ 0.0006	
76			$1.2976		$ 0.0433	$ 0.0419	$ 0.0419	$ 0.0463	$ 0.0419	$ 0.0433	$ 0.0430	

1 **Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty** **REDACTED**
2 Schedule 6
3 **Peak 2022 – 2023 Winter Cost of Gas Filing** Page 1 of 5
4 **Supply and Commodity Costs, Volumes and Rates**

Ln	For Month of:	Reference	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Peak Nov- Apr
7	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
8									
9	**Supply and Commodity Costs**								
10									
11	**Pipeline Gas:**								
12	Dawn Supply	ln 66 * ln 107	[redacted]						
13	Niagara Supply	ln 67 * ln 112							
14	TGP Supply (Direct)	ln 68 * ln 132							
15	Dracut Supply 1 - Baseload	ln 69 * ln 117							
16	Dracut Supply 2 - Swing	ln 70 * ln 122							
17	Dracut Supply 3 - Swing	ln 71 * ln 123							
18	Constellation COMBO	ln 72 * ln 138							
19	LNG Truck	ln 73 * ln 140							
20	Propane Truck	ln 74 * ln 142							
21	PNGTS	ln 75 * ln 147							
22	Portland Natural Gas	ln 76 * ln 152							
23	TGP Supply (Z4)	ln 77 * ln 157							
24									
25	Subtotal Pipeline Gas Costs		$ 9,197,119	$ 15,672,833	$ 26,023,347	$ 30,089,330	$ 19,515,529	$ 4,811,924	$ 105,310,081
26									
27	**Volumetric Transportation Costs**								
28	Dawn Supply	ln 66 * ln 204	[redacted]						
29	Niagara Supply	ln 67 * ln 215							
30	TGP Supply (Direct)	ln 68 * ln 242							
31	Dracut Supply 1 - Baseload	ln 69 * ln 263							
32	Dracut Supply 2 - Swing	ln 70 * ln 263							
33	Dracut Supply 3 - Swing	ln 71 * ln							
34	Constellation COMBO	ln 72 * ln 263							
35	TGP Storage - Withdrawals	ln 82 * ln 179							
36									
37	**Total Volumetric Transportation Costs**		$ 327,682	$ 317,329	$ 363,387	$ 317,632	$ 242,519	$ 73,752	$ 1,642,302
38									
39	**Less - Gas Refill:**								
40	LNG Truck	ln 91 * ln 164	[redacted]						
41	Propane	ln 92 * ln 165							
42	TGP Storage Refill	ln 93 * ln 130							
43	Storage Refill (Trans.)	ln 93 * ln 242							
44									
45	Subtotal Refills		$ (1,447,433)	$ (3,046,288)	$ (4,799,129)	$ (3,514,340)	$ (124,702)	$ (601,872)	$ (13,533,764)
46									
47	**Total Supply & Pipeline Commodity Costs**	ln 25 + ln 37 + ln 45	$ 8,077,369	$ 12,943,873	$ 21,587,606	$ 26,892,622	$ 19,633,346	$ 4,283,804	$ 93,418,619
48									
49	**Storage Gas:**								
50	TGP Storage - Withdrawals	ln 82 * ln 171	$ 661,679	$ 2,983,813	$ 3,569,392	$ 2,888,247	$ 856,517	$ 509,805	$ 11,469,453
51									
52	**Produced Gas:**								
53	LNG Vapor	ln 85 * ln 159	[redacted]						
54	Propane	ln 86 * ln 161							
55									
56	**Total Produced Gas**	ln 53 + ln 54	$ 165,051	$ 3,099,142	$ 5,778,047	$ 3,535,110	$ 34,374	$ 33,579	$ 12,645,303
57									
58	**AMA Credits**		$ (1,003,702)	$ (1,003,702)	$ (1,003,702)	$ (1,003,702)	$ (1,003,702)	$ (1,003,702)	$ (6,022,210)
59	**Total Commodity Gas & Trans. Costs**	ln 47 + ln 50 + ln 56	$ 7,900,397	$ 18,023,126	$ 29,931,343	$ 32,312,277	$ 19,520,535	$ 3,823,486	$ 111,511,164
60									$ 92,395,519
61									

1 **Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**
2 **d/b/a Liberty** Schedule 6
3 **Peak 2022 – 2023 Winter Cost of Gas Filing** Page 2 of 5
4 **Supply and Commodity Costs, Volumes and Rates**

Line									
5									Peak
6	For Month of:	Reference	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Nov- Apr
7	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
62									
63	**Volumes (Therms)**								
64									
65	**Pipeline Gas:**	See Schedule 11A							
66	Dawn Supply		874,251	924,161	926,671	839,868	910,477	771,345	5,246,775
67	Niagara Supply		689,540	728,492	730,471	661,898	717,705	678,639	4,206,745
68	TGP Supply (Direct)		4,621,463	3,096,843	3,105,255	2,814,958	3,050,989	641,701	17,331,210
69	Dracut Supply 1 - Baseload		-	-	3,100,000	1,400,000	-	-	4,500,000
70	Dracut Supply 2 - Swing		2,068,620	1,628,571	574,992	2,290,420	4,186,862	1,559,349	12,308,813
71	Dracut Supply 3 - Swing		1,267,959	112,886	75,462	292,325	1,410,944	36,213	3,195,790
72	Constellation COMBO		-	-	-	-	-	-	-
73	LNG Truck		117,744	1,270,345	1,451,131	1,484,347	110,473	-	4,434,041
74	Propane Truck		-	-	691,985	-	-	55,769	747,754
75	PNGTS		218,563	231,040	231,668	209,778	227,619	196,277	1,314,945
76	Portland Natural Gas		1,067,793	1,128,109	1,131,173	1,025,411	1,111,405	840,151	6,304,043
77	TGP Supply (Z4)		1,816,941	1,919,817	1,925,032	1,744,865	1,891,391	5,458,808	14,756,854
78									
79	Subtotal Pipeline Volumes		12,742,875	11,040,265	13,943,840	12,763,870	13,617,866	10,238,252	74,346,969
80									
81	**Storage Gas:**								
82	TGP Storage		1,157,573	5,220,027	6,244,468	5,052,839	1,498,432	1,000,000	20,173,339
83									
84	**Produced Gas:**								
85	LNG Vapor		119,952	1,357,644	1,456,414	1,485,862	21,502	21,004	4,462,377
86	Propane		-	-	1,263,231	8,331	-	-	1,271,562
87									
88	Subtotal Produced Gas		119,952	1,357,644	2,719,645	1,494,192	21,502	21,004	5,733,939
89									
90	**Less - Gas Refill:**								
91	LNG Truck		(117,744)	(1,270,345)	(1,451,131)	(1,484,347)	(110,473)	-	(4,434,041)
92	Propane		-	-	(691,985)	-	-	(55,769)	(747,754)
93	TGP Storage Refill		(1,743,351)	-	-	-	-	(933,581)	(2,676,933)
94									
95	Subtotal Refills		(1,861,095)	(1,270,345)	(2,143,116)	(1,484,347)	(110,473)	(989,350)	(7,858,728)
96									
97	**Total Sendout Volumes**		12,159,305	16,347,591	20,764,836	17,826,554	15,027,327	10,269,906	92,395,519
98									
99									
100									

1 **Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty** **REDACTED**
2 Schedule 6
3 **Peak 2022 – 2023 Winter Cost of Gas Filing** Page 3 of 5
4 **Supply and Commodity Costs, Volumes and Rates**
5

									Peak
6	For Month of:	Reference	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Nov- Apr
7	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
101	**Gas Costs and Volumetric Transportation Rates**								
102									
103	**Pipeline Gas:**								
104	**Dawn Supply**								Average Rate
105	NYMEX Price	Sch 7, ln 10/10	[redacted]						
106	Basis Differential								
107	**Net Commodity Costs**								
108									
109	**Niagara Supply**								
110	NYMEX Price	Sch 7, ln 10/10	[redacted]						
111	Basis Differential								
112	**Net Commodity Costs**								
113									
114	**Dracut Supply 1 - Baseload**								
115	Commodity Costs - NYMEX Price	Sch 7, ln 10 / 10	[redacted]						
116	Basis Differential								
117	**Net Commodity Costs**								
118									
119	**Dracut Supply 2 - Swing**								
120	Commodity Costs - NYMEX Price	Sch 7, ln 10 / 10	[redacted]						
121	Basis Differential								
122	**Net Commodity Costs**								
123									
124	**Dracut Supply 3 - Swing**								
125	Commodity Costs - NYMEX Price	Sch 7, ln 10 / 10	[redacted]						
126	Basis Differential								
127	**Net Commodity Costs**								
128									
129	**TGP Supply (Direct)**								
130	NYMEX Price	Sch 7, ln 10/10	[redacted]						
131	Basis Differential								
132	**Net Commodity Costs**								
133									
134									
135	**Constellation COMBO**								
136	NYMEX Price	Sch 7, ln 10/10	[redacted]						
137	Basis Differential								
138	**Net Commodity Costs**								
139									
140	**LNG Truck**	Sch 7, ln 10/10	[redacted]						
141									
142	**Propane Truck**	Propane WACOG	[redacted]						
143									
144	**PNGTS**								
145	NYMEX Price	Sch 7, ln 10/10	[redacted]						
146	Basis Differential								
147	**Net Commodity Cost**								
148									
149	**PNGTS EXP**								
150	NYMEX Price	Sch 7, ln 10/10	[redacted]						
151	Basis Differential								
152	**Net Commodity Cost**								
153									
154	**TGP Supply (Z4)**								
155	NYMEX Price	Sch 7, ln 10/10	[redacted]						
156	Basis Differential		($0.0820)	($0.0523)	($0.0498)	($0.0398)	($0.0395)	($0.0523)	[redacted]
157	**Net Commodity Cost**		[redacted]						
158									
159	**LNG Vapor (Storage)**	Sch 16, ln 95 /10	[redacted]						
160									
161	**Propane**	Sch 16, ln 66 /10	[redacted]						
162									
163	**Storage Refill:**								
164	**LNG Truck**	ln 140	[redacted]						
165	**Propane**	ln 142							
166									
167									

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

2 Schedule 6

3 **Peak 2022 – 2023 Winter Cost of Gas Filing** Page 4 of 5

4 **Supply and Commodity Costs, Volumes and Rates**

Ln									
5									Peak
6	For Month of:	Reference	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Nov- Apr
7	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
168									
169									
170	**TGP Storage**								
171	**Commodity Costs - Storage withdrawal**	Sch 16, ln 34 /10	$0.5716	$0.5716	$0.5716	$0.5716	$0.5716	$0.5098	$0.5613
172									
173	TGP - Max Commodity - Z 4-6	21st Rev Sheet No. 15	$0.00911	$0.00911	$0.00911	$0.00911	$0.00911	$0.00911	$0.00911
174	TGP - Max Comm. ACA Rate - Z 4-6	21st Rev Sheet No. 15	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
175	Subtotal TGP - Trans Charge - Max Commodity Rate - Z 4-6		$0.00926	$0.00926	$0.00926	$0.00926	$0.00926	$0.00926	$0.00926
176	TGP - Fuel Charge % - Z 4-6	18th Rev Sheet No. 32	1.49%	1.49%	1.49%	1.49%	1.49%	1.49%	1.49%
177	TGP - Fuel Charge % - Z 4-6 - (NYMEX * Percentage)		$0.00852	$0.00852	$0.00852	$0.00852	$0.00852	$0.00760	$0.00836
178	TGP - Withdrawal Charge	22nd Rev Sheet No.61	$0.00087	$0.00087	$0.00087	$0.00087	$0.00087	$0.00087	$0.00087
179	**Total Volumetric Transportation Rate - TGP (Storage)**		$0.01865	$0.01865	$0.01865	$0.01865	$0.01865	$0.01773	$0.01849
180									
181	**Total TGP - Comm. & Vol. Trans. Rate**	ln 171 + ln 179	**$0.59026**	**$0.59026**	**$0.59026**	**$0.59026**	**$0.59026**	**$0.52753**	**$0.57980**
182									
183									
184	**Per Unit Volumetric Transportation Rates**								
185	**Dawn Supply Volumetric Transportation Charge**								
186	**Commodity Costs**	ln 107	**$0.6384**	**$0.6802**	**$0.7100**	**$0.7144**	**$0.6356**	**$0.4647**	**$0.6406**
187									
188	TransCanada - Commodity Rate/GJ	Dawn - Parkway to Iroquois	$0.00040	$0.00040	$0.00040	$0.00040	$0.00040	$0.00040	$0.00040
189	Conversion Rate GL to MMBTU		1.0551	1.0551	1.0551	1.0551	1.0551	1.0551	1.0551
190	Conversion Rate to US$	1/0/1900	1.2706	1.2706	1.2706	1.2706	1.2706	1.2706	1.2706
191	Commodity Rate/US$	ln 188 x ln 189 x ln 190	$0.00054	$0.00054	$0.00054	$0.00054	$0.00054	$0.00054	$0.00054
192	TransCanada Fuel %	Dawn - Parkway to Iroquois	0.87%	0.99%	1.10%	1.04%	1.07%	0.82%	0.98%
193	TransCanada Fuel * Percentage	ln 186 x ln 192	$0.00552	$0.00672	$0.00777	$0.00742	$0.00683	$0.00380	$0.00635
194	Subtotal TransCanada		**$0.00606**	**$0.00726**	**$0.00831**	**$0.00796**	**$0.00737**	**$0.00434**	**$0.00688**
195	IGTS - Z1 RTS Commodity	Fourth Revised Sheet No. 4	$0.00034	$0.00034	$0.00034	$0.00034	$0.00034	$0.00034	$0.00034
196	IGTS - Z1 RTS ACA Rate Commodity	Fourth Revised Sheet No. 4	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
197	IGTS - Z1 RTS Deferred Asset Surcharge	Fourth Revised Sheet No. 4	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
198	Subtotal IGTS - Trans Charge - Z1 RTS Commodity		**$0.00049**	**$0.00049**	**$0.00049**	**$0.00049**	**$0.00049**	**$0.00049**	**$0.00049**
199	TGP NET-NE - Comm. Segments 3 & 4	21st Rev Sheet No. 15	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
200	IGTS -Fuel Use Factor - Percentage	Fourth Revised Sheet No. 4	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
201	IGTS -Fuel Use Factor - Fuel * Percentage	ln 186 x ln 200	**$0.00638**	**$0.00680**	**$0.00710**	**$0.00714**	**$0.00636**	**$0.00465**	**$0.00641**
202	TGP FTA Fuel Charge % Z 5-6	18th Rev Sheet No. 32	1.09%	1.09%	1.09%	1.09%	1.09%	1.09%	1.09%
203	TGP FTA Fuel * Percentage	ln 186 x ln 202	**$0.00696**	**$0.00741**	**$0.00774**	**$0.00779**	**$0.00693**	**$0.00507**	**$0.00698**
204	**Total Volumetric Transportation Charge - Dawn Supply**		**$0.02004**	**$0.02212**	**$0.02379**	**$0.02353**	**$0.02129**	**$0.01469**	**$0.02091**
205									
206									
207	**Niagara Supply Volumetric Transportation Charge**								
208	**Commodity Costs**	Ln 112	[redacted]						
209									
210	TGP FTA - FTA Z 5-6 Comm. Rate	21st Rev Sheet No. 15	$0.00693	$0.00693	$0.00693	$0.00693	$0.00693	$0.00693	$0.00693
211	TGP FTA - FTA Z 5-6 - ACA Rate	21st Rev Sheet No. 15	$0.00015	$0.0002	$0.0002	$0.0002	$0.0002	$0.0002	$0.0002
212	Subtotal TGP FTA - FTA Z 5-6 Commodity Rate		**$0.00708**	**$0.0071**	**$0.0071**	**$0.0071**	**$0.0071**	**$0.0071**	**$0.0071**
213	TGP FTA Fuel Charge % Z 5-6	18th Rev Sheet No. 32	1.09%	1.09%	1.09%	1.09%	1.09%	1.09%	1.09%
214	TGP FTA Fuel * Percentage	ln 208 x ln 213	[redacted]						
215	**Total Volumetric Transportation Rate - Niagara Supply**								
216									
217									

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

2 Schedule 6

3 **Peak 2022 – 2023 Winter Cost of Gas Filing** Page 5 of 5

4 **Supply and Commodity Costs, Volumes and Rates**

5

Ln	For Month of: (a)	Reference (b)	Nov-22 (c)	Dec-22 (d)	Jan-23 (e)	Feb-23 (f)	Mar-23 (g)	Apr-23 (h)	Peak Nov- Apr (i)
218									
219									
220									
221	**TGP Direct Volumetric Transportation Charge**								Average Rate
222	**Commodity Costs**	Ln 130	[redacted]						
223									
224	TGP - Max Comm. Base Rate - Z 0-6	21st Rev Sheet No. 15	$0.02616	$0.02616	$0.02616	$0.02616	$0.02616	$0.02616	$0.02616
225	TGP - Max Commodity ACA Rate - Z 0-6	21st Rev Sheet No. 15	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
226	Subtotal TGP - Max Comm. Rate Z 0-6		$0.02631	$0.02631	$0.02631	$0.02631	$0.02631	$0.02631	$0.02631
227	Prorated Percentage		32.60%	32.60%	32.60%	32.60%	32.60%	32.60%	32.60%
228	Prorated TGP - Max Commodity Rate - Z 0-6		**$0.00858**	**$0.00858**	**$0.00858**	**$0.00858**	**$0.00858**	**$0.00858**	**$0.00858**
229	TGP - Max Comm. Base Rate - Z 1-6	21st Rev Sheet No. 15	$0.02283	$0.02283	$0.02283	$0.02283	$0.02283	$0.02283	$0.02283
230	TGP - Max Commodity ACA Rate - Z 1-6	21st Rev Sheet No. 15	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
231	Subtotal TGP - Max Commodity Rate - Z 1-6		$0.02298	$0.02298	$0.02298	$0.02298	$0.02298	$0.02298	$0.02298
232	Prorated Percentage		67.40%	67.40%	67.40%	67.40%	67.40%	67.40%	67.40%
233	Prorated TGP - Trans Charge - Max Commodity Rate - Z 1-6		**$0.01549**	**$0.01549**	**$0.01549**	**$0.01549**	**$0.01549**	**$0.01549**	**$0.01549**
234	TGP - Fuel Charge % - Z 0 -6	18th Rev Sheet No. 32	5.31%	5.31%	5.31%	5.31%	5.31%	5.31%	5.31%
235	Prorated Percentage		32.6%	32.6%	32.6%	32.6%	32.6%	32.6%	32.6%
236	Prorated TGP Fuel Charge % - Z 0-6		1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
237	TGP - Fuel Charge % - Z 1 -6	18th Rev Sheet No. 32	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%
238	Prorated Percentage		67.40%	67.40%	67.40%	67.40%	67.40%	67.40%	67.40%
239	Prorated TGP Fuel Charge - Fuel Charge % - Z 1-6		3.13%	3.13%	3.13%	3.13%	3.13%	3.13%	3.13%
240	TGP - Fuel Charge % - Z 0-6	ln 222 x ln 236	**$0.01190**	**$0.01236**	**$0.01267**	**$0.01213**	**$0.01050**	**$0.00838**	**$0.01132**
241	TGP - Fuel Charge % - Z 1-6	ln 222 x ln 239	**$0.02150**	**$0.02234**	**$0.02289**	**$0.02192**	**$0.01897**	**$0.01514**	**$0.02046**
242	**Total Volumetric Transportation Rate - TGP (Direct)**		**$0.05746**	**$0.05876**	**$0.05963**	**$0.05812**	**$0.05354**	**$0.04759**	**$0.05585**
243									
244	**TGP (Zone 6 Purchase) Volumetric Transportation Charge**								
245	**Commodity Costs**	Ln 130	[redacted]						
246									
247	TGP - Max Comm. Base Rate - Z 6-6	21st Rev Sheet No. 15	$0.00296	$0.00296	$0.00296	$0.00296	$0.00296	$0.00296	$0.00296
248	TGP - Max Commodity ACA Rate - Z 6-6	21st Rev Sheet No. 15	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
249	Subtotal TGP - Max Commodity Rate - Z 6-6		**$0.00311**	**$0.00311**	**$0.00311**	**$0.00311**	**$0.00311**	**$0.00311**	**$0.00311**
250	TGP - Fuel Charge % - Z 6-6	18th Rev Sheet No. 32	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%
251	TGP - Fuel Charge	ln 245 x ln 250	**$0.00089**	**$0.00093**	**$0.00095**	**$0.00091**	**$0.00079**	**$0.00063**	**$0.00085**
252	**Total Vol. Trans. Rate - TGP (Zone 6)**		**$0.00400**	**$0.00404**	**$0.00406**	**$0.00402**	**$0.00390**	**$0.00374**	**$0.00396**
253									
254									
255	**TGP Dracut**								
256	**Commodity Costs - NYMEX Price**	Ln 117	[redacted]						
257									
258	TGP - Trans Charge - Comm. - Z 6-6	21st Rev Sheet No. 15	$0.00296	$0.00296	$0.00296	$0.00296	$0.00296	$0.00296	$0.00296
259	TGP - Trans Charge - ACA Rate - Z6-6	21st Rev Sheet No. 15	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
260	Subtotal TGP - Trans Charge - Max Commodity Rate - Z 6-6		**$0.00311**	**$0.00311**	**$0.00311**	**$0.00311**	**$0.00311**	**$0.00311**	**$0.00311**
261	TGP - Fuel Charge % - Z 6-6	18th Rev Sheet No. 32	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%
262	TGP - Fuel Charge	ln 256 x ln 261	[redacted]						
263	**Total Volumetric Transportation Rate - TGP Dracut**								

1	**Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**										
2											
3	**Peak 2022 – 2023 Winter Cost of Gas Filing**										
4	**NYMEX Futures @ Henry Hub**										
5											Peak
6	For Month of:		Reference		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Strip Average
7	(a)		(b)		(c)	(d)	(e)	(f)	(g)	(h)	(i)
8	**I. NYMEX Opening Prices as of**	9/29/2022									
9	Opening Prices				$6.8740	$7.1420	$7 3200	$7.0090	$6.0660	$4.8420	$6.5422
10	NYMEX			**Filed COG**	$6.8740	$7.1420	$7 3200	$7.0090	$6.0660	$4.8420	$6.5422

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

Peak 2022 – 2023 Winter Cost of Gas Filing
Annual Bill Comparisons, Nov 21 - Apr 22 Actual Rates vs Nov 22 - Apr 23

Annual Bill Comparisons, Nov 21 - Apr 22 Actual Rates vs Nov 22 - Apr 23

Line										
1	**Non FPO Rate**									
2	**November 1, 2022 - April 30, 2023**									
3	**Residential Heating (R3)**			(1)	(2)	(3)	(4)	(5)	(6)	(7)
4	**PROPOSED**									**Winter**
5				**Nov-22**	**Dec-22**	**Jan-23**	**Feb-23**	**Mar-23**	**Apr-23**	**Nov-Apr**
6	**average Usage (Therms)**			45	92	117	148	130	88	621
7			9/1/2022 - Current							
8	**Winter**									
9	Cust. Chg		$ 15 39	$ 15 39	$ 15.39	$ 15.39	$ 15 39	$ 15.39	$ 15 39	$ 92.34
10	Headblock		$ 0.6519							
11	Tailblock		$ 0.6519	$ 29 22	$ 60.25	$ 76.41	$ 96.48	$ 85.02	$ 57 27	$ 404.65
12	HB Threshold		-							
13										
20	Total Base Rate Amount			$ 44 61	$ 75.64	$ 91.80	$ 111 87	$ 100.41	$ 72 66	$ 496.99
21										
22	COG Rate - (Seasonal)			$ 1.4300	$ 1.4300	$ 1.4300	$ 1.4300	$ 1.4300	$ 1.4300	$ 1.4300
23	COG amount			$ 64.11	$ 132.16	$ 167.60	$ 211 65	$ 186.49	$ 125 64	$ 887.65
24										
25	LDAC			$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110
26	LDAC amount			$ 4 98	$ 10.26	$ 13.01	$ 16.43	$ 14.48	$ 9.75	$ 68.90
27										
28	**Total Bill**			**$ 113.70**	**$ 218.06**	**$ 272.41**	**$ 339.95**	**$ 301.38**	**$ 208.05**	**$ 1,453.54**
29										
30	**November 1, 2021 - April 30, 2022**									
31	**Residential Heating (R3)**									
32	**CURRENT**									**Winter**
33				**Nov-21**	**Dec-21**	**Jan-22**	**Feb-22**	**Mar-22**	**Apr-22**	**Nov-Apr**
34	**average Usage (Therms)**			45	92	117	148	130	88	621
35										
36	**Winter**	8/1/2021 - 7/31/2022	9/1/2022 - Current							
37	Cust. Chg	$ 15.39	$ 15 39	$ 15 39	$ 15.39	$ 15.39	$ 15 39	$ 15.39	$ 15 39	$ 92.34
38	Headblock	$ 0.5632	$ 0.6519							
39	Tailblock	$ 0.5632	$ 0.6519	$ 25 25	$ 52.05	$ 66.01	$ 83 36	$ 73.45	$ 49.48	$ 349.60
40	HB Threshold	-	-							
41										
48	Total Base Rate Amount			$ 40 64	$ 67.44	$ 81.40	$ 98.75	$ 88.84	$ 64 87	$ 441.94
49										
50	COG Rate - (Seasonal)			$ 1.1339	$ 1.0173	$ 0.7246	$ 0.5956	$ 0.7743	$ 1.1747	$ 0.8411
51	COG amount			$ 50 83	$ 94.02	$ 84.93	$ 88.15	$ 100.98	$ 103 21	$ 522.12
52										
53	LDAC			$ 0.1397	$ 0.1012	$ 0.1154	$ 0.1154	$ 0.1318	$ 0.1318	$ 0.1208
54	LDAC amount			$ 6 26	$ 9.35	$ 13.53	$ 17 08	$ 17.19	$ 11 58	$ 74.99
55										
56	**Total Bill**			**$ 97.73**	**$ 170.81**	**$ 179.85**	**$ 203.98**	**$ 207.01**	**$ 179.66**	**$ 1,039.04**
57										
58	**DIFFERENCE**									
59	**Total Bill**			**$15.96**	**$47.25**	**$92.56**	**$135.97**	**$94.37**	**$28.40**	**$414.50**
60	% Change			**16.33%**	**27.66%**	**51.46%**	**66.66%**	**45.59%**	**15.81%**	**39.89%**
61										
62	**Base Rate**			$ 3 98	$ 8.20	$ 10.40	$ 13.13	$ 11.57	$ 7.79	$ 55.06
63	% Change			9.78%	12.16%	12.77%	13.29%	13 02%	12.01%	12.46%
64										
65	**COG & LDAC**			**$ 11.99**	**$ 39.05**	**$ 82.16**	**$ 122.84**	**$ 82.80**	**$ 20.60**	**$ 359.44**
66	% Change			**21.00%**	**37.77%**	**83.45%**	**116.74%**	**70.07%**	**17.95%**	**60.20%**

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

Peak 2022 – 2023 Winter Cost of Gas Filing
Annual Bill Comparisons, Nov 21 - Apr 22 Actual Rates vs Nov 22 - Apr 23

Annual Bill Comparisons, Nov 21 - Apr 22 Actual Rates vs Nov 22 - Apr 23

1	**FPO Rate**									
2	**November 1, 2022 - April 30, 2023**									
3	**Residential Heating (R3-FPO)**			(1)	(2)	(3)	(4)	(5)	(6)	(7)
4	**PROPOSED**									**Winter**
5				**Nov-22**	**Dec-22**	**Jan-23**	**Feb-23**	**Mar-23**	**Apr-23**	**Nov-Apr**
6	**average Usage (Therms)**			45	92	117	148	130	88	621
7			9/1/2022 - Current							
8	**Winter**									
9	Cust. Chg		$ 15 39	$ 15 39	$ 15.39	$ 15.39	$ 15 39	$ 15.39	$ 15 39	$ 92.34
10	Headblock		$ 0.6519							
11	Tailblock		$ 0.6519	$ 29 22	$ 60.25	$ 76.41	$ 96.48	$ 85.02	$ 57 27	$ 404.65
12	HB Threshold		-							
13										
20	Total Base Rate Amount			$ 44 61	$ 75.64	$ 91.80	$ 111 87	$ 100.41	$ 72 66	$ 496.99
21										
22	COG Rate - (Seasonal)			$ 1.7535	$ 1.7535	$ 1.7535	$ 1.7535	$ 1.7535	$ 1.7535	$ 1.7535
23	COG amount			$ 78 61	$ 162.06	$ 205.52	$ 259 53	$ 228.68	$ 154 06	$ 1,088.45
24										
25	LDAC			$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110
26	LDAC amount			$ 4 98	$ 10.26	$ 13.01	$ 16.43	$ 14.48	$ 9.75	$ 68.90
27										
28	**Total Bill**			**$ 128.20**	**$ 247.96**	**$ 310.32**	**$ 387.83**	**$ 343.57**	**$ 236.47**	**$ 1,654.35**
29										
30	**November 1, 2021 - April 30, 2022**									
31	**Residential Heating (R3-FPO)**									
32	**CURRENT**									**Winter**
33				**Nov-21**	**Dec-21**	**Jan-22**	**Feb-22**	**Mar-22**	**Apr-22**	**Nov-Apr**
34	**average Usage (Therms)**			45	92	117	148	130	88	621
35										
36	**Winter**	8/1/2021 - 7/31/2022	9/1/2022 - Current							
37	Cust. Chg	$ 15.39	$ 15 39	$ 15 39	$ 15.39	$ 15.39	$ 15 39	$ 15.39	$ 15 39	$ 92.34
38	Headblock	$ 0.5632	$ 0.6519							
39	Tailblock	$ 0.5632	$ 0.6519	$ 25 25	$ 52.05	$ 66.01	$ 83 36	$ 73.45	$ 49.48	$ 349.60
40	HB Threshold	-	-							
41										
48	Total Base Rate Amount			$ 40 64	$ 67.44	$ 81.40	$ 98.75	$ 88.84	$ 64 87	$ 441.94
49										
50	COG Rate - (Seasonal)			$ 1.1539	$ 1.1539	$ 1.1539	$ 1.1539	$ 1.1539	$ 1.1539	$ 1.1539
51	COG amount			$ 51.73	$ 106.64	$ 135.24	$ 170.78	$ 150.49	$ 101 38	$ 716.26
52										
53	LDAC			$ 0.1397	$ 0.1012	$ 0.1154	$ 0.1154	$ 0.1318	$ 0.1318	$ 0.1208
54	LDAC amount			$ 6 26	$ 9.35	$ 13.53	$ 17 08	$ 17.19	$ 11 58	$ 74.99
55										
56	**Total Bill**			**$ 98.63**	**$ 183.44**	**$ 230.17**	**$ 286.61**	**$ 256.51**	**$ 177.83**	**$ 1,233.19**
57										
58	**DIFFERENCE**									
59	**Total Bill**			**$29.57**	**$64.52**	**$80.16**	**$101.22**	**$87.05**	**$58.64**	**$421.16**
60	% Change			**29.98%**	**35.17%**	**34.83%**	**35.32%**	**33.94%**	**32.98%**	**34.15%**
61										
62	**Base Rate**			$ 3 98	$ 8.20	$ 10.40	$ 13.13	$ 11.57	$ 7.79	$ 55.06
63	% Change			9.78%	12.16%	12.77%	13.29%	13 02%	12.01%	12.46%
64										
65	**COG & LDAC**			**$ 25.59**	**$ 56.32**	**$ 69.76**	**$ 88.09**	**$ 75.48**	**$ 50.85**	**$ 366.10**
66	% Change			**44.13%**	**48.55%**	**46.89%**	**46.89%**	**45.02%**	**45.02%**	**46.27%**

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

Peak 2022 – 2023 Winter Cost of Gas Filing
Annual Bill Comparisons, Nov 21 - Apr 22 Actual Rates vs Nov 22 - Apr 23

Annual Bill Comparisons, Nov 21 - Apr 22 Actual Rates vs Nov 22 - Apr 23

Line										
1	**GAP Rate**									
2	**November 1, 2022 - April 30, 2023**									
3	**Residential Heating (R4-GAP)**			(1)	(2)	(3)	(4)	(5)	(6)	(7)
4	**PROPOSED**									**Winter**
5				**Nov-22**	**Dec-22**	**Jan-23**	**Feb-23**	**Mar-23**	**Apr-23**	**Nov-Apr**
6	**average Usage (Therms)**			45	92	117	148	130	88	621
7			11/1/2022							
8	**Winter**									
9	Cust. Chg		$ 8.47	$ 8.47	$ 8.47	$ 8.47	$ 8.47	$ 8.47	$ 8.47	$ 50.82
10	Headblock		$ 0.3585							
11	Tailblock		$ 0.3585	$ 16 07	$ 33.13	$ 42.02	$ 53 06	$ 46.75	$ 31 50	$ 222.53
12	HB Threshold		-							
13										
20	Total Base Rate Amount			$ 24 54	$ 41.60	$ 50.49	$ 61 53	$ 55.22	$ 39 97	$ 273.35
21										
22	COG Rate - (Seasonal)			$ 0.7865	$ 0.7865	$ 0.7865	$ 0.7865	$ 0.7865	$ 0.7865	$ 0.7865
23	COG amount			$ 35 26	$ 72.69	$ 92.18	$ 116.41	$ 102.57	$ 69.10	$ 488.21
24										
25	LDAC			$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110
26	LDAC amount			$ 4 98	$ 10.26	$ 13.01	$ 16.43	$ 14.48	$ 9.75	$ 68.90
27										
28	**Total Bill**			**$ 64.78**	**$ 124.55**	**$ 155.68**	**$ 194.36**	**$ 172.27**	**$ 118.82**	**$ 830.46**
29										
30	**November 1, 2021 - April 30, 2022**									
31	**Residential Heating (R4-GAP)**									
32	**CURRENT**									**Winter**
33				**Nov-21**	**Dec-21**	**Jan-22**	**Feb-22**	**Mar-22**	**Apr-22**	**Nov-Apr**
34	**average Usage (Therms)**			45	92	117	148	130	88	621
35										
36	**Winter**	11/1/12 to 4/30/22	11/1/22 to 4/30/23							
37	Cust. Chg	$ 8.47	$ 8.47	$ 15 39	$ 15.39	$ 15.39	$ 15 39	$ 15.39	$ 15 39	$ 92.34
38	Headblock	$ 0.3098	$ 0.3585							
39	Tailblock	$ 0.3098	$ 0.3585	$ 25 25	$ 52.05	$ 66.01	$ 83 36	$ 73.45	$ 49.48	$ 349.60
40	HB Threshold	-	-							
41										
48	Total Base Rate Amount			$ 40 64	$ 67.44	$ 81.40	$ 98.75	$ 88.84	$ 64 87	$ 441.94
49										
50	COG Rate - (Seasonal)			$ 0.6236	$ 0.5595	$ 0.3985	$ 0.3276	$ 0.4259	$ 0.6461	$ 0.4626
51	COG amount			$ 27 96	$ 51.71	$ 46.71	$ 48.48	$ 55.54	$ 56.76	$ 287.16
52										
53	LDAC			$ 0.1397	$ 0.1012	$ 0.1154	$ 0.1154	$ 0.1318	$ 0.1318	$ 0.1208
54	LDAC amount			$ 6 26	$ 9.35	$ 13.53	$ 17 08	$ 17.19	$ 11 58	$ 74.99
55										
56	**Total Bill**			**$ 74.86**	**$ 128.50**	**$ 141.63**	**$ 164.31**	**$ 161.57**	**$ 133.21**	**$ 804.09**
57										
58	**DIFFERENCE**									
59	**Total Bill**			**($10.08)**	**($3.95)**	**$14.04**	**$30.05**	**$10.70**	**($14.40)**	**$26.37**
60	% Change			**-13.47%**	**-3.08%**	**9.92%**	**18.29%**	**6.62%**	**-10.81%**	**3.28%**
61										
62	**Base Rate**			$ (16.10)	$ (25.84)	$ (30.91)	$ (37 22)	$ (33.62)	$ (24 90)	$ (168.58)
63	% Change			-39.61%	-38.31%	-37 98%	-37.69%	-37 84%	-38.39%	-38.15%
64										
65	**COG & LDAC**			**$ 6.01**	**$ 21.88**	**$ 44.96**	**$ 67.27**	**$ 44.32**	**$ 10.51**	**$ 194.95**
66	% Change			**17.57%**	**35.84%**	**74.63%**	**102.61%**	**60.94%**	**15.38%**	**53.83%**

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

Peak 2022 – 2023 Winter Cost of Gas Filing
Annual Bill Comparisons, Nov 21 - Apr 22 Actual Rates vs Nov 22 - Apr 23

				(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	**Annual Bill Comparisons, Nov 21 - Apr 22 Actual Rates vs Nov 22 - Apr 23**									
2	**November 1, 2022 - April 30, 2023**									
3	**Commercial Rate (G-41)**									
4	**PROPOSED**									**Winter**
5				**Nov-22**	**Dec-22**	**Jan-23**	**Feb-23**	**Mar-23**	**Apr-23**	**Nov-Apr**
6	**average Usage (Therms)**			111	274	376	483	425	270	1,939
7										
8	**Winter**		9/1/2022 - Current							
9	Cust. Chg		$ 63 30	$ 63 30	$ 63.30	$ 63.30	$ 63 30	$ 63.30	$ 63 30	$ 379.80
10	Headblock		$ 0.5088	$ 50 88	$ 50.88	$ 50.88	$ 50 88	$ 50.88	$ 50 88	$ 305.28
11	Tailblock		$ 0.3550	$ 4 06	$ 61.75	$ 97.88	$ 136.12	$ 115.20	$ 60 33	$ 475.34
12	HB Threshold		100							
13										
20	Total Base Rate Amount			$ 118 24	$ 175.93	$ 212.06	$ 250 30	$ 229.38	$ 174 51	$ 1,160.42
21										
22	COG Rate - (Seasonal)			$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301
23	COG amount			$ 159 38	$ 391.75	$ 537.33	$ 691 36	$ 607.08	$ 386 04	$ 2,772.94
24										
25	LDAC			$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0 0888	$ 0.0888	$ 0.0888
26	LDAC amount			$ 9 90	$ 24.33	$ 33.37	$ 42 93	$ 37.70	$ 23 97	$ 172.18
27										
28	**Total Bill**			**$287.52**	**$592.00**	**$782.76**	**$984.58**	**$874.16**	**$584.51**	**$4,105.53**
29										
30	**November 1, 2021 - April 30, 2022**									
31	**Commercial Rate (G-41)**									
32	**CURRENT**									**Winter**
33				**Nov-21**	**Dec-21**	**Jan-22**	**Feb-22**	**Mar-22**	**Apr-22**	**Nov-Apr**
34	**average Usage (Therms)**			111	274	376	483	425	270	1,939
35										
36	**Winter**	8/1/2021 - 7/31/2022	9/1/2022 - Current							
37	Cust. Chg	$ 57.06	$ 63 30	$ 57 06	$ 57.06	$ 57.06	$ 57 06	$ 57.06	$ 57 06	$ 342.36
38	Headblock	$ 0.4688	$ 0.5088	$ -	$ 46.88	$ 46.88	$ 46 88	$ 46.88	$ 46 88	$ 234.40
39	Tailblock	$ 0.3149	$ 0.3550	$ 3 60	$ 54.77	$ 86.83	$ 120.74	$ 102.19	$ 53 51	$ 421.64
40	HB Threshold	100	100							
41										
48	Total Base Rate Amount			$ 60 66	$ 158.71	$ 190.77	$ 224 68	$ 206.13	$ 157.45	$ 998.40
49										
50	COG Rate - (Seasonal)			$ 1.1341	$ 1.0175	$ 0.7248	$ 0.5958	$ 0.7745	$ 1.1749	$ 0.8311
51	COG amount			$ 126 39	$ 278.73	$ 272.33	$ 288 03	$ 328.78	$ 317.15	$ 1,611.40
52										
53	LDAC			$ 0.0831	$ 0.0749	$ 0.0891	$ 0.0891	$ 0 0991	$ 0.0991	$ 0.0903
54	LDAC amount			$ 9 26	$ 20.52	$ 33.48	$ 43 07	$ 42.07	$ 26.75	$ 175.15
55										
56	**Total Bill**			**$196.31**	**$457.96**	**$496.58**	**$555.79**	**$576.97**	**$501.35**	**$2,784.95**
57										
58	**DIFFERENCE**									
59	**Total Bill**			**$ 91.20**	**$ 134.05**	**$ 286.19**	**$ 428.80**	**$ 297.18**	**$ 83.16**	**$ 1,320.58**
60	% Change			**46.46%**	**29.27%**	**57.63%**	**77.15%**	**51.51%**	**16.59%**	**47.42%**
61										
62	**Base Rate**			$ 57 58	$ 17.21	$ 21.30	$ 25 62	$ 23.25	$ 17 05	$ 162.01
63	% Change			94.91%	10.85%	11.16%	11.40%	11 28%	10.83%	16.23%
64										
65	**COG & LDAC**			$ 33 62	$ 116.83	$ 264.89	$ 403.18	$ 273.93	$ 66.11	$ 1,158.57
66	% Change			24.79%	39.04%	86 62%	121.77%	73 87%	19.22%	64.85%

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

Peak 2022 – 2023 Winter Cost of Gas Filing
Annual Bill Comparisons, Nov 21 - Apr 22 Actual Rates vs Nov 22 - Apr 23

				(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	**Annual Bill Comparisons, Nov 21 - Apr 22 Actual Rates vs Nov 22 - Apr 23**									
2	**November 1, 2022 - April 30, 2023**									
3	**C&I High Winter Use Medium G-42**									
4	**PROPOSED**									**Winter**
5				**Nov-22**	**Dec-22**	**Jan-23**	**Feb-23**	**Mar-23**	**Apr-23**	**Nov-Apr**
6	**average Usage (Therms)**			1,369	2,729	3,456	4,165	3,658	2,463	17,839
7			9/1/2022 - Current							
8	**Winter**									
9	Cust. Chg		$ 189 84	$ 189 84	$ 189.84	$ 189.84	$ 189 84	$ 189.84	$ 189 84	$ 1,139.04
10	Headblock		$ 0.4634	$ 463.40	$ 463.40	$ 463.40	$ 463.40	$ 463.40	$ 463.40	$ 2,780.40
11	Tailblock		$ 0.3212	$ 118.48	$ 555.24	$ 788.87	$ 1,016.45	$ 853.63	$ 470 01	$ 3,802.68
12	HB Threshold		1,000							
13										
20	Total Base Rate Amount			$ 771.72	$ 1,208.48	$ 1,442.11	$ 1,669 69	$ 1,506.87	$ 1,123 25	$ 7,722.12
21										
22	COG Rate - (Seasonal)			$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301
23	COG amount			$ 1,957 62	$ 3,902.24	$ 4,942.45	$ 5,955 69	$ 5,230.77	$ 3,522.74	$ 25,511.50
24										
25	LDAC			$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0 0888	$ 0.0888	$ 0.0888
26	LDAC amount			$ 121 56	$ 242.30	$ 306.89	$ 369 81	$ 324.80	$ 218.74	$ 1,584.10
27										
28	**Total Bill**			**$ 2,850.90**	**$ 5,353.02**	**$ 6,691.45**	**$ 7,995.18**	**$ 7,062.44**	**$ 4,864.73**	**$ 34,817.72**
29										
30	**November 1, 2021 - April 30, 2022**									
31	**C&I High Winter Use Medium G-42**									
32	**CURRENT**									**Winter**
33				**Nov-21**	**Dec-21**	**Jan-22**	**Feb-22**	**Mar-22**	**Apr-22**	**Nov-Apr**
34	**average Usage (Therms)**			1,369	2,729	3,456	4,165	3,658	2,463	17,839
35										
36	**Winter**	8/1/2021 - 7/31/2022	9/1/2022 - Current							
37	Cust. Chg	$ 171.19	$ 189 84	$ 171.19	$ 171.19	$ 171.19	$ 171.19	$ 171.19	$ 171.19	$ 1,027.14
38	Headblock	$ 0.4261	$ 0.4634	$ 426.10	$ 426.10	$ 426.10	$ 426.10	$ 426.10	$ 426.10	$ 2,556.60
39	Tailblock	$ 0.2839	$ 0.3212	$ 104.72	$ 490.76	$ 697.26	$ 898.41	$ 754.50	$ 415.43	$ 3,361.08
40	HB Threshold	1,000	1,000							
41										
48	Total Base Rate Amount			$ 702 01	$ 1,088.05	$ 1,294.55	$ 1,495.70	$ 1,351.79	$ 1,012.72	$ 6,944.82
49										
50	COG Rate - (Seasonal)			$ 1.1341	$ 1.0175	$ 0.7248	$ 0.5958	$ 0.7745	$ 1.1749	$0.8432
51	COG amount			$ 1,552.43	$ 2,776.40	$ 2,504.92	$ 2,481 22	$ 2,832.83	$ 2,894.11	$ 15,041.92
52										
53	LDAC			$ 0.0831	$ 0.0831	$ 0.0831	$ 0.0831	$ 0 0831	$ 0.0831	0.0831
54	LDAC amount			$ 113.75	$ 226.75	$ 287.19	$ 346 07	$ 303.95	$ 204.70	$ 1,482.42
55										
56	**Total Bill**			**$ 2,368.20**	**$ 4,091.20**	**$ 4,086.67**	**$ 4,322.99**	**$ 4,488.57**	**$ 4,111.53**	**$ 23,469.16**
57										
58	**DIFFERENCE**									
59	**Total Bill**			**$ 482.70**	**$ 1,261.82**	**$ 2,604.79**	**$ 3,672.19**	**$ 2,573.87**	**$ 753.20**	**$ 11,348.56**
60	% Change			**20.38%**	**30.84%**	**63.74%**	**84.95%**	**57.34%**	**18.32%**	**48.36%**
61										
62	**Base Rate**			$ 69.71	$ 120.43	$ 147.56	$ 173 99	$ 155.08	$ 110 53	$ 777.29
63	% Change			9.93%	11.07%	11.40%	11.63%	11.47%	10.91%	11.19%
64										
65	**COG & LDAC**			$ 412 99	$ 1,141.39	$ 2,457.23	$ 3,498 20	$ 2,418.79	$ 642 67	$ 10,571.27
66	% Change			24.79%	38.01%	88 01%	123.73%	77.11%	20.74%	63.97%

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

Peak 2022 – 2023 Winter Cost of Gas Filing
Annual Bill Comparisons, Nov 21 - Apr 22 Actual Rates vs Nov 22 - Apr 23

1	**Annual Bill Comparisons, Nov 21 - Apr 22 Actual Rates vs Nov 22 - Apr 23**									
2	**November 1, 2022 - April 30, 2023**									
3	**Commercial Rate (G-52)**			(1)	(2)	(3)	(4)	(5)	(6)	(7)
4	**PROPOSED**									**Winter**
5				**Nov-22**	**Dec-22**	**Jan-23**	**Feb-23**	**Mar-23**	**Apr-23**	**Nov-Apr**
6	**average Usage (Therms)**			1,340	1,718	1,891	2,207	1,964	1,672	10,793
7										
8	**Winter**		9/1/2022 - Current							
9	Cust. Chg		$ 189 87	$ 189 87	$ 189.87	$ 189.87	$ 189 87	$ 189.87	$ 189 87	$ 1,139.22
10	Headblock		$ 0.1978	$ 197 80	$ 197.80	$ 197.80	$ 197 80	$ 197.80	$ 197 80	$ 1,186.80
11	Tailblock		$ 0.1219	$ 41.44	$ 87.58	$ 108.66	$ 147.14	$ 117.52	$ 81 95	$ 584.28
12	HB Threshold		1,000							
13										
20	Total Base Rate Amount			$ 429.11	$ 475.25	$ 496.33	$ 534 81	$ 505.19	$ 469 62	$ 2,910.30
21										
22	COG Rate - (Seasonal)			$1.4296	$1.4296	$1.4296	$1.4296	$1.4296	$1.4296	$ 1.4296
23	COG amount			$ 1,915 58	$ 2,456.69	$ 2,703.88	$ 3,155 21	$ 2,807.80	$ 2,390 63	$ 15,429.80
24										
25	LDAC			$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0 0888	$ 0.0888	$ 0.0888
26	LDAC amount			$ 118 99	$ 152.60	$ 167.95	$ 195 99	$ 174.41	$ 148.49	$ 958.43
27										
28	**Total Bill**			**$2,463.68**	**$3,084.53**	**$3,368.16**	**$3,886.01**	**$3,487.40**	**$3,008.74**	**$19,298.52**
29										
30	**November 1, 2021 - April 30, 2022**									
31	**Commercial Rate (G-52)**									
32	**CURRENT**									**Winter**
33				**Nov-21**	**Dec-21**	**Jan-22**	**Feb-22**	**Mar-22**	**Apr-22**	**Nov-Apr**
34	**average Usage (Therms)**			1,340	1,718	1,891	2,207	1,964	1,672	10,793
35										
36	**Winter**	8/1/2021 - 7/31/2022	9/1/2022 - Current							
37	Cust. Chg	$ 171.19	$ 189 87	$ 171.19	$ 171.19	$ 171.19	$ 171.19	$ 171.19	$ 171.19	$ 1,027.14
38	Headblock	$ 0.2428	$ 0.1978	$ 242 80	$ 242.80	$ 242.80	$ 242 80	$ 242.80	$ 242 80	$ 1,456.80
39	Tailblock	$ 0.1617	$ 0.1219	$ 54 97	$ 116.17	$ 144.13	$ 195.18	$ 155.89	$ 108.70	$ 775.04
40	HB Threshold	1,000	1,000							
41										
48	Total Base Rate Amount			$ 468 96	$ 530.16	$ 558.12	$ 609.17	$ 569.88	$ 522 69	$ 3,258.98
49										
50	COG Rate - (Seasonal)			$ 1.1324	$ 1.0158	$ 0.7231	$ 0.5941	$ 0.7728	$ 1.1732	$ 0.8729
51	COG amount			$ 1,517 35	$ 1,745.59	$ 1,367.64	$ 1,311 22	$ 1,517.82	$ 1,961 87	$ 9,421.48
52										
53	LDAC			$ 0.0831	$ 0.0749	$ 0.0891	$ 0.0891	$ 0 0991	$ 0.0991	$ 0.0895
54	LDAC amount			$ 111 35	$ 128.71	$ 168.52	$ 196 65	$ 194.64	$ 165.72	$ 965.59
55										
56	**Total Bill**			**$2,097.66**	**$2,404.47**	**$2,094.28**	**$2,117.04**	**$2,282.33**	**$2,650.28**	**$13,646.05**
57										
58	**DIFFERENCE**									
59	**Total Bill**			**$ 366.02**	**$ 680.06**	**$ 1,273.88**	**$ 1,768.98**	**$ 1,205.07**	**$ 358.46**	**$ 5,652.47**
60	% Change			**17.45%**	**28.28%**	**60.83%**	**83.56%**	**52.80%**	**13.53%**	**41.42%**
61										
62	**Base Rate**			$ (39 85)	$ (54.91)	$ (61.80)	$ (74 36)	$ (64.69)	$ (53 07)	$ (348.68)
63	% Change			-8.50%	-10.36%	-11 07%	-12.21%	-11 35%	-10.15%	-10.70%
64										
65	**COG & LDAC**			$ 405 87	$ 734.98	$ 1,335.68	$ 1,843 34	$ 1,269.76	$ 411 54	$ 6,001.15
66	% Change			24.92%	39.21%	86 95%	122.25%	74.15%	19.34%	57.78%

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

Peak 2022 – 2023 Winter Cost of Gas Filing
Annual Bill Comparisons, Nov 21 - Apr 22 Actual Rates vs Nov 22 - Apr 23

Residential Heating

	Winter 2021-22	Winter 2022-2023
Customer Charge	$ 15 39	$ 15.39
First 100 Therms	$ 0.5632	$ 0.6519
Excess 100 Therms	$ 0.5632	$ 0.6519
LDAC	$ 0.1208	$ 0.1110
COG	$ 0.8411	$ 1.4300
Total Adjust	$ 0.9619	$ 1.5410

				Total		Base Rate		COG		LDAC	
		Winter 2021-22 @	Winter 2022-23 @	$ Impact	% Impact	$ Impact	% Impact	$ Impact	% Impact	$ Impact	% Impact
		$0.9619	$1.5410	$0.58	60%						
Cooking alone	5	$23.46	$26.35	$2.90	12.34%	$0.00	0%	$2.94	11%	-$0 05	-0.21%
	10	$31.53	$37.32	$5.79	18.37%	$0.00	0%	$5.89	16%	-$0.10	-0.31%
	20	$47.67	$59.25	$11 58	24.30%	$0.00	0%	$11.78	20%	-$0 20	-0.41%
Water Heating alone	30	$63.81	$81.18	$17 37	27.23%	$0.00	0%	$17 67	22%	-$0 29	-0.46%
	45	$88.01	$114 07	$26 06	29.61%	$0.00	0%	$26 50	23%	-$0.44	-0.50%
	50	$96.08	$125 04	$28 95	30.13%	$0.00	0%	$29.44	24%	-$0.49	-0.51%
Heating Alone	80	$136.43	$179 86	$43.43	31.83%	$0.00	0%	$44.17	25%	-$0.74	-0.54%
	125	$230.03	$307 05	$77 02	33.48%	$0.00	0%	$78 32	26%	-$1 30	-0.57%
	150	$257.47	$344 33	$86 86	33.74%	$0.00	0%	$88 33	26%	-$1.47	-0.57%
	200	$338.16	$453 97	$115.81	34.25%	$0.00	0%	$117.77	26%	-$1 96	-0.58%

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

Peak 2022 – 2023 Winter Cost of Gas Filing
Variance Analysis of the Components of the Winter 2021-2022 Actual Results vs Proposed Winter 2022-2023 Cost of Gas Rate

	WINTER 2021-2022 ACTUAL RESULTS (6 months actual)			**WINTER 2022-2023 (6 months Proposed)**		
Therm Sales (COG)	84,205,453			92,780,984		
	THERM SENDOUT	COSTS	EFFECT ON COST OF GAS	THERM SENDOUT	COSTS	EFFECT ON COST OF GAS
Demand Charges		$ 11,731,449	$ 0.1393		$ 12,510,219	$ 0.1348
Purchased Gas		64,509,427	0.7661	66,488,241	93,418,619	1.0069
Storage/Produced Gas		-	-	25,907,278	24,114,755	0.2599
Hedging (Gain)/Loss		-	-		-	-
Total Volumes and Cost	90,819,934	$ 76,240,876	$ 0.9054	92,395,519	$ 130,043,593	$ 1.4016
Direct Costs						
Prior Period Balance		$ (3,130,571)	$ (0.0372)		$ 5,378,797	$ 0.0580
Interest		2,832	0.0000		(283,633)	(0.0031)
Prior Period Adjustment		2,143,613	0.0255		515,609	0.0056
Broker Revenues		(396,197)	(0.0047)		(3,600)	(0.0000)
Refunds from Suppliers		-	-		-	-
Fuel Financing		-	-		-	-
Transportation CGA Revenues		72,941	0.0009		(422,021)	(0.0045)
280 Day Margin		-	-		-	-
Interruptible Sales Margin		-	-		-	-
Capacity Release and Off System Sales Margins		(1,462,297)	(0.0174)		(1,676,512)	(0.0181)
Hedging Costs		-	-		-	-
FPO Admin Costs		-	-		59,917	0.0006
Indirect Costs		-	-			
Misc Overhead		-	-		-	-
Occupant Disallowance/Credits		-			-	-
Production & Storage		3,685,458	0.0438		3,685,458	0.0397
Bad Debt Adjustment %		-	-		1,397,300	0.0151
Cashout, Broker penalty, Canadian Managed,…		-	-		-	-
Total Adjusted Cost		$ 77,156,654	**$ 0.9163**		$ 138,694,907	**$ 1.4949**

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

Peak 2022 – 2023 Winter Cost of Gas Filing
Capacity Assignment Calculations 2020-2021
Derivation of Class Assignments and Weightings

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

Line				Column A	Column B	Column C	Column D	Column E	Column F
				Design Day Demand. Dktherm	Adjusted Design Day Demand, Dt	Percent of Total		Avg Daily Base Use Load, Dt	Remaining Design Day Demand
1	RATE R-1-Resi Non-Htg			639	641	0.4%		97	544
2	RATE R-3-Resi Htg			71,962	72,211	43.6%		3,484	68,728
3	RATE G-41 (T)			30,001	30,106	18.2%		968	29,139
4	RATE G-51 (S)			2,639	2,646	1.6%		742	1,904
5	RATE G-42 (V)			38,016	38,148	23.0%		1,839	36,309
6	RATE G-52			5,466	5,480	3.3%		1,742	3,738
7	RATE G-43			9,590	9,623	5.8%		645	8,977
8	RATE G-53			5,350	5,363	3.2%		1,871	3,492
9	RATE G-54			1,417	1,421	0.9%		419	1,001
10									
11	Total			165,079	165,638	100.0%		11,806	153,832
12									-
13	Residential Total			72,601	72,852	**43.983%**		3,581	69,272
14	LLF Total			77,606	77,877	**47.016%**		3,452	74,425
15	HLF Total			14,872	14,909	**9.001%**		4,774	10,135
16	Total			165,079	165,638	100.0%		11,806	153,832
17									
18	C&I Breakdown								
19	LLF Total							3,452	74,425
20	HLF Total							4,774	10,135
21	Total							8,226	84,560
22									
23	C&I Breakdown Percentage								
24	LLF Total							41.961%	88.014%
25	HLF Total							58.039%	11.986%
26	Total							**100.0%**	**100.0%**
27									
28				Capacity Cost	MDQ, Dt	$/Dt-Mo.			
29	Pipeline			$16,149,021	119,718	$11.2410			
30	Storage			$4,130,365	28,115	$12.2425			
31									
32	Peaking			$2,370,511					
33	Peaking Additional Costs								
34	Subtotal Peaking Costs			$2,370,511	17,805	$11.0948			
35	Total			$22,649,897	165,638	$11.3953			
36									
37				Capacity Cost	MDQ, Dt	$/Dt-Mo.			
38	Pipeline - Baseload			1,592,596	11,806	$11.2410			
39	Pipeline - Remaining			14,556,425	107,912	$11.2410			
40	Storage			4,130,365	28,115	$12.2425			
41	Peaking			2,370,511	17,805	$11.0948			
42	Total			22,649,897	165,638	$11.3953			
43									
44									
45	Residential Allocation			Capacity Cost	MDQ, Dt	$/Dt-Mo.			
46	Pipeline - Base	Line 38 * Line 13 Col C	**43.983%**	700,471	5,193	$11.2410			
47	Pipeline - Remaining	Line 39 * Line 13 Col C	**43.983%**	6,402,344	47,463	$11.2410			
48	Storage	Line 40 * Line 13 Col C	**43.983%**	1,816,663	12,366	$12.2425			
49	Peaking	Line 41 * Line 13 Col C	**43.983%**	1,042,601	7,831	$11.0948			
50	Total		**43.983%**	9,962,098	72,852	$11.3953			

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

Peak 2022 – 2023 Winter Cost of Gas Filing
Capacity Assignment Calculations 2020-2021
Derivation of Class Assignments and Weightings

51							
52							**Ratios for COG**
53	C&I Allocation			Capacity Cost	MDQ, Dt	$/Dt-Mo.	
54	Pipeline - Base	Line 38 - Line 46		892,125	6,614	$11.2410	
55	Pipeline - Remaining	Line 39 - Line 47		8,154,081	60,449	$11.2410	
56	Storage	Line 40 - Line 48		2,313,702	15,749	$12.2424	
57	Peaking	Line 41 - Line 49		1,327,910	9,974	$11.0948	
58	Total		**56.017%**	12,687,818	92,786	$11.3953	**1.0000**
59							
60							
61	LLF - C&I Allocation			Capacity Cost	MDQ, Dt	$/Dt-Mo.	
62	Pipeline - Base	Line 54 * Line 24 Col E		374,343	2,775	$11.2415	
63	Pipeline - Remaining	Line 55 * Line 24 Col F		7,176,761	53,204	$11.2409	
64	Storage	Line 56 * Line 24 Col F		2,036,390	13,862	$12.2420	
65	Peaking	Line 57 * Line 24 Col F		1,168,752	8,779	$11.0942	
66	Total		**47.4892%**	10,756,246	78,620	$11.4011	**1.0005**
67			41.961%	85%			(Line 66 / Line 58)
68							
69	HLF - C&I Allocation			Capacity Cost	MDQ, Dt	$/Dt-Mo.	
70	Pipeline - Base	Line 54 - Line 62		517,782	3,839	$11.2395	
71	Pipeline - Remaining	Line 55 - Line 63		977,320	7,245	$11.2413	
72	Storage	Line 56 - Line 64		277,312	1,887	$12.2466	
73	Peaking	Line 57 - Line 65		159,158	1,195	$11.0989	
74	Total		**8.5280%**	1,931,572	14,166	$11.3627	**0.9971**
75							(Line 74 / Line 58)
76							
77	Unit Cost			Residential	LLF C&I	HLF C&I	
78							
79	Pipeline			$ 11.2410	$ 11.2410	$ 11.2410	
80	Storage			$ 12.2425	$ 12.2425	$ 12.2425	
81	Peaking			$ -	$ -	$ -	
82	Total			$ 11.3953	$ 11.4011	$ 11.3627	
83							
84							
85	Load Makeup			Residential	**LLF C&I**	**HLF C&I**	
86							
87	Pipeline			72.28%	**71.20%**	**78.24%**	
88	Storage			16.97%	**17.63%**	**13.32%**	
89	Peaking			10.75%	**11.17%**	**8.44%**	
90	Total			100.00%	**100.00%**	**100.00%**	
91							
92							
93	Supply Makeup			Residential	LLF C&I	HLF C&I	Total
94							
95	Pipeline			43.98%	46.76%	9.26%	100.00%
96	Storage			43.98%	49.30%	6.71%	100.00%
97	Peaking			43.98%	49.31%	6.71%	100.00%

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

2022 – 2023 Winter Cost of Gas Filing
Correction Factor Calculation

	d	e	f	g	h	i	
Data Source: Schedule 10B	Nov	Dec	Jan	Feb	Mar	Apr	Total Sales
G-41	2,024,090	3,305,230	3,990,080	3,360,930	2,728,610	1,602,400	17,011,340
G-42	1,638,690	2,577,550	3,049,640	2,578,010	2,207,610	1,222,890	13,274,390
G-43	356,550	540,700	658,270	547,120	495,700	292,490	2,890,830
High Winter Use	4,019,330	6,423,480	7,697,990	6,486,060	5,431,920	3,117,780	33,176,560
G-51	279,050	363,480	398,180	331,040	342,590	216,120	1,930,460
G-52	328,800	421,730	457,600	372,490	381,360	245,600	2,207,580
G-53	364,036	444,039	483,757	396,097	410,759	345,126	2,443,814
G-54	36,310	41,220	17,430	15,680	16,970	14,010	141,620
Low Winter Use	1,008,196	1,270,469	1,356,967	1,115,307	1,151,679	820,856	6,723,474
Gross Total	5,027,526	7,693,949	9,054,957	7,601,367	6,583,599	3,938,636	39,900,034

Total Sales	39,900,034	
Low Winter Use	6,723,474	
Winter Ratio for Low Winter Use	**0.9971**	Schedule 10A p 2, ln 74
High Winter Use	33,176,560	
Winter Ratio for High Winter Use	**1.0005**	Schedule 10A p 2, ln 66

Correction Factor = Total Sales/((Low Winter Use x Winter Ratio for Low Winter Use)+(High Winter Use x Winter Ratio for High Winter Use))

Correction Factor = **100.0073%**

Allocation Calculation for Miscellaneous Overhead

Projected Winter Sales Volume	11/1/22 - 4/30/23	92,780,984	Sch.10B, ln 23
Projected Annual Sales Volume	11/1/22 - 10/31/23	116,429,889	Sch.10B, ln 23
Percentage of Winter Sales to Annual Sales		79.69%	

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

Peak 2022 – 2023 Winter Cost of Gas Filing

Dry Therms

Firm Sales	**Nov-22**	**Dec-22**	**Jan-23**	**Feb-23**	**Mar-23**	**Apr-23**	**Subtotal PK 22–23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Subtotal OP 23**	**Total**
R-1	68,950	88,860	102,240	87,330	87,040	65,450	499,870	52,140	39,450	34,490	34,700	38,650	52,460	251,890	751,760
R-3	6,285,460	9,460,770	11,083,750	9,374,930	7,887,130	4,769,830	48,861,870	2,698,720	1,310,080	1,017,330	1,041,040	1,740,970	4,150,980	11,959,120	60,820,990
R-4	456,240	673,650	788,260	669,350	566,410	365,300	3,519,210	206,240	101,740	77,310	76,480	120,880	287,900	870,550	4,389,760
Total Residential.	6,810,650	10,223,280	11,974,250	10,131,610	8,540,580	5,200,580	52,880,950	2,957,100	1,451,270	1,129,130	1,152,220	1,900,500	4,491,340	13,081,560	65,962,510
G-41	2,024,090	3,305,230	3,990,080	3,360,930	2,728,610	1,602,400	17,011,340	747,050	280,900	206,300	208,340	367,080	958,770	2,768,440	19,779,780
G-42	1,638,690	2,577,550	3,049,640	2,578,010	2,207,610	1,222,890	13,274,390	699,850	303,310	225,260	233,780	406,410	879,510	2,748,120	16,022,510
G-43	356,550	540,700	658,270	547,120	495,700	292,490	2,890,830	182,490	74,810	59,600	60,370	102,490	207,170	686,930	3,577,760
G-51	279,050	363,480	398,180	331,040	342,590	216,120	1,930,460	204,580	181,150	182,590	182,770	188,450	244,780	1,184,320	3,114,780
G-52	328,800	421,730	457,600	372,490	381,360	245,600	2,207,580	226,060	205,490	216,980	216,330	215,810	260,610	1,341,280	3,548,860
G-53	364,036	444,039	483,757	396,097	410,759	345,126	2,443,814	309,892	269,892	270,211	265,876	271,048	323,306	1,710,225	4,154,039
G-54	36,310	41,220	17,430	15,680	16,970	14,010	141,620	15,380	19,010	22,810	24,340	22,210	24,280	128,030	269,650
Total C/I	5,027,526	7,693,949	9,054,957	7,601,367	6,583,599	3,938,636	39,900,034	2,385,302	1,334,562	1,183,751	1,191,806	1,573,498	2,898,426	10,567,345	50,467,379
Sales Volume	**11,838,176**	**17,917,229**	**21,029,207**	**17,732,977**	**15,124,179**	**9,139,216**	**92,780,984**	**5,342,402**	**2,785,832**	**2,312,881**	**2,344,026**	**3,473,998**	**7,389,766**	**23,648,905**	**116,429,889**
Transportation Sales															
G-41	582,770	880,040	1,055,350	869,770	774,950	457,900	4,620,780	265,850	143,190	108,120	97,250	159,240	331,950	1,105,600	5,726,380
G-42	1,997,440	2,956,400	3,441,830	2,872,700	2,552,380	1,546,030	15,366,780	919,290	503,450	400,550	403,990	669,630	1,280,150	4,177,060	19,543,840
G-43	778,960	1,055,230	1,249,450	1,050,480	981,780	544,520	5,660,420	369,150	239,600	215,710	243,220	342,610	535,700	1,945,990	7,606,410
G-51	87,610	108,870	116,400	96,830	101,020	83,010	593,740	78,680	65,660	61,970	61,670	64,120	76,290	408,390	1,002,130
G-52	515,770	638,420	695,870	577,050	589,970	437,350	3,454,430	396,040	365,860	371,740	366,710	375,870	444,530	2,320,750	5,775,180
G-53	871,410	1,003,760	1,096,490	926,310	943,320	847,150	5,688,440	731,010	625,610	627,450	662,150	677,440	792,690	4,116,350	9,804,790
G-54	1 589 640	1 297 120	1 272 510	1 056 470	1 163 130	1 359 460	7 738 330	1 562 310	1 567 620	1 631 390	1 738 910	1 681 980	1 754 440	9 936 650	17 674 980
Total Trans. Sales	**6,423,600**	**7,939,840**	**8,927,900**	**7,449,610**	**7,106,550**	**5,275,420**	**43,122,920**	**4,322,330**	**3,510,990**	**3,416,930**	**3,573,900**	**3,970,890**	**5,215,750**	**24,010,790**	**67,133,710**
Total All Sales	**18,261,776**	**25,857,069**	**29,957,107**	**25,182,587**	**22,230,729**	**14,414,636**	**135,903,904**	**9,664,732**	**6,296,822**	**5,729,811**	**5,917,926**	**7,444,888**	**12,605,516**	**47,659,695**	**183,563,599**

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/l

Peak 2022 – 2023 Winter Cost of Gas Filing

Volumes (Therms) **Normal Year**

For the Months of May 22 - October 22

	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Peak Nov - Apr
Pipeline Gas:							
Dawn Supply	874,251	924,161	926,671	839,868	910,477	771,345	5,246,775
Niagara Supply	689,540	728,492	730,471	661,898	717,705	678,639	4,206,745
TGP Supply (Gulf)	4,621,463	3,096,843	3,105,255	2,814,958	3,050,989	641,701	17,331,210
Dracut Supply 1 - Baseload			3,100,000	1,400,000		-	4,500,000
Dracut Supply 2 - Swing	2,068,620	1,628,571	574,992	2,290,420	4,186,862	1,559,349	12,308,813
Dracut Supply 3 - Swing	1,267,959	112,886	75,462	292,325	1,410,944	36,213	3,195,790
Constellation Combo							0
LNG Truck	117,744	1,270,345	1,451,131	1,484,347	110,473	-	4,434,041
Propane Truck	-	-	691,985	-	-	55,769	747,754
PNGTS	218,563	231,040	231,668	209,778	227,619	196,277	1,314,945
Portland Natural Gas	1,067,793	1,128,109	1,131,173	1,025,411	1,111,405	840,151	6,304,043
TGP Supply (Z4)	1,816,941	1,919,817	1,925,032	1,744,865	1,891,391	5,458,808	14,756,854
Subtotal Pipeline Volumes	12,742,875	11,040,265	13,943,840	12,763,870	13,617,866	10,238,252	74,346,969
Storage Gas:							
TGP Storage	1,157,573	5,220,027	6,244,468	5,052,839	1,498,432	1,000,000	20,173,339
Produced Gas:							
LNG Vapor	119,952	1,357,644	1,456,414	1,485,862	21,502	21,004	4,462,377
Propane	-	-	1,263,231	8,331	-	-	1,271,562
Subtotal Produced Gas	119,952	1,357,644	2,719,645	1,494,192	21,502	21,004	5,733,939
Less - Gas Refills:							
LNG Truck	(117,744)	(1,270,345)	(1,451,131)	(1,484,347)	(110,473)	-	(4,434,041)
Propane	-	-	(691,985)	-	-	(55,769)	(747,754)
TGP Storage Refill	(1,743,351)	-	-	-	-	(933,581)	(2,676,933)
Subtotal Refills	(1,861,095)	(1,270,345)	(2,143,116)	(1,484,347)	(110,473)	(989,350)	(7,858,728)
Total Sendout Volumes	12,159,305	16,347,591	20,764,836	17,826,554	15,027,327	10,269,906	92,395,519

1 **Liberty Utilities (EnergyNorth Natural Gas) Corp. d/l**

2

3 **Peak 2022 – 2023 Winter Cost of Gas Filing**

44 **Normal and Design Year Volumes** — **Schedule 11B**

45 **Page 1 of 1**

46

47 **Volumes (Therms)** — **Design Year**

48

49 **For the Months of May 22 - October 22**

50

		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Peak Nov - Apr
51								
52								
53	Pipeline Gas:							
54	Dawn Supply	1,067,793	1,128,109	1,131,173	1,025,411	1,111,405	836,530	6,300,421
55	Niagara Supply	689,540	728,492	730,471	661,898	717,705	678,639	4,206,745
56	TGP Supply (Gulf)	4,620,727	3,096,843	3,105,255	2,814,958	3,050,989	635,907	17,324,680
57	Dracut Supply 1 - Baseload			3,100,000	1,400,000			4,500,000
58	Dracut Supply 2 - Swing	2,618,338	4,157,974	2,220,815	4,195,080	5,065,458	211,486	18,469,150
59	Dracut Supply 3 - Swing	2,210,649	305,545	1,091,178	657,354	2,425,963	1,346,414	8,037,103
60	Constellation Combo							0
61	LNG Truck	117,744	1,140,150	1,599,791	1,467,686	108,990	-	4,434,362
62	Propane Truck	-	-	691,985	-	-	83,291	775,276
63	PNGTS	218,563	231,040	231,668	209,778	227,619	195,552	1,314,220
64	Portland Natural Gas	874,251	924,161	926,671	839,868	910,477	769,897	5,245,326
65	TGP Supply (Z4)	1,816,941	1,919,817	1,925,032	1,744,865	1,891,391	5,457,359	14,755,405
66	Subtotal Pipeline Volumes	14,234,547	13,632,132	16,754,039	15,016,897	15,509,998	10,215,076	85,362,689
67								
68	Storage Gas:							
69	TGP Storage	1,111,948	4,910,719	6,399,165	5,235,353	1,470,999	1,000,000	20,128,183
70								0
71	Produced Gas:							0
72	LNG Vapor	119,952	1,189,067	1,642,804	1,468,443	21,502	21,004	4,462,772
73	Propane	-	-	1,271,532	-	-	-	1,271,532
74	Subtotal Produced Gas	119,952	1,189,067	2,914,337	1,468,443	21,502	21,004	5,734,305
75								
76	Less - Gas Refills:							
77	LNG Truck	(117,744)	(1,140,150)	(1,599,791)	(1,467,686)	(108,990)	-	-4,434,362
78	Propane	-	-	(691,985)	-	-	(83,291)	-775,276
79	TGP Storage Refill	(1,696,989)	-	-	-	-	(934,306)	-2,631,295
80	Subtotal Refills	(1,814,734)	(1,140,150)	(2,291,776)	(1,467,686)	(108,990)	(1,017,597)	(7,840,933)
81								
82	Total Sendout Volumes	13,651,713	18,591,768	23,775,764	20,253,007	16,893,509	10,218,483	103,384,244

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

Peak 2022 – 2023 Winter Cost of Gas Filing
Capacity Utilization
Volumes (Therms)

	Peak Period Normal Year Use (Therms)	MDQ (MMBtu/day)	Seasonal Quantity (Therms)	Utilization Rate	Peak Period Design Year Use (Therms)	MDQ (MMBtu/day)	Seasonal Quantity (Therms)	Utilization Rate
Pipeline Gas:								
Dawn Supply	5,246,775	4,000	7,240,000	72%	6,300,421	4,000	7,240,000	87%
Niagara Supply	4,206,745	3,122	5,650,820	74%	4,206,745	3,122	5,650,820	74%
TGP Supply (Gulf + Z4)	32,088,064	21,596	39,088,760	82%	32,080,085	21,596	39,088,760	82%
Dracut Supply 1 & 2 & 3	20,004,603	90,000	162,900,000	12%	31,006,253	90,000	162,900,000	19%
LNG Truck	4,434,041	-	-	-	4,434,362	-	-	-
Propane Truck	747,754	-	-	-	775,276	-	-	-
PNGTS	1,314,945	1,000	1,810,000	73%	1,314,220	1,000	1,810,000	73%
Portland Natural Gas	6,304,043	5,000	9,050,000	70%	5,245,326	5,000	9,050,000	58%
Constellation Vapor	-				-	-	-	-
Subtotal Pipeline Volumes	74,346,969				85,362,689			
Storage Gas:								
TGP Storage	20,173,339		25,791,710	78%	20,128,183		25,791,710	78%
Produced Gas:								
LNG Vapor	4,462,377				4,462,772			
Propane	1,271,561.8				1,271,532			
Subtotal Produced Gas	5,733,939				5,734,305			
Less - Gas Refills:								
LNG Truck	(4,434,041)				(4,434,362)			
Propane	(747,754)				(775,276)			
TGP Storage Refill	(2,676,933)				(2,631,295)			
Subtotal Refills	(7,858,728)				(7,840,933)			
Total Sendout Volumes	92,395,519				103,384,244			

Peak 2022 – 2023 Winter Cost of Gas Filing

Forecast of Upcoming Winter Period
Design Day Report
2022/2023 Heating Season
(Therms)

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

Requirements		
	Firm Sales	1,237,481
	Interruptible Sales	0
	Firm Transportation	418,899
	Interruptible Transportation	0
	Total Requirements	1,656,380
Resources		
	Purchased Pipeline Gas	1,197,180
	Underground Storage Gas	281,150
	Propane Air Production	52,050
	LNG Produced Gas	126,000
	Third-Party Supply	
	Total Resources	1,656,380

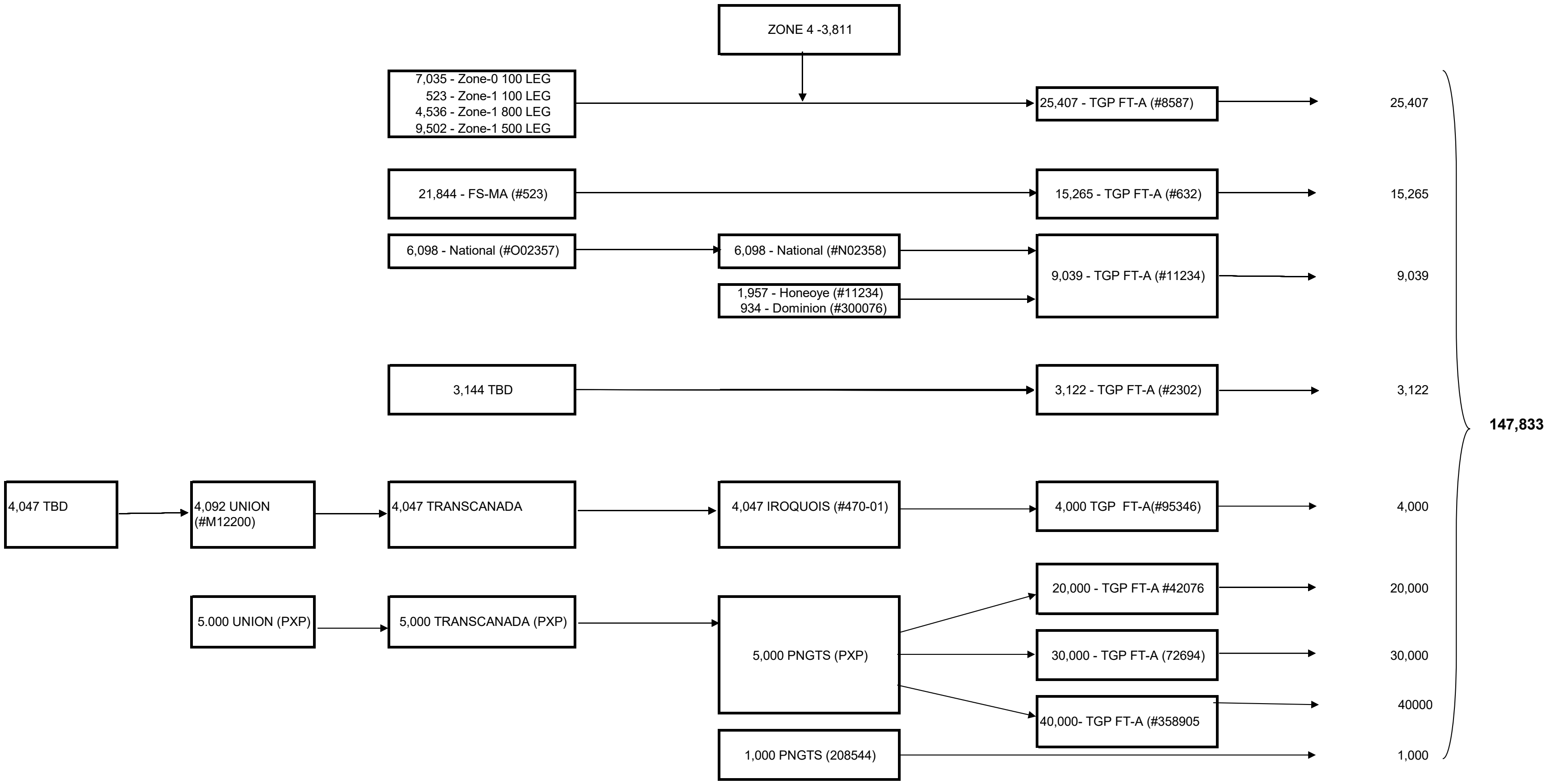
Please refer to the ENNG 2013 IRP filing (DG 13-313) for a complete description of the methodology and assumptions used in the derivation of this data.

Preparation of this report was supervised by:

Deborah Gilbertson
Sr. Manager, Energy Procurement

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

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP.
Peak 2022 – 2023 Winter Cost of Gas Filing
Transportation Available for Pipeline Supply and Storage
(MMBtu)



LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP.
Peak 2022 – 2023 Winter Cost of Gas Filing
Transportation Available for Pipeline Supply and Storage

Agreements for Gas Supply and Transportation

SOURCE	RATE SCHEDULE	CONTRACT NUMBER	TYPE	MDQ MMBTU	MAQ * MMBTU	EXPIRATION DATE	NOTIFICATION DATE	RENEWAL OPTIONS
ANE	NA	NA	Supply	4,047	611,097	Peak Only	N/A	Terminates
Constellation	FCS		Firm Combination Liquid and Vapor Svc	Up to 10 trucks	665,000	3/31/2022 Peak Only	N/A	Terminates
Dracut or Z6	NA	NA	Supply	Up to 20,000 / day	1,412,000	2/28/2022	N/A	Terminates
TGP Long-Haul	NA	NA	Supply	21,596	3,908,876	4/30/2023	N/A	Terminates
Northern Transport	NA	NA	Trucking	28,000 Gallons	500,000 gallons	3/31/2023	N/A	Terminates
Dominion Transmission Incorporated	GSS	300076	Storage	934	102,700	3/31/2025	3/31/2023	Mutually agreed upon
Honeoye Storage Corporation	SS-NY	11234	Storage	1,957	245,380	3/31/2024	12 months notice	Evergreen Provision
National Fuel Gas Supply Corporation	FSS	O02358	Storage	6,098	670,800	3/31/2024	3/31/2023	Evergreen Provision
National Fuel Gas Supply Corporation	FSST	N02358	Transportation	6,098	670,800	3/31/2024	3/31/2023	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	11/30/2023	11/30/2022	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	5,000	1,825,000	10/31/2040	10/31/2039	Precedent Agreement
Union Gas Limited	M12	M12200	Transportation	4,092	1,493,580	10/31/2024	10/31/2022	Evergreen Provision
Union Gas Limited	M12	PXP	Transportation	5,000	1,825,000	10/31/2040	10/31/2039	Precedent Agreement

* MAQ is calculated on a 365 day calendar year.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2022 – 2023 Winter Cost of Gas Filing

Load Migration From Sales to Transportation in the C&I High and Low Winter Use Classes

July 2021 - June 2022 Normalized Sales and Transportation Volumes (Therms)

C&I Rate Classes	**Annual Sales**	**% of Total by Class**	**% of Sales to Total Volume by Class**
G-41	19,166,867	46.40%	78.50%
G-42	16,268,328	39.38%	45.29%
G-43	4,210,173	10.19%	33.83%
G-51	3,030,027	7.33%	76.58%
G-52	2,850,332	6.90%	33.27%
G-53	219,876	0.53%	2.11%
G-54	(4,433,944)	-10.73%	-29.14%
Total C/I	41,311,658	100.00%	

	Annual Transportation	**% of Total by Class**	**% of Transportation to Total Volume by Class**
G-41	5,250,441	7.54%	21.50%
G-42	19,650,487	28.22%	54.71%
G-43	8,233,094	11.82%	66.17%
G-51	926,670	1.33%	23.42%
G-52	5,717,816	8.21%	66.73%
G-53	10,207,700	14.66%	97.89%
G-54	19,648,661	28.22%	129.14%
Total C/I	69,634,870	100.00%	

Sales & Transportation	**Total**	**% of Total by Class**	
G-41	24,417,308	22.01%	100.00%
G-42	35,918,815	32.37%	100.00%
G-43	12,443,268	11.22%	100.00%
G-51	3,956,697	3.57%	100.00%
G-52	8,568,147	7.72%	100.00%
G-53	10,427,576	9.40%	100.00%
G-54	15,214,716	13.71%	100.00%
Total C/I	110,946,528	100.00%	

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

Peak 2022 – 2023 Winter Cost of Gas Filing

Delivered Costs of Winter Supplies to Pipeline Delivered Supplies from the Prior Year

	Off-Peak May 21 - Oct 21 (Therms)	Peak Nov 21 - Apr 22 (Therms)	Total May 21 - Apr 22 (Therms)	Ratio
Pipeline Deliveries	17,089,850	88,448,634	105,538,484	
All Others	97,860	2,371,300	2,469,160	
	17,187,710	90,819,934	108,007,644	
Total Winter Supplies				90,819,934
Total Pipeline Deliveries				105,538,484
Ratio Winter Supplies to Pipeline Supplies				0.861

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

Peak 2022 – 2023 Winter Cost of Gas Filing

July and August Consumption of C&I High and Low Winter Classes as a Percentage of Their Annual Consumption

C&I Sales Normalized (Therms)	Jul-21	Aug-21	Jul - Aug 2021 Total	Total Annual	% of Jul-Aug to Total
(a)	(b)	(c)	(e)=(c)+(d)	(f)	(g)=(e)/(f)
G-41	203,980	164,223	368,203	19,166,867	1.92%
G-42	198,671	75,257	273,928	16,268,328	1.68%
G-43	112,543	113,302	225,845	4,210,173	5.36%
G-51	193,352	180,705	374,056	3,030,027	12.34%
G-52	205,194	202,459	407,652	2,850,332	14.30%
G-53	68,611	61,778	130,389	219,876	59.30%
G-54	31,618	33,493	65,111	(4,433,944)	-1.47%
Total C/I	1,013,969	831,216	1,845,185	41,311,658	4.47%

1 **Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**
2 **Peak 2022 – 2023 Winter Cost of Gas Filing**

4 **Storage Inventory, Undergound, LPG and LNG including Calculation of Money Pool Interest Costs Associated with Natural Gas**

6 **Underground Storage Gas**

Ln	Description	Reference	May-22 (Actual)	Jun-22 (Actual)	Jul-22 (Actual)	Aug-22 (Estimate)	Sep-22 (Estimate)	Oct-22 (Estimate)	Nov-22 (Estimate)	Dec-22 (Estimate)	Jan-23 (Estimate)	Feb-23 (Estimate)	Mar-23 (Estimate)	Apr-23 (Estimate)	Total
9	Beginning Balance (MMBtu)		531,016	808,417	1,005,342	1,245,383	1,508,568	1,771,753	2,034,938	1,919,181	1,397,178	772,731	267,447	117,604	531,016
11	Injections (MMBtu)	Sch 11A ln 39 /10	281,796	199,940	243,767	263,185	263,185	263,185		-	-	-	-	93,358	1,608,416
13	Subtotal		812,812	1,008,357	1,249,109	1,508,568	1,771,753	2,034,938	2,034,938	1,919,181	1,397,178	772,731	267,447	210,962	
15	Storage Sale/Adjustments		(4,395)	(3,015)	(3,726)	-	-	-	-	-	-	-	-	-	(11,136)
17	Withdrawals (MMBtu)	Sch 11A ln 29 /10	-	-	-	-	-	-	(115,757)	(522,003)	(624,447)	(505,284)	(149,843)	(100,000)	(2,017,334)
19	Ending Balance (MMBtu)		808,417	1,005,342	1,245,383	1,508,568	1,771,753	2,034,938	1,919,181	1,397,178	772,731	267,447	117,604	110,962	110,962
22	Beginning Balance		$ 1,962,850	$ 3,828,588	$ 5,462,121	$ 6,904,920	$ 8,480,574	$ 10,056,229	$ 11,631,883	$ 10,970,204	$ 7,986,391	$ 4,416,999	$ 1,528,752	$ 672,235	$ 1,962,850
24	Injections	ln 11 * ln 36	$ 1,859,310	$ 1,628,729	$ 1,443,037	$ 1,575,654	$ 1,575,654	$ 1,575,654	$ -	$ -	$ -	$ -	$ -	$ 403,260	$ 10,061,301
26	Subtotal		$ 3,822,160	$ 5,457,317	$ 6,905,159	$ 8,480,574	$ 10,056,229	$ 11,631,883	$ 11,631,883	$ 10,970,204	$ 7,986,391	$ 4,416,999	$ 1,528,752	$ 1,075,496	
28	Storage Sale/Adjustments		$ 6,428	$ 4,804	$ (239)			$ -							
30	Withdrawals	ln 17 * ln 34	-	-	-	-	-	-	(661,679)	(2,983,813)	(3,569,392)	(2,888,247)	(856,517)	(509,805)	$ (11,469,453)
32	Ending Balance		$ 3,828,588	$ 5,462,121	$ 6,904,920	$ 8,480,574	$ 10,056,229	$ 11,631,883	$ 10,970,204	$ 7,986,391	$ 4,416,999	$ 1,528,752	$ 672,235	$ 565,691	$ 554,698
34	Average Rate For Withdrawals	ln 22 /ln 9	$ 4.7024	$ 5.4121	$ 5.5281	$ 5.6216	$ 5.6759	$ 5.7161	$ 5.7161	$ 5.7161	$ 5.7161	$ 5.7161	$ 5.7161	$ 5.0980	
36	TGP Storage Rate for Injections	Actual or NYMEX plus TGP Transportation	$ 6.5981	$ 8.1461	$ 5.9197	$ 5.9869	$ 5.9869	$ 5.9869	$ 6.0540	$ 6.6195	$ 6.8225	$ 6.6115	$ 5.6710	$ 4.3195	
38	For Informational Purposes								Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	Total
39	Summer Hedge Contracts - Vols Dth								-	-	-	-	-	-	-
40	Average Hedge Price								$ -	$ -	$ -	$ -	$ -	$ -	
41	NYMEX								$ 6.8740	$ 7.1420	$ 7.3200	$ 7.0090	$ 6.0660	$ 4.8420	
43	Hedged Volumes at Hedged Price								$ -	$ -	$ -	$ -	$ -	$ -	$ -
44	Less Hedged Volumes at NYMEX								$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	Hedge (Savings)/Loss								$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	Month Dollar Average	ln (22 + ln 32) /2				$ 7,692,747	$ 9,268,401	$ 10,844,056	$ 11,301,043	$ 9,478,297	$ 6,201,695	$ 2,972,876	$ 1,100,494	$ 618,963	
49	Money Pool Finance Rate (per Nov 10 - Apr 11 Actuals)					0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
51	Inventory Finance Charge	ln 47 * ln 49				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
52	Financial Expenses					-	-	-	-	-	-	-	-	-	
53	Total Inventory Finance Charges					$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	

Liquid Propane Gas (LPG)

Ln			May-22 (Actual)	Jun-22 (Actual)	Jul-22 (Actual)	Aug-22 (Estimate)	Sep-22 (Estimate)	Oct-22 (Estimate)	Nov-22 (Estimate)	Dec-22 (Estimate)	Jan-23 (Estimate)	Feb-23 (Estimate)	Mar-23 (Estimate)	Apr-23 (Estimate)	Total
44	Beginning Balance		32,352	32,015	31,856	42,889	65,583	88,277	110,971	110,971	110,971	53,846	53,013	53,013	32,352
46	Injections	Sch 11A ln 38 /10	-	-	14,266	22,694	22,694	22,694	-	-	69,199	-	-	5,577	157,123
48	Subtotal		32,352	32,015	46,122	65,583	88,277	110,971	110,971	110,971	180,170	53,846	53,013	58,590	
50	Withdrawals	Sch 11A ln 33 /10	-	-	-	-	-	-	-	-	(126,323)	(833)	-	-	(127,156)
52	Adjustment for change in temperature		(337)	(159)	(3,233)	-	-	-	-	-	-	-	-	-	(3,729)
53	Adjustment for Transfer		-	-	-	-	-	-	-	-	-	-	-	-	-
54	Ending Balance		32,015	31,856	42,889	65,583	88,277	110,971	110,971	110,971	53,846	53,013	53,013	58,590	58,590
57	Beginning Balance		$ 477,921	$ 472,943	$ 470,594	$ 654,434	$ 1,085,620	$ 1,516,806	$ 1,947,992	$ 1,947,992	$ 1,947,992	$ 973,058	$ 958,004	$ 958,004	$ 477,921
59	Injections	ln 46 * ln 69	-	-	231,600	431,186	431,186	431,186	-	-	1,307,852	-	-	105,403	2,938,413
61	Subtotal		$ 477,921	$ 472,943	$ 702,194	$ 1,085,620	$ 1,516,806	$ 1,947,992	$ 1,947,992	$ 1,947,992	$ 3,255,844	$ 973,058	$ 958,004	$ 1,063,407	
63	Withdrawals/ Adjust	ln 52 * ln 67	(4,978)	(2,349)	(47,760)	-	-	-	-	-	(2,282,786)	(15,054)	-	-	(2,352,927)
65	Ending Balance		$ 472,943	$ 470,594	$ 654,434	$ 1,085,620	$ 1,516,806	$ 1,947,992	$ 1,947,992	$ 1,947,992	$ 973,058	$ 958,004	$ 958,004	$ 1,063,407	$ 1,063,407
67	Average Rate For Withdrawals		$14.7725	$14.7725	$15.2247	$16.5534	$17.1823	$17.5541	$17.5541	$17.5541	$18.0710	$18.0710	$18.0710	$18.1499	
69	Propane Rate for Injections	Actual or Sch. 6, ln 165 * 10	$14.7725	$14.7725	$15.2247	$16.5534	$17.1823	$17.5541	$18.9000	$18.9000	$18.9000	$18.9000	$18.9000	$18.9000	
72	Month Dollar Average	ln (57 + ln 65) /2				$ 870,027	$ 1,301,213	$ 1,732,399	$ 1,947,992	$ 1,947,992	$ 1,460,525	$ 965,531	$ 958,004	$ 1,010,705	
74	Money Pool Finance Rate (per Nov 10 - Apr 11 Actuals)					0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
76	Inventory Finance Charge	ln 72 * ln 74				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	

Liquid Natural Gas (LNG)

Ln			May-22 (Actual)	Jun-22 (Actual)	Jul-22 (Actual)	Aug-22 (Estimate)	Sep-22 (Estimate)	Oct-22 (Estimate)	Nov-22 (Estimate)	Dec-22 (Estimate)	Jan-23 (Estimate)	Feb-23 (Estimate)	Mar-23 (Estimate)	Apr-23 (Estimate)	Total
81	Beginning Balance		11,460	10,769	10,761	12,163	13,565	14,967	16,369	16,148	7,418	6,890	6,739	15,636	11,460
83	Injections	Sch 11A ln 37 /10	812	1,638	2,496	2,496	2,496	2,496	11,774	127,035	145,113	148,435	11,047	-	455,838
85	Subtotal		12,272	12,407	13,257	14,659	16,061	17,463	28,143	143,183	152,531	155,325	17,786	15,636	
87	Withdrawals	Sch 11A ln 32 /10	(1,503)	(1,646)	(1,094)	(1,094)	(1,094)	(1,094)	(11,995)	(135,764)	(145,641)	(148,586)	(2,150)	(2,100)	(453,763)
89	Ending Balance		10,769	10,761	12,163	13,565	14,967	16,369	16,148	7,418	6,890	6,739	15,636	13,535	13,535
92	Beginning Balance		$ 88,967	$ 100,266	$ 118,983	$ 150,191	$ 180,308	$ 209,643	$ 238,370	$ 222,195	$ 169,342	$ 165,357	$ 159,641	$ 249,969	$ 88,967
94	Injections	ln 83 * ln 104	25,292	36,851	44,659	44,659	44,659	44,659	148,876	3,046,288	3,491,277	3,514,340	124,702	-	10,566,261
96	Subtotal		$ 114,259	$ 137,117	$ 163,641	$ 194,849	$ 224,966	$ 254,301	$ 387,246	$ 3,268,484	$ 3,660,618	$ 3,679,697	$ 284,344	$ 249,969	
98	Withdrawals	ln 87 * ln 102	(13,993)	(18,135)	(13,450)	(14,542)	(15,324)	(15,931)	(165,051)	(3,099,142)	(3,495,261)	(3,520,056)	(34,374)	(33,579)	(10,438,837)
100	Ending Balance		$ 100,266	$ 118,983	$ 150,191	$ 180,308	$ 209,643	$ 238,370	$ 222,195	$ 169,342	$ 165,357	$ 159,641	$ 249,969	$ 216,391	$ 216,391
102	Average Rate For Withdrawals		$9.3105	$11.0516	$12.3438	$13.2921	$14.0070	$14.5623	$13.7597	$22.8274	$23.9991	$23.6903	$15.9869	$15.9869	
104	LNG Rate for Injections	Actual or Sch. 6, ln 164 * 10	$31.1481	$22.4977	$17.8921	$17.8921	$17.8921	$17.8921	$12.6440	$23.9800	$24.0590	$23.6760	$11.2880	$11.2880	
107	Month Dollar Average	ln (92 + ln 100) /2				$ 165,249	$ 194,975	$ 224,007	$ 230,283	$ 195,769	$ 167,349	$ 162,499	$ 204,805	$ 233,180	
109	Money Pool Finance Rate (per Nov 10 - Apr 11 Actuals)					0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
111	Inventory Finance Charge	ln 107 * ln 109				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
114	Total Fuel Financing	lns 53 + 76 + 111				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2022 – 2023 Winter Cost of Gas Filing

Forecast of Firm Transportation Volumes and Cost of Gas Revenues

Firm Transportation

	Therms 1/	Cost of Gas Rate 2/	Cost of Gas Revenue
Nov-22	6,423,600	$ 0.0098	$ 62,864
Dec-22	7,939,840	0.0098	77,703
Jan-23	8,927,900	0.0098	87,373
Feb-23	7,449,610	0.0098	72,905
Mar-23	7,106,550	0.0098	69,548
Apr-23	5,275,420	0.0098	51,628
Total	**43,122,920**		**$ 422,021**

1/ Per Schedule 10B, line 34. Excludes special contract volumes subject to transportation cost of gas.
2/ Refer to Proposed Second Revised Page 98 for calculation of rate.

III DELIVERY TERMS AND CONDITIONS

ATTACHMENT B
Schedule of Administrative Fees and Charges

I.	Supplier Balancing Charge:	$ 0.21	
II.	Capacity Mitigation Fee	15% of the Proceeds from the Marketing of Capacity for Mitigation.	
III.	Peaking Demand Charge	$ 56.69	MMBTU of Peak MDQ
IV.	Company Allowance Calculation (per Schedule 25)		
		170,377,710	Total Sendout - Therms Jul-2021 - Jun-2022
		166,126,573	Total Throughput - Therms Jul-2021 - Jun-2022
		4,251,137	Variance (Sendout - Throughput)
	Company Allowance Percentage 2022-23	2.5%	Variance / Total Sendout

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

Calculation of Supplier Balancing Charge
2022-2023

Rate: $ 0.2109 /MMBtu

		Rate	Volume		Total	
Injection Cost		$ 0.0087	**331,633**	$	2,885	
Fuel	1.81%	$ 0.0498	**331,633**	$	16,507	
Withdrawal Cost		$ 0.0087	**229,846**	$	2,000	
Delivery Rate		$ 0.0421	229,846	$	9,678	
FTA Demand Charge		$ 0.2359	229,846	$	54,226	
FTA Commodity Charge		$ 0.1030	229,846	$	23,674	
Fuel	1.49%	$ 0.0410	229,846	$	9,418	
			Total Cost	$	118,388	
		Absolute Value of the	Sendout Error		**561,480**	MMBtu
			Rate	$	0.2109	/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	$	1.2801	/ MMBtu per month
	$	0.0421	/ MMBtu per day
TGP Z4-6 Demand Charge	$	7.1720	/ MMBtu per month
	$	0.2359	/ MMBtu per day
TGP Z4-6 Commodity Charge	$	0.1030	/ MMBtu

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

Calculation of Supplier Balancing Charge
2022-2023
Estimated Monthly Imbalances

Date	Forecasted DD	Actual DD	Forecaster Error DD	Forecasted Sendout (MMBtu)	Actual Sendout (MMBtu)	Sendout Error (MMBtu)	Abs.Value Sendout Error (MMBtu)	Injections (MMBtu)	Withdrawals (MMBtu)
Nov	696	694	2	1,568,263	1,564,464	3,799	60,784	32,291	28,492
Dec	913	913	-	2,117,278	2,117,278	(0)	80,260	40,130	40,130
Jan	1,315	1,293	22	3,086,621	3,043,588	43,033	117,362	80,197	37,165
Feb	990	975	15	2,369,504	2,342,994	26,510	92,936	59,723	33,213
Mar	761	736	25	1,732,238	1,692,369	39,870	84,524	62,197	22,327
Apr	455	459	(4)	1,094,027	1,100,826	(6,799)	64,589	28,895	35,694
May	185	181	4	607,712	604,152	3,559	23,135	13,347	9,788
Jun	4	6	(2)	205,729	206,626	(897)	897	-	897
Jul	18	21	(3)	478,760	479,522	(762)	1,701	470	1,232
Aug	-	-	-	346,071	346,071	-	-	-	-
Sep	19	22	(3)	363,716	365,812	(2,095)	3,492	698	2,794
Oct	248	252	(4)	696,565	700,996	(4,431)	31,800	13,685	18,115
Total	**5,604**	**5,552**	**52**	**14,666,484**	**14,564,697**	**101,787**	**561,480**	**331,633**	**229,846**

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Calculation of Supplier Balancing Charge
2022-2023
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, 2021	28	30	-2	58280.60622	61680.04141	-3399.43519	3399.43519	0	3399.435186
2	Apr 2, 2021	32	34	-2	65079.47659	68478.91178	-3399.43519	3399.43519	0	3399.435186
3	Apr 3, 2021	25	26	-1	53181.45344	54881.17104	-1699.71759	1699.71759	0	1699.717593
4	Apr 4, 2021	16	14	2	37883 9951	34484.55992	3399.43519	3399.43519	3399.43519	0
5	Apr 5, 2021	17	15	2	39583.7127	36184.27751	3399.43519	3399.43519	3399.43519	0
6	Apr 6, 2021	14	13	1	34484.55992	32784.84232	1699.71759	1699.71759	1699.71759	0
7	Apr 7, 2021	11	8	3	29385.40714	24286.25436	5099.15278	5099.15278	5099.15278	0
8	Apr 8, 2021	10	10	0	27685.68955	27685.68955	0	0	0	0
9	Apr 9, 2021	5	6	-1	19187.10158	20886.81917	-1699.71759	1699.71759	0	1699.717593
10	Apr 10, 2021	2	1	1	14087 9488	12388.23121	1699.71759	1699.71759	1699.71759	0
11	Apr 11, 2021	16	17	-1	37883 9951	39583.7127	-1699.71759	1699.71759	0	1699.717593
12	Apr 12, 2021	19	19	0	42983.14788	42983.14788	0	0	0	0
13	Apr 13, 2021	11	10	1	29385.40714	27685.68955	1699.71759	1699.71759	1699.71759	0
14	Apr 14, 2021	13	12	1	32784.84232	31085.12473	1699.71759	1699.71759	1699.71759	0
15	Apr 15, 2021	21	22	-1	46382.58307	48082.30066	-1699.71759	1699.71759	0	1699.717593
16	Apr 16, 2021	26	27	-1	54881.17104	56580.88863	-1699.71759	1699.71759	0	1699.717593
17	Apr 17, 2021	20	20	0	44682.86548	44682.86548	0	0	0	0
18	Apr 18, 2021	15	14	1	36184.27751	34484.55992	1699.71759	1699.71759	1699.71759	0
19	Apr 19, 2021	9	10	-1	25985.97195	27685.68955	-1699.71759	1699.71759	0	1699.717593
20	Apr 20, 2021	7	7	0	22586.53677	22586.53677	0	0	0	0
21	Apr 21, 2021	17	22	-5	39583.7127	48082.30066	-8498.58797	8498.58797	0	8498.587966
22	Apr 22, 2021	24	25	-1	51481.73585	53181.45344	-1699.71759	1699.71759	0	1699.717593
23	Apr 23, 2021	13	13	0	32784.84232	32784.84232	0	0	0	0
24	Apr 24, 2021	7	4	3	22586.53677	17487.38399	5099.15278	5099.15278	5099.15278	0
25	Apr 25, 2021	16	16	0	37883 9951	37883.9951	0	0	0	0
26	Apr 26, 2021	17	18	-1	39583.7127	41283.43029	-1699.71759	1699.71759	0	1699.717593
27	Apr 27, 2021	9	7	2	25985.97195	22586.53677	3399.43519	3399.43519	3399.43519	0
28	Apr 28, 2021	9	11	-2	25985.97195	29385.40714	-3399.43519	3399.43519	0	3399.435186
29	Apr 29, 2021	12	14	-2	31085.12473	34484.55992	-3399.43519	3399.43519	0	3399.435186
30	Apr 30, 2021	14	14	0	34484.55992	34484.55992	0	0	0	0
31	May 1, 2021	12	11	1	24971.178	24081.36584	889.812165	889.812165	889.812165	0
32	May 2, 2021	4	0	4	17852.68068	14293.43202	3559.24866	3559.24866	3559 24866	0
33	May 3, 2021	11	9	2	24081.36584	22301.74151	1779.62433	1779.62433	1779 62433	0
34	May 4, 2021	14	12	2	26750.80233	24971.178	1779.62433	1779.62433	1779 62433	0
35	May 5, 2021	13	15	-2	25860.99016	27640.61449	-1779.62433	1779.62433	0	1779.624329
36	May 6, 2021	13	9	4	25860.99016	22301.74151	3559.24866	3559.24866	3559 24866	0
37	May 7, 2021	13	14	-1	25860.99016	26750.80233	-889.812165	889.812165	0	889 8121646
38	May 8, 2021	11	11	0	24081.36584	24081.36584	0	0	0	0
39	May 9, 2021	7	8	-1	20522.11718	21411.92934	-889.812165	889.812165	0	889 8121646
40	May 10, 2021	9	7	2	22301.74151	20522.11718	1779.62433	1779.62433	1779 62433	0
41	May 11, 2021	11	11	0	24081.36584	24081.36584	0	0	0	0
42	May 12, 2021	8	8	0	21411.92934	21411.92934	0	0	0	0
43	May 13, 2021	4	5	-1	17852.68068	18742.49285	-889 812165	889.812165	0	889 8121646
44	May 14, 2021	0	0	0	14293.43202	14293.43202	0	0	0	0
45	May 15, 2021	0	0	0	14293.43202	14293.43202	0	0	0	0
46	May 16, 2021	0	0	0	14293.43202	14293.43202	0	0	0	0
47	May 17, 2021	0	0	0	14293.43202	14293.43202	0	0	0	0
48	May 18, 2021	0	0	0	14293.43202	14293.43202	0	0	0	0
49	May 19, 2021	0	0	0	14293.43202	14293.43202	0	0	0	0
50	May 20, 2021	0	0	0	14293.43202	14293.43202	0	0	0	0
51	May 21, 2021	0	0	0	14293.43202	14293.43202	0	0	0	0
52	May 22, 2021	0	0	0	14293.43202	14293.43202	0	0	0	0
53	May 23, 2021	0	0	0	14293.43202	14293.43202	0	0	0	0
54	May 24, 2021	2	4	-2	16073.05635	17852.68068	-1779.62433	1779.62433	0	1779.624329
55	May 25, 2021	0	0	0	14293.43202	14293.43202	0	0	0	0
56	May 26, 2021	0	0	0	14293.43202	14293.43202	0	0	0	0
57	May 27, 2021	0	1	-1	14293.43202	15183.24419	-889 812165	889.812165	0	889 8121646
58	May 28, 2021	11	14	-3	24081.36584	26750.80233	-2669.43649	2669.43649	0	2669.436494
59	May 29, 2021	17	17	0	29420.23882	29420.23882	0	0	0	0
60	May 30, 2021	16	16	0	28530.42666	28530.42666	0	0	0	0
61	May 31, 2021	9	9	0	22301.74151	22301.74151	0	0	0	0
62	Jun 1, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
63	Jun 2, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
64	Jun 3, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
65	Jun 4, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
66	Jun 5, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Calculation of Supplier Balancing Charge
2022-2023
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	Jun 6, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
2	Jun 7, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
3	Jun 8, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
4	Jun 9, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
5	Jun 10, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
6	Jun 11, 2021	4	5	-1	13123.90543	13572.45443	-448 549004	448.549004	0	448 5490037
7	Jun 12, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
8	Jun 13, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
9	Jun 14, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
10	Jun 15, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
11	Jun 16, 2021	0	1	-1	11329.70941	11778 25842	-448 549004	448.549004	0	448 5490037
12	Jun 17, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
13	Jun 18, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
14	Jun 19, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
15	Jun 20, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
16	Jun 21, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
17	Jun 22, 2021	1	2	-1	11778.25842	12226.80742	-448 549004	448.549004	0	448 5490037
18	Jun 23, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
19	Jun 24, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
20	Jun 25, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
21	Jun 26, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
22	Jun 27, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
23	Jun 28, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
24	Jun 29, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
25	Jun 30, 2021	0	0	0	11329.70941	11329.70941	0	0	0	0
26	Jul 1, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
27	Jul 2, 2021	5	7	-2	12106.04958	12419.23155	-313.181965	313.181965	0	313.1819651
28	Jul 3, 2021	7	8	-1	12419.23155	12575.82253	-156.590983	156.590983	0	156 5909826
29	Jul 4, 2021	5	2	3	12106.04958	11636.27663	469.772948	469.772948	469.772948	0
30	Jul 5, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
31	Jul 6, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
32	Jul 7, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
33	Jul 8, 2021	0	2	-2	11323.09467	11636.27663	-313.181965	313.181965	0	313.1819651
34	Jul 9, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
35	Jul 10, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
36	Jul 11, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
37	Jul 12, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
38	Jul 13, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
39	Jul 14, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
40	Jul 15, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
41	Jul 16, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
42	Jul 17, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
43	Jul 18, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
44	Jul 19, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
45	Jul 20, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
46	Jul 21, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
47	Jul 23, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
48	Jul 23, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
49	Jul 24, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
50	Jul 25, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
51	Jul 26, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
52	Jul 27, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
53	Jul 28, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
54	Jul 29, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
55	Jul 30, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
56	Jul 31, 2021	0	0	0	11323.09467	11323.09467	0	0	0	0
57	Aug 1, 2021	0	0	0	11158.25093	11158.25093	0	0	0	0
58	Aug 2, 2021	0	0	0	11158.25093	11158.25093	0	0	0	0
59	Aug 3, 2021	0	0	0	11158.25093	11158.25093	0	0	0	0
60	Aug 4, 2021	0	0	0	11158.25093	11158.25093	0	0	0	0
61	Aug 5, 2021	0	0	0	11158.25093	11158.25093	0	0	0	0
62	Aug 6, 2021	0	0	0	11158.25093	11158.25093	0	0	0	0
63	Aug 7, 2021	0	0	0	11158.25093	11158.25093	0	0	0	0
64	Aug 8, 2021	0	0	0	11158.25093	11158.25093	0	0	0	0
65	Aug 8, 2021	0	0	0	11158.25093	11158.25093	0	0	0	0
66	Aug 10, 2021	0	0	0	11158.25093	11158.25093	0	0	0	0
67	Aug 11, 2021	0	0	0	11158.25093	11158.25093	0	0	0	0

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Calculation of Supplier Balancing Charge
2022-2023
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	8/12/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
2	8/13/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
3	8/14/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
4	8/15/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
5	8/16/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
6	8/17/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
7	8/18/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
8	8/19/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
9	8/20/2021	0	0	0	11158.25093	11158 25093	0	0	0	0
10	8/21/2021	0	0	0	11158.25093	11158 25093	0	0	0	0
11	8/22/2021	0	0	0	11158.25093	11158 25093	0	0	0	0
12	8/23/2021	0	0	0	11158.25093	11158 25093	0	0	0	0
13	8/24/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
14	8/25/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
15	8/26/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
16	8/27/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
17	8/28/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
18	8/29/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
19	8/30/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
20	8/31/2021	0	0	0	11158.25093	11158.25093	0	0	0	0
21	9/1/2021	0	1	-1	11699.57295	12398.01574	-698.442789	698.442789	0	698.4427892
22	9/2/2021	1	0	1	12398.01574	11699.57295	698.442789	698.442789	698.442789	0
23	9/3/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
24	9/4/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
25	9/5/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
26	9/6/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
27	9/7/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
28	9/8/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
29	9/9/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
30	9/10/2021	1	1	0	12398.01574	12398.01574	0	0	0	0
31	9/11/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
32	9/12/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
33	9/13/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
34	9/14/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
35	9/15/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
36	9/16/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
37	9/17/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
38	9/18/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
39	9/19/2021	1	1	0	12398.01574	12398.01574	0	0	0	0
40	9/20/2021	2	2	0	13096.45853	13096.45853	0	0	0	0
41	9/21/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
42	9/22/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
43	9/23/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
44	9/24/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
45	9/25/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
46	9/26/2021	1	3	-2	12398.01574	13794.90132	-1396.88558	1396.88558	0	1396.885578
47	9/27/2021	0	0	0	11699.57295	11699.57295	0	0	0	0
48	9/28/2021	5	6	-1	15191.7869	15890.22969	-698.442789	698.442789	0	698.4427892
49	9/29/2021	8	8	0	17287.11527	17287.11527	0	0	0	0
50	9/30/2021	10	11	-1	18684.00084	19382.44363	-698.442789	698.442789	0	698.4427892
51	10/1/2021	8	9	-1	22268.44474	23512.51636	-1244.07162	1244.07162	0	1244.071617
52	10/2/2021	2	3	-1	14804.01504	16048.08666	-1244.07162	1244.07162	0	1244.071617
53	10/3/2021	6	6	0	19780.30151	19780.30151	0	0	0	0
54	10/4/2021	10	9	1	24756.58798	23512.51636	1244.07162	1244.07162	1244 07162	0
55	10/5/2021	9	7	2	23512.51636	21024.37313	2488.14324	2488.14324	2488.14324	0
56	10/6/2021	4	3	1	17292.15828	16048.08666	1244.07162	1244.07162	1244 07162	0
57	10/7/2021	2	2	0	14804.01504	14804.01504	0	0	0	0
58	10/8/2021	4	4	0	17292.15828	17292.15828	0	0	0	0
59	10/9/2021	9	8	1	23512.51636	22268.44474	1244.07162	1244.07162	1244 07162	0
60	10/10/2021	6	4	2	19780.30151	17292.15828	2488.14324	2488.14324	2488.14324	0
61	10/11/2021	4	4	0	17292.15828	17292.15828	0	0	0	0
62	10/12/2021	1	1	0	13559.94342	13559.94342	0	0	0	0
63	10/13/2021	0	0	0	12315.87181	12315.87181	0	0	0	0
64	10/14/2021	0	0	0	12315.87181	12315.87181	0	0	0	0
65	10/15/2021	0	0	0	12315.87181	12315.87181	0	0	0	0
66	10/16/2021	0	0	0	12315.87181	12315.87181	0	0	0	0
67	10/17/2021	8	10	-2	22268.44474	24756.58798	-2488.14324	2488.14324	0	2488.143235

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Calculation of Supplier Balancing Charge
2022-2023
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	10/18/2021	14	14	0	29732.87445	29732.87445	0	0	0	0
2	10/19/2021	10	11	-1	24756.58798	26000.6596	-1244.07162	1244.07162	0	1244.071617
3	10/20/2021	4	3	1	17292.15828	16048.08666	1244.07162	1244.07162	1244 07162	0
4	10/21/2021	0	1	-1	12315.87181	13559.94342	-1244.07162	1244.07162	0	1244.071617
5	10/22/2021	7	8	-1	21024.37313	22268.44474	-1244.07162	1244.07162	0	1244.071617
6	10/23/2021	16	17	-1	32221.01768	33465.0893	-1244.07162	1244.07162	0	1244.071617
7	10/24/2021	16	15	1	32221.01768	30976.94607	1244.07162	1244.07162	1244 07162	0
8	10/25/2021	16	17	-1	32221.01768	33465.0893	-1244.07162	1244.07162	0	1244.071617
9	10/26/2021	13	13	0	28488.80283	28488.80283	0	0	0	0
10	10/27/2021	17	16	1	33465 0893	32221.01768	1244.07162	1244.07162	1244 07162	0
11	10/28/2021	20	22	-2	37197.30415	39685.44739	-2488.14324	2488.14324	0	2488.143235
12	10/29/2021	16	17	-1	32221.01768	33465.0893	-1244.07162	1244.07162	0	1244.071617
13	10/30/2021	8	10	-2	22268.44474	24756.58798	-2488.14324	2488.14324	0	2488.143235
14	10/31/2021	8	7	1	22268.44474	21024.37313	1244.07162	1244.07162	1244 07162	0
15	11/1/2021	16	16	0	38599.13528	38599.13528	0	0	0	0
16	11/2/2021	20	18	2	46197.08616	42398.11072	3798.97544	3798.97544	3798 97544	0
17	11/3/2021	23	24	-1	51895.54933	53795.03705	-1899.48772	1899.48772	0	1899.487721
18	11/4/2021	25	24	1	55694.52477	53795.03705	1899.48772	1899.48772	1899.48772	0
19	11/5/2021	26	27	-1	57594.01249	59493.50021	-1899.48772	1899.48772	0	1899.487721
20	11/6/2021	24	26	-2	53795.03705	57594.01249	-3798.97544	3798.97544	0	3798.975442
21	11/7/2021	21	22	-1	48096.57389	49996.06161	-1899.48772	1899.48772	0	1899.487721
22	11/8/2021	17	18	-1	40498.623	42398.11072	-1899.48772	1899.48772	0	1899.487721
23	11/9/2021	12	7	5	31001.1844	21503.74579	9497.43861	9497.43861	9497.43861	0
24	11/10/2021	19	21	-2	44297.59844	48096.57389	-3798.97544	3798.97544	0	3798.975442
25	11/11/2021	16	14	2	38599.13528	34800.15984	3798.97544	3798.97544	3798 97544	0
26	11/12/2021	15	16	-1	36699.64756	38599.13528	-1899.48772	1899.48772	0	1899.487721
27	11/13/2021	19	19	0	44297.59844	44297.59844	0	0	0	0
28	11/14/2021	21	21	0	48096.57389	48096.57389	0	0	0	0
29	11/15/2021	24	24	0	53795.03705	53795.03705	0	0	0	0
30	11/16/2021	28	27	1	61392.98793	59493.50021	1899.48772	1899.48772	1899.48772	0
31	11/17/2021	19	20	-1	44297.59844	46197.08616	-1899.48772	1899.48772	0	1899.487721
32	11/18/2021	13	11	2	32900.67212	29101.69668	3798.97544	3798.97544	3798 97544	0
33	11/19/2021	27	27	0	59493.50021	59493.50021	0	0	0	0
34	11/20/2021	26	25	1	57594.01249	55694.52477	1899.48772	1899.48772	1899.48772	0
35	11/21/2021	16	17	-1	38599.13528	40498.623	-1899.48772	1899.48772	0	1899.487721
36	11/22/2021	25	25	0	55694.52477	55694.52477	0	0	0	0
37	11/23/2021	34	34	0	72789.91426	72789.91426	0	0	0	0
38	11/24/2021	30	31	-1	65191.96337	67091.4511	-1899.48772	1899.48772	0	1899.487721
39	11/25/2021	23	20	3	51895.54933	46197.08616	5698.46316	5698.46316	5698.46316	0
40	11/26/2021	27	28	-1	59493.50021	61392.98793	-1899.48772	1899.48772	0	1899.487721
41	11/27/2021	35	36	-1	74689.40198	76588.8897	-1899.48772	1899.48772	0	1899.487721
42	11/28/2021	31	31	0	67091.4511	67091.4511	0	0	0	0
43	11/29/2021	34	35	-1	72789.91426	74689.40198	-1899.48772	1899.48772	0	1899.487721
44	11/30/2021	30	30	0	65191.96337	65191.96337	0	0	0	0
45	12/1/2021	28	27	1	65872.09732	64200.02408	1672.07324	1672.07324	1672 07324	0
46	12/2/2021	20	23	-3	52495 5114	57511.73112	-5016.21972	5016.21972	0	5016.219721
47	12/3/2021	34	33	1	75904.53677	74232.46352	1672.07324	1672.07324	1672 07324	0
48	12/4/2021	29	30	-1	67544.17056	69216.2438	-1672.07324	1672.07324	0	1672.07324
49	12/5/2021	26	25	1	62527.95084	60855.8776	1672.07324	1672.07324	1672 07324	0
50	12/6/2021	19	19	0	50823.43816	50823.43816	0	0	0	0
51	12/7/2021	31	32	-1	70888.31704	72560.39028	-1672.07324	1672.07324	0	1672.07324
52	12/8/2021	34	37	-3	75904.53677	80920.75649	-5016.21972	5016.21972	0	5016.219721
53	12/9/2021	33	35	-2	74232.46352	77576.61001	-3344.14648	3344.14648	0	3344.14648
54	12/10/2021	30	33	-3	69216.2438	74232.46352	-5016.21972	5016.21972	0	5016.219721
55	12/11/2021	17	21	-4	47479.29168	54167.58464	-6688.29296	6688.29296	0	6688.292961
56	12/12/2021	25	25	0	60855.8776	60855.8776	0	0	0	0
57	12/13/2021	22	20	2	55839.65788	52495.5114	3344.14648	3344.14648	3344.14648	0
58	12/14/2021	30	28	2	69216.2438	65872.09732	3344.14648	3344.14648	3344.14648	0
59	12/15/2021	23	25	-2	57511.73112	60855.8776	-3344.14648	3344.14648	0	3344.14648
60	12/16/2021	14	13	1	42463.07196	40790.99872	1672.07324	1672.07324	1672 07324	0
61	12/17/2021	26	21	5	62527.95084	54167.58464	8360.3662	8360.3662	8360.3662	0
62	12/18/2021	32	33	-1	72560.39028	74232.46352	-1672.07324	1672.07324	0	1672.07324
63	12/19/2021	41	42	-1	87609.04945	89281.12269	-1672.07324	1672.07324	0	1672.07324
64	12/20/2021	37	38	-1	80920.75649	82592.82973	-1672.07324	1672.07324	0	1672.07324
65	12/21/2021	34	32	2	75904.53677	72560.39028	3344.14648	3344.14648	3344.14648	0
66	12/22/2021	36	32	4	79248.68325	72560.39028	6688.29296	6688.29296	6688 29296	0
67	12/23/2021	42	42	0	89281.12269	89281.12269	0	0	0	0

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Calculation of Supplier Balancing Charge
2022-2023
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	12/24/2021	39	38	1	84264.90297	82592.82973	1672.07324	1672.07324	1672 07324	0
2	12/25/2021	32	32	0	72560.39028	72560.39028	0	0	0	0
3	12/26/2021	35	33	2	77576.61001	74232.46352	3344.14648	3344.14648	3344.14648	0
4	12/27/2021	34	34	0	75904.53677	75904.53677	0	0	0	0
5	12/28/2021	30	28	2	69216 2438	65872.09732	3344.14648	3344.14648	3344.14648	0
6	12/29/2021	28	28	0	65872.09732	65872.09732	0	0	0	0
7	12/30/2021	27	28	-1	64200.02408	65872.09732	-1672.07324	1672.07324	0	1672.07324
8	12/31/2021	25	26	-1	60855 8776	62527.95084	-1672.07324	1672.07324	0	1672.07324
9	1/1/2022	23	25	-2	61583.49549	65495.56413	-3912.06864	3912.06864	0	3912.068638
10	1/2/2022	36	33	3	87011.94163	81143.83868	5868.10296	5868.10296	5868.10296	0
11	1/3/2022	44	46	-2	102660 2162	106572.2848	-3912.06864	3912.06864	0	3912.068638
12	1/4/2022	38	37	1	90924.01027	88967.97595	1956.03432	1956.03432	1956 03432	0
13	1/5/2022	27	30	-3	69407.63276	75275.73572	-5868.10296	5868.10296	0	5868.102957
14	1/6/2022	36	33	3	87011.94163	81143.83868	5868.10296	5868.10296	5868.10296	0
15	1/7/2022	43	42	1	100704.1819	98748.14755	1956.03432	1956.03432	1956 03432	0
16	1/8/2022	44	44	0	102660 2162	102660.2162	0	0	0	0
17	1/9/2022	34	31	3	83099.87299	77231.77004	5868.10296	5868.10296	5868.10296	0
18	1/10/2022	50	48	2	114396.4221	110484.3535	3912.06864	3912.06864	3912 06864	0
19	1/11/2022	57	58	-1	128088 6623	130044.6966	-1956.03432	1956.03432	0	1956.034319
20	1/12/2022	41	34	7	96792.11323	83099.87299	13692.2402	13692.2402	13692.2402	0
21	1/13/2022	34	32	2	83099.87299	79187.80436	3912.06864	3912.06864	3912 06864	0
22	1/14/2022	48	48	0	110484 3535	110484.3535	0	0	0	0
23	1/15/2022	58	60	-2	130044 6966	133956.7653	-3912.06864	3912.06864	0	3912.068638
24	1/16/2022	38	39	-1	90924.01027	92880.04459	-1956.03432	1956.03432	0	1956.034319
25	1/17/2022	33	30	3	81143.83868	75275.73572	5868.10296	5868.10296	5868.10296	0
26	1/18/2022	47	45	2	108528 3191	104616.2505	3912.06864	3912.06864	3912 06864	0
27	1/19/2022	28	26	2	71363.66708	67451.59844	3912.06864	3912.06864	3912 06864	0
28	1/20/2022	49	47	2	112440 3878	108528.3191	3912.06864	3912.06864	3912 06864	0
29	1/21/2022	53	54	-1	120264 5251	122220.5594	-1956.03432	1956.03432	0	1956.034319
30	1/22/2022	46	47	-1	106572 2848	108528.3191	-1956.03432	1956.03432	0	1956.034319
31	1/23/2022	44	38	6	102660 2162	90924.01027	11736.2059	11736.2059	11736.2059	0
32	1/24/2022	39	38	1	92880.04459	90924.01027	1956.03432	1956.03432	1956 03432	0
33	1/25/2022	40	39	1	94836.07891	92880.04459	1956.03432	1956.03432	1956 03432	0
34	1/26/2022	53	54	-1	120264 5251	122220.5594	-1956.03432	1956.03432	0	1956.034319
35	1/27/2022	41	42	-1	96792.11323	98748.14755	-1956.03432	1956.03432	0	1956.034319
36	1/28/2022	40	38	2	94836.07891	90924.01027	3912.06864	3912.06864	3912 06864	0
37	1/29/2022	52	52	0	118308.4907	118308.4907	0	0	0	0
38	1/30/2022	52	54	-2	118308.4907	122220.5594	-3912.06864	3912.06864	0	3912.068638
39	1/31/2022	47	49	-2	108528 3191	112440.3878	-3912.06864	3912.06864	0	3912.068638
40	2/1/2022	35	36	-1	83559 5075	85316.06341	-1756.55591	1756.55591	0	1756.55591
41	2/2/2022	27	25	2	69507.06022	65993.9484	3513.11182	3513.11182	3513.11182	0
42	2/3/2022	28	25	3	71263.61613	65993.9484	5269.66773	5269.66773	5269 66773	0
43	2/4/2022	43	42	1	97611.95478	95855.39887	1756.55591	1756.55591	1756 55591	0
44	2/5/2022	54	50	4	116934 0698	109907.8462	7026.22364	7026.22364	7026 22364	0
45	2/6/2022	48	44	4	106394.7343	99368.5107	7026.22364	7026.22364	7026 22364	0
46	2/7/2022	29	32	-3	73020.17204	78289.83977	-5269.66773	5269.66773	0	5269.667731
47	2/8/2022	32	30	2	78289.83977	74776.72795	3513.11182	3513.11182	3513.11182	0
48	2/9/2022	30	30	0	74776.72795	74776.72795	0	0	0	0
49	2/10/2022	28	27	1	71263.61613	69507.06022	1756.55591	1756.55591	1756 55591	0
50	2/11/2022	19	17	2	55454.61293	51941.50111	3513.11182	3513.11182	3513.11182	0
51	2/12/2022	26	25	1	67750.50431	65993.9484	1756.55591	1756.55591	1756 55591	0
52	2/13/2022	40	41	-1	92342.28705	94098.84296	-1756.55591	1756.55591	0	1756.55591
53	2/14/2022	50	50	0	109907 8462	109907.8462	0	0	0	0
54	2/15/2022	46	45	1	102881 6225	101125.0666	1756.55591	1756.55591	1756 55591	0
55	2/16/2022	20	21	-1	57211.16884	58967.72475	-1756.55591	1756.55591	0	1756.55591
56	2/17/2022	8	7	1	36132.49792	34375.94201	1756.55591	1756.55591	1756 55591	0
57	2/18/2022	37	39	-2	87072.61932	90585.73114	-3513.11182	3513.11182	0	3513.111821
58	2/19/2022	39	42	-3	90585.73114	95855.39887	-5269.66773	5269.66773	0	5269.667731
59	2/20/2022	32	34	-2	78289.83977	81802.95159	-3513.11182	3513.11182	0	3513.111821
60	2/21/2022	26	24	2	67750.50431	64237.39249	3513.11182	3513.11182	3513.11182	0
61	2/22/2022	12	14	-2	43158.72156	46671.83338	-3513.11182	3513.11182	0	3513.111821
62	2/23/2022	29	28	1	73020.17204	71263.61613	1756.55591	1756.55591	1756 55591	0
63	2/24/2022	39	41	-2	90585.73114	94098.84296	-3513.11182	3513.11182	0	3513.111821
64	2/25/2022	46	47	-1	102881 6225	104638.1784	-1756.55591	1756.55591	0	1756.55591
65	2/26/2022	44	40	4	99368 5107	92342.28705	7026.22364	7026.22364	7026 22364	0
66	2/27/2022	41	39	2	94098.84296	90585.73114	3513.11182	3513.11182	3513.11182	0
67	2/28/2022	51	48	3	111664.4021	106394.7343	5269.66773	5269.66773	5269 66773	0

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Calculation of Supplier Balancing Charge
2022-2023
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	3/1/2022	31	32	-1	66725.24099	68320.02821	-1594.78723	1594.78723	0	1594.787227
2	3/2/2022	34	32	2	71509.60267	68320.02821	3189.57445	3189.57445	3189 57445	0
3	3/3/2022	46	44	2	90647.04939	87457.47494	3189.57445	3189.57445	3189 57445	0
4	3/4/2022	43	40	3	85862.68771	81078.32603	4784.36168	4784.36168	4784 36168	0
5	3/5/2022	30	28	2	65130.45376	61940.87931	3189.57445	3189.57445	3189 57445	0
6	3/6/2022	12	10	2	36424.28368	33234.70922	3189.57445	3189.57445	3189 57445	0
7	3/7/2022	19	21	-2	47587.79427	50777.36872	-3189.57445	3189.57445	0	3189.574454
8	3/8/2022	31	31	0	66725.24099	66725.24099	0	0	0	0
9	3/9/2022	32	35	-3	68320.02821	73104.38989	-4784.36168	4784.36168	0	4784.36168
10	3/10/2022	27	27	0	60346.09208	60346.09208	0	0	0	0
11	3/11/2022	23	21	2	53966.94317	50777.36872	3189.57445	3189.57445	3189 57445	0
12	3/12/2022	38	38	0	77888.75157	77888.75157	0	0	0	0
13	3/13/2022	36	34	2	74699.17712	71509.60267	3189.57445	3189.57445	3189 57445	0
14	3/14/2022	23	21	2	53966.94317	50777.36872	3189.57445	3189.57445	3189 57445	0
15	3/15/2022	21	20	1	50777.36872	49182.58149	1594.78723	1594.78723	1594.78723	0
16	3/16/2022	20	17	3	49182.58149	44398.21981	4784.36168	4784.36168	4784 36168	0
17	3/17/2022	14	13	1	39613.85813	38019.0709	1594.78723	1594.78723	1594.78723	0
18	3/18/2022	9	6	3	31639.922	26855.56032	4784.36168	4784.36168	4784 36168	0
19	3/19/2022	16	21	-5	42803.43258	50777.36872	-7973.93613	7973.93613	0	7973.936134
20	3/20/2022	17	16	1	44398.21981	42803.43258	1594.78723	1594.78723	1594.78723	0
21	3/21/2022	22	20	2	52372.15595	49182.58149	3189.57445	3189.57445	3189 57445	0
22	3/22/2022	28	25	3	61940.87931	57156.51763	4784.36168	4784.36168	4784 36168	0
23	3/23/2022	23	22	1	53966.94317	52372.15595	1594.78723	1594.78723	1594.78723	0
24	3/24/2022	24	25	-1	55561.7304	57156.51763	-1594.78723	1594.78723	0	1594.787227
25	3/25/2022	16	14	2	42803.43258	39613.85813	3189.57445	3189.57445	3189 57445	0
26	3/26/2022	21	19	2	50777.36872	47587.79427	3189.57445	3189.57445	3189 57445	0
27	3/27/2022	29	30	-1	63535.66653	65130.45376	-1594.78723	1594.78723	0	1594.787227
28	3/28/2022	41	42	-1	82673.11326	84267.90048	-1594.78723	1594.78723	0	1594.787227
29	3/29/2022	34	33	1	71509.60267	69914.81544	1594.78723	1594.78723	1594.78723	0
30	3/30/2022	24	22	2	55561.7304	52372.15595	3189.57445	3189.57445	3189 57445	0
31	3/31/2022	8	9	-1	30045.13477	31639.922	-1594.78723	1594.78723	0	1594.787227

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

Docket DE 98-124 Gas Restructuring
Peaking Demand Rate

					Source:
1	Peak Day		165,638	Dekatherm	
2					
3	Pipeline MDQ				Attachment B Page 2 of 3: EnergyNorth Capacity Resources
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			119,718	Dekatherm	
13					
14	Underground Storage MDQ				Attachment B Page 3 of 3: EnergyNorth Capacity Resources
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			28,115	Dekatherm	
20					
21					
22	Peaking MDQ		17,805	Dekatherm	Line 1 - Line 12 - Line 19
23					
24					
25	Peaking Costs				
26					
27	Gas Supply		$ 2,370,511		Attachment B Page 3 Line 11
28	Indirect Production & Storage Capacity		$ 3,685,458		Summary Page Line 68
29	Granite Ridge		$ -		Attachment B Page 3 Line 1
30	Total		$ 6,055,969		Sum Line 27 - 29
31					
32	Annual Peaking Rate per MDQ		$ 340.13		Line 30 divided by Line 22
33					
34	**Monthly Peaking MDQ**		**$ 56.69**	**/Dekatherm**	Line 32 divided by 6 month

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

Tennessee Allocations

Resource Type	High Load Factor	Low Load Factor
Pipeline	79 5%	71 5%
Storage	12 6%	17 4%
Peaking	7 9%	11 0%
TOTAL:	100 00%	100 00%

Capacity Resources effective November 1, 2022*

*proposed

Resource	Pipeline Company	Rate Schedule	Contract #	Peak MDQ/ MDWQ	Storage MSQ	Rate $/Dth/Month Demand	Storage Capacity	Termination Date	LDC Managed
Pipeline									
	TCPL + Union	FT to Parkway & IGTS	M12200 & 41232	4,000		$13 5069		10/31/2026	
	Iroquois	RTS to Wright	470-01	4,047		$5 2357		11/1/2022	
	TGP	NET-NE (Z5-Z6)	95346	4,000		$6 1635		11/30/2022	
	TGP	FT-A (Z5-Z6)	2302	3,122		$6 1635		10/31/2025	
	TGP	FT-A (Z0-Z6)	8587	7,035		$19 9267		10/31/2025	
	TGP	FT-A (Z1-Z6)	8587	14,561		$17 6917		10/31/2025	
	TCPL + Union	FT to Parkway & PNGTS	M12284 & TC	5,000		$20 5005		10/31/2040	
	PNGTS	FT	225800	5,000		$22 7943		10/31/2040	
	TGP	FT-A (Z6-Z6)	42076	20,000		$4 0968		10/31/2025	
	TGP	FT-A (Z6-Z6)	358905	40,000		$4 0968		10/31/2041	
	TGP	FT-A (Z6-Z6)	72694	30,000		$12 2188		10/31/2029	
Storage									
	TGP	FS-MA (Storage)	523*	21,844	1,560,391	$1 2801	$0 0175	10/31/2025	
	TGP	FT-A (Z4-Z6)	632	15,265		$7 0128		10/31/2025	
	TGP	FT-A (Z4-Z6)	8587	3,811		$7 0128		10/31/2025	
	National Fuel	FSS-1 (Storage)	O02357*	6,098	670,800	$2 6568	$0 0480	3/31/2023	
	National Fuel	FST (Transport)	N02358	6,098		$4 9801		3/31/2023	
	TGP	FT-A (Z4-Z6)	11234	6,150		$7 0128		10/31/2025	
	Honeoye	SS-NY (Storage)	SS-NY**	1,957	245,380	$4 2672	$0.0000	3/31/2023	X
	TGP	FT-A (Z5-Z6)	11234	1,957		$6.1635		10/31/2025	
	Dominion	GSS (Storage)	300076*	934	102,700	$3 2548	$0 0318	3/31/2024	
	TGP	FT-A (Z4-Z6)	11234	932		$7 0128		10/31/2025	
Peaking									
	Energy North	LNG/Propane****		17,805	-	$56.6900	$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 11/01/22. 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

Docket 98-124 Gas Restructuring
Peaking Demand Rate
Peaking Costs

		Volume	Rate	Monthly Cost	Months/Year		Annual Cost	
1		[redacted]						
2								
3								
4	Subtotal					**$**	**2,370,511.00**	*
5								
6	**Total**					**$**	**2,370,511.00**	

* Effective November 2022

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Calculation of Capacity Allocators
Docket No DE 98-124

Capacity Assignment Table

			% of Peak Day Requirement			
			Pipeline	**Storage**	**Peaking**	**Total**
G-41	**LAHW**	Low Annual C&I - High Winter Use	71.5%	17.4%	11.0%	100.0%
G-51	**LALW**	Low Annual C&I - Low Winter Use	79.5%	12.6%	7.9%	100.0%
G-42	**MAHW**	Medium C&I - High Winter Use	71.5%	17.4%	11.0%	100.0%
G-52	**MALW**	Medium C&I - Low Winter Use	79.5%	12.6%	7.9%	100.0%
G-43	**HAHW**	High Annual C&I - High Winter Use	71.5%	17.4%	11.0%	100.0%
G-53	**HALW90**	High Annual C&I - LF < 90%	79.5%	12.6%	7.9%	100.0%
G-54	**HALWG90**	High Annual C&I - LF > 90%	79.5%	12.6%	7.9%	100.0%

HLF	High Load Factor	79.50%	12.55%	7.95%	100%
LLF	Low Load Factor	71.53%	17.43%	11.04%	100%
	Total	72.28%	16.97%	10.75%	100%

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Calculation of Capacity Allocators
Docket No DE 98-124

Allocation of Peak Day

Design Day Throughput Allocated to Rate Classes

Design DD			69.390	
		Base load	Heat load	Total
HLF	R-1 RNSH	97	544	641
LLF	R-3 RSH	3,484	68,728	72,211
LLF	G-41 SL	968	29,139	30,106
HLF	G-51 SH	742	1,904	2,646
LLF	G-42 ML	1,839	36,309	38,148
HLF	G-52 MH	1,742	3,738	5,480
LLF	G-43 LL	645	8,977	9,623
HLF	G-53 LLL90	1,871	3,492	5,363
HLF	G-54 LLG90	419	1,001	1,421
	TOTAL	11,806	153,832	165,638

HLF	4,871	10,679	15,550
LLF	6,935	143,152	150,088
Total	11,806	153,832	165,638

Allocate Class Design Day Throughput to Supply Sources

	Base Pipeline	Remaining Pipeline	Sub-total Pipeline	Storage	Peaking	Total
R-1 RNSH	97	382	478	99	62 97	641
R-3 RSH	3,484	48,212	51,696	12,561	7,955	72,211
G-41 SL	968	20,441	21,408	5,326	3,373	30,106
G-51 SH	742	1,336	2,078	348	220	2,646
G-42 ML	1,839	25,470	27,309	6,636	4,203	38,148
G-52 MH	1,742	2,622	4,364	683	433	5,480
G-43 LL	645	6,298	6,943	1,641	1,039	9,623
G-53 LLL90	1,871	2,449	4,320	638	404	5,363
G-54 LLG90	419	702	1,122	183	116	1,421
TOTAL	11,806	107,912	119,718	28,115	17,805	165,638

HLF	4,871	7,491	12,362	1,952	1,236	15,550
LLF	6,935	100,420	107,356	26,163	16,569	150,088
Total	11,806	107,912	119,718	28,115	17,805	165,638

% of Peak Day Requirement

	Pipeline	Storage	Peaking	Total
R-1 RNSH	74.7%	15.5%	9.8%	100 0%
R-3 RSH	71 6%	17.4%	11 0%	100 0%
G-41 SL	71.1%	17.7%	11 2%	100 0%
G-51 SH	78 5%	13.2%	8.3%	100 0%
G-42 ML	71 6%	17.4%	11 0%	100 0%
G-52 MH	79 6%	12.5%	7.9%	100 0%
G-43 LL	72 2%	17.1%	10 8%	100 0%
G-53 LLL90	80 6%	11.9%	7.5%	100 0%
G-54 LLG90	79 0%	12.9%	8.2%	100 0%
TOTAL	72 3%	17.0%	10.7%	100 0%

High Load Factor	79.50%	12.55%	7 95%	100%
Low Load Factor	71.53%	17.43%	11.04%	100%
Total	72.28%	16.97%	10.75%	100%

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Calculation of Capacity Allocators
Docket No DE 98-124

Allocate Design Day Sendout

Calculate Design Day Throughput (BBTU)

Design DD 69.39

	Daily Baseload * 1000	Heating Factor * 1000	Heat load (Heating Factor * Design DD)	Total
R-1 RNSH	97	7.81	542	639
R-3 RSH	3,484	986.86	68,478	71,962
G-41 SL	968	418.40	29,033	30,001
G-51 SH	742	27.34	1,897	2,639
G-42 ML	1,839	521.36	36,177	38,016
G-52 MH	1,742	53.67	3,724	5,466
G-43 LL	645	128.91	8,945	9,590
G-53 LLL90	1,871	50.14	3,479	5,350
G-54 LLG90	419	14.38	998	1,417
TOTAL	11,806	2,152.00	153,273	165,079

HLF	4,871	153	10,640	15,511
LLF	6,935	1,999	142,633	149,568
Total	11,806	2,152	153,273	165,079

Design Day from 2022-2023 COG			**165,638**
Design Day from Gas Load Calculation			165,079
Variance			559

Allocate Design Day Sendout to Rate Classes

	Baseload as % of Total Class Load	Heat Load as % of Total	Base Load	Heat Load	Total
R-1 RNSH	15%	0.354%	97	544	641
R-3 RSH	5%	44.677%	3,484	68,728	72,211
G-41 SL	3%	18.942%	968	29,139	30,106
G-51 SH	28%	1.238%	742	1,904	2,646
G-42 ML	5%	23.603%	1,839	36,309	38,148
G-52 MH	32%	2.430%	1,742	3,738	5,480
G-43 LL	7%	5.836%	645	8,977	9,623
G-53 LLL90	35%	2.270%	1,871	3,492	5,363
G-54 LLG90	30%	0.651%	419	1,001	1,421
TOTAL		100.000%	11,806	153,832	165,638

CALCULATION OF NORMAL SALES VOLUMES

Actual Volumes

Total Core Sales Volumes(000's) MMBTU

		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Total	Monthly Baseload (Jul+Aug)/2	Daily Baseload
HLF	R-1 RNSH	7	9	10	9	9	6	5	4	3	3	4	5	74	3 000	0 097
LLF	R-3 RSH	671	1,009	1,175	993	835	507	285	139	108	110	183	435	6,450	108 000	3 484
LLF	G-41 SL	257	412	497	416	345	203	98	41	30	30	51	125	2,505	30 000	0 968
HLF	G-51 SH	35	46	50	42	44	29	26	23	23	23	24	31	396	23 000	0 742
LLF	G-42 ML	351	533	626	525	457	265	151	74	57	58	102	205	3,404	57 000	1 839
HLF	G-52 MH	82	103	113	93	95	67	58	54	56	56	57	68	902	54 000	1 742
LLF	G-43 LL	87	127	153	128	119	65	42	24	20	22	33	53	873	20 000	0 645
HLF	G-53 LLL90	80	93	106	87	91	82	67	58	59	60	63	74	920	58 000	1 871
HLF	G-54 LLL110	17	21	19	16	17	20	15	14	14	14	13	16	196	13 000	0 419
HLF	G-99 LLG110															
	TOTAL	1,587	2,353	2,749	2,309	2,012	1,244	747	431	370	376	530	1,012	15,720	373 000	12 032
	HLF	221	272	298	247	256	204	171	153	155	156	161	194	2,488	151 000	5 016
	LLF	1,366	2,081	2,451	2,062	1,756	1,040	576	278	215	220	369	818	13,232	215 000	7 016

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

		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Total
		30	31	31	28	31	30	31	30	31	31	30	31	365
HLF	R-1 RNSH	3	3	3	3	3	3	3	3	3	3	3	3	35
LLF	R-3 RSH	105	108	108	98	108	105	108	105	108	110	105	108	1,272
LLF	G-41 SL	29	30	30	27	30	29	30	29	30	30	29	30	353
HLF	G-51 SH	22	23	23	21	23	22	23	22	23	23	22	23	271
LLF	G-42 ML	55	57	57	51	57	55	57	55	57	58	55	57	671
HLF	G-52 MH	52	54	54	49	54	52	54	52	56	56	52	54	636
LLF	G-43 LL	19	20	20	18	20	19	20	19	20	22	19	20	235
HLF	G-53 LLL90	56	58	58	52	58	56	58	56	59	60	56	58	683
HLF	G-54 LLL110	13	13	13	12	13	13	13	13	14	14	13	13	153
HLF	G-63 LLG110	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	354	366	366	331	366	354	366	354	370	376	354	366	4,309
	HLF	146	151	151	136	151	146	151	146	155	156	146	151	1,778
	LLF	208	215	215	194	215	208	215	208	215	220	208	215	2,531

Heating Volumes (= Actual Volumes - Baseload)

		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Total
HLF	R-1 RNSH	4	6	7	6	6	3	2	1	0	0	1	2	39
LLF	R-3 RSH	566	901	1,067	895	727	402	177	34	0	0	78	327	5,178
LLF	G-41 SL	228	382	467	389	315	174	68	12	0	0	22	95	2,152
HLF	G-51 SH	13	23	27	21	21	7	3	1	0	0	2	8	125
LLF	G-42 ML	296	476	569	474	400	210	94	19	0	0	47	148	2,733
HLF	G-52 MH	30	49	59	44	41	15	4	2	0	0	5	14	266
LLF	G-43 LL	68	107	133	110	99	46	22	5	0	0	14	33	638
HLF	G-53 LLL90	24	35	48	35	33	26	9	2	0	0	7	16	237
HLF	G-54 LLL110	4	8	6	4	4	7	2	1	0	0	0	3	43
HLF	G-63 LLG110	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	1,233	1,987	2,383	1,978	1,646	890	381	77	0	0	176	646	11,411

HLF	75	121	147	111	105	58	20	7	0	0	15	43	710
LLF	1,158	1,866	2,236	1,868	1,541	832	361	70	0	0	161	603	10,701

Actual HDD	**694.0**	**913.0**	**1293.0**	**943.0**	**768.0**	**516.0**	**181.0**	**8.0**	**19.0**	**0.0**	**33.0**	**241.0**	5609 0

Heat Factors

		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Total	AVG	AVG Peak
HLF	R-1 RNSH	0 0059	0 0066	0 0054	0 0067	0 0078	0 0060	0 0110	0 1371	0 0000	0 0000	0 0332	0 0083	0 0078	0 0190	0 0064
LLF	R-3 RSH	0 8163	0 9869	0 8252	0 9496	0 9466	0 7800	0 9779	4 3105	0 0000	0 0000	2 3783	1 3568	0 9496	1 1940	0 8841
LLF	G-41 SL	0 3285	0 4184	0 3612	0 4124	0 4102	0 3371	0 3757	1 4960	0 0000	0 0000	0 6657	0 3942	0 4124	0 4333	0 3780
HLF	G-51 SH	0 0184	0 0252	0 0209	0 0225	0 0273	0 0131	0 0166	0 0927	0 0000	0 0000	0 0528	0 0332	0 0273	0 0269	0 0212
LLF	G-42 ML	0 4263	0 5214	0 4401	0 5021	0 5208	0 4067	0 5193	2 3548	0 0000	0 0000	1 4194	0 6141	0 5208	0 6437	0 4696
HLF	G-52 MH	0 0429	0 0537	0 0456	0 0469	0 0534	0 0286	0 0221	0 2177	0 0000	0 0000	0 1437	0 0581	0 0534	0 0594	0 0452
LLF	G-43 LL	0 0975	0 1172	0 1029	0 1166	0 1289	0 0885	0 1215	0 5806	0 0000	0 0000	0 4135	0 1369	0 1289	0 1587	0 1086
HLF	G-53 LLL90	0 0344	0 0383	0 0371	0 0367	0 0430	0 0501	0 0497	0 2339	0 0000	0 0000	0 2082	0 0664	0 0430	0 0665	0 0399
HLF	G-54 LLL110	0 0064	0 0088	0 0046	0 0045	0 0052	0 0144	0 0110	0 1774	0 0000	0 0000	0 0127	0 0124	0 0088	0 0215	0 0073
HLF	G-63 LLG110	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000	0 0000
	TOTAL	1 7764	2 1763	1 8430	2 0980	2 1432	1 7244	2 1050	9 6008	0 0000	0 0000	5 3275	2 6805	2 1520	2 6229	1 9602

Actual HDD	**694.0**	**913.0**	**1,293.0**	**943.0**	**768.0**	**516.0**	**181.0**	**8.0**	**19.0**	**0.0**	**33.0**	**241.0**	**5609.0**
Norm HDD	**717.0**	**1,044.0**	**1,220.0**	**1,041.0**	**896.0**	**516.0**	**231.0**	**49.0**	**5.0**	**8.0**	**101.0**	**405.0**	**6233.0**

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

		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Total
HLF	**R-1 RNSH**	7	10	10	10	10	6	6	10	3	3	6	6	86
LLF	**R-3 RSH**	690	1,138	1,115	1,086	956	507	334	316	108	110	345	658	7,362
LLF	**G-41 SL**	265	467	471	456	398	203	117	102	30	30	96	190	2,824
HLF	**G-51 SH**	35	49	48	44	48	29	27	27	23	23	28	36	418
LLF	**G-42 ML**	361	601	594	574	524	265	177	171	57	58	199	306	3,886
HLF	**G-52 MH**	83	110	110	98	102	67	59	63	56	56	67	78	947
LLF	**G-43 LL**	89	142	145	139	136	65	48	48	20	22	61	75	991
HLF	**G-53 LLL90**	81	98	103	91	97	82	69	68	59	60	77	85	969
HLF	**G-54 LLL110**	17	22	19	16	18	20	16	21	14	14	14	18	209
HLF	**G-63 LLG110**	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL	1,628	2,638	2,614	2,515	2,286	1,244	852	825	370	376	892	1,452	17,692

HLF	223	289	290	258	274	204	177	188	155	156	192	223	2,629
LLF	1,404	2,349	2,325	2,256	2,013	1,040	676	636	215	220	701	1,228	15,063

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2022 – 2023 Winter Cost of Gas Filing
Fixed Price Option

		Participation	Premium	FPO Volumes	Premium Revenue	FPO Rate	Residential Average COG Rate	Residential Total Bill FPO Rate	Residential Total Bill COG Rate	Difference	% Difference	FPO Rate	C&I Average COG Rate	C&I Total Bill FPO Rate	C&I Total Bill COG Rate	Difference	% Difference
1	Nov 98 - Mar 99	6.0%				0.3927	0 3722	943.3700	926.9333	$ 16.44	1.77%	0 3927	0 3736	$1,570.86	$ 1,546.08	$ 24.79	1 60%
2	Nov 99 - Mar 00	9.0%				0.4724	0.4628	679.8500	672.2235	$ 7.63	1.13%	0.4724	0.4636	$1,161.81	$ 1,149.15	$ 12 67	1.10%
3	Nov 00 - Mar 01	20.0%				0.6408	0.7656	816.2500	916.0900	$ (99.84)	-10.90%	0 6408	0.7189	$1,376.64	$ 1,533.43	$ (156.79)	-10 22%
4	Nov 01 - Apr 02	24.0%				0.5141	0.4818	790.6522	760.5504	$ 30.10	3.96%	0 5238	0.4928	$1,301.07	$ 1,256.88	$ 44.19	3 52%
5	Nov 02 - Apr 03	24.0%	0 0051	25,107,016	$128,045.78	0.5553	0 5758	821.3224	840.4371	$ (19.11)	-2.27%	0 5658	0 5860	$1,344.02	$ 1,372.86	$ (28.84)	-2.10%
6	Nov 03 - Apr 04	23.0%	0 0219	25,220,575	$552,330 59	0.8597	0 8220	1,115.5548	1,080.4628	$ 35.09	3.25%	0 8759	0 8352	$1,798.38	$ 1,740.30	$ 58 08	3 34%
7	Nov 04 - Apr 05	29.6%	0 0100	27,378,128	$273,781 28	0.8925	0 9425	1,142.9556	1,189.5541	$ (46.60)	-3.92%	0 9092	0 9562	$1,844.75	$ 1,911.86	$ (67.10)	-3 51%
8	Nov 05 - Apr 06	29.8%	0 0200	25,944,091	$518,881 82	1.2951	1.1342	1,526.0076	1,376.0122	$ 150.00	10.90%	1 3192	1.1686	$2,450.66	$ 2,235.77	$ 214 89	9 61%
9	Nov 06 - Apr 07	15.1%	0 0200	13,135,684	$262,713 68	1.2664	1.1656	1,509.7908	1,415.8032	$ 93.99	6.64%	1 2666	1.1647	$2,321.15	$ 2,175.70	$ 145.45	6 68%
10	Nov 07 - Apr 08	15.8%	0 0200	14,078,553	$281,571 06	1.2043	1.1746	1,433.0900	1,405.4000	$ 27.69	1.97%	1 2044	1.1725	$2,232.39	$ 2,186.92	$ 45.47	2 08%
11	Nov 08 - Apr 09	15.2%	0 0200	13,041,335	$260,826.70	1.2835	1 0888	1,555.3140	1,373.8536	$ 181.46	13.21%	1 2836	1 0958	$2,467.49	$ 2,199.54	$ 267 95	12.18%
12	Nov 09 - Apr 10	11.4%	0 0200	8,405,413	$168,108 26	0.9863	0 9416	1,250.8032	1,209.1161	$ 41.69	3.45%	0 9865	0 9408	$1,984.29	$ 1,919.03	$ 65 26	3.40%
13	Nov 10 - Apr 11	12.6%	0 0200	10,379,804	$207,596 08	0.8420	0 8029	1,175.0264	1,138.5767	$ 36.45	3.20%	0 8434	0.8030	$1,880.96	$ 1,823.34	$ 57 63	3.16%
14	Nov 11 - Apr 12	11.9%	0 0200	7,835,197	$156,703 94	0.8126	0.7309	1,165.6100	1,089.4400	$ 76.17	6.99%	0 8129	0.7327	$1,845.28	$ 1,730.88	$ 114.40	6 61%
15	Nov 12 - Apr 13	10.9%	0 0200	8,179,524	$163,590.48	0.6919	0.7680	743.0298	792.4756	$ (49.45)	-6.24%	0 6936	0.7724	$1,989.86	$ 2,132.90	$ (143 03)	-6.71%
16	Nov 13 - Apr 14	10.5%	0 0200	8,930,779	$178,615 58	0.9095	1.1086	857.7200	981.2100	$ (123.49)	-12.59%	0 9108	1.1158	$2,995.66	$ 3,393.08	$ (397.41)	-11.71%
17	Nov 14 - Apr 15	15.1%	0 0795	8,779,742	$697,989.49	1.2425	0 8411	1,127.6600	948.0700	$ 179.59	18.94%	0 5143	1.4301	$2,135.42	$ 2,340.00	$ (204 58)	-8.74%
18	Nov 15 - Apr 16	15.3%	0 0200	4,941,157	$ 98,823.14	0.7716	0.7516	869.1500	712.7315	$ 156.42	21.95%						
19	Nov 16 - Apr 17	11.5%	0 0106	5,419,967	$ 57,451 65	0.7268	0.7162	827.1400	812.3754	$ 14.76	1.82%						
20	Nov 17 - Apr 18	10.6%	0 0200	5,298,900	$105,978 00	0.6645	0 6445	878.7000	865.9400	$ 12.76	1.47%						
21	Nov 18 - Apr 19	10.8%	0 0200	5,708,925	$114,178 50	0.7611	0.7411	984.8300	972.1200	$ 12.71	1.31%						
22	Nov 19 - Apr 20	7.2%	0 0200	3,447,167	$ 68,943 34	0.6403	0 6203	930.4600	917.7400	$ 12.72	1.39%						
23	Nov 20 - Apr 21	11.1%	0 0200	5,373,268	$107,465 36	0.5771	0 5571	895.3200	882.6000	$ 12.72	1.44%						
24	Nov 21 - Apr 22	12.0%	0 0200	5,800,339	$116,006.78	1.1539	1.1339	1,333.3500	1,320.6300	$ 12.72	0.96%						
25	Nov 22 - Apr 23					1.7535	1.4300	1,465.9567	1,453.5421	$ 12.41	0.85%						
24	Total									$ 785.03						$ 53 01	

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Peak 2022 – 2023 Winter Cost of Gas Filing
Short-Term Debt Limitations

		For Purposes of Fuel Financing
Total Direct Gas Costs	$	127,589,939
Total Indirect Gas Costs		5,082,758
Total Gas Costs	$	132,672,697
% of Debt to Total Gas Costs		30%
Short Term Debt	$	39,801,809

		For Purposes Other Than Fuel Financing
12/31/2023 Projected Net Plant	$	576,165,518
% of Debt to Net Plant		20%
Short Term Debt	$	115,233,104

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
2022 – 2023 Winter Cost of Gas Filing
Company Allowance Calculation &
Lost and Unaccounted For Gas ("LAUF") Calculation

Company Allowance Calculation

	Jul-2021	Aug-2021	Sep-2021	Oct-2021	Nov-2021	Dec-2021	Jan-2022	Feb-2022	Mar-2022	Apr-2022	May-2022	Jun-2022	Total
Total Sendout- Therms	5,442,090	5,497,110	5,819,000	8,688,720	17,720,430	23,111,810	32,399,870	24,437,270	20,340,550	13,464,370	7,737,350	5,719,140	170,377,710
Total Throughput- Therms	5,660,411	5,151,765	5,330,413	5,973,857	9,442,192	19,179,124	24,588,310	28,267,925	25,235,810	17,808,587	12,357,817	7,130,362	166,126,573
Variance	(218,321)	345,345	488,587	2,714,863	8,278,238	3,932,686	7,811,560	(3,830,655)	(4,895,260)	(4,344,217)	(4,620,467)	(1,411,222)	4,251,137
Company Allowance													**2.50%**

Lost and Unaccounted For Gas ("LAUF") Calculation

	Jul-2021	Aug-2021	Sep-2021	Oct-2021	Nov-2021	Dec-2021	Jan-2022	Feb-2022	Mar-2022	Apr-2022	May-2022	Jun-2022	Total
Total Sendout- Therms	5,442,090	5,497,110	5,819,000	8,688,720	17,720,430	23,111,810	32,399,870	24,437,270	20,340,550	13,464,370	7,737,350	5,719,140	170,377,710
Total Throughput- Therms	5,660,411	5,151,765	5,330,413	5,973,857	9,442,192	19,179,124	24,588,310	28,267,925	25,235,810	17,808,587	12,357,817	7,130,362	166,126,573
Company Use	4,279	3,683	4,176	5,423	15,918	27,834	54,807	49,573	39,450	25,474	9,761	4,516	244,895
Variance	(222,601)	341,662	484,411	2,709,440	8,262,320	3,904,852	7,756,752	(3,880,228)	(4,934,710)	(4,369,691)	(4,630,228)	(1,415,738)	4,006,241
LAUF													2.35%

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Fuel Inventory Revenue Requirement

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1		**5 Quarter Avg**	**Q2 2021**	**Q3 2021**	**Q4 2021**	**Q1 2022**	**Q2 2022**
2	Gas Stored Underground	$ 3,558,724	$ 2,088,182	$ 4,691,440	$ 4,613,879	$ 937,996	$ 5,462,121
3	Fuel Stock - Propane	$ 999,078	$ 835,646	$ 1,493,834	$ 1,469,329	$ 629,733	$ 566,849
4	UG Storage - LNG	$ 75,141	$ 44,351	$ 45,826	$ 90,614	$ 75,930	$ 118,983
5		$ 4,632,943					
6	ROR	8.76%	Pre-Tax Rate of 6.64% and Statuatory Tax Rate of 27.08%				
		$ 405,726					
7	Income Tax Gross-up	1.2708					
8	Revenue Requirement	$ 515,609					

Liberty Utilities (EnergyNorth Natural Gas) Corp.

Off Peak 2023 Summer Cost of Gas Filing

Table of Contents

1 **Liberty Utilities (EnergyNorth Natural Gas) Corp.**
2
3 **Off Peak 2023 Summer Cost of Gas Filing**
4 **Summary**

Ln		Reference	OP 23 May - Oct
7	(a)	(b)	(c)
8			
9	**Anticipated Direct Cost of Gas**		
10	Purchased Gas:		
11	Demand Costs:	Sch. 5A, col (j), ln 46	$ 3,233,514
12	Supply Costs	Sch. 6, col (i), ln 47	9,171,762
13			
14	Storage Gas:		
15	Demand, Capacity:	Sch. 5A, col (j), ln 61	$ -
16	Commodity Costs:	Sch. 6, col (i), ln 50	-
17			
18	Produced Gas:	Sch. 6, col (i), ln 56	$ 152,643
19			
20	Hedge Contract (Savings)/Loss		$ -
21			
22			
23	**Total Unadjusted Cost of Gas**		$ 12 557 918
24			
25	**Adjustments**		
26			
27	Prior Period (Over)/Under Recovery)	Sch. 3, col (c) ln 28	$ 10,637,079
28	Interest 11/01/19 - 10/31/20	Sch. 3, col (q) ln 193	457,126
29	Prior Period Adjustments	Sch. 4, ln 24 col (b)	-
30	Refunds from Suppliers	Sch. 4, ln 24 col (c)	-
31	Broker Revenue	Sch. 4, ln 24 col (d)	-
32	Fuel Financing	Sch. 4, ln 24 col (e)	-
33	Transportation CGA Revenues	Sch. 4, ln 24 col (f)	-
34	Interruptible Sales Margin	Sch. 4, ln 24 col (g)	-
35	Capacity Release and Off System Sales Margins	Sch. 4, ln 24 col (h) + col (i)	-
36	Hedging Costs	Sch. 4, ln 24 col (j)	-
37	FPO Premium - Collection		-
38	Fixed Price Option Administrative Costs	Sch. 4, ln 24 col (k)	-
39			
40	**Total Adjustments**		$ 11,094,205
41			
42	**Total Anticipated Direct Costs**	lns 23 + 40	$ 23,652,124
43			
44	**Anticipated Indirect Cost of Gas**		
45	**Working Capital**		
46	Total Unadjusted Anticipated Cost of Gas	Ln 23	$ 12,557,918
47	Lead Lag Days / 365	DG 20-105, 25.72/ 365	0.0705
48	Prime Rate		5.50%
49	Working Capital Percentage	ln 47 * ln 48	0.388%
50	Working Capital	ln 46 * ln 49	48,670
51	Plus: Working Capital Reconciliation	Sch. 3, col (c), ln 98	47,458
52			
53	**Total Working Capital Allowance**	lns 50 + 51	$ 96 127
54			
55	**Bad Debt**		
56	Total Unadjusted Anticipated Cost of Gas	ln 23	$ 12,557,918
57	Less Refunds	ln 30	-
58	Plus Working Capital	ln 53	96,127
59	Plus Prior Period (Over) Under Recovery	ln 27	10,637,079
60	Subtotal		$ 23,291,125
61	Bad Debt Percentage	per GTC 17(f)	0.86%
62			
63	Bad Debt Allowance	ln 60 * ln 61	$ 200,572
64	Prior Period Bad Debt Allowance	Sch. 3, col (c), ln 163	337,560
65			
66	**Total Bad Debt Allowance**	lns 63 + 64	$ 538,132
67			
68	**Production and Storage Capacity**	per GTC17(f)	$ -
69			
70	**Miscellaneous Overhead**	per GTC 17(f)	$ -
71	Sales Volume	Sch. 10B, ln 23/1000	23,649
72	Divided by Total Sales	Sch. 10B, ln 23/1000	116,430
73	Ratio		20.31%
74			
75	**Miscellaneous Overhead**	lns 70 * 73	$ -
76			
77	**Total Anticipated Indirect Cost of Gas**	lns 53 + 66 + 68 + 75	$ 634,259
78			
79	**Total Cost of Gas**	lns 42 + 77	$ 24,286,383
80			
81	**Projected Forecast Sales (Therms)**	Sch. 3, col (q), ln 52	23 648 905

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

2

3 **Off Peak 2023 Summer Cost of Gas Filing**

4 **Summary of Supply and Demand Forecast**

Ln										
5										
6										Off Peak Period
7	For Month of:		May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	May - Oct
8	(a)	(b)	(c)	(d)	(e)	(d)	(e)	(f)	(g)	(h)
9	**I. Gas Volumes (Therms)**									
10										
11	**A. Firm Demand Volumes**		106,848	278,583	231,288	234,403	347,400	738,977	427,392	
12	Firm Gas Sales	Sch. 10B, ln 23	1,068,480	2,785,832	2,312,881	2,344,026	3,473,998	7,389,766	4,273,922	23,648,905
13	Lost Gas (Unaccounted for)		127,414	82,682	69,188	75,413	88,009	170,244		612,950
14	Company Use		3,341	2,168	1,814	1,978	2,308	4,464		16,074
15	Unbilled Therms		4,219,447	645,605	558,542	785,768	178,525	(324,333)	(4,273,922)	1,789,632
16										
17	**Total Firm Volumes**	Sch. 6, ln 97	5,418,683	3,516,286	2,942,425	3,207,185	3,742,840	7,240,141		26,067,561
18										
19	**B. Supply Volumes (Therms)**									
20	Pipeline Gas:									
21	Dawn Supply	Sch. 6, ln 66	842,983	655,282	518,079	495,174	712,922	601,154		3,825,595
22	Niagara Supply	Sch. 6, ln 67	667,764	585,319	584,500	583,125	598,573	687,845		3,707,126
23	TGP Supply (Gulf)	Sch. 6, ln 68	29,663	-	-	-	-	327,579		357,242
24	Dracut Supply 1 - Baseload	Sch. 6, ln 69	-	-	-	-	-	-		-
25	Dracut Supply 2 - Swing	Sch. 6, ln 70	-	-	-	-	-	435,588		435,588
26	City Gate Delivered Supply	Sch. 6, ln 72	-	-	-	-	-	-		-
27	LNG Truck	Sch. 6, ln 73	-	-	4,831	10,843	17,887	110,141		143,701
28	Propane Truck	Sch. 6, ln 74	79,331	71,837	69,440	69,276	73,464	81,717		445,066
29	PNGTS	Sch. 6, ln 75	211,780	185,528	182,354	184,937	189,729	218,149		1,172,479
30	Portland Natural Gas	Sch. 6, ln 76	889,892	29,984	-	-	-	522,990		1,442,866
31	TGP Supply (Zone 4)	Sch. 6, ln 77	5,379,362	4,713,785	4,706,794	4,696,924	4,822,444	5,548,240		29,867,549
32	Subtotal Pipeline Volumes		8,100,776	6,241,736	6,065,997	6,040,279	6,415,019	8,533,404		41,397,212
33										
34	Storage Gas:									
35	TGP Storage	Sch. 6, ln 82	-	-	-	-	-	-		-
36										
37	Produced Gas:									
38	LNG Vapor	Sch. 6, ln 85	20,005.32	18,115.53	17,510.84	17,469.64	18,525.75	20,606.94		112,234.02
39	Propane	Sch. 6, ln 86	-	-	-	-	-	-		-
40	Subtotal Produced Gas		20,005.32	18,115.53	17,510.84	17,469.64	18,525.75	20,606.94		112,234.02
41										
42	Less - Gas Refill:									
43	LNG Truck	Sch. 6, ln 91	-	-	(4,830.58)	(10,843.23)	(17,886.93)	(110,140.53)		(143,701.26)
44	Propane	Sch. 6, ln 92	(79,331.45)	(71,837.44)	(69,439.55)	(69,276.17)	(73,464.17)	(81,717.17)		(445,065.94)
45	TGP Storage Refill	Sch. 6, ln 93	(2,622,766.74)	(2,671,727.92)	(3,066,812.74)	(2,770,444.31)	(2,599,354.02)	(1,122,012.26)		(14,853,117.98)
46	Subtotal Refills		(2,702,098.19)	(2,743,565.35)	(3,141,082.87)	(2,850,563.70)	(2,690,705.12)	(1,313,869.96)		(15,441,885.18)
47										
48	Total Firm Sendout Volumes	lns 32 + 35 + 40 + 46	5,418,682.98	3,516,286.29	2,942,425.38	3,207,185.36	3,742,839.81	7,240,141.15		26,067,560.98

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

3 **Off Peak 2023 Summer Cost of Gas Filing**
4 **Summary of Supply and Demand Forecast**

REDACTED
Schedule 1
Page 2 of 4

Ln	Description	Reference								
49										
50	**II. Gas Costs**									
51										
52	**A. Demand Costs**									
53	Supply									
54	Niagara Supply	Sch.5A, ln 12	$ -	$ -	$ -	$ -	$ -	$ -		$ -
55	Subtotal Supply Demand		$ -	$ -	$ -	$ -	$ -	$ -		$ -
56	Less Capacity Credit		-	-	-	-	-	-		-
57	Net Pipeline Demand Costs		$ -	$ -	$ -	$ -	$ -	$ -		$ -
58										
59	Pipeline:									
60	Iroquois Gas Trans Service RTS 470-0	Sch.5A, ln 16	[redacted]							
61	Tenn Gas Pipeline 95346 Z5-Z6	Sch.5A, ln 17								
62	Tenn Gas Pipeline 2302 Z5-Z6	Sch.5A, ln 18								
63	Tenn Gas Pipeline 8587 Z0-Z6	Sch.5A, ln 19								
64	Tenn Gas Pipeline 8587 Z1-Z6	Sch.5A, ln 20								
65	Tenn Gas Pipeline 8587 Z4-Z6	Sch.5A, ln 21								
66	Tenn Gas Pipeline (Dracut) 42076 Z6-Z6	Sch.5A, ln 22								
67	Tenn Gas Pipeline (Dracut) 358905 Z6-Z7	Sch.5A, ln 23								
68	Tenn Gas Pipeline (Concord Lateral) Z6-Z6	Sch.5A, ln 24								
69	Portland Natural Gas Trans Service	Sch.5A, ln 25								
70	ANE (TransCanada via Union to Iroquois)	Sch.5A, ln 27								
71	Portland Natural Gas	Sch.5A, ln 25								
72	TransCanada via Union to Portland	Sch.5A, ln 27								
73	Tenn Gas Pipeline Z4-Z6 stg 632	Sch.5A, ln 29								
74	Tenn Gas Pipeline Z4-Z6 stg 11234	Sch.5A, ln 30								
75	Tenn Gas Pipeline Z5-Z6 stg 11234	Sch.5A, ln 31								
76	National Fuel FST 2358	Sch.5A, ln 32								
77	Subtotal Pipeline Demand		$ 812,659	$ 815,395	$ 815,395	$ 815,395	$ 815,395	$ 815,395	$ 3,674,232	$ 4,889,632
78	Less Capacity Credit		(275,248)	(276,174)	(276,174)	(276,174)	(276,174)	(276,174)	(1,244,462)	(1,656,118)
79	Net Pipeline Demand Costs		$ 537,411	$ 539,220	$ 539,220	$ 539,220	$ 539,220	$ 539,220	$ 2,429,770	$ 3,233,514
80										
81	Peaking Supply:									
82	Tenn Gas Pipeline (Concord Lateral) Z6-Z6	Sch.5A, ln 37	$ -	$ -	$ -	$ -	$ -	$ -		$ -
83	Granite Ridge Demand	Sch.5A, ln 38	-	-	-	-	-	-		-
84	DOMAC Demand NSB041	Sch.5A, ln 39	-	-	-	-	-	-		-
85	Subtotal Peaking Demand		$ -	$ -	$ -	$ -	$ -	$ -		$ -
86	Less Capacity Credit		-	-	-	-	-	-		-
87	Net Peaking Supply Demand Costs		$ -	$ -	$ -	$ -	$ -	$ -		$ -
88										
89	Storage:									
90	Dominion - Demand	Sch.5A, ln 49	$ -	$ -	$ -	$ -	$ -	$ -		$ -
91	Dominion - Storage	Sch.5A, ln 50	-	-	-	-	-	-		-
92	Honeoye - Demand	Sch.5A, ln 51	-	-	-	-	-	-		-
93	National Fuel - Demand	Sch.5A, ln 52	-	-	-	-	-	-		-
94	National Fuel - Capacity	Sch.5A, ln 53	-	-	-	-	-	-		-
95	Tenn Gas Pipeline - Demand	Sch.5A, ln 54	-	-	-	-	-	-		-
96	Tenn Gas Pipeline - Capacity	Sch.5A, ln 55	-	-	-	-	-	-		-
97	Subtotal Storage Demand		$ -	$ -	$ -	$ -	$ -	$ -		$ -
98	Less Capacity Credit		-	-	-	-	-	-		-
99	Net Storage Demand Costs		$ -	$ -	$ -	$ -	$ -	$ -		$ -
100										
101	Total Demand Charges	lns 55 + 77 + 85 + 97	$ 812,659	$ 815,395	$ 815,395	$ 815,395	$ 815,395	$ 815,395	$ 3,674,232	$ 4,889,632
102	Total Capacity Credit	lns 56 + 78 + 86 + 98	(275,248)	(276,174)	(276,174)	(276,174)	(276,174)	(276,174)	(1,244,462)	(1,656,118)
103	Net Demand Charges		$ 537,411	$ 539,220	$ 539,220	$ 539,220	$ 539,220	$ 539,220	$ 2,429,770	$ 3,233,514
104										

1 **Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**
2
3 **Off Peak 2023 Summer Cost of Gas Filing**
4 **Summary of Supply and Demand Forecast**

105 **REDACTED**
106 Schedule 1
107 **B. Commodity Costs** Page 3 of 4

108	Pipeline:								
109	Dawn Supply	Sch. 6, ln 12	[redacted]						
110	Niagara Supply	Sch. 6, ln 13							
111	TGP Supply (Gulf)	Sch. 6, ln 14							
112	Dracut Supply 1 - Baseload	Sch. 6, ln 15							
113	Dracut Supply 2 - Swing	Sch. 6, ln 16							
114	Dracut Supply 3 - Swing	Sch. 6, ln 17							
115	City Gate Delivered Supply	Sch. 6, ln 18							
116	LNG Truck	Sch. 6, ln 19							
117	Portland Natural Gas	Sch. 6, ln 21							
118	PNGTS	Sch. 6, ln 21							
119	TGP Supply (Zone 4)	Sch. 6, ln 23							
120	Subtotal Pipeline Commodity Costs		$ 3,360,808	$ 2,540,243	$ 2,530,670	$ 2,539,484	$ 2,381,438	$ 3,295,802	$ 16,648,446
121									
122	Storage:								
123	TGP Storage - Withdrawals	Sch. 6, ln 50	$ -	$ -	$ -	$ -	$ -	$ -	$ -
124									
125	Produced Gas Costs:								
126	LNG Vapor	Sch. 6, ln 53	[redacted]						
127	Propane	Sch. 6, ln 54							
128	Subtotal Produced Gas Costs		$ 31,982	$ 28,961	$ 27,072	$ 24,905	$ 23,154	$ 16,568	$ 152,643
129									
130	Less Storage Refills:								
131	LNG Truck	Sch. 6, ln 40	[redacted]						
132	Propane	Sch. 6, ln 41							
133	TGP Storage Refill	Sch. 6, ln 42							
134	Storage Refill (Trans.)	Sch. 6, ln 43							
135	Subtotal Storage Refill		$ (1,450,419)	$ (1,484,992)	$ (1,716,203)	$ (1,568,171)	$ (1,481,300)	$ (819,579)	$ (8,520,664)
136									
137	Total Supply Commodity Costs		$ 1,942,371	$ 1,084,213	$ 841,539	$ 996,219	$ 923,293	$ 2,492,791	$ 8,280,425
138									
139	**C. Supply Volumetric Transportation Costs:**								
140	Dawn Supply	Sch. 6, ln 28	[redacted]						
141	Niagara Supply	Sch. 6, ln 29							
142	TGP Supply (Zone 4)	Sch. 6, ln 30							
143	Dracut Supply 1 - Baseload	Sch. 6, ln 31							
144	Dracut Supply 2 - Swing	Sch. 6, ln 32							
145	Dracut Supply 3 - Swing	Sch. 6, ln 33							
146	Subtotal Pipeline Volumetric Trans. Costs		$ 102,300	$ 88,216	$ 84,967	$ 84,780	$ 84,686	$ 96,641	$ 541,590
147									
148	TGP Storage - Withdrawals	Sch. 6, ln 35	$ -	$ -	$ -	$ -	$ -	$ -	$ -
149									
150	Total Supply Volumetric Trans. Costs	lns 146 + 148	$ 102,300	$ 88,216	$ 84,967	$ 84,780	$ 84,686	$ 96,641	$ 541,590
151									
152	Total Commodity Gas & Trans. Costs	lns 137 + 150	$ 2,044,671	$ 1,172,429	$ 926,506	$ 1,080,998	$ 1,007,978	$ 2,589,432	$ 8,822,014
153									
154									
155									
156									

1	**Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**								
2									
3	**Off Peak 2023 Summer Cost of Gas Filing**								
4	**Summary of Supply and Demand Forecast**								
157	**D. Supply and Demand Costs by Source**								**REDACTED**
158									Schedule 1
159									Page 4 of 4
160	Purchased Gas Demand Costs								
161	Pipeline Gas Demand Costs	lns 55 + 77	$ 812,659	$ 815,395	$ 815,395	$ 815,395	$ 815,395	$ 815,395	$ 4,889,632
162	Peaking Gas Demand Costs	ln 85	-	-	-	-	-	-	-
163	Subtotal Purchased Gas Demand Costs		$ 812,659	$ 815,395	$ 815,395	$ 815,395	$ 815,395	$ 815,395	$ 4,889,632
164	Less Capacity Credit	lns 56 + 78 + 86	(275,248)	(276,174)	(276,174)	(276,174)	(276,174)	(276,174)	(1,656,118)
165	Net Purchased Gas Demand Costs		$ 537,411	$ 539,220	$ 539,220	$ 539,220	$ 539,220	$ 539,220	$ 3,233,514
166									
167	Storage Gas Demand Costs								
168	Storage Demand	ln 97	$ -	$ -	$ -	$ -	$ -	$ -	$ -
169	Less Capacity Credit	ln 98	-	-	-	-	-	-	-
170	Net Storage Demand Costs		$ -	$ -	$ -	$ -	$ -	$ -	$ -
171									
172	**Total Demand Costs**	lns 165 + 170	$ 537,411	$ 539,220	$ 539,220	$ 539,220	$ 539,220	$ 539,220	$ 3,233,514
173									
174	Purchased Gas Supply								
175	Commodity Costs	ln 120	[redacted]						
176	Less Storage Inj.(TGP Storage)	ln 133							
177	Less Storage Transportation	ln 134							
178	Less LNG Truck	ln 131							
179	Less Propane Truck	ln 132							
180	Plus Transportation Costs	ln 146							
181	Subtotal Purchased Gas Supply		$ 2,012,688	$ 1,143,468	$ 899,434	$ 1,056,093	$ 984,824	$ 2,572,864	$ 8,669,372
182									
183	Storage Commodity Costs								
184	Commodity Costs	ln 123	$ -	$ -	$ -	$ -	$ -	$ -	$ -
185	Transportation Costs	ln 148	-	-	-	-	-	-	-
186	Subtotal Storage Commodity Costs		$ -	$ -	$ -	$ -	$ -	$ -	$ -
187									
188	Produced Gas Commodity Costs	ln 128	$ 31,982	$ 28,961	$ 27,072	$ 24,905	$ 23,154	$ 16,568	$ 152,643
189									
190	**Subtotal Commodity Costs**	lns 181 + 186 + 188	$ 2,044,671	$ 1,172,429	$ 926,506	$ 1,080,998	$ 1,007,978	$ 2,589,432	$ 8,822,014
191									ERROR
192	Hedge Contract (Savings)/Loss		$ -	$ -	$ -	$ -	$ -	$ -	$ -
193									
194	**Total Commodity Costs**	lns 190 + 192	$ 2,044,671	$ 1,172,429	$ 926,506	$ 1,080,998	$ 1,007,978	$ 2,589,432	$ 8,822,014
195									
196	**Total Demand Costs**	ln 103	$ 537,411	$ 539,220	$ 539,220	$ 539,220	$ 539,220	$ 539,220	$ 3,233,514
197	**Total Supply Costs**	ln 194	2,044,671	1,172,429	926,506	1,080,998	1,007,978	2,589,432	8,822,014
198									
199	**Total Direct Gas Costs**	lns 196 + 197	$ 2,582,082	$ 1,711,649	$ 1,465,726	$ 1,620,219	$ 1,547,199	$ 3,128,652	$ 12,055,528
200									
201									

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

Schedule 2

Off Peak 2023 Summer Cost of Gas Filing Page 1 of 1

Contracts Ranked on a per Unit Cost Basis

Supplier (a)	Contract (b)	Contract Type (c)	Contract Unit (d)	Unit Dth (MDQ/ACQ) (e)	Off Peak Cost per Unit Dth (f)
Demand Costs					
ANE (TransCanada via Union to Iroquois)	Dawn - Parkway to Iroquois	Transportation	MDQ	4,047	[redacted]
Dominion - Capacity Reservation	GSS 300076	Storage	ACQ	102,700	[redacted]
Tenn Gas Pipeline - Cap. Reservations	FS-MA 523	Storage	ACQ	1,560,391	[redacted]
National Fuel - Capacity Reservation	FSS-1 2357	Storage	ACQ	670,800	[redacted]
Tenn Gas Pipeline - Demand	FS-MA 523	Storage	MDQ	21,844	[redacted]
Dominion - Demand	GSS 300076	Storage	MDQ	934	[redacted]
National Fuel - Demand	FSS-1 2357	Storage	MDQ	6,098	[redacted]
Tenn Gas Pipeline	42076 FTA Z6-Z6	Transportation	MDQ	20,000	[redacted]
Tenn Gas Pipeline	42076 FTA Z6-Z6	Transportation	MDQ	40,000	[redacted]
National Fuel	FST N02358	Transportation	MDQ	6,098	[redacted]
Iroquois Gas Trans Service	RTS 470-01	Transportation	MDQ	4,047	[redacted]
Honeoye - Demand	SS-NY	Storage	MDQ	1,362	[redacted]
Tenn Gas Pipeline	2302 Z5-Z6	Transportation	MDQ	3,122	[redacted]
Tenn Gas Pipeline (short haul)	11234 Z5-Z6(stg)	Transportation	MDQ	1,957	[redacted]
Tenn Gas Pipeline (short haul)	8587 Z4-Z6	Transportation	MDQ	3,811	[redacted]
Tenn Gas Pipeline (short haul)	632 Z4-Z6 (stg)	Transportation	MDQ	15,265	[redacted]
Tenn Gas Pipeline (short haul)	11234 Z4-Z6(stg)	Transportation	MDQ	7,082	[redacted]
Tenn Gas Pipeline (Concord Lateral) Z6-Z6	Firm Transporta ion	Transportation	MDQ	30,000	[redacted]
Tenn Gas Pipeline	95346 Z5-Z6	Transportation	MDQ	4,000	[redacted]
TransCanada via Union to Portland	Union Parkway to Portland	Transportation	MDQ	5,077	[redacted]
Portland Natural Gas Trans Service	FT-1999-001	Transportation	MDQ	1,000	[redacted]
Tenn Gas Pipeline (long haul)	8587 Z1-Z6	Transportation	MDQ	14,561	[redacted]
Tenn Gas Pipeline (long haul)	8587 Z0-Z6	Transportation	MDQ	7,035	[redacted]
Portland Natural Gas	FTN	Transportation	MDQ	5,000	[redacted]
Supply Costs - Commodity					
LNG Truck		Pipeline	Dkt	14,370	[redacted]
TGP Supply (Zone 4)		Pipeline	Dkt	2,986,755	[redacted]
Niagara Supply		Pipeline	Dkt	370,713	[redacted]
Dracut Supply 2 - Swing		Pipeline	Dkt	43,559	[redacted]
Dawn Supply		Pipeline	Dkt	382,559	[redacted]
TGP Citygate Supply		Pipeline	Dkt	-	[redacted]
PNGTS		Pipeline	Dkt	117,248	[redacted]
Dracut Supply 1 - Baseload		Pipeline	Dkt	-	[redacted]
TGP Supply (Gulf)		Pipeline	Dkt	35,724	[redacted]
LNG Vapor		Produced	Dkt	11,223	[redacted]
Propane		Pipeline	Dkt	-	[redacted]
Supply Costs - Volumetric Transportation					
Dracut Supply 1 - Baseload		Pipeline	Dkt	-	[redacted]
TGP Supply (Zone 4)		Pipeline	Dkt	35,724	[redacted]
Dracut Supply 2 - Swing		Pipeline	Dkt	43,559	[redacted]
Dawn Supply		Storage	Dkt	382,559	[redacted]
Niagara Supply		Pipeline	Dkt	370,713	[redacted]

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

2

3 **Off Peak 2023 Summer Cost of Gas Filing**

4 **COG (Over)/Under Cumulative Recovery Balances and Interest Calculation**

5

Ln			Prior Period Balance Plus Nov Collections October 31, 2022	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Off Peak Period Total
9		Days in Month		30	31	31	28	31	30	31	30	31	31	30	31	30	
10	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
11	**Account 8840 2 0000 10 1920 1741 (formerly, 175.40) COG (Over)/Under Balance Interest Calculation**																
12																	
13	**Beginning Balance**	Account 1920-1741 1/	**$ 10,637,079**	$ 10,637,079	$ 10,685,165	$ 10,735,078	$ 10,785,224	$ 10,830,729	$ 10,881,321	$ 10,930,511	$ 8,423,789	$ 6,899,533	$ 5,686,080	$ 4,360,503	$ 2,431,472	$ (1,360,852)	$ 10,637,079
14	Forecast Direct Gas Costs		-	-	-	-	-	-	-	2,780,000	1,901,108	1,652,478	1,806,786	1,738,494	3,329,263	-	13,208,130
15	Production & Storage & Misc Overhead		-	-	-	-	-	-	-	-	-	-	-	-	-		-
16	Projected Revenues w/o Int.	ln 54 * ln 64	-	-	-	-	-	-	-	(1,077,350)	(2,808,957)	(2,332,080)	(2,363,483)	(3,502,835)	(7,451,107)	(4,309,398)	(23,845,209)
17	Projected Unbilled Revenue	ln 58 * ln 64	-	-	-	-	-	-	-	(4,254,472)	(4,905,435)	(5,468,614)	(6,260,904)	(6,440,912)	(6,113,886)		(33,444,223)
18	Reverse Prior Month Unbilled		-	-	-	-	-	-	-		4,254,472	4,905,435	5,468,614	6,260,904	6,440,912	6,113,886	33,444,223
19	Add Net Adjustments (with TGP Refund)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Gas Cost Billed	Account 1920-1741 2/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	Monthly (Over)/Under Recovery		$ 10,637,079	$ 10,637,079	$ 10,685,165	$ 10,735,078	$ 10,785,224	$ 10,830,729	$ 10,881,321	$ 8,378,690	$ 6,864,976	$ 5,656,753	$ 4,337,092	$ 2,416,154	$ (1,363,346)	$ 443,636	$ (0)
22	Average Monthly Balance	(ln 13 + 21)/ 2	$ -	$ 10,637,079	$ 10,685,165	$ 10,735,078	$ 10,785,224	$ 10,830,729	$ 10,881,321	$ 9,654,600	$ 7,644,383	$ 6,278,143	$ 5,011,586	$ 3,388,329	$ 534,063	$ (458,608)	
23																	
24	Interest Rate	Prime Rate		5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%		
25																	
26	Interest Applied	ln 22 * ln 24 /365 *Days/Mo.	$ -	$ 48,085	$ 49,913	$ 50,146	$ 45,505	$ 50,593	$ 49,190	$ 45,099	$ 34,557	$ 29,327	$ 23,410	$ 15,317	$ 2,495	$ -	$ 443,636
27																	
28	**(Over)/Under Balance**	ln 21 + ln 26	$ 10 637 079	$ 10 685 165	$ 10 735 078	$ 10 785 224	$ 10 830 729	$ 10 881 321	$ 10 930 511	$ 8 423 789	$ 6 899 533	$ 5 686 080	$ 4 360 503	$ 2 431 472	$ (1 360 852)	$ 443 636	$ 443 636
29																	
30																	
31	**Calculation of COG with Interest**																
32																	
33	**Beginning Balance**	ln 13	$ 10,637,079	$ 10,637,079	$ 10,685,165	$ 10,735,078	$ 10,785,224	$ 10,830,729	$ 10,881,321	$ 10,930,511	$ 8,380,112	$ 6,827,329	$ 5,589,833	$ 4,237,947	$ 2,278,158	$ (1,573,374)	$ 10,637,079
34	Forecast Direct Gas Costs	ln 14	-	-	-	-	-	-	-	2,780,000	1,901,108	1,652,478	1,806,786	1,738,494	3,329,263	-	13,208,130
35	Prod Storage & Misc Overhead	ln 15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	Projected Revenues with int.	ln 54 * 66	-	-	-	-	-	-	-	(1,086,176)	(2,831,968)	(2,351,185)	(2,382,845)	(3,531,531)	(7,512,148)	(4,344,702)	(24,040,555)
37	Projected Unbilled Revenue	ln 58 * 66	-	-	-	-	-	-	-	(4,289,325)	(4,945,622)	(5,513,414)	(6,312,195)	(6,493,677)	(6,163,973)		(33,718,206)
38	Reverse Prior Month Unbilled		-	-	-	-	-	-	-		4,289,325	4,945,622	5,513,414	6,312,195	6,493,677	6,163,973	33,718,206
39	Add Net Adjustments	ln 19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	Gas Cost Billed	ln 20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	Gas Cost Unbilled																
42	Reverse Prior Month Unbilled																
43	Add Interest	ln 26	-	-	-	-	-	-	-	45,099	34,557	29,327	23,410	15,317	2,495	-	150,204
44	**(Over)/Under Balance**		$ 10,637,079	$ 10,637,079	$ 10,685,165	$ 10,735,078	$ 10,785,224	$ 10,830,729	$ 10,881,321	$ 8,380,109	$ 6,827,512	$ 5,590,157	$ 4,238,403	$ 2,278,745	$ (1,572,528)	$ 245,896	$ (45,142)
45																	
46	Average Monthly Balance			$ 10,637,079	$ 10,685,165	$ 10,735,078	$ 10,785,224	$ 10,830,729	$ 10,881,321	$ 9,655,310	$ 7,603,812	$ 6,208,743	$ 4,914,118	$ 3,258,346	$ 352,815		
47																	
48	Interest Applied	ln 24 * ln 46 /365 *Days/Mo.		$ 48,085	$ 49,913	$ 50,146	$ 45,505	$ 50,593	$ 49,190	$ 45,102	$ 34,373	$ 29,002	$ 22,955	$ 14,730	$ 1,648	$ -	$ 441,242
49																	
50	**(Over)/Under Balance**	ln 43 +ln 44 + ln 48	$ 10,637,079	$ 10,685,165	$ 10,735,078	$ 10,785,224	$ 10,830,729	$ 10,881,321	$ 10,930,511	$ 8,380,112	$ 6,827,329	$ 5,589,833	$ 4,237,947	$ 2,278,158	$ (1,573,374)	$ 245,896	$ 245,896
51																	
52																	
53	Forecast Sendout Therms	Sch 1								5,418,683	3,516,286	2,942,425	3,207,185	3,742,840	7,240,141		26,067,561
54	Less 'Forecast Billing Therm Sales	Sch. 10B, ln 23 May - Oct								1,068,480	2,785,832	2,312,881	2,344,026	3,473,998	7,389,766	4,273,922	23,648,905
55	Less Forecast Unaccounted For	Sch 1								127 414	82 682	69 188	75 413	88 009	170 244		612 950
56	Less Forecast Company Use	Sch 1								3,341	2,168	1,814	1,978	2,308	4,464		16,074
57	Unbi led Volumes									4,219,447	645,605	558,542	785,768	178,525	(324,333)	(4,273,922)	1,789,632
58	Gross Unb lled									4,219,447	4,865,052	5,423,594	6,209,362	6,387,887	6,063,554	1,789,632	
59																	
60	Beg Balance									-	4,219,447	4,865,052	5,423,594	6,209,362	6,387,887	6,063,554	
61	Incremental									4,219,447	645,605	558,542	785,768	178,525	(324,333)	(4,273,922)	
62	Ending Balance									4,219,447	4,865,052	5,423,594	6,209,362	6,387,887	6,063,554	1,789,632	
63																	
64	COG w/o Interest	Sch. 3, pg. 4, ln 211 col. (c)								$ 1.0083	$ 1.0083	$ 1.0083	$ 1.0083	$ 1.0083	$ 1.0083	$ 1.0083	
65																	
66	COG With Interest	Sch. 3 pg. 4 ln 211 col. (d)								$ 1.0166	$ 1.0166	$ 1.0166	$ 1.0166	$ 1.0166	$ 1.0166	$ 1.0166	
67																	

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

3 **Off Peak 2023 Summer Cost of Gas Filing**

4 **COG (Over)/Under Cumulative Recovery Balances and Interest Calculation**

Ln			Prior Period Balance Plus Nov Collections October 31, 2022	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Off Peak Period Total
72		Days in Month		30	31	31	28	31	30	31	30	31	31	30	31	30	
74	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
76	**Account 8840 2 0000 10 1163 1424 (formerly, 142.40) Working Capital (Over)/Under Balance Interest Calculation**																
78	**Beginning Balance**	Account 1163-1424 1/	**$ 47,458**	$ 47,458	$ 47,672	$ 47,895	$ 48,119	$ 48,322	$ 48,547	$ 48,767	$ 37,685	$ 30,894	$ 25,452	$ 19,504	$ 11,075	$ (5,481)	$ 47,458
80	Days Lag									0.0705	0.0705	0.0705	0.0705	0.0705	0.0705	0.0705	
81	Prime Rate									5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	
82	Forecast Working Capital	ln 34 * ln 80 / 365 * ln 81		-	-	-	-	-	-	10,774	7,368	6,404	7,002	6,738	12,903	-	51,190
84	Projected Revenues w/o Int.	ln 123 * ln 126		-	-	-	-	-	-	(4,457)	(11,621)	(9,648)	(9,778)	(14,491)	(30,825)	(17,828)	(98,647)
85	Projected Unbilled Revenue	ln 124 * ln 126								(17,601)	(20,294)	(22,624)	(25,901)	(26,646)	(25,293)		(138,358)
86	Reverse Prior Month Unbilled										17,601	20,294	22,624	25,901	26,646	25,293	138,358
88	Add Net Adjustments			-	-		-	-	-	-	-	-	-	-	-	-	-
90	Working Capital Billed	Account 1163-1424 2/															-
92	Monthly (Over)/Under Recovery		$ 47 458	$ 47 458	$ 47 672	$ 47 895	$ 48 119	$ 48 322	$ 48 547	$ 37 484	$ 30 739	$ 25 321	$ 19 399	$ 11 006	$ (5 494)	$ 1 984	$ -
94	Average Monthly Balance	(ln 78 + 92)/ 2		$ 47,458	$ 47,672	$ 47,895	$ 48,119	$ 48,322	$ 48,547	$ 43,125	$ 34,212	$ 28,108	$ 22,426	$ 15,255	$ 2,790		
96	Interest Rate	Prime Rate		5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%		
98	Interest Applied	ln 94 * ln 96 / 365 * Days of Month		$ 215	$ 223	$ 224	$ 203	$ 226	$ 219	$ 201	$ 155	$ 131	$ 105	$ 69	$ 13		$ 1,983
100	**(Over)/Under Balance**	ln 92 + ln 98	$ 47 458	$ 47 672	$ 47 895	$ 48 119	$ 48 322	$ 48 547	**$ 48,767**	$ 37 685	$ 30 894	$ 25 452	$ 19 504	$ 11 075	$ (5 481)	$ 1 984	1 983
103	**Calculation of Working Capital with Interest**																
105	**Beginning Balance**		$ 47,458	$ 47,458	$ 47,672	$ 47,895	$ 48,119	$ 48,322	$ 48,547	$ 48,767	$ 37,643	$ 30,824	$ 25,359	$ 19,385	$ 10,926	$ (5,688)	$ 47,458
106	Forecast Working Capital	ln 82		-	-	-	-	-	-	10,774	7,368	6,404	7,002	6,738	12,903	-	51,190
107	Projected Rev. w th interest	ln 123 * ln 128		-	-	-	-	-	-	(4 466)	(11 643)	(9 666)	(9 797)	(14 519)	(30 885)	(17 862)	(98 838)
108	Projected Unbilled Revenue	ln 124 * ln 128								(17,635)	(20,333)	(22,667)	(25,951)	(26,698)	(25,342)		(138,626)
109	Reverse Prior Month Unbilled										17,635	20,333	22,667	25,951	26,698	25,342	138,626
110	Add Net Adjustments	ln 88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111	Working Capital Billed	ln 90	-			-											-
112	WC Unb lled									-	-	-	-	-	-	-	-
113	Reverse WC Unb lled										-	-	-	-	-	-	-
114	Add Interest	ln 98		-	-	-	-	-	-	201	155	131	105	69	13		674
115	Monthly (Over)/Under Recovery		$ 47 458	$ 47 458	$ 47 672	$ 47 895	$ 48 119	$ 48 322	$ 48 547	$ 37 642	$ 30 824	$ 25 359	$ 19 385	$ 10 926	$ (5 688)	$ 1 791	$ 483
117	Average Monthly Balance			$ 47,458	$ 47,672	$ 47,895	$ 48,119	$ 48,322	$ 48,547	$ 43,205	$ 34,233	$ 28,091	$ 22,372	$ 15,156	$ 2,619		
119	Interest Applied	ln 96 * ln 117 / 365 * Days of Month		215	223	224	203	226	219	202	155	131	105	69	12	-	$ 1,982
121	**(Over)/Under Balance**	-ln 114 +ln 115 + ln 119	$ 47,458	$ 47,672	$ 47,895	$ 48,119	$ 48,322	$ 48,547	$ 48,767	$ 37,643	$ 30,824	$ 25,359	$ 19,385	$ 10,926	$ (5,688)	$ 1,791	$ 1,791
123	Forecast Therm Sales	ln 53								1,068,480	2,785,832	2,312,881	2,344,026	3,473,998	7,389,766	4,273,922	23,648,905
124	Unbi led Therm	ln 55								4,219,447	4,865,052	5,423,594	6,209,362	6,387,887	6,063,554	1,789,632	
126	Working Cap. Rate w/out Int.	Sch. 3, pg. 4, ln 228 col. (c)								$0.0042	$0.0042	$0.0042	$0.0042	$0.0042	$0.0042	$0.0042	
128	Working Capital Rate w/ Int.	Sch. 3, pg. 4, ln 228 col. (d)								$0.0042	$0.0042	$0.0042	$0.0042	$0.0042	$0.0042	$0.0042	

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

3 **Off Peak 2023 Summer Cost of Gas Filing**

4 **COG (Over)/Under Cumulative Recovery Balances and Interest Calculation**

Ln	(a)	Days in Month (b)	Prior Period Balance Plus Nov Collections October 31, 2022 (c)	Nov-22 30 (d)	Dec-22 31 (e)	Jan-23 31 (f)	Feb-23 28 (g)	Mar-23 31 (h)	Apr-23 30 (i)	May-23 31 (j)	Jun-23 30 (k)	Jul-23 31 (l)	Aug-23 31 (m)	Sep-23 30 (n)	Oct-23 31 (o)	Nov-23 30 (p)	Off Peak Period Total (q)
137	**Account 8840 2 0000 10 1163 1754 (formerly, 175.54) Bad Debt (Over)/Under Balance Interest Calculation**																
139	Forecast Direct Gas Costs	ln 34		$ -	$ -	$ -	$ -	$ -	$ -	$ 2,780,000	$ 1,901,108	$ 1,652,478	$ 1,806,786	$ 1,738,494	$ 3,329,263	$ -	13,208,130
140	Forecast Working Capital	ln 106 + (May includes prior period)		-	-	-	-	-	-	58,232	7,368	6,404	7,002	6,738	12,903		98,647
141	Prior Period Balance (with Refund)	ln 21 / 6								1,772,847	1,772,847	1,772,847	1,772,847	1,772,847	1,772,847		10,637,079
142	Total Forecast Direct Gas Costs & Working Capital			-	-	-	-	-	-	4,611,079	3,681,322	3,431,729	3,586,635	3,518,078	5,115,013	-	13,306,777
144	**Beginning Balance**	Account 1163-1754 1/	**$ 337,560**	$ 337,560	$ 339,086	$ 340,670	$ 342,261	$ 343,705	$ 345,311	$ 346,872	$ 266,425	$ 219,229	$ 183,699	$ 143,385	$ 90,226	$ (28,035)	$ 337,560
145		**Oct Collections & Unbilled**															
146	Forecast Bad Debt	ln 142 * 0.00861151933369296		-	-	-	-	-	-	39,708	31,702	29,552	30,886	30,296	44,048		206,193
148	Projected Revenues w/o int	ln 184 * ln 187		-	-	-	-	-	-	(24,567)	(64,054)	(53,179)	(53,896)	(79,877)	(169,911)	(98,269)	(543,753)
149	Projected Unbilled Revenue	ln 185 * ln 187								(97,017)	(111,861)	(124,703)	(142,770)	(146,875)	(139,418)		(762,644)
150	Reverse Prior Month Unbilled										97,017	111,861	124,703	142,770	146,875	139,418	762,644
151																	-
152	Bad Debt Billed	Account 1163-1754 2/			-		-	-	-								-
153	Add Net Adjustments			-	-	-	-	-	-	-	-	-	-	-	-	-	-
155	Monthly (Over)/Under Recovery		$ 337 560	$ 337 560	$ 339 086	$ 340 670	$ 342 261	$ 343 705	$ 345 311	$ 264 996	$ 219 229	$ 182 760	$ 142 622	$ 89 699	$ (28 180)	$ 13 114	$ (0)
157	Average Monthly Balance	(ln 144 + 155)/ 2		$ 337,560	$ 339,086	$ 340,670	$ 342,261	$ 343,705	$ 345,311	$ 305,934	$ 242,827	$ 200,994	$ 163,160	$ 116,542	$ 31,023	$ (7,461)	
159	Interest Rate	Prime Rate		5.50%	5.50%	5.50%	5.50%	5.50%	5.50% #	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%		
161	Interest Applied	ln 157 * ln 159 / 365 * Days of Mo.		$ 1,526	$ 1,584	$ 1,591	$ 1,444	$ 1,606	$ 1,561	$ 1,429	$ 1,098	$ 939	$ 762	$ 527	$ 145		$ 14,211
163	**(Over)/Under Balance**	ln 155 + ln 161	$ 337 560	$ 339 086	$ 340 670	$ 342 261	$ 343 705	$ 345 311	**$ 346,872**	$ 266 425	$ 220 327	$ 183 699	$ 143 385	$ 90 226	$ (28 035)	$ (7 461)	14 211
166	**Calculation of Bad Debt with Interest**																
168	**Beginning Balance**		$ 337,560	$ 337,560	$ 339,086	$ 340,670	$ 342,261	$ 343,705	$ 345,311	$ 346,872	$ 260,983	$ 211,328	$ 172,805	$ 129,219	$ 72,235	$ (53,386)	$ 337,560
169	Forecast Bad Debt	ln 146		-	-	-	-	-	-	39,708	31,702	29,552	30,886	30,296	44,048	-	206,193
170	Projected Revenues with int.	ln 184 * 189		-	-	-	-	-	-	(25,665)	(66,916)	(55,556)	(56,304)	(83,446)	(177,504)	(102,661)	(568,053)
171	Projected Unbilled Revenue	ln 185 * 189								(101,352)	(116,860)	(130,276)	(149,151)	(153,439)	(145,648)		(796,726)
172	Reverse Prior Month Unbilled										101,352	116,860	130,276	149,151	153,439	145,648	796,726
173	Bad Debt Billed	ln 152	-		-	-	-	-	-								-
174	Add Interest	ln 161		-	-	-	-	-	-	1,429	1,098	939	762	527	145		4,900
175	Add Net Adjustments	ln 153	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
176	Monthly (Over)/Under Recovery		$ 337 560	$ 337 560	$ 339 086	$ 340 670	$ 342 261	$ 343 705	$ 345 311	$ 260 992	$ 211 358	$ 172 847	$ 129 275	$ 72 307	$ (53 285)	$ (10 398)	$ (19 401)
178	Average Monthly Balance	(ln 168 + 176)/ 2		$ 337,560	$ 339,086	$ 340,670	$ 342,261	$ 343,705	$ 345,311	$ 303,932	$ 236,170	$ 192,087	$ 151,040	$ 100,763	$ 9,475	$ (31,892)	
180	Interest Applied	ln 159 * ln 178 / 365 * Days of Month		1,526	1,584	1,591	1,444	1,606	1,561	1,420	1,068	897	706	456	44	-	$ 13,902
182	**(Over)/Under Balance**	-ln 174 +ln 176 + ln 180	$ 337,560	$ 339,086	$ 340,670	$ 342,261	$ 343,705	$ 345,311	$ 346,872	$ 260,983	$ 211,328	$ 172,805	$ 129,219	$ 72,235	$ (53,386)	$ (10,398)	$ (10,398)
184	Forecast Therm Sales	ln 53								1,068,480	2,785,832	2,312,881	2,344,026	3,473,998	7,389,766	4,273,922	23,648,905
185	Unbi led Therm	ln 55								4,219,447	4,865,052	5,423,594	6,209,362	6,387,887	6,063,554		
187	COG Rate Without Interest	Sch. 3, pg. 4, ln 245 col. (c)								$0.0230	$0.0230	$0.0230	$0.0230	$0.0230	$0.0230	$0.0230	
189	COG With Interest	Sch. 3 pg. 4 ln 245 col. (d)								$0.0240	$0.0240	$0.0240	$0.0240	$0.0240	$0.0240	$0.0240	
193	**Total Interest**	lns 48 + 119 + 180		$ 49 826	$ 51 720	$ 51 961	$ 47 152	$ 52 424	$ 50 970	$ 46 724	$ 35 596	$ 30 031	$ 23 765	$ 15 254	$ 1 705	$ -	$ 457 126

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

Off Peak 2023 Summer Cost of Gas Filing
Adjustments to Gas Costs

Adjustments	**Prior Period Adjustments**	**Refunds from Suppliers / Pipelines**	**Broker Revenue**	**Fuel Financing**	**Transportation CGA Revenues**	**Interruptible Sales Margin**	**Off System Sales Margin**	**Capacity Release Margin**	**Net Option Premiums**	**Fixed Price Option Administrative Costs**	**Total Adjustments**
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(m)
Nov-20	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Dec-20	-	-	-	-	-	-	-	-	-	-	-
Jan-21	-	-	-	-	-	-	-	-	-	-	-
Feb-21	-	-	-	-	-	-	-	-	-	-	-
Mar-21	-	-	-	-	-	-	-	-	-	-	-
Apr-21	-	-	-	-	-	-	-	-	-	-	-
May-21	-	-	-	-	-	-	-	(165,367)	-	-	(165,367)
Jun-21	-	-	-	-	-	-	-	(247,836)	-	-	(247,836)
Jul-21	-	-	-	-	-	-	-	(389,505)	-	-	(389,505)
Aug-21	-	-	-	-	-	-	-	(298,763)	-	-	(298,763)
Sep-21	-	-	-	-	-	-	-	(301,189)	-	-	(301,189)
Oct-21	-	-	-	-	-	-	-	(158,109)	-	-	(158,109)
Total Off Peak Period	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (1,560,769)	$ -	$ -	$ (1,560,769)

1	**Liberty Utilities (EnergyNorth Natural Gas) Corp.**										**REDACTED**
2											Schedule 5A
3	**Off Peak 2023 Summer Cost of Gas Filing**										Page 1 of 2
4	**Demand Costs**										
5											
6										Off Peak	Peak
7										May - Oct	May - Oct
8		Peak	Reference	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total	Total
9	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
10											
11	**Supply**										
12	Niagara Supply		Sch 5B, ln 9 * Sch 5C ln 9 x days	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	Subtotal Supply Demand & Reservation Charges			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
14											
15	**Pipeline**										
16	Iroquois Gas Trans Service RTS 470-0		Sch 5B, ln 12 * Sch 5C ln 12 x days	[redacted]							
17	Tenn Gas Pipeline 95346 Z5-Z6		Sch 5B, ln 13 * Sch 5C ln 14 x days								
18	Tenn Gas Pipeline 2302 Z5-Z6		Sch 5B, ln 14 * Sch 5C ln 16 x days								
19	Tenn Gas Pipeline 8587 Z0-Z6		Sch 5B, ln 15 * Sch 5C ln 18 x days								
20	Tenn Gas Pipeline 8587 Z1-Z6		Sch 5B, ln 16 * Sch 5C ln 20 x days								
21	Tenn Gas Pipeline 8587 Z4-Z6		Sch 5B, ln 17 * Sch 5C ln 22 x days								
22	Tenn Gas Pipeline (Dracut) 42076 Z6-Z6		Sch 5B, ln 18 * Sch 5C ln 24 x days								
23	Tenn Gas Pipeline (Dracut) 358905 Z6-Z7		Sch 5B, ln 19 * Sch 5C ln 25 x days								
24	Tenn Gas Pipeline (Concord Lateral) Z6-Z6		Sch 5B, ln 20 * Sch 5C ln 28 x days								
25	Portland Natural Gas Trans Service		Sch 5B, ln 21 * Sch 5C ln 30 x days								
26	Portland Natural Gas		Sch 5B, ln 22 * Sch 5C ln 31 x days								
27	ANE (TransCanada via Union to Iroquois)		Sch 5B, ln 23 * Sch 5C ln 48 x days								
28	TransCanada via Union to Portland		Sch 5B, ln 24 * Sch 5C ln 49 x days								
29	Tenn Gas Pipeline Z4-Z6 stg 632	peak	Sch 5B, ln 25 * Sch 5C ln 34 x days								
30	Tenn Gas Pipeline Z4-Z6 stg 11234	peak	Sch 5B, ln 26 * Sch 5C ln 36 x days								
31	Tenn Gas Pipeline Z5-Z6 stg 11234	peak	Sch 5B, ln 27 * Sch 5C ln 38 x days								
32	National Fuel FST 2358	peak	Sch 5B, ln 28 * Sch 5C ln 40 x days								
33											
34	Subtotal Pipeline Demand Charges			$ 1,627,734	$ 1,630,470	$ 1,630,470	$ 1,630,470	$ 1,630,470	$ 1,630,470	$ 4,889,632	$ 4,890,452
35											
36	**Peaking Supply**										
37	Tenn Gas Pipeline (Concord Lateral) Z6-Z6	peak	Sch 5B, ln 31 * Sch 5C ln 28 x days	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
38	Granite Ridge Demand	peak	Sch 5B, ln 32 * Sch 5C ln 59 x days	-	-	-	-	-	-	-	-
39	DOMAC Demand NSB041	peak	Per Contract	-	-	-	-	-	-	-	
40	Subtotal Peaking Demand Charges			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
41											
42	**Subtotal Supply, Pipeline & Peaking**		ln 13 + ln 34 + ln 40	$ 1,627,734	$ 1,630,470	$ 1,630,470	$ 1,630,470	$ 1,630,470	$ 1,630,470	$ 4,889,632	$ 4,890,452
43											
44	Less Transportation Capacity Credit			$ (551,314)	$ (552,240)	$ (552,240)	$ (552,240)	$ (552,240)	$ (552,240)	$ (1,656,118)	$ (1,656,396)
45											
46	**Total Supply, Pipeline & Peaking Demand**			$ 1,076,421	$ 1,078,230	$ 1,078,230	$ 1,078,230	$ 1,078,230	$ 1,078,230	$ 3,233,514	$ 3,234,056

Liberty Utilities (EnergyNorth Natural Gas) Corp.

Off Peak 2023 Summer Cost of Gas Filing
Demand Costs

47											
48	**Storage**										
49	Dominion - Demand	peak	Sch 5B, ln 36 * Sch 5C ln 63 x days	$ 3,040	$ 3,040	$ 3,040	$ 3,040	$ 3,040	$ 3,040	$ -	$ 18,240
50	Dominion - Storage	peak	Sch 5B, ln 37 * Sch 5C ln 64 x days	3,266	3,266	3,266	3,266	3,266	3,266	-	19,595
51	Honeoye - Demand	peak	Sch 5B, ln 38 * Sch 5C ln 67 x days	8,351	8,351	8,351	8,351	8,351	8,351	-	50,105
52	National Fuel - Demand	peak	Sch 5B, ln 40 * Sch 5C ln 69 x days	16,201	16,201	16,201	16,201	16,201	16,201	-	97,207
53	National Fuel - Capacity	peak	Sch 5B, ln 41 * Sch 5C ln 70 x days	32,198	32,198	32,198	32,198	32,198	32,198	-	193,190
54	Tenn Gas Pipeline - Demand	peak	Sch 5B, ln 42 * Sch 5C ln 73 x days	27,963	27,963	27,963	27,963	27,963	27,963	-	167,775
55	Tenn Gas Pipeline - Capacity	peak	Sch 5B, ln 43 * Sch 5C ln 74 x days	27,307	27,307	27,307	27,307	27,307	27,307	-	163,841
56											
57	**Subtotal Storage Demand Costs**			$ 118,326	$ 118,326	$ 118,326	$ 118,326	$ 118,326	$ 118,326	$ -	$ 709,954
58											
59	Less Transportation Capacity Credit			$ (40,077)	$ (40,077)	$ (40,077)	$ (40,077)	$ (40,077)	$ (40,077)	$ -	$ (240,461)
60											
61	**Total Storage Demand Costs**		ln 57 + ln 59	$ 78,249	$ 78,249	$ 78,249	$ 78,249	$ 78,249	$ 78,249	$ -	$ 469,493
62											
63	**Total Demand Charges**		ln 42 + ln 57	$ 1,746,060	$ 1,748,796	$ 1,748,796	$ 1,748,796	$ 1,748,796	$ 1,748,796	$ 4,889,632	$ 5,600,406
64											
65	Total Transportation Capacity Credit		ln 44 + ln 59	$ (591,391)	$ (592,317)	$ (592,317)	$ (592,317)	$ (592,317)	$ (592,317)	$ (1,656,118)	$ (1,896,857)
66											
67	**Total Demand Charges less Cap. Cr.**		ln 63 + ln 65	$ 1,154,669	$ 1,156,479	$ 1,156,479	$ 1,156,479	$ 1,156,479	$ 1,156,479	$ 3,233,514	$ 3,703,548
68											
69											
70	Monthly Off Peak Demand			$ 976,531	$ 979,267	$ 979,267	$ 979,267	$ 979,267	$ 979,267	$ 4,889,632	$ -
71	Monthly Off Peak Transportation Cap Credit			(330,751)	(331,678)	(331,678)	(331,678)	(331,678)	(331,678)	(1,656,118)	-
72	**Total Off Peak Demand**			$ 645,780	$ 647,589	$ 647,589	$ 647,589	$ 647,589	$ 647,589	$ 3,233,514	$ -
73											
74	Monthly Peak Demand			$ 769,529	$ 769,529	$ 769,529	$ 769,529	$ 769,529	$ 769,529	$ -	$ 5,600,406
75	Monthly Peak Transportation Cap Credit			(260,639)	(260,639)	(260,639)	(260,639)	(260,639)	(260,639)	-	(1,896,857)
76	**Total Peak Demand**			$ 508,889	$ 508,889	$ 508,889	$ 508,889	$ 508,889	$ 508,889	$ -	$ 3,703,548

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

Off Peak 2023 Summer Cost of Gas Filing

Demand Volumes

	Peak	Reference	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Supply								
Niagara Supply			-	-	-	-	-	-
Pipeline								
Iroquois Gas Trans Service		RTS 470-01	4,047	4,047	4,047	4,047	4,047	4,047
Tenn Gas Pipeline		95346 Z5-Z6	4,000	4,000	4,000	4,000	4,000	4,000
Tenn Gas Pipeline		2302 Z5-Z6	3,122	3,122	3,122	3,122	3,122	3,122
Tenn Gas Pipeline (long haul)		8587 Z0-Z6	7,035	7,035	7,035	7,035	7,035	7,035
Tenn Gas Pipeline (long haul)		8587 Z1-Z6	14,561	14,561	14,561	14,561	14,561	14,561
Tenn Gas Pipeline (short haul)		8587 Z4-Z6	3,811	3,811	3,811	3,811	3,811	3,811
Tenn Gas Pipeline		42076 FTA Z6-Z6	20,000	20,000	20,000	20,000	20,000	20,000
Tenn Gas Pipeline		358905 FTA Z6-Z6	40,000	40,000	40,000	40,000	40,000	40,000
Tenn Gas Pipeline (Concord Lateral)		Firm Transportation	30,000	30,000	30,000	30,000	30,000	30,000
Portland Natural Gas Trans Service		FT-1999-001	1,000	1,000	1,000	1,000	1,000	1,000
Portland Natural Gas		FTN	5,000	5,000	5,000	5,000	5,000	5,000
ANE (TransCanada via Union to Iroquois)		Dawn - Parkway to Iroquois	4,047	4,047	4,047	4,047	4,047	4,047
TransCanada via Union to Portland		Union Parkway to Portland	5,077	5,077	5,077	5,077	5,077	5,077
Tenn Gas Pipeline (short haul)	peak	632 Z4-Z6 (stg)	15,265	15,265	15,265	15,265	15,265	15,265
Tenn Gas Pipeline (short haul)	peak	11234 Z4-Z6(stg)	7,082	7,082	7,082	7,082	7,082	7,082
Tenn Gas Pipeline (short haul)	peak	11234 Z5-Z6(stg)	1,957	1,957	1,957	1,957	1,957	1,957
National Fuel	peak	FST N02358	6,098	6,098	6,098	6,098	6,098	6,098
Peaking								
Tenn Gas Pipeline (Concord Lateral)	peak		-	-	-	-	-	-
Granite Ridge Demand	peak		-	-	-	-	-	-
DOMAC Liquid Demand Charge	peak	NSB041	-	-	-	-	-	-
Storage								
Dominion - Demand	peak	GSS 300076	934	934	934	934	934	934
Dominion - Capacity Reservation	peak	GSS 300076	102,700	102,700	102,700	102,700	102,700	102,700
Honeoye - Demand	peak	SS-NY	1,362	1,362	1,362	1,362	1,362	1,362
Honeoye - Capacity	peak	SS-NY	245,380	245,380	245,380	245,380	245,380	245,380
National Fuel - Demand	peak	FSS-1 2357	6,098	6,098	6,098	6,098	6,098	6,098
National Fuel - Capacity Reservation	peak	FSS-1 2357	670,800	670,800	670,800	670,800	670,800	670,800
Tenn Gas Pipeline - Demand	peak	FS-MA 523	21,844	21,844	21,844	21,844	21,844	21,844
Tenn Gas Pipeline - Cap. Reservations	peak	FS-MA 523	1,560,391	1,560,391	1,560,391	1,560,391	1,560,391	1,560,391

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

Off Peak 2023 Summer Cost of Gas Filing
Demand Rates

Tariff Rates				May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24
				31	30	31	31	30	31	184	30	31	31	28	31	30
				Unit Rate	Unit Rate	Unit Rate	Unit Rate	Unit Rate	Unit Rate	Avg Rate						
Supply																
Niagara Supply		$ -	Per Contract	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pipeline																
Iroquois Gas	RTS 470-01	$ 5.2357	Fourth Revised Sheet No. 4	$0.1689	$0.1745	$0.1689	$0.1689	$0.1745	$0.1689	$0.1708	$0.1745	$0.1689	$0.1689	$0.1870	$0.1689	$0.1745
Tenn Gas Pipeline	95346 Z5-Z6	$ 6.1635	19th Rev Sheet No. 14	$0.4746	$0.4904	$0.4746	$0.4746	$0.4904	$0.4746	$0.4799	$0.4904	$0.4746	$0.4746	$0.5254	$0.4746	$0.4904
Tenn Gas Pipeline	2302 Z5-Z6	$ 6.1635	19th Rev Sheet No. 14	$0.1988	$0.2055	$0.1988	$0.1988	$0.2055	$0.1988	$0.2010	$0.2055	$0.1988	$0.1988	$0.2201	$0.1988	$0.2055
Tenn Gas Pipeline	8587 Z0-Z6	$ 19.9267	FT-A (Z0 - Z6)	$0.6428	$0.6642	$0.6428	$0.6428	$0.6642	$0.6428	$0.6499	$0.6642	$0.6428	$0.6428	$0.7117	$0.6428	$0.6642
Tenn Gas Pipeline	8587 Z1-Z6	$ 17.6917	FT-A (Z1 - Z6)	$0.5707	$0.5897	$0.5707	$0.5707	$0.5897	$0.5707	$0.5770	$0.5897	$0.5707	$0.5707	$0.6318	$0.5707	$0.5897
Tenn Gas Pipeline	8587 Z4-Z6	$ 7.1720	FT-A (Z4 - Z6)	$0.2314	$0.2391	$0.2314	$0.2314	$0.2391	$0.2314	$0.2339	$0.2391	$0.2314	$0.2314	$0.2561	$0.2314	$0.2391
TGP Dracut	42076 FTA Z6-Z6	$ 4.0968	19th Rev Sheet No. 14	$0.1322	$0.1366	$0.1322	$0.1322	$0.1366	$0.1322	$0.1336	$0.1366	$0.1322	$0.1322	$0.1463	$0.1322	$0.1366
TGP Dracut	358905 FTA Z6-Z6	$ 4.0968	19th Rev Sheet No. 14	$0.1322	$0.1366	$0.1322	$0.1322	$0.1366	$0.1322	$0.0223	$0.1366	$0.1322	$0.1322	$0.1463	$0.1322	$0.1366
TGP Concord Lateral	Firm Transportatio	$ 12.2188	Per contract	$0.3942	$0.4073	$0.3942	$0.3942	$0.4073	$0.3942	$0.3985	$0.4073	$0.3942	$0.3942	$0.4364	$0.3942	$0.4073
Portland Natural Gas	FT-1999-001	$ 18.2633	Negot Dmd /CMDY=Part 4.1 V	$0.5891	$0.6088	$0.5891	$0.5891	$0.6088	$0.5891	$0.5957	$0.6088	$0.5891	$0.5891	$0.6523	$0.5891	$0.6088
Portland Natural Gas	FTN	$ 22.7943	Negot Dmd /CMDY=Part 4.1 V	$0.7353	$0.7598	$0.7353	$0.7353	$0.7598	$0.7353	$0.7435	$0.7598	$0.7353	$0.7353	$0.8141	$0.7353	$0.7598
Tenn Gas Pipeline	632 Z4-Z6 (stg)	$ 7.1720	19th Rev Sheet No. 14	$0.2314	$0.2391	$0.2314	$0.2314	$0.2391	$0.2314	$0.2339	$0.2391	$0.2314	$0.2314	$0.2561	$0.2314	$0.2391
Tenn Gas Pipeline	11234 Z4-Z6(stg)	$ 7.1720	19th Rev Sheet No. 14	$0.2314	$0.2391	$0.2314	$0.2314	$0.2391	$0.2314	$0.2339	$0.2391	$0.2314	$0.2314	$0.2561	$0.2314	$0.2391
Tenn Gas Pipeline	11234 Z5-Z6(stg)	$ 6.1635	19th Rev Sheet No. 14	$0.1988	$0.2055	$0.1988	$0.1988	$0.2055	$0.1988	$0.2010	$0.2055	$0.1988	$0.1988	$0.2201	$0.1988	$0.2055
National Fuel	FST N02358	$ 4.9801	4.020 Version 28.0.0 Pg 1	$0.1606	$0.1660	$0.1606	$0.1606	$0.1660	$0.1606	$0.1624	$0.1660	$0.1606	$0.1606	$0.1779	$0.1606	$0.1660
ANE Union Gas		$ 3.6890														
TransCanada Pipelines Limited		$ 11.9690	Union Parkway to Iroquois													
Delivery Pressure Demand Charge		0.6083	Union Parkway to Iroquois													
Sub Total Demand Charges		16.2663														
Conversion rate GJ to MMBTU		1.0551														
Conversion rate to US$		1.2706	1/0/1900													
Demand Rate/US$		$ 13.5069		$0.4357	$0.4502	$0.4357	$0.4357	$0.4502	$0.4357	$0.4405	$0.4502	$0.4357	$0.4357	$0.4824	$0.4357	$0.4502
Union Gas		$ 3.6890														
TransCanada Pipelines Limited		$ 20.3913														
Delivery Pressure Demand Charge		$ 0.6083														
Sub Total Demand Charges		$ 24.6887														
Conversion rate GJ to MMBTU		$ 1.0551														
Conversion rate to US$		$ 1.2706	$0.0000													
Demand Rate/US$		$ 20.5005		$0.6613	$0.6833	$0.6613	$0.6613	$0.6833	$0.6613	$0.6687	$0.6833	$0.6613	$0.6613	$0.7322	$0.6613	$0.6833
Peaking																
Granite Ridge Demand		$ -	Per Contract	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
DOMAC Demand NSB041		$ -	Per Contract	$ -	$ -	$ -	$ -	$ -	$ -	$ -						
Storage																
Dominion - Demand	GSS 300076	$ 3.2548	GSS Settled,Tariff Rec #10.30	$0.1050	$0.1085	$0.1050	$0.1050	$0.1085	$0.1050	$0.1064	$0.1085	$0.1050	$0.1050	$0.1162	$0.1050	$0.1085
Dominion - Capacity	GSS 300076	$ 0.0318	GSS Settled,Tariff Rec #10.30	$0.0010	$0.0011	$0.0010	$0.0010	$0.0011	$0.0010	$0.0010	$0.0011	$0.0010	$0.0010	$0.0011	$0.0010	$0.0011
		$ 3.2866		$0.1060	$0.1096	$0.1060	$0.1060	$0.1096	$0.1060	$0.1074	$0.1096	$0.1060	$0.1060	$0.1174	$0.1060	$0.1096
Honeoye - Demand	SS-NY	$ 6.1299	Sub 1st Rev Sheet No. 5	$0.1977	$0.2043	$0.1977	$0.1977	$0.2043	$0.1977	$0.2004	$0.2043	$0.1977	$0.1977	$0.2189	$0.1977	$0.2043
National Fuel - Demand	FSS-1 2357	$ 2.6568	4.020 Version 28.0.0 Pg 1	$0.0857	$0.0886	$0.0857	$0.0857	$0.0886	$0.0857	$0.0868	$0.0886	$0.0857	$0.0857	$0.0949	$0.0857	$0.0886
National Fuel - Capacity	FSS-1 2357	$ 0.0480	4.020 Version 28.0.0 Pg 1	$0.0015	$0.0016	$0.0015	$0.0015	$0.0016	$0.0015	$0.0016	$0.0016	$0.0015	$0.0015	$0.0017	$0.0015	$0.0016
		$ 2.7048		$0.0873	$0.0902	$0.0873	$0.0873	$0.0902	$0.0873	$0.0884	$0.0902	$0.0873	$0.0873	$0.0966	$0.0873	$0.0902
Tenn Gas Pipeline	FS-MA 523	$ 1.2801	22nd Rev Sheet No.61	$0.0413	$0.0427	$0.0413	$0.0413	$0.0427	$0.0413	$0.0418	$0.0427	$0.0413	$0.0413	$0.0457	$0.0413	$0.0427

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

Off Peak 2023 Summer Cost of Gas Filing
Supply and Commodity Costs, Volumes and Rates

REDACTED
Schedule 6
Page 1 of 5

Ln	For Month of:	Reference	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Off-Peak May - Oct
7	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
8									
9	**Supply and Commodity Costs**								
10									
11	**Pipeline Gas:**								
12	Dawn Supply	ln 66 * ln 108	[redacted]						
13	Niagara Supply	ln 67 * ln 113							
14	TGP Supply (Gulf)	ln 68 * ln 133							
15	Dracut Supply 1 - Baseload	ln 69 * ln 118							
16	Dracut Supply 2 - Swing	ln 70 * ln 123							
17	Dracut Supply 3 - Swing								
18	City Gate Delivered Supply	ln 72 * ln 139							
19	LNG Truck	ln 73 * ln 141							
20	Propane Truck	ln 74 * ln 143							
21	PNGTS	ln 75 * ln 148							
22	Portland Natural Gas								
23	TGP Supply (Zone 4)	ln 77 * ln 158							
24									
25	Subtotal Pipeline Gas Costs		$ 3,450,357	$ 2,621,333	$ 2,609,054	$ 2,617,683	$ 2,464,364	$ 3,388,045	$ 17,176,831
26									
27	**Volumetric Transportation Costs**								
28	Dawn Supply	ln 66 * ln 206	[redacted]						
29	Niagara Supply	ln 67 * ln 217							
30	TGP Supply (Zone 4)	ln 77 * ln 255							
31	Dracut Supply 1 - Baseload	ln 69 * ln 266							
32	Dracut Supply 2 - Swing	ln 70 * ln 266							
33	Dracut Supply 3 - Swing								
34	City Gate Delivered Supply	ln 72 * ln 266							
35	TGP Storage - Withdrawals	ln 82 * ln 181							
36									
37	**Total Volumetric Transportation Costs**		$ 102,300	$ 88,216	$ 84,967	$ 84,780	$ 84,686	$ 96,641	$ 541,590
38									
39	**Less - Gas Refill:**								
40	LNG Truck	ln 91 * ln 165	[redacted]						
41	Propane	ln 92 * ln 166							
42	TGP Storage Refill	ln 93 * ln 131							
43	Storage Refill (Trans.)	ln 93 * ln 245							
44									
45	Subtotal Refills		$ (1,450,419)	$ (1,484,992)	$ (1,716,203)	$ (1,568,171)	$ (1,481,300)	$ (819,579)	$ (8,520,664)
46									
47	**Total Supply & Pipeline Commodity Costs**	ln 25 + ln 37 + ln 45	$ 2,102,238	$ 1,224,558	$ 977,817	$ 1,134,292	$ 1,067,750	$ 2,665,107	$ 9,171,762
48									
49	**Storage Gas:**								
50	TGP Storage - Withdrawals	ln 82 * ln 173	$ -	$ -	$ -	$ -	$ -	$ -	$ -
51									
52	**Produced Gas:**								
53	LNG Vapor	ln 85 * ln 160	[redacted]						
54	Propane	ln 86 * ln 162							
55									
56	**Total Produced Gas**	ln 53 + ln 54	$ 31,982	$ 28,961	$ 27,072	$ 24,905	$ 23,154	$ 16,568	$ 152,643
57									
58									
59	**Total Commodity Gas & Trans. Costs**	ln 47 + ln 50 + ln 56	$ 2,134,220	$ 1,253,519	$ 1,004,889	$ 1,159,197	$ 1,090,905	$ 2,681,674	$ 9,324,405

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

Off Peak 2023 Summer Cost of Gas Filing
Supply and Commodity Costs, Volumes and Rates

Schedule 6
Page 2 of 5

Volumes (Therms)

Pipeline Gas:	See Schedule 11A							
Dawn Supply		842,983	655,282	518,079	495,174	712,922	601,154	3,825,595
Niagara Supply		667,764	585,319	584,500	583,125	598,573	687,845	3,707,126
TGP Supply (Gulf)		29,663	-	-	-	-	327,579	357,242
Dracut Supply 1 - Baseload		-	-	-	-	-	-	-
Dracut Supply 2 - Swing		-	-	-	-	-	435,588	435,588
Dracut Supply 3 - Swing								
City Gate Delivered Supply		-	-	-	-	-	-	-
LNG Truck		-	-	4,831	10,843	17,887	110,141	143,701
Propane Truck		79,331	71,837	69,440	69,276	73,464	81,717	445,066
PNGTS		211,780	185,528	182,354	184,937	189,729	218,149	1,172,479
Portland Natural Gas		889,892	29,984	-	-	-	522,990	1,442,866
TGP Supply (Zone 4)		5,379,362	4,713,785	4,706,794	4,696,924	4,822,444	5,548,240	29,867,549
Subtotal Pipeline Volumes		8,100,776	6,241,736	6,065,997	6,040,279	6,415,019	8,533,404	41,397,212
Storage Gas:								
TGP Storage		-	-	-	-	-	-	-
Produced Gas:								
LNG Vapor		20,005	18,116	17,511	17,470	18,526	20,607	112,234
Propane		-	-	-	-	-	-	-
Subtotal Produced Gas		20,005	18,116	17,511	17,470	18,526	20,607	112,234
Less - Gas Refill:								
LNG Truck		-	-	(4,831)	(10,843)	(17,887)	(110,141)	(143,701)
Propane		(79,331)	(71,837)	(69,440)	(69,276)	(73,464)	(81,717)	(445,066)
TGP Storage Refill		(2,622,767)	(2,671,728)	(3,066,813)	(2,770,444)	(2,599,354)	(1,122,012)	(14,853,118)
Subtotal Refills		(2,702,098)	(2,743,565)	(3,141,083)	(2,850,564)	(2,690,705)	(1,313,870)	(15,441,885)
Total Sendout Volumes		5,418,683	3,516,286	2,942,425	3,207,185	3,742,840	7,240,141	26,067,561

1	**Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**								
2									
3	**Off Peak 2023 Summer Cost of Gas Filing**								
4	**Supply and Commodity Costs, Volumes and Rates**								
101									**REDACTED**
102	**Gas Costs and Volumetric Transportation Rates**								Schedule 6
103									Page 3 of 5
104	**Pipeline Gas:**								
105	**Dawn Supply**								Average Rate
106	NYMEX Price	Sch 7, ln 10/10	[redacted]						
107	Basis Differential								
108	**Net Commodity Costs**								
109									
110	**Niagara Supply**								
111	NYMEX Price	Sch 7, ln 10/10	[redacted]						
112	Basis Differential								
113	**Net Commodity Costs**								
114									
115	**Dracut Supply 1 - Baseload**								
116	Commodity Costs - NYMEX Price	Sch 7, ln 10 / 10	[redacted]						
117	Basis Differential								
118	**Net Commodity Costs**								
119									
120	**Dracut Supply 2 - Swing**								
121	Commodity Costs - NYMEX Price	Sch 7, ln 10 / 10	[redacted]						
122	Basis Differential								
123	**Net Commodity Costs**								
124									
125	**Dracut Supply 3 - Swing**	Sch 7, ln 10 / 10							
126	Commodity Costs - NYMEX Price		[redacted]						
127	Basis Differential								
128	**Net Commodity Costs**								
129									
130	**TGP Supply (Gulf)**								
131	NYMEX Price	Sch 7, ln 10/10	[redacted]						
132	Basis Differential								
133	**Net Commodity Costs**								
134									
135									
136	**TGP Citygate Supply**								
137	NYMEX Price	Sch 7, ln 10/10	[redacted]						
138	Basis Differential								
139	**Net Commodity Costs**								
140									
141	**LNG Truck**	Sch 7, ln 10/10	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**
142									
143	**Propane Truck**	NYMEX - Propane	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**
144									
145	**PNGTS**								
146	NYMEX Price	Sch 7, ln 10/10	[redacted]						
147	Additional Cost								
148	**Net Commodity Cost**								
149									
150	**PNGTS EXP**								
151	NYMEX Price	Sch 7, ln 10/10	[redacted]						
152	Basis Differential								
153	**Net Commodity Cost**								
154									
155	**TGP Supply (Zone 4)**								
156	NYMEX Price	Sch 7, ln 10/10	[redacted]						
157	Basis Differential								
158	**Net Commodity Cost**		**$0.4059**	**$0.4007**	**$0.4106**	**$0.4138**	**$0.3511**	**$0.3491**	**$0.3885**
159									
160	**LNG Vapor (Storage)**	Sch 13, ln 97 /10	**$1.5987**	**$1.5987**	**$1.5460**	**$1.4256**	**$1.2499**	**$0.8040**	**$1.3705**
161									
162	**Propane**	Sch 13, ln 67 /10	**$1.8150**	**$1.8150**	**$1.8229**	**$1.6482**	**$1.5064**	**$1.5607**	**$0.0000**
163									
164	**Storage Refill:**								
165	**LNG Truck**	ln 141	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**
166	**Propane**	ln 143	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**	**$1.1288**
167									
168									

1	**Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**								
2									
3	**Off Peak 2023 Summer Cost of Gas Filing**								
4	**Supply and Commodity Costs, Volumes and Rates**								
169									**REDACTED**
170									Schedule 6
171									Page 4 of 5
172	**TGP Storage**								
173	**Commodity Costs - Storage withdrawal**	Sch 13, ln 34 /10	$0.5098	$0.5173	$0.5251	$0.5280	$0.5298	$0.5302	$0.5234
174									
175	TGP - Max Commodity - Z 4-6	21st Rev Sheet No. 15	$0.00911	$0.00911	$0.00911	$0.00911	$0.00911	$0.00911	$0.00911
176	TGP - Max Comm. ACA Rate - Z 4-6	21st Rev Sheet No. 15	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
177	Subtotal TGP - Trans Charge - Max Commodity Rate - Z 4-6		$0.00926	$0.00926	$0.00926	$0.00926	$0.00926	$0.00926	$0.00926
178	TGP - Fuel Charge % - Z 4-6	18th Rev Sheet No. 32	1.49%	1.49%	1.49%	1.49%	1.49%	1.49%	1.49%
179	TGP - Fuel Charge % - Z 4-6 - (NYMEX * Percentage)		$0.00760	$0.00771	$0.00782	$0.00787	$0.00789	$0.00790	$0.00780
180	TGP - Withdrawal Charge	22nd Rev Sheet No.61	$0.00087	$0.00087	$0.00087	$0.00087	$0.00087	$0.00087	$0.00087
181	**Total Volumetric Transportation Rate - TGP (Storage)**		$0.01773	$0.01784	$0.01795	$0.01800	$0.01802	$0.01803	$0.01793
182									
183	**Total TGP - Comm. & Vol. Trans. Rate**	ln 173 + ln 181	**$0.52753**	**$0.53517**	**$0.54304**	**$0.54605**	**$0.54779**	**$0.54820**	**$0.54130**
184									
185									
186	**Per Unit Volumetric Transportation Rates**								
187	**Dawn Supply Volumetric Transportation Charge**								Average Rate
188	**Commodity Costs**	ln 108	[redacted]						
189									
190	TransCanada - Commodity Rate/GJ	Dawn - Parkway to Iroquois	$0.00040	$0.00040	$0.00040	$0.00040	$0.00040	$0.00040	$0.00040
191	Conversion Rate GL to MMBTU		1.0551	1.0551	1.0551	1.0551	1.0551	1.0551	1.0551
192	Conversion Rate to US$	1/0/1900	1.2706	1.2706	1.2706	1.2706	1.2706	1.2706	1.2706
193	Commodity Rate/US$	ln 190 x ln 191 x ln 192	$0.00054	$0.00054	$0.00054	$0.00054	$0.00054	$0.00054	$0.00054
194	TransCanada Fuel %	Dawn - Parkway to Iroquois	0.82%	0.82%	0.00%	0.00%	0.00%	0.00%	0.27%
195	TransCanada Fuel * Percentage	ln 108 x ln 194	$0.00367	$0.00371	$0.00000	$0.00000	$0.00000	$0.00000	$0.00123
196	Subtotal TransCanada		**$0.00420**	**$0.00424**	**$0.00054**	**$0.00054**	**$0.00054**	**$0.00054**	**$0.00177**
197	IGTS - Z1 RTS Commodity	Fourth Revised Sheet No. 4	$0.00034	$0.00034	$0.00034	$0.00034	$0.00034	$0.00034	$0.00034
198	IGTS - Z1 RTS ACA Rate Commodity	Fourth Revised Sheet No. 4	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
199	IGTS - Z1 RTS Deferred Asset Surcharge	Fourth Revised Sheet No. 4	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000	$0.00000
200	Subtotal IGTS - Trans Charge - Z1 RTS Commodity		**$0.00049**	**$0.00049**	**$0.00049**	**$0.00049**	**$0.00049**	**$0.00049**	**$0.00049**
201	TGP NET-NE - Comm. Segments 3 & 4	21st Rev Sheet No. 15	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
202	IGTS -Fuel Use Factor - Percentage	Fourth Revised Sheet No. 4	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
203	IGTS -Fuel Use Factor - Fuel * Percentage	ln 108 x ln 202	**$0.00448**	**$0.00453**	**$0.00457**	**$0.00457**	**$0.00455**	**$0.00460**	**$0.00455**
204	TGP FTA Fuel Charge % Z 5-6	18th Rev Sheet No. 32	1.09%	1.09%	1.09%	1.09%	1.09%	1.09%	1.09%
205	TGP FTA Fuel * Percentage	ln 108 x ln 204	**$0.00489**	**$0.00494**	**$0.00498**	**$0.00498**	**$0.00496**	**$0.00502**	**$0.00496**
206	**Total Volumetric Transportation Charge - Dawn Supply**		**$0.01422**	**$0.01436**	**$0.01072**	**$0.01073**	**$0.01068**	**$0.01079**	**$0.01192**
207									
208									
209	**Niagara Supply Volumetric Transportation Charge**								
210	**Commodity Costs**	Ln 113	[redacted]						
211									
212	TGP FTA - FTA Z 5-6 Comm. Rate	21st Rev Sheet No. 15	$0.00693	$0.00693	$0.00693	$0.00693	$0.00693	$0.00693	$0.00693
213	TGP FTA - FTA Z 5-6 - ACA Rate	21st Rev Sheet No. 15	$0.00015	$0.0002	$0.0002	$0.0002	$0.0002	$0.0002	$0.0002
214	Subtotal TGP FTA - FTA Z 5-6 Commodity Rate		**$0.00708**	**$0.0071**	**$0.0071**	**$0.0071**	**$0.0071**	**$0.0071**	**$0.0071**
215	TGP FTA Fuel Charge % Z 5-6	18th Rev Sheet No. 32	1.09%	1.09%	1.09%	1.09%	1.09%	1.09%	1.09%
216	TGP FTA Fuel * Percentage	ln 215 x ln 113	**$0.00485**	**$0.00491**	**$0.00495**	**$0.00495**	**$0.00493**	**$0.00498**	**$0.00493**
217	**Total Volumetric Transportation Rate - Niagara Supply**		**$0.01193**	**$0.01199**	**$0.01203**	**$0.01203**	**$0.01201**	**$0.01206**	**$0.01201**
218									
219									
220									

Ln	Description	Reference							
1	**Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**								
2									
3	**Off Peak 2023 Summer Cost of Gas Filing**								
4	**Supply and Commodity Costs, Volumes and Rates**								
221									**REDACTED**
222									Schedule 6
223									Page 5 of 5
224	**TGP Direct Volumetric Transportation Charge**								Average Rate
225	**Commodity Costs**	Ln 133	[redacted]						
226									
227	TGP - Max Comm. Base Rate - Z 0-6	21st Rev Sheet No. 15	$0.02616	$0.02616	$0.02616	$0.02616	$0.02616	$0.02616	$0.02616
228	TGP - Max Commodity ACA Rate - Z 0-6	21st Rev Sheet No. 15	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
229	Subtotal TGP - Max Comm. Rate Z 0-6		$0.02631	$0.02631	$0.02631	$0.02631	$0.02631	$0.02631	$0.02631
230	Prorated Percentage		32.60%	32.60%	32.60%	32.60%	32.60%	32.60%	32.60%
231	Prorated TGP - Max Commodity Rate - Z 0-6		**$0.00858**	**$0.00858**	**$0.00858**	**$0.00858**	**$0.00858**	**$0.00858**	**$0.00858**
232	TGP - Max Comm. Base Rate - Z 1-6	21st Rev Sheet No. 15	$0.02283	$0.02283	$0.02283	$0.02283	$0.02283	$0.02283	$0.02283
233	TGP - Max Commodity ACA Rate - Z 1-6	21st Rev Sheet No. 15	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
234	Subtotal TGP - Max Commodity Rate - Z 1-6		$0.02298	$0.02298	$0.02298	$0.02298	$0.02298	$0.02298	$0.02298
235	Prorated Percentage		67.40%	67.40%	67.40%	67.40%	67.40%	67.40%	67.40%
236	Prorated TGP - Trans Charge - Max Commodity Rate - Z 1-6		**$0.01549**	**$0.01549**	**$0.01549**	**$0.01549**	**$0.01549**	**$0.01549**	**$0.01549**
237	TGP - Fuel Charge % - Z 0 -6	18th Rev Sheet No. 32	5.31%	5.31%	5.31%	5.31%	5.31%	5.31%	5.31%
238	Prorated Percentage		32.6%	32.6%	32.6%	32.6%	32.6%	32.6%	32.6%
239	Prorated TGP Fuel Charge % - Z 0-6		1.73%	1.73%	1.73%	1.73%	1.73%	1.73%	1.73%
240	TGP - Fuel Charge % - Z 1 -6	18th Rev Sheet No. 32	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%	4.64%
241	Prorated Percentage		67.40%	67.40%	67.40%	67.40%	67.40%	67.40%	67.40%
242	Prorated TGP Fuel Charge - Fuel Charge % - Z 1-6		3.13%	3.13%	3.13%	3.13%	3.13%	3.13%	3.13%
243	TGP - Fuel Charge % - Z 0-6	ln 225 x ln 239	**$0.00780**	**$0.00791**	**$0.00805**	**$0.00803**	**$0.00785**	**$0.00794**	**$0.00793**
244	TGP - Fuel Charge % - Z 1-6	ln 225 x ln 242	**$0.01410**	**$0.01429**	**$0.01455**	**$0.01450**	**$0.01418**	**$0.01434**	**$0.01433**
245	**Total Volumetric Transportation Rate - TGP (Direct)**		**$0.04597**	**$0.04627**	**$0.04667**	**$0.04659**	**$0.04610**	**$0.04634**	**$0.04632**
246									
247	**TGP (Zone 4 Purchase) Volumetric Transportation Charge**								
248	**Commodity Costs**	Ln 131	[redacted]						
249									
250	TGP - Max Comm. Base Rate - Z 4-6	21st Rev Sheet No. 15	$0.00911	$0.00911	$0.00911	$0.00911	$0.00911	$0.00911	$0.00911
251	TGP - Max Commodity ACA Rate - Z 4-6	21st Rev Sheet No. 15	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
252	Subtotal TGP - Max Commodity Rate - Z 4-6		**$0.00926**	**$0.00926**	**$0.00926**	**$0.00926**	**$0.00926**	**$0.00926**	**$0.00926**
253	TGP - Fuel Charge % - Z 4-6	18th Rev Sheet No. 32	1.49%	1.49%	1.49%	1.49%	1.49%	1.49%	1.49%
254	TGP - Fuel Charge	ln 248 x ln 253	**$0.00605**	**$0.00597**	**$0.00612**	**$0.00617**	**$0.00523**	**$0.00520**	**$0.00579**
255	**Total Vol. Trans. Rate - TGP (Zone 6)**		**$0.01531**	**$0.01523**	**$0.01538**	**$0.01543**	**$0.01449**	**$0.01446**	**$0.01505**
256									
257									
258	**TGP Dracut**								
259	**Commodity Costs - NYMEX Price**	Ln 118	[redacted]						
260									
261	TGP - Trans Charge - Comm. - Z 6-6	21st Rev Sheet No. 15	$0.00296	$0.00296	$0.00296	$0.00296	$0.00296	$0.00296	$0.00296
262	TGP - Trans Charge - ACA Rate - Z6-6	21st Rev Sheet No. 15	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015	$0.00015
263	Subtotal TGP - Trans Charge - Max Commodity Rate - Z 6-6		**$0.00311**	**$0.00311**	**$0.00311**	**$0.00311**	**$0.00311**	**$0.00311**	**$0.00311**
264	TGP - Fuel Charge % - Z 6-6	18th Rev Sheet No. 32	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%
265	TGP - Fuel Charge	ln 259 x ln 264	**$0.00059**	**$0.00064**	**$0.00065**	**$0.00062**	**$0.00058**	**$0.00061**	**$0.00062**
266	**Total Volumetric Transportation Rate - TGP Dracut**		**$0.00370**	**$0.00375**	**$0.00376**	**$0.00373**	**$0.00369**	**$0.00372**	**$0.00373**
267									
268									

1	**Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**										Schedule 7
2											Page 1 of 1
3	**Off Peak 2023 Summer Cost of Gas Filing**										
4	**NYMEX Futures @ Henry Hub**										May - Oct
5											Off Peak
6	For Month of:	9/29/2022	Reference		May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Strip Average
7		(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)	(i)
8	**I. NYMEX Opening Prices as of:**										
9		Opening Prices		Line 206	$4.7290	$4.7920	$4.8560	$4.8680	$4.8410	$4.9110	$ 4.8328
10					$4.7290	$4.7920	$4.8560	$4.8680	$4.8410	$4.9110	$ 4.8328

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Off Peak 2023 Summer Cost of Gas Filing

Annual Bill Comparisons, May 22 Oct 22 Filing vs May 23 Oct 23
November 2022 October 2023
Residential Heating (R3)

			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
			November 1, 2022 April 30, 2023							May 1, 2023 October 31, 2023							
									Winter							**Summer**	**Total**
			Nov 22	**Dec 22**	**Jan 23**	**Feb 23**	**Mar 23**	**Apr 23**	**Nov Apr**	**May 23**	**Jun 23**	**Jul 23**	**Aug 23**	**Sep 23**	**Oct 23**	**May Oct**	**Nov Oct**
Typical Usage (Therms)			45	92	117	148	130	88	621	55	24	15	14	13	19	141	762
	8/1/2021	9/1/2022															
Winter:																	
Cust. Chg	$ 15.39	$ 15.39	$ 15.39	$ 15.39	$ 15.39	$ 15.39	$ 15.39	$ 15.39	$ 92.34								
Headblock	$ 0.5632	$ 0.6519	$ -	$ -	$ -	$ -	$ -	$ -	$ -								
Tailblock	$ 0.5632	$ 0.6519	$ 29.22	$ 60.25	$ 76.41	$ 96.48	$ 85.02	$ 57.27	$ 404.65								
HB Threshold	-	-															
Summer:	8/1/2021	9/1/2022															
Cust. Chg	$ 15.39	$ 15.39								$ 15.39	$ 15.39	$ 15.39	$ 15.39	$ 15.39	$ 15.39	$ 92.34	$ 184.68
Headblock	$ 0.5632	$ 0.6519								$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tailblock	$ 0.5632	$ 0.6519								$ 35.81	$ 15.70	$ 10.07	$ 9.15	$ 8.74	$ 12.34	$ 91.81	$ 496.46
HB Threshold	-	-															
Total Base Rate Amount			$ 44.61	$ 75.64	$ 91.80	$ 111.87	$ 100.41	$ 72.66	$ 496.99	$ 51.20	$ 31.09	$ 25.46	$ 24.54	$ 24.13	$ 27.73	$ 184.15	$ 681.14
COG Rate - (Seasonal)			$ 1.4300	$ 1.4300	$ 1.4300	$ 1.4300	$ 1.4300	$ 1.4300	$ 1.4300	$ 1.0269	$ 1.0269	$ 1.0269	$ 1.0269	$ 1.0269	$ 1.0269	$ 1.0269	$ 1.3555
COG amount			$ 64.11	$ 132.16	$ 167.60	$ 211.65	$ 186.49	$ 125.64	$ 887.65	$ 56.41	$ 24.73	$ 15.86	$ 14.41	$ 13.77	$ 19.44	$ 144.62	$ 1,032.26
LDAC			$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110
LDAC amount			$ 4.98	$ 10.26	$ 13.01	$ 16.43	$ 14.48	$ 9.75	$ 68.90	$ 6.10	$ 2.67	$ 1.71	$ 1.56	$ 1.49	$ 2.10	$ 15.63	$ 84.53
Total Bill			**$ 113.70**	**$ 218.06**	**$ 272.41**	**$ 339.95**	**$ 301.38**	**$ 208.05**	**$ 1,453.54**	**$ 113.70**	**$ 58.49**	**$ 43.04**	**$ 40.51**	**$ 39.38**	**$ 49.27**	**$ 344.40**	**$ 1,797.94**

November 2021 October 2022
Residential Heating (R3)

			November 1, 2021 April 30, 2022							May 1, 2022 October 31, 2022							
									Winter							**Summer**	**Total**
			Nov 21	**Dec 21**	**Jan 22**	**Feb 22**	**Mar 22**	**Apr 22**	**Nov Apr**	**May 22**	**Jun 22**	**Jul 22**	**Aug 22**	**Sep 22**	**Oct 22**	**May Oct**	**Nov Oct**
Typical Usage (Therms)			45	92	117	148	130	88	621	55	24	15	14	13	19	141	762
Winter:	8/1/2021	9/1/2022															
Cust. Chg	$ 15.39	$ 15.39	$ 15.39	$ 15.39	$ 15.39	$ 15.39	$ 15.39	$ 15.39	$ 92.34								
Headblock	$ 0.5632	$ 0.6519	$ -	$ -	$ -	$ -	$ -	$ -	$ -								
Tailblock	$ 0.5632	$ 0.6519	$ 25.25	$ 52.05	$ 66.01	$ 83.36	$ 73.45	$ 49.48	$ 349.60								
HB Threshold	-	-	$ 24.97														
Summer:	8/1/2021	9/1/2022															
Cust. Chg	$ 15.39	$ 15.39								$15.39	$15.39	$15.39	$15.39	$15.39	$15.39	$ 92.34	$ 184.68
Headblock	$ 0.5632	$ 0.6519								$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tailblock	$ 0.5632	$ 0.6519								$ 30.94	$ 13.56	$ 8.70	$ 9.15	$ 8.74	$ 12.34	$ 83.43	$ 433.02
HB Threshold	-	-															
Total Base Rate Amount			$ 40.64	$ 67.44	$ 81.40	$ 98.75	$ 88.84	$ 64.87	$ 441.94	$ 46.33	$ 28.95	$ 24.09	$ 24.54	$ 24.13	$ 27.73	$ 175.77	$ 617.70
COG Rate - (Seasonal)			$ 1.1339	$ 1.0173	$ 0.7246	$ 0.5956	$ 0.7743	$ 1.1747	$ 0.8411	$ 0.6984	$ 0.6984	$ 0.6984	$ 1.2295	$ 1.2295	$ 1.2295	$ 0.8733	$ 0.8471
COG amount			$ 50.83	$ 94.02	$ 84.93	$ 88.15	$ 100.98	$ 103.21	$ 522.12	$ 38.36	$ 16.82	$ 10.79	$ 17.26	$ 16.48	$ 23.28	$ 122.98	$ 645.10
LDAC			$ 0.1397	$ 0.1012	$ 0.1154	$ 0.1154	$ 0.1318	$ 0.1318	$ 0.1208	$ 0.1318	$ 0.1318	$ 0.1318	$ 0.1318	$ 0.1318	$ 0.1318	$ 0.1318	$ 0.1228
LDAC amount			$ 6.26	$ 9.35	$ 13.53	$ 17.08	$ 17.19	$ 11.58	$ 74.99	$ 7.24	$ 3.17	$ 2.04	$ 1.85	$ 1.77	$ 2.50	$ 18.56	$ 93.55
Total Bill			**$ 97.73**	**$ 170.81**	**$ 179.85**	**$ 203.98**	**$ 207.01**	**$ 179.66**	**$ 1,039.04**	**$ 91.93**	**$ 48.94**	**$ 36.92**	**$ 43.64**	**$ 42.38**	**$ 53.50**	**$ 317.31**	**$ 1,356.35**

DIFFERENCE:

Total Bill	**$ 15.96**	**$ 47.25**	**$ 92.56**	**$ 135.97**	**$ 94.37**	**$ 28.40**	**$ 414.50**	**$ 21.77**	**$ 9.55**	**$ 6.12**	**$ (3.14)**	**$ (2.99)**	**$ (4.23)**	**$ 27.08**	**$ 441.58**
% Change	**16.33%**	**27.66%**	**51.46%**	**66.66%**	**45.59%**	**15.81%**	**39.89%**	**23.69%**	**19.50%**	**16.59%**	**7.18%**	**7.07%**	**7.90%**	**8.54%**	**32.56%**
Base Rate	$ 3.98	$ 8.20	$ 10.40	$ 13.13	$ 11.57	$ 7.79	$ 55.06	$ 4.87	$ 2.14	$ 1.37	$ -	$ -	$ -	$ 8.38	$ 63.44
% Change	9.78%	12.16%	12.77%	13.29%	13.02%	12.01%	12.46%	10.52%	7.38%	5.69%	0.00%	0.00%	0.00%	4.77%	10.27%
COG & LDAC	$ 11.99	$ 39.05	$ 82.16	$ 122.84	$ 82.80	$ 20.60	$ 359.44	$ 16.90	$ 7.41	$ 4.75	$ (3.14)	$ (2.99)	$ (4.23)	$ 18.71	$ 378.15
% Change	21.00%	37.77%	83.45%	116.74%	70.07%	17.95%	60.20%	37.06%	37.06%	37.06%	-16.41%	-16.41%	-16.41%	13.22%	51.19%

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Off Peak 2023 Summer Cost of Gas Filing

Annual Bill Comparisons, May 22 Oct 22 Filing vs May 23 Oct 23
November 2022 October 2023
Commercial Rate (G 41)

			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
			November 1, 2022 April 30, 2023							**May 1, 2023 October 31, 2023**							
			Nov 22	**Dec 22**	**Jan 23**	**Feb 23**	**Mar 23**	**Apr 23**	**Winter Nov Apr**	**May 23**	**Jun 23**	**Jul 23**	**Aug 23**	**Sep 23**	**Oct 23**	**Summer May Oct**	**Total Nov Oct**
Typical Usage (Therms)			111	274	376	483	425	270	1,939	154	55	24	21	13	44	310	2,249
Winter:	8/1/2021	9/1/2022															
Cust. Chg	57.06	$ 63.30	$ 63.30	$ 63.30	$ 63.30	$ 63.30	$ 63.30	$ 63.30	$ 379.80								
Headblock	0.4688	$ 0.5088	$ 50.88	$ 50.88	$ 50.88	$ 50.88	$ 50.88	$ 50.88	$ 305.28								
Tailblock	0.3149	$ 0.3550	$ 4.06	$ 61.75	$ 97.88	$ 136.12	$ 115.20	$ 60.33	$ 475.34								
HB Threshold	100	100	$52.50	$50.88	$50.88	$50.88	$50.88	$50.88									
Summer:	8/1/2021	9/1/2022															
Cust. Chg	57.06	$ 63.30								$ 63.30	$ 63.30	$ 63.30	$ 63.30	$ 63.30	$ 63.30	$ 379.80	$ 759.60
Headblock	0.4688	$ 0.5088								$ 10.18	$ 10.18	$ 10.18	$ 10.18	$ 6.55	$ 10.18	$ 57.43	$ 362.71
Tailblock	0.3149	$ 0.3550								$ 47.56	$ 12.35	$ 1.53	$ 0.18	$ -	$ 8.40	$ 70.02	$ 545.36
HB Threshold	20	20															
Total Base Rate Amount			$ 118.24	$ 175.93	$ 212.06	$ 250.30	$ 229.38	$ 174.51	$ 1,160.42	$ 121.04	$ 85.83	$ 75.00	$ 73.66	$ 69.85	$ 81.87	$ 507.25	$ 1,667.67
COG Rate - (Seasonal)			$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.0271	$ 1.0271	$ 1.0271	$ 1.0271	$ 1.0271	$ 1.0271	$ 1.0271	$ 1.3745
COG amount			$ 159.38	$ 391.75	$ 537.33	$ 691.36	$ 607.08	$ 386.04	$ 2,772.94	$ 158.16	$ 56.27	$ 24.96	$ 21.07	$ 13.22	$ 44.84	$ 318.53	$ 3,091.46
LDAC			$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888
LDAC amount			$ 9.90	$ 24.33	$ 33.37	$ 42.93	$ 37.70	$ 23.97	$ 172.18	$ 13.67	$ 4.87	$ 2.16	$ 1.82	$ 1.14	$ 3.88	$ 27.54	$ 199.72
Total Bill			**$ 287.52**	**$ 592.00**	**$ 782.76**	**$ 984.58**	**$ 874.16**	**$ 584.51**	**$ 4,105.53**	**$ 292.87**	**$ 146.96**	**$ 102.13**	**$ 96.55**	**$ 84.21**	**$ 130.59**	**$ 853.32**	**$ 4,958.85**

November 2021 October 2022
Commercial Rate (G 41)

			November 1, 2021 April 30, 2022							**May 1, 2022 October 31, 2022**							
			Nov 21	**Dec 21**	**Jan 22**	**Feb 22**	**Mar 22**	**Apr 22**	**Winter Nov Apr**	**May 22**	**Jun 22**	**Jul 22**	**Aug 22**	**Sep 22**	**Oct 22**	**Summer May Oct**	**Total Nov Oct**
Typical Usage (Therms)			111	274	376	483	425	270	1,939	154	55	24	21	13	44	310	2,249
Winter:	8/1/2021	9/1/2022															
Cust. Chg	$ 57.06	$ 63.30	$ 57.06	$ 57.06	$ 57.06	$ 57.06	$ 57.06	$ 57.06	$ 342.36								
Headblock	$ 0.4688	$ 0.5088	$ -	$ 46.88	$ 46.88	$ 46.88	$ 46.88	$ 46.88	$ 234.40								
Tailblock	$ 0.3149	$ 0.3550	$ 3.60	$ 54.77	$ 86.83	$ 120.74	$ 102.19	$ 53.51	$ 421.64								
HB Threshold	100	100															
Summer:	8/1/2021	9/1/2022															
Cust. Chg	$ 57.06	$ 63.30								$57.06	$ 57.06	$ 57.06	$ 63.30	$ 63.30	$ 63.30	$ 361.08	$ 703.44
Headblock	$ 0.4688	$ 0.5088								$ 9.38	$ 9.38	$ 9.38	$ 10.18	$ 6.55	$ 10.18	$ 55.03	$ 289.43
Tailblock	$ 0.3149	$ 0.3550								$ 42.19	$ 10.95	$ 1.36	$ 0.18	$ -	$ 8.40	$ 63.08	$ 484.73
HB Threshold	20	20															
Total Base Rate Amount			$ 60.66	$ 158.71	$ 190.77	$ 224.68	$ 206.13	$ 157.45	$ 998.40	$ 108.63	$ 77.39	$ 67.79	$ 73.66	$ 69.85	$ 81.87	$ 479.19	$ 1,477.60
COG Rate - (Seasonal)			$ 1.1341	$ 1.0175	$ 0.7248	$ 0.5958	$ 0.7745	$ 1.1749	$ 0.8311	$ 0.6975	$ 0.6975	$ 0.6975	$ 1.2303	$ 1.2303	$ 1.2303	$ 0.8299	$ 0.8309
COG amount			$ 126.39	$ 278.73	$ 272.33	$ 288.03	$ 328.78	$ 317.15	$ 1,611.40	$ 107.41	$ 38.21	$ 16.95	$ 25.24	$ 15.83	$ 53.71	$ 257.36	$ 1,868.76
LDAC			$ 0.0831	$ 0.0749	$ 0.0891	$ 0.0891	$ 0.0991	$ 0.0991	$ 0.0903	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0915
LDAC amount			$ 9.26	$ 20.52	$ 33.48	$ 43.07	$ 42.07	$ 26.75	$ 175.15	$ 15.26	$ 5.43	$ 2.41	$ 2.03	$ 1.28	$ 4.33	$ 30.73	$ 205.88
Total Bill			**$ 196.31**	**$ 457.96**	**$ 496.58**	**$ 555.79**	**$ 576.97**	**$ 501.35**	**$ 2,784.95**	**$ 231.29**	**$ 121.03**	**$ 87.15**	**$ 100.93**	**$ 86.96**	**$ 139.92**	**$ 767.28**	**$ 3,552.24**

DIFFERENCE:

Total Bill			**$ 91.20**	**$ 134.05**	**$ 286.19**	**$ 428.80**	**$ 297.18**	**$ 83.16**	**$ 1,320.58**	**$ 61.58**	**$ 25.93**	**$ 14.97**	**$ (4.38)**	**$ (2.75)**	**$ (9.32)**	**$ 86.03**	**$ 1,406.61**
% Change			**46.46%**	**29.27%**	**57.63%**	**77.15%**	**51.51%**	**16.59%**	**47.42%**	**26.62%**	**21.42%**	**17.18%**	**4.34%**	**3.16%**	**6.66%**	**11.21%**	**39.60%**
Base Rate			$ 57.58	$ 17.21	$ 21.30	$ 25.62	$ 23.25	$ 17.05	$ 162.01	$ 12.41	$ 8.43	$ 7.21	$ -	$ -	$ -	$ 28.06	$ 190.07
% Change			94.91%	10.85%	11.16%	11.40%	11.28%	10.83%	16.23%	11.43%	10.90%	10.64%	0.00%	0.00%	0.00%	5.86%	12.86%
COG & LDAC			$ 33.62	$ 116.83	$ 264.89	$ 403.18	$ 273.93	$ 66.11	$ 1,158.57	$ 49.17	$ 17.49	$ 7.76	$ (4.38)	$ (2.75)	$ (9.32)	$ 57.97	$ 1,216.54
% Change			24.79%	39.04%	86.62%	121.77%	73.87%	19.22%	64.85%	40.08%	40.08%	40.08%	-16.06%	-16.06%	-16.06%	20.12%	58.64%

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Off Peak 2023 Summer Cost of Gas Filing

Annual Bill Comparisons, May 22 Oct 22 Filing vs May 23 Oct 23
November 2022 October 2023
C&I High Winter Use Medium G 42

			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
			November 1, 2022 April 30, 2023							May 1, 2023 October 31, 2023							
			Nov 22	**Dec 22**	**Jan 23**	**Feb 23**	**Mar 23**	**Apr 23**	**Winter Nov Apr**	**May 23**	**Jun 23**	**Jul 23**	**Aug 23**	**Sep 23**	**Oct 23**	**Summer May Oct**	**Total Nov Oct**
Typical Usage (Therms)			1,369	2,729	3,456	4,165	3,658	2,463	17,839	1,201	1,412	257	100	(1,437)	978	2,510	20,349
Winter:	8/1/2021	9/1/2022															
Cust. Chg	$ 171.19	$ 189.84	$ 189.84	$ 189.84	$ 189.84	$ 189.84	$ 189.84	$ 189.84	$ 1,139.04								
Headblock	$ 0.4261	$ 0.4634	$ 463.40	$ 463.40	$ 463.40	$ 463.40	$ 463.40	$ 463.40	$ 2,780.40								
Tailblock	$ 0.2839	$ 0.3212	$ 118.48	$ 555.24	$ 788.87	$1,016.45	$ 853.63	$ 470.01	$ 3,802.68								
HB Threshold	1,000	1,000															
	-																
Summer:	8/1/2021	9/1/2022															
Cust. Chg	$ 171.19	$ 189.84								$ 189.84	$ 189.84	$ 189.84	$ 189.84	$ 189.84	$ 189.84	$ 1,139.04	$ 2,278.08
Headblock	$ 0.4261	$ 0.4634								$ 185.36	$ 185.36	$ 118.87	$ 46.15	$ (666.03)	$ 185.36	$ 55.07	$ 2 835.47
Tailblock	$ 0.2839	$ 0.3212								$ 257.22	$ 325.06	$ -	$ -	$ -	$ 185.66	$ 767.94	$ 4,570.62
HB Threshold	400	400															
Total Base Rate Amount			$ 771.72	$ 1,208.48	$1,442.11	$1,669.69	$1,506.87	$1,123.25	$ 7,722.12	$ 632.42	$ 700.26	$ 308.71	$ 235.99	$ (476.19)	$ 560.86	$ 1,962.05	$ 9,684.17
COG Rate - (Seasonal)			$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.4301	$ 1.0271	$ 1.0271	$ 1.0271	$ 1.0271	$ 1.0271	$ 1.0271	$ 1.0271	$ 1.3804
COG amount			$1,957.62	$ 3,902.24	$4,942.45	$5,955.69	$5,230.77	$3,522.74	$25,511.50	$1,233.36	$1,450.30	$ 263.47	$ 102.28	$ (1,476.22)	$1,004.52	$ 2,577.70	$28,089.21
LDAC			$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888
LDAC amount			$ 121.56	$ 242.30	$ 306.89	$ 369.81	$ 324.80	$ 218.74	$ 1,584.10	$ 106.63	$ 125.39	$ 22.78	$ 8.84	$ (127.63)	$ 86.85	$ 222.86	$ 1,806.96
Total Bill			**$2,850.90**	**$ 5,353.02**	**$6,691.45**	**$7,995.18**	**$7,062.44**	**$4,864.73**	**$34,817.72**	**$1,972.41**	**$2,275.95**	**$ 594.96**	**$ 347.11**	**$ (2,080.03)**	**$1,652.22**	**$ 4,762.61**	**$39,580.33**

November 2021 October 2022
C&I High Winter Use Medium G 42

			November 1, 2021 April 30, 2022							May 1, 2022 October 31, 2022							
			Nov 21	**Dec 21**	**Jan 22**	**Feb 22**	**Mar 22**	**Apr 22**	**Winter Nov Apr**	**May 22**	**Jun 22**	**Jul 22**	**Aug 22**	**Sep 22**	**Oct 22**	**Summer May Oct**	**Total Nov Oct**
Typical Usage (Therms)			1,369	2,729	3,456	4,165	3,658	2,463	17,839	1,201	1,412	257	100	-1,437	978	2,510	20,349
Winter:	8/1/2021	9/1/2022															
Cust. Chg	$ 171.19	$ 189.84	$ 171.19	$ 171.19	$ 171.19	$ 171.19	$ 171.19	$ 171.19	$ 1,027.14								
Headblock	$ 0.4261	$ 0.4634	$ 426.10	$ 426.10	$ 426.10	$ 426.10	$ 426.10	$ 426.10	$ 2,556.60								
Tailblock	$ 0.2839	$ 0.3212	$ 104.72	$ 490.76	$ 697.26	$ 898.41	$ 754.50	$ 415.43	$ 3,361.08								
HB Threshold	1,000	1,000															
	-	-															
Summer:	8/1/2021	9/1/2022															
Cust. Chg	$ 171.19	$ 189.84								$ 171.19	$ 171.19	$ 171.19	$ 189.84	$ 189.84	$ 189.84	$ 1,083.09	$ 2,110.23
Headblock	$ 0.4261	$ 0.4634								$ 170.44	$ 170.44	$ 109.30	$ 46.15	$ (666.03)	$ 185.36	$ 15.66	$ 2,572.26
Tailblock	$ 0.2839	$ 0.3212								$ 227.35	$ 287.32	$ -	$ -	$ -	$ -	$ 514.67	$ 3,875.75
HB Threshold	400	400															
Total Base Rate Amount			$ 702.01	$ 1,088.05	$1,294.55	$1,495.70	$1,351.79	$1,012.72	$ 6,944.82	$ 568.98	$ 628.95	$ 280.49	$ 235.99	$ (476.19)	$ 375.20	$ 1,613.41	$ 8,558.24
COG Rate - (Seasonal)			$ 1.1341	$ 1.0175	$ 0.7248	$ 0.5958	$ 0.7745	$ 1.1749	$ 0.8432	$ 0.6975	$ 0.6975	$ 0.6975	$ 1.2303	$ 1.2303	$ 1.2303	$ 0.6211	$ 0.8158
COG amount			$1,552.43	$ 2,776.40	$2,504.92	$2,481.22	$2,832.83	$2,894.11	$15,041.92	$ 837.57	$ 984.89	$ 178.92	$ 122.51	$ (1,768.27)	$1,203.25	$ 1,558.87	$16,600.79
LDAC			$ 0.0831	$ 0.0831	$ 0.0831	$ 0.0831	$ 0.0831	$ 0.0831	$ 0.0831	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0851
LDAC amount			$ 113.75	$ 226.75	$ 287.19	$ 346.07	$ 303.95	$ 204.70	$ 1,482.42	$ 119.00	$ 139.93	$ 25.42	$ 9.87	$ (142.43)	$ 96.92	$ 248.71	$ 1,731.13
Total Bill			**$2,368.20**	**$ 4,091.20**	**$4,086.67**	**$4,322.99**	**$4,488.57**	**$4,111.53**	**$23,469.16**	**$1,525.55**	**$1,753.77**	**$ 484.83**	**$ 368.37**	**$ (2,386.89)**	**$1,675.37**	**$ 3,421.00**	**$26,890.16**
DIFFERENCE:																	
Total Bill			**$ 482.70**	**$ 1,261.82**	**$2,604.79**	**$3,672.19**	**$2,573.87**	**$ 753.20**	**$11,348.56**	**$ 446.86**	**$ 522.18**	**$ 110.12**	**$ (21.26)**	**$ 306.86**	**$ (23.15)**	**$ 1,341.61**	**$12,690.17**
% Change			**20.38%**	**30.84%**	**63.74%**	**84.95%**	**57.34%**	**18.32%**	**48.36%**	**29.29%**	**29.77%**	**22.71%**	**5.77%**	**12.86%**	**1.38%**	**39.22%**	**47.19%**
Base Rate			$ 69.71	$ 120.43	$ 147.56	$ 173.99	$ 155.08	$ 110.53	$ 777.29	$ 63.44	$ 71.32	$ 28.22	$ -	$ -	$ 185.66	$ 348.63	$ 1,125.93
% Change			9.93%	11.07%	11.40%	11.63%	11.47%	10.91%	11.19%	11.15%	11.34%	10.06%	0.00%	0.00%	49.48%	21.61%	13.16%
COG & LDAC			$ 412.99	$ 1,141.39	$2,457.23	$3,498.20	$2,418.79	$ 642.67	$10,571.27	$ 383.42	$ 450.86	$ 81.91	$ (21.26)	$ 306.86	$ (208.81)	$ 992.98	$11,564.24
% Change			24.79%	38.01%	88.01%	123.73%	77.11%	20.74%	63.97%	40.08%	40.08%	40.08%	-16.06%	-16.06%	-16.06%	54.93%	63.08%

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Off Peak 2023 Summer Cost of Gas Filing

Annual Bill Comparisons, May 22 Oct 22 Filing vs May 23 Oct 23
November 2022 October 2023
Commercial Rate (G 52)

			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
			November 1, 2022 April 30, 2023							May 1, 2023 October 31, 2023							
			Nov 22	**Dec 22**	**Jan 23**	**Feb 23**	**Mar 23**	**Apr 23**	**Winter Nov Apr**	**May 23**	**Jun 23**	**Jul 23**	**Aug 23**	**Sep 23**	**Oct 23**	**Summer May Oct**	**Total Nov Oct**
Typical Usage (Therms)			1,340	1,718	1,891	2,207	1,964	1,672	10,793	1,339	1,123	1,070	1,088	8,875	1,097	14,592	25,385
Winter:	8/1/2021	9/1/2022															
Cust. Chg	171.19	$ 189.87	$ 189.87	$ 189.87	$ 189.87	$ 189.87	$ 189.87	$ 189.87	$ 1,139.22								
Headblock	0.2428	$ 0.1978	$ 197.80	$ 197.80	$ 197.80	$ 197.80	$ 197.80	$ 197.80	$ 1,186.80								
Tailblock	0.1617	$ 0.1219	$ 41.44	$ 87.58	$ 108.66	$ 147.14	$ 117.52	$ 81.95	$ 584.28								
HB Threshold	1000	1,000															
Summer:	8/1/2021	9/1/2022															
Cust. Chg	171.19	$ 189.87								$ 189.87	$ 189.87	$ 189.87	$ 189.87	$ 189.87	$ 189.87	$ 1,139.22	$ 2,278.44
Headblock	0.1759	$ 0.1933								$ 193.30	$ 193.30	$ 193.30	$ 193.30	$ 193.30	$ 193.30	$ 1 159.80	$ 2 346.60
Tailblock	0.1000	$ 0.1174								$ 39.83	$ 14.40	$ 8.26	$ 10.32	$ 924.56	$ 11.33	$ 1,008.71	$ 1,592.99
HB Threshold	1000	1,000															
Total Base Rate Amount			$ 429.11	$ 475.25	$ 496.33	$ 534.81	$ 505.19	$ 469.62	$ 2,910.30	$ 423.00	$ 397.57	$ 391.43	$ 393.49	$ 1,307.73	$ 394.50	$ 3,307.73	$ 6,218.03
COG Rate - (Seasonal)			$ 1.4296	$ 1.4296	$ 1.4296	$ 1.4296	$ 1.4296	$ 1.4296	$ 1.4296	$ 1.0266	$ 1.0266	$ 1.0266	$ 1.0266	$ 1.0266	$ 1.0266	$ 1.0266	$ 1.1979
COG amount			$1,915.58	$ 2,456.69	$2,703.88	$3,155.21	$2,807.80	$2,390.63	$15,429.80	$1,374.91	$1,152.48	$1,098.86	$1,116.84	$ 9,111.42	$1,125.70	$14,980.21	$30,410.01
LDAC			$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888
LDAC amount			$ 118.99	$ 152.60	$ 167.95	$ 195.99	$ 174.41	$ 148.49	$ 958.43	$ 118.93	$ 99.69	$ 95.05	$ 96.61	$ 788.13	$ 97.37	$ 1,295.78	$ 2,254.20
Total Bill			**$2,463.68**	**$ 3,084.53**	**$3,368.16**	**$3,886.01**	**$3,487.40**	**$3,008.74**	**$19,298.52**	**$1,916.83**	**$1,649.73**	**$1,585.35**	**$1,606.94**	**$11,207.29**	**$1,617.58**	**$19,583.72**	**$38,882.24**

November 2021 October 2022
Commercial Rate (G 52)

			November 1, 2021 April 30, 2022							May 1, 2022 October 31, 2022							
			Nov 21	**Dec 21**	**Jan 22**	**Feb 22**	**Mar 22**	**Apr 22**	**Winter Nov Apr**	**May 22**	**Jun 22**	**Jul 22**	**Aug 22**	**Sep 22**	**Oct 22**	**Summer May Oct**	**Total Nov Oct**
Typical Usage (Therms)			1,340	1,718	1,891	2,207	1,964	1,672	10,793	1,339	1,123	1,070	1,088	8,875	1,097	14,592	25,385
Winter:	8/1/2021	9/1/2022															
Cust. Chg	$ 171.19	$ 189.87	$ 171.19	$ 171.19	$ 171.19	$ 171.19	$ 171.19	$ 171.19	$ 1,027.14								
Headblock	$ 0.2428	$ 0.1978	$ 242.80	$ 242.80	$ 242.80	$ 242.80	$ 242.80	$ 242.80	$ 1,456.80								
Tailblock	$ 0.1617	$ 0.1219	$ 54.97	$ 116.17	$ 144.13	$ 195.18	$ 155.89	$ 108.70	$ 775.04								
HB Threshold	1,000	1,000															
	-	-															
Summer:	8/1/2021	9/1/2022															
Cust. Chg	$ 171.19	$ 189.87								$ 171.19	$ 171.19	$ 171.19	$ 189.87	$ 189.87	$ 189.87	$ 1,083.18	$ 2,110.32
Headblock	$ 0.1759	$ 0.1933								$ 175.90	$ 175.90	$ 175.90	$ 193.30	$ 193.30	$ 193.30	$ 1,107.60	$ 2,564.40
Tailblock	$ 0.1000	$ 0.1174								$ 33.93	$ 12.26	$ 7.04	$ 10.32	$ 924.56	$ 11.33	$ 999.45	$ 1,774.49
HB Threshold	1,000	1,000															
Total Base Rate Amount			$ 468.96	$ 530.16	$ 558.12	$ 609.17	$ 569.88	$ 522.69	$ 3,258.98	$ 381.02	$ 359.35	$ 354.13	$ 393.49	$ 1,307.73	$ 394.50	$ 3,190.23	$ 6,449.21
COG Rate - (Seasonal)			$ 1.1324	$ 1.0158	$ 0.7231	$ 0.5941	$ 0.7728	$ 1.1732	$ 0.8729	$ 0.6991	$ 0.6991	$ 0.6991	$ 1.2284	$ 1.2284	$ 1.2284	$ 1.1003	$ 1.0036
COG amount			$1,517.35	$ 1,745.59	$1,367.64	$1,311.22	$1,517.82	$1,961.87	$ 9,421.48	$ 936.29	$ 784.82	$ 748.31	$1,336.38	$10,902.46	$1,346.98	$16,055.25	$25,476.73
LDAC			$ 0.0831	$ 0.0749	$ 0.0891	$ 0.0891	$ 0.0991	$ 0.0991	$ 0.0895	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0950
LDAC amount			$ 111.35	$ 128.71	$ 168.52	$ 196.65	$ 194.64	$ 165.72	$ 965.59	$ 132.72	$ 111.25	$ 106.08	$ 107.81	$ 879.55	$ 108.67	$ 1,446.07	$ 2,411.66
Total Bill			**$2,097.66**	**$ 2,404.47**	**$2,094.28**	**$2,117.04**	**$2,282.33**	**$2,650.28**	**$13,646.05**	**$1,450.03**	**$1,255.42**	**$1,208.52**	**$1,837.68**	**$13,089.74**	**$1,850.15**	**$20,691.55**	**$34,337.60**

DIFFERENCE:

Total Bill	**$ 366.02**	**$ 680.06**	**$1,273.88**	**$1,768.98**	**$1,205.07**	**$ 358.46**	**$ 5,652.47**	**$ 466.80**	**$ 394.31**	**$ 376.83**	**$ (230.74)**	**$ (1,882.46)**	**$ (232.58)**	**$ (1,107.83)**	**$ 4,544.63**
% Change	**17.45%**	**28.28%**	**60.83%**	**83.56%**	**52.80%**	**13.53%**	**41.42%**	**32.19%**	**31.41%**	**31.18%**	**12.56%**	**14.38%**	**12.57%**	**5.35%**	**13.24%**
Base Rate	$ (39.85)	$ (54.91)	$ (61.80)	$ (74.36)	$ (64.69)	$ (53.07)	$ (348.68)	$ 41.98	$ 38.21	$ 37.30	$ -	$ -	$ -	$ 117.50	$ (231.18)
% Change	-8.50%	-10.36%	-11.07%	-12.21%	-11.35%	-10.15%	-10.70%	11.02%	10.63%	10.53%	0.00%	0.00%	0.00%	3.68%	-3.58%
COG & LDAC	$ 405.87	$ 734.98	$1,335.68	$1,843.34	$1,269.76	$ 411.54	$ 6,001.15	$ 424.82	$ 356.09	$ 339.53	$ (230.74)	$ (1,882.46)	$ (232.58)	$ (1,225.34)	$ 4,775.82
% Change	24.92%	39.21%	86.95%	122.25%	74.15%	19.34%	57.78%	39.74%	39.74%	39.74%	-15.98%	-15.98%	-15.98%	-7.00%	17.12%

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Off Peak 2023 Summer Cost of Gas Filing
Residential Heating

	Summer 2022	Summer 2023
Customer Charge	$ 15.39	$ 15.39
First 20 Therms	$ 0.5632	$ 0.6519
Excess 20 Therms	$ 0.5632	$ 0.6519
LDAC	$ 0.1318	$ 0.1110
COG	$ 0.9034	$ 1.0269
Total Adjust	$ 1.0352	$ 1.1379

		Summer 2022 COG @	Summer 2023 Cog @	Total $ Impact	Total % Impact	Base Rate $ Impact	Base Rate % Ir	COG $ Impact	COG % Impact	LDAC $ Impact	LDAC % Impact
		$ 1.0352	$ 1.1379	$ 0.10	10%						
Cooking alone	5	$ 23.38	$ 24.34	$ 0.96	4%	$ 0.44	2%	$ 0.62	3%	$ (0.10)	0%
	10	$ 31.37	$ 33.29	$ 1.91	6%	$ 0.89	3%	$ 1.24	4%	$ (0.21)	-1%
	20	$ 47.36	$ 51.19	$ 3.83	8%	$ 1.77	4%	$ 2.47	5%	$ (0.42)	-1%
Water Heating alone	30	$ 63.34	$ 69.08	$ 5.74	9%	$ 2.66	4%	$ 3.70	5%	$ (0.62)	-1%
	45	$ 87.32	$ 95.93	$ 8.61	10%	$ 3.99	5%	$ 5.56	6%	$ (0.94)	-1%
	50	$ 95.31	$ 104.88	$ 9.57	10%	$ 4.44	5%	$ 6.18	6%	$ (1.04)	-1%
Heating Alone	80	$ 135.27	$ 149.63	$ 14.36	11%	$ 6.65	5%	$ 9.26	6%	$ (1.56)	-1%
	125	$ 227.98	$ 253.43	$ 25.46	11%	$ 11.80	5%	$ 16.43	6%	$ (2.77)	-1%
	150	$ 255.15	$ 283.86	$ 28.71	11%	$ 13.31	5%	$ 18.53	7%	$ (3.12)	-1%
	200	$ 335.07	$ 373.35	$ 38.28	11%	$ 17.74	5%	$ 24.70	7%	$ (4.16)	-1%

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

2023 Summer Cost of Gas Filing
Capacity Assignment Calculations 2022-2023
Derivation of Class Assignments and Weightings

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

				Column A	**Column B**	**Column C**	**Column D**	**Column E**	**Column F**
				Design Day Demand. Dekatherm	Adjusted Design Day Demand, Dt	Percent of Total		Avg Daily Base Use Load, Dt	Remaining Design Day Demand
1	RATE R-1-Resi Non-Htg			639	641	0.4%		97	544
2	RATE R-3-Resi Htg			71,962	72,211	43.6%		3,484	68,728
3	RATE G-41 (T)			30,001	30,106	18.2%		968	29,139
4	RATE G-51 (S)			2,639	2,646	1.6%		742	1,904
5	RATE G-42 (V)			38,016	38,148	23.0%		1,839	36,309
6	RATE G-52			5,466	5,480	3.3%		1,742	3,738
7	RATE G-43			9,590	9,623	5.8%		645	8,977
8	RATE G-53			5,350	5,363	3.2%		1,871	3,492
9	RATE G-54			1,417	1,421	0.9%		419	1,001
10									
11	Total			165,079	165,638	100.0%		11,806	153,832
12									-
13	Residential Total			72,601	72,852	**43.983%**		3,581	69,272
14	LLF Total			77,606	77,877	**47.016%**		3,452	74,425
15	HLF Total			14,872	14,909	**9.001%**		4,774	10,135
16	Total			165,079	165,638	100.0%		11,806	153,832
17									
18	C&I Breakdown								
19	LLF Total							3,452	74,425
20	HLF Total							4,774	10,135
21	Total							8,226	84,560
22									
23	C&I Breakdown Percentage								
24	LLF Total							41.961%	88.014%
25	HLF Total							58.039%	11.986%
26	Total							**100.0%**	**100.0%**
27									
28				Capacity Cost	MDQ, Dt	$/Dt-Mo.			
29	Pipeline			$16,149,021	119,718	$11 2410			
30	Storage			$4,130,365	28,115	$12 2425			
31									
32	Peaking			$2,370,511					
33	Peaking Additional Costs (Concord Lateral Peaking x Differential)			$0					
34	Subtotal Peaking Costs			$2 370 511	17,805	$11 0948			
35	Total			$22,649,897	165,638	$11 3953			
36									
37				Capacity Cost	MDQ, Dt	$/Dt-Mo.			
38	Pipeline - Baseload			1,592,596	11,806	$11 2410			
39	Pipeline - Remaining			14,556,425	107,912	$11 2410			
40	Storage			4,130,365	28,115	$12 2425			
41	Peaking			2,370,511	17,805	$11 0948			
42	Total			22,649,897	165,638	$11 3953			
43									
44									
45	Residential Allocation			Capacity Cost	MDQ, Dt	$/Dt-Mo.			
46	Pipeline - Base	Line 38 * Line 13 Col C	**43.983%**	700,471	5,193	$11 2410			
47	Pipeline - Remaining	Line 39 * Line 13 Col C	**43.983%**	6,402,344	47,463	$11 2410			
48	Storage	Line 40 * Line 13 Col C	**43.983%**	1,816,663	12,366	$12 2425			
49	Peaking	Line 41 * Line 13 Col C	**43.983%**	1,042,601	7,831	$11 0948			
50	Total		**43.983%**	9,962,098	72,852	$11 3953			
51									

54 **2023 Summer Cost of Gas Filing**
55 **Capacity Assignment Calculations 2022-2023**
56 **<u>Derivation of Class Assignments and Weightings</u>**

Line								Ratios for COG
59	C&I Allocation				Capacity Cost	MDQ, Dt	$/Dt-Mo.	
60	Pipeline - Base	Line 38 - Line 46			892,125	6,614	$11 2410	
61	Pipeline - Remaining	Line 39 - Line 47			8,154,081	60,449	$11 2410	
62	Storage	Line 40 - Line 48			2,313,702	15,749	$12 2424	
63	Peaking	Line 41 - Line 49			1,327,910	9,974	$11 0948	
64	Total		**56.017%**		12,687,818	92,786	$11 3953	**1.0000**
67	LLF - C&I Allocation				Capacity Cost	MDQ, Dt	$/Dt-Mo.	
68	Pipeline - Base	Line 60 * Line 24 Col E			374,343	2,775	$11 2415	
69	Pipeline - Remaining	Line 61 * Line 24 Col F			7,176,761	53,204	$11 2409	
70	Storage	Line 62 * Line 24 Col F			2,036,390	13,862	$12 2420	
71	Peaking	Line 63 * Line 24 Col F			1 168 752	8 779	$11 0942	
72	Total		**47.4892%**		10,756,246	78,620	$11.4011	**1.0005**
73			41.961%		85%			(Line 72 / Line 64)
75	HLF - C&I Allocation				Capacity Cost	MDQ, Dt	$/Dt-Mo.	
76	Pipeline - Base	Line 60 - Line 68			517,782	3,839	$11 2395	
77	Pipeline - Remaining	Line 61 - Line 69			977,320	7,245	$11 2413	
78	Storage	Line 62 - Line 70			277,312	1,887	$12 2466	
79	Peaking	Line 63 - Line 71			159 158	1 195	$11 0989	
80	Total		**8.5280%**		1,931,572	14,166	$11 3627	**0.9971**
81								(Line 80 / Line 64)

Line		Residential	LLF C&I	HLF C&I	Total
83	Unit Cost	Residential	LLF C&I	HLF C&I	
85	Pipeline	$ 11.2410	$ 11.2410	$ 11.2410	
86	Storage	$ 12.2425	$ 12.2425	$ 12.2425	
87	Peaking	$ -	$ -	$ -	
88	Total	$ 11.3953	$ 11.4011	$ 11.3627	
91	Load Makeup	Residential	**LLF C&I**	**HLF C&I**	
93	Pipeline	72 28%	**71.20%**	**78.24%**	
94	Storage	16 97%	**17.63%**	**13.32%**	
95	Peaking	10.75%	**11.17%**	**8.44%**	
96	Total	100 00%	**100.00%**	**100.00%**	
99	Supply Makeup	Residential	LLF C&I	HLF C&I	Total
101	Pipeline	43 98%	46.76%	9.26%	100 00%
102	Storage	43 98%	49 30%	6.71%	100 00%
103	Peaking	43 98%	49 31%	6.71%	100 00%

1 **Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**
2
3 **2023 Summer Cost of Gas Filing**
4 **Correction Factor Calculation**
5
6

Ln		d	e	f	g	h	i	
8	Data Source: Schedule 10B							Total
9		May	June	July	Aug	Sep	Oct	Sales
10								
11	G-41	747,050	280,900	206,300	208,340	367,080	958,770	2,768,440
12	G-42	699,850	303,310	225,260	233,780	406,410	879,510	2,748,120
13	G-43	182,490	74,810	59,600	60,370	102,490	207,170	686,930
14	High Winter Use	1,629,390	659,020	491,160	502,490	875,980	2,045,450	6,203,490
15								
16	G-51	204,580	181,150	182,590	182,770	188,450	244,780	1,184,320
17	G-52	226,060	205,490	216,980	216,330	215,810	260,610	1,341,280
18	G-53	309,892	269,892	270,211	265,876	271,048	323,306	1,710,225
19	G-54	15,380	19,010	22,810	24,340	22,210	24,280	128,030
21	Low Winter Use	755,912	675,542	692,591	689,316	697,518	852,976	4,363,855
22								
23	Gross Total	2,385,302	1,334,562	1,183,751	1,191,806	1,573,498	2,898,426	10,567,345
24								
25								
26	Total Sales				10,567,345			
27	Low Winter Use				4,363,855			
28	Summer Ratio for Low Winter Use				**0.9971**	**Schedule 10A p 2, ln 80**		
29	High Winter Use				6,203,490			
30	Summer Ratio for High Winter Use				**1.0005**	**Schedule 10A p 2, ln 72**		
31								
32	Correction Factor =	Total Sales/((Low Winter Use x Winter Ratio for Low Winter Use)+(High Winter Use x Winter Ratio for High Winter Use						
33	Correction Factor =				**100.0905%**			
34								
35								
36	**Allocation Calculation for Miscellaneous Overhead**							
37								
38	Projected Winter Sales Volume				11/1/22 - 4/30/23		92,780,984	Sch.10B, ln 23
39	Projected Annual Sales Volume				11/1/22 - 10/31/23		116,429,889	Sch.10B, ln 23
40	Percentage of Winter Sales to Annual Sales						79.69%	

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

Off Peak 2023 Summer Cost of Gas Filing
2023 Summer Cost of Gas Filing

Dry Therms

Firm Sales	**Nov-22**	**Dec-22**	**Jan-23**	**Feb-23**	**Mar-23**	**Apr-23**	**Subtotal PK 22–23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Subtotal OP 23**	**Total**
R-1	68,950	88,860	102,240	87,330	87,040	65,450	499,870	52,140	39,450	34,490	34,700	38,650	52,460	251,890	751,760
R-3	6,285,460	9,460,770	11,083,750	9,374,930	7,887,130	4,769,830	48,861,870	2,698,720	1,310,080	1,017,330	1,041,040	1,740,970	4,150,980	11,959,120	60,820,990
R-4	456,240	673,650	788,260	669,350	566,410	365,300	3,519,210	206,240	101,740	77,310	76,480	120,880	287,900	870,550	4,389,760
Total Residential.	6,810,650	10,223,280	11,974,250	10,131,610	8,540,580	5,200,580	52,880,950	2,957,100	1,451,270	1,129,130	1,152,220	1,900,500	4,491,340	13,081,560	65,962,510
G-41	2,024,090	3,305,230	3,990,080	3,360,930	2,728,610	1,602,400	17,011,340	747,050	280,900	206,300	208,340	367,080	958,770	2,768,440	19,779,780
G-42	1,638,690	2,577,550	3,049,640	2,578,010	2,207,610	1,222,890	13,274,390	699,850	303,310	225,260	233,780	406,410	879,510	2,748,120	16,022,510
G-43	356,550	540,700	658,270	547,120	495,700	292,490	2,890,830	182,490	74,810	59,600	60,370	102,490	207,170	686,930	3,577,760
G-51	279,050	363,480	398,180	331,040	342,590	216,120	1,930,460	204,580	181,150	182,590	182,770	188,450	244,780	1,184,320	3,114,780
G-52	328,800	421,730	457,600	372,490	381,360	245,600	2,207,580	226,060	205,490	216,980	216,330	215,810	260,610	1,341,280	3,548,860
G-53	364,036	444,039	483,757	396,097	410,759	345,126	2,443,814	309,892	269,892	270,211	265,876	271,048	323,306	1,710,225	4,154,039
G-54	36,310	41,220	17,430	15,680	16,970	14,010	141,620	15,380	19,010	22,810	24,340	22,210	24,280	128,030	269,650
Total C/I	5,027,526	7,693,949	9,054,957	7,601,367	6,583,599	3,938,636	39,900,034	2,385,302	1,334,562	1,183,751	1,191,806	1,573,498	2,898,426	10,567,345	50,467,379
Sales Volume	**11,838,176**	**17,917,229**	**21,029,207**	**17,732,977**	**15,124,179**	**9,139,216**	**92,780,984**	**5,342,402**	**2,785,832**	**2,312,881**	**2,344,026**	**3,473,998**	**7,389,766**	**23,648,905**	**116,429,889**
Transportation Sales															
G-41	582,770	880,040	1,055,350	869,770	774,950	457,900	4,620,780	265,850	143,190	108,120	97,250	159,240	331,950	1,105,600	5,726,380
G-42	1,997,440	2,956,400	3,441,830	2,872,700	2,552,380	1,546,030	15,366,780	919,290	503,450	400,550	403,990	669,630	1,280,150	4,177,060	19,543,840
G-43	778,960	1,055,230	1,249,450	1,050,480	981,780	544,520	5,660,420	369,150	239,600	215,710	243,220	342,610	535,700	1,945,990	7,606,410
G-51	87,610	108,870	116,400	96,830	101,020	83,010	593,740	78,680	65,660	61,970	61,670	64,120	76,290	408,390	1,002,130
G-52	515,770	638,420	695,870	577,050	589,970	437,350	3,454,430	396,040	365,860	371,740	366,710	375,870	444,530	2,320,750	5,775,180
G-53	871,410	1,003,760	1,096,490	926,310	943,320	847,150	5,688,440	731,010	625,610	627,450	662,150	677,440	792,690	4,116,350	9,804,790
G-54	1,589,640	1,297,120	1,272,510	1,056,470	1,163,130	1,359,460	7,738,330	1,562,310	1,567,620	1,631,390	1,738,910	1,681,980	1,754,440	9,936,650	17,674,980
Total Trans. Sales	**6,423,600**	**7,939,840**	**8,927,900**	**7,449,610**	**7,106,550**	**5,275,420**	**43,122,920**	**4,322,330**	**3,510,990**	**3,416,930**	**3,573,900**	**3,970,890**	**5,215,750**	**24,010,790**	**67,133,710**
Total All Sales	**18,261,776**	**25,857,069**	**29,957,107**	**25,182,587**	**22,230,729**	**14,414,636**	**135,903,904**	**9,664,732**	**6,296,822**	**5,729,811**	**5,917,926**	**7,444,888**	**12,605,516**	**47,659,695**	**183,563,599**

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

Off Peak 2023 Summer Cost of Gas Filing
Normal and Design Year Volumes

Volumes (Therms) **Normal Year**

For the Months of May 23 -October 23

	May-23	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Off Peak May - Oct**
Pipeline Gas:							
Dawn Supply	842,983	655,282	518,079	495,174	712,922	601,154	3,825,595
Niagara Supply	667,764	585,319	584,500	583,125	598,573	687,845	3,707,126
TGP Supply (Gulf)	29,663	-	-	-	-	327,579	357,242
Dracut Supply 1 - Baseload	-	-	-	-	-	-	0
Dracut Supply 2 - Swing	-	-	-	-	-	435,588	435,588
Dracut Supply 3 - Swing	-	-	-	-	-	-	-
Constellation Combo	-	-	-	-	-	-	0
LNG Truck	-	-	4,831	10,843	17,887	110,141	143,701
Propane Truck	79,331	71,837	69,440	69,276	73,464	81,717	445,066
PNGTS	211,780	185,528	182,354	184,937	189,729	218,149	1,172,479
Portland Natural Gas	889,892	29,984	-	-	-	522,990	1,442,866
TGP Supply (Z4)	5,379,362	4,713,785	4,706,794	4,696,924	4,822,444	5,548,240	29,867,549
	8,100,776	6,241,736	6,065,997	6,040,279	6,415,019	8,533,404	41,397,212
Storage Gas:							
	-	-	-	-	-	-	0
Produced Gas:							
LNG Vapor	20,005	18,116	17,511	17,470	18,526	20,607	112,234
Propane	-	-	-	-	-	-	0
	20,005	18,116	17,511	17,470	18,526	20,607	112,234
Less - Gas Refills:							
LNG Truck	-	-	(4,831)	(10,843)	(17,887)	(110,141)	(143,701)
Propane	(79,331)	(71,837)	(69,440)	(69,276)	(73,464)	(81,717)	(445,066)
TGP Storage Refill	(2,622,767)	(2,671,728)	(3,066,813)	(2,770,444)	(2,599,354)	(1,122,012)	(14,853,118)
	(2,702,098)	(2,743,565)	(3,141,083)	(2,850,564)	(2,690,705)	(1,313,870)	(15,441,885)
Total Sendout Volumes	5,418,683	3,516,286	2,942,425	3,207,185	3,742,840	7,240,141	26,067,561

43

1 **Liberty Utilities (EnergyNorth Natural Gas) Corp.** **Schedule 11B**

2 **Page 1 of 1**

3 **Off Peak 2023 Summer Cost of Gas Filing**

44 **Normal and Design Year Volumes**

45

46

47 **Volumes (Therms)** **Design Year**

48

49 **For the Months of May 23 -October 23**

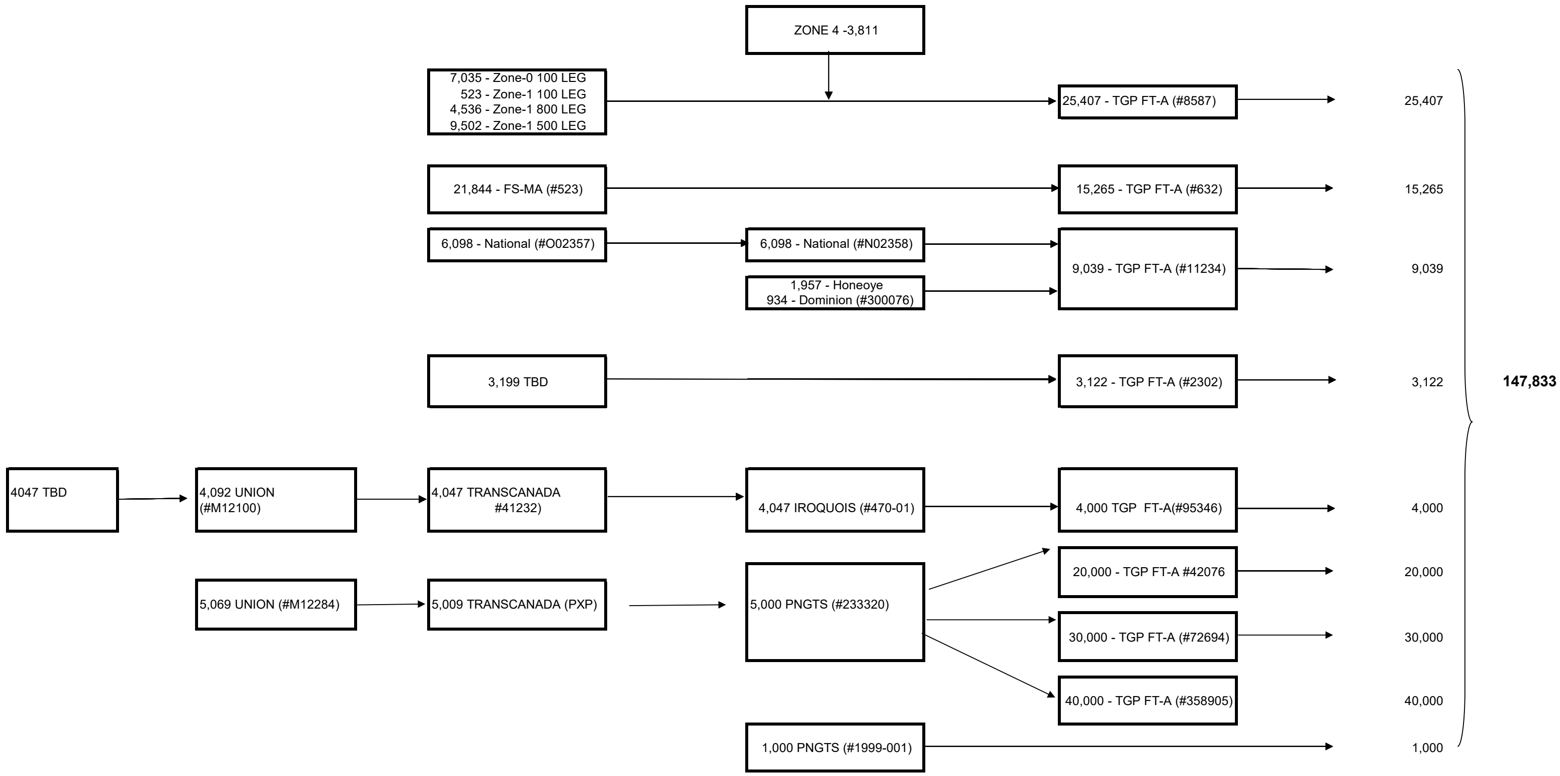
50

Line								
51								**Off Peak**
52		**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**May - Oct**
53	Pipeline Gas:							
54	Dawn Supply	842,293	650,910	512,645	413,850	711,005	595,469	3,726,172
55	Niagara Supply	667,764	585,319	584,500	583,125	598,573	687,845	3,707,126
56	TGP Supply (Gulf)	26,904	-	-	-	-	321,895	348,798
57	Dracut Supply 1 - Baseload	-	-	-	-	-	-	0
58	Dracut Supply 2 - Swing	-	-	-	-	-	-	-
	Dracut Supply 3 - Swing	-	-	-	-	-	-	-
59	Constellation Combo	-	-	-	-	-	-	0
60	LNG Truck	-	-	1,811	18,674	19,165	103,035	142,685
61	Propane Truck	53,118	71,837	69,440	69,276	73,464	81,717	418,852
62	PNGTS	211,780	185,528	180,543	184,937	189,729	218,149	1,170,667
63	Portland Natural Gas	-	-	-	515,884	-	546,389	1,062,273
64	TGP Supply (Z4)	5,381,432	4,713,785	4,708,001	4,696,322	4,819,888	5,548,240	29,867,669
65	Subtotal Pipeline Volumes	7,183,290	6,207,379	6,056,940	6,482,068	6,411,825	8,102,740	40,444,243
66								
67	Storage Gas:							
68	TGP Storage	-	-	-	-	-	-	0
69								
70	Produced Gas:							
71	LNG Vapor	20,005	18,116	17,511	17,470	18,526	20,607	112,234
72	Propane	-	-	-	-	-	-	-
73	Subtotal Produced Gas	20,005	18,116	17,511	17,470	18,526	20,607	112,234
74								
75	Less - Gas Refills:							
76	LNG Truck	-	-	(1,811)	(18,674)	(19,165)	(103,035)	(142,685)
77	Propane	(53,118)	(71,837)	(69,440)	(69,276)	(73,464)	(81,717)	(418,852)
78	TGP Storage Refill	(2,646,221)	(2,685,471)	(3,076,474)	(2,705,987)	(2,615,324)	(1,128,408)	(14,857,885)
79	Subtotal Refills	(2,699,339)	(2,757,308)	(3,147,725)	(2,793,938)	(2,707,953)	(1,313,159)	(15,419,422)
80								
81	Total Sendout Volumes	4,503,957	3,468,186	2,926,726	3,705,600	3,722,398	6,810,188	25,137,055

Line		Off-Peak Period Normal Year Use (Therms)	MDQ (MMBtu/day)	Seasonal Quantity (Therms)	U ilization Rate	Off-Peak Period Design Year Use (Therms)	MDQ (MMBtu/day)	Seasonal Quantity (Therms)	Utilization Rate
1	**Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty**								Schedule 11C
2									Page 1 of 1
3	**Off Peak 2023 Summer Cost of Gas Filing**								
4	**Capacity Utilization**								
5	**Volumes (Therms)**								
11	**Pipeline Gas:**								
12	Dawn Supply	3,825,595	4,000	7,360,000	52%	3,726,172	4,000	7,360,000	51%
13	Niagara Supply	3,707,126	3,122	5,744,480	65%	3,707,126	3,122	5,744,480	65%
14	TGP Supply (Gulf)	357,242	21,596	39,736,640	1%	348,798	21,596	39,736,640	1%
15	Dracut Supply 1 & 2 & 3	435,588	90,000	165,600,000	0%	-	90,000	165,600,000	0%
16	LNG Truck	143,701	-	-	-	142,685	-	-	-
17	Propane Truck	445,066	-	-	-	418,852	-	-	-
18	PNGTS	1,172,479	1,000	1,840,000	64%	1,170,667	1,000	1,840,000	64%
	Portland Natural Gas	1,442,866	5,000	9,200,000	16%	1,062,273	5,000	9,200,000	12%
19	TGP Supply (Z4)	29,867,549	21,596	39,736,640	75%	29,867,669	21,596	39,736,640	75%
20	O her Purchased Resources	-		-		-		-	
22	Subtotal Pipeline Volumes	41,397,212				40,444,243			
24	**Storage Gas:**								
25	0	0		25,792,710	0%	-		25,792,710	0%
27	**Produced Gas:**								
28	LNG Vapor	112,234				112,234			
29	Propane	-				-			
31	Subtotal Produced Gas	112,234				112,234			
33	**Less - Gas Refills:**								
34	LNG Truck	(143,701)				(142,685)			
35	Propane	(445,066)				(418,852)			
36	TGP Storage Refill	(14,853,118)				(14,857,885)			
38	Subtotal Refills	(15,441,885)				(15,419,422)			
40	Total Sendout Volumes	26,067,561				25,137,055			

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

Off Peak 2023 Summer Cost of Gas Filing
Transportation Available for Pipeline Supply and Storage
(MMBtu)



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

Off Peak 2023 Summer Cost of Gas Filing
Agreements for Gas Supply and Transportation

SOURCE	RATE SCHEDULE	CONTRACT NUMBER	TYPE	MDQ MMBTU	MAQ * MMBTU	EXPIRATION DATE	NOTIFICATION DATE	RENEWAL OPTIONS
ANE	NA	NA	Supply	4,047	611,097	Peak Only	N/A	Terminates
Constellation	FCS		Firm Combination Liquid and Vapor Svc	Up to 7 trucks	630,000	3/31/2022 Peak Only	N/A	Terminates
Dracut or Z6	NA	NA	Supply	Up to 20,000 / day	1,412,000	2/28/2022	N/A	Terminates
TGP Long-Haul	NA	NA	Supply	21,596	3,908,876	4/30/2022	N/A	Terminates
Northern Transport	NA	NA	Trucking	28,500 Gallons	900,000 Gallons	3/31/2023	N/A	Terminates
Dominion Transmission Incorporated	GSS	300076	Storage	934	102,700	3/31/2024	3/31/2022	Mutually agreed upon
Honeoye Storage Corporation	SS-NY	11234	Storage	1,957	245,380	3/31/2023	12 months notice	Evergreen Provision
National Fuel Gas Supply Corporation	FSS	O02358	Storage	6,098	670,800	3/31/2023	3/31/2022	Evergreen Provision
National Fuel Gas Supply Corporation	FSST	N02358	Transportation	6,098	670,800	3/31/2023	3/31/2022	Evergreen Provision
Iroquois Gas Transmission System	RTS	47001	Transportation	4,047	1,477,155	11/1/2022	11/1/2021	Evergreen Provision
Portland Natural Gas Transmission System	FT 1999-01	1999-001	Transportation	1,000	365,000	11/30/2032	11/31/2031	Evergreen Provision
Portland Natural Gas Transmission System	FT	PXP	Transportation	4,432	1,617,680	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	11/30/2022	11/30/2021	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	4,432	1,617,680	10/31/2040		Precedent Agreement
Union Gas Limited	M12	M12200	Transportation	4,092	1,493,580	10/31/2023	10/31/2021	Evergreen Provision
Union Gas Limited	M12	PXP	Transportation	4,432	1,617,680	10/31/2040		Precedent Agreement

* MAQ is calculated on a 365 day calendar year.

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

3 **Off Peak 2023 Summer Cost of Gas Filing**
4 **Storage Inventory**

6 **Underground Storage Gas**

Ln			Mar-23 (Estimate)	Apr-23 (Estimate)	May-23 (Estimate)	Jun-23 (Estimate)	Jul-23 (Estimate)	Aug-23 (Estimate)	Sep-23 (Estimate)	Oct-23 (Estimate)	Total
9	Beginning Balance (MMBtu)		267,447	117,604	110,962	242,666	562,403	882,140	1,201,877	1,521,615	110,962
11	Injections (MMBtu)	Sch 11A ln 39 /10	-	93,358	319,737	319,737	319,737	319,737	319,737	507,771	2,106,458
13	Subtotal		267,447	210,962	430,700	562,403	882,140	1,201,877	1,521,615	2,029,386	
15	Storage Sale										
17	Withdrawals (MMBtu)	Sch 11A ln 29 /10	(149,843)	(100,000)	(188,034)	-	-	-	-	-	(188,034)
19	Ending Balance (MMBtu)		117,604	110,962	242,666	562,403	882,140	1,201,877	1,521,615	2,029,386	2,029,386
22	Beginning Balance		1,528,752	672,235	565,691	1,269,530	2,953,097	4,658,122	6,367,170	8,067,166	$ 565,691
24	Injections	ln 11 * ln 36	-	403,260	1,662,445	1,683,568	1,705,025	1,709,048	1,699,996	2,737,016	11,197,098
26	Subtotal		$ 1,528,752	$ 1,075,496	$ 2,228,136	$ 2,953,097	$ 4,658,122	$ 6,367,170	$ 8,067,166	$10,804,182	
28	Storage Sale										
30	Withdrawals	ln 17 * ln 34	(856,517)	(509,805)	(958,606)	-	-	-	-	-	(958,606)
32	Ending Balance		$ 672,235	$ 565,691	$ 1,269,530	$ 2,953,097	$ 4,658,122	$ 6,367,170	$ 8,067,166	$10,804,182	$ 10,804,182
34	Average Rate For Withdrawals	ln 22 /ln 9	$ 5.7161	$ 5.0980	$ 5.1733	$ 5.2509	$ 5.2805	$ 5.2977	$ 5.3017	$ 5.3239	
36	TGP Storage Rate for Injections	Actual or NYMEX plus TGP Transportation	$ -	$ 4.5187	$ 4.4697	$ 4.4697	$ 4.5727	$ 4.6039	$ 3.9720	$ 3.9544	

Liberty Utilities (EnergyNorth Natural Gas) Corp.

Off Peak 2023 Summer Cost of Gas Filing

Liquid Propane Gas (LPG)

		Mar-23 (Estimate)	Apr-23 (Estimate)	May-23 (Estimate)	Jun-23 (Estimate)	Jul-23 (Estimate)	Aug-23 (Estimate)	Sep-23 (Estimate)	Oct-23 (Estimate)	Total
Beginning Balance		53,013	53,013	58,590	58,590	58,590	65,534	72,462	79,808	58,590
Injections	Sch 11A ln 38 /10	-	5,577	-	-	6,944	6,928	7,346	8,172	29,390
Subtotal		53,013	58,590	58,590	58,590	65,534	72,462	79,808	87,980	
Withdrawals	Sch 11A ln 33 /10	-	-	-	-	-	-	-	-	-
Adjustment for change in temperature		-	-	-	-	-	-	-	-	-
Adjustment for Transfer		-	-	-	-	-	-	-	-	-
Ending Balance		53,013	58,590	58,590	58,590	65,534	72,462	79,808	87,980	87,980
Beginning Balance		$ 694,991	$ 1,063,407	$ 1,063,407	$ 1,063,407	$ 1,063,407	$ 1,063,407	$ 1,063,407	$ 1,218,669	$ 1,126,358
Injections	ln 46 * ln 69	-	62,952	-	-	131,241	130,932	138,847	154,445	555,465
Subtotal		$ 694,991	$ 1,126,358	$ 1,063,407	$ 1,063,407	$ 1,194,647	$ 1,194,339	$ 1,202,254	$ 1,373,115	
Withdrawals	ln 52 * ln 67	-	-		-	-	-	-	-	-
Ending Balance		$ 694,991	$ 1,126,358	$ 1,063,407	$ 1,063,407	$ 1,194,647	$ 1,194,339	$ 1,202,254	$ 1,373,115	$ 1,681,824
Average Rate For Withdrawals		$ 13.1097	$ 19.2243	$ 18.1499	$ 18.1499	$ 18.2294	$ 16.4823	$ 15.0643	$ 15.6071	
Propane Rate for Injections	Actual or Sch. 6, ln 166 * 10	$ -	$ 11.2880	$ 18.9000	$ 18.9000	$ 18.9000	$ 18.9000	$ 18.9000	$ 18.9000	

70 **Liberty Utilities (EnergyNorth Natural Gas) Corp.**

71

72 **Off Peak 2023 Summer Cost of Gas Filing**

73

Line			Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Total
74	**Liquid Natural Gas (LNG)**										
75			(Estimate)	(Estimate)		(Estimate)	(Estimate)	(Estimate)	(Estimate)	(Estimate)	
76	Beginning Balance		6,739	15,636	13,535	11,535	9,723	8,455	7,793	7,729	13,535
77											
78	Injections	Sch 11A ln 37 /10	11,047	-	-	-	483	1,084	1,789	11,014	14,370
79											
80	Subtotal		17,786	15,636	13,535	11,535	10,206	9,540	9,581	18,743	
81											
82	Withdrawals	Sch 11A ln 32 /10	(2,150)	(2,100)	(2,001)	(1,812)	(1,751)	(1,747)	(1,853)	(2,061)	(11,223)
83											
84	Ending Balance		15,636	13,535	11,535	9,723	8,455	7,793	7,729	16,682	16,682
85											
86											
87	Beginning Balance		159,641	249,969	216,391	184,408	155,447	130,721	111,094	96,599	$ 216,391
88											
89	Injections	ln 78 * ln 99	124,702	-	-	-	2,346	5,278	8,659	54,090	70,373
90											
91	Subtotal		$ 284,344	$ 249,969	$ 216,391	$ 184,408	$ 157,793	$ 135,999	$ 119,753	$ 150,689	
92											
93	Withdrawals	ln 82 * ln 97	(34,374)	(33,579)	(31,982)	(28,961)	(27,072)	(24,905)	(23,154)	(16,568)	(152,643)
94											
95	Ending Balance		$ 249,969	$ 216,391	$ 184,408	$ 155,447	$ 130,721	$ 111,094	$ 96,599	$ 134,121	$ 134,121
96											
97	Average Rate For Withdrawals		$ 15.9869	$ 15.9869	$ 15.9869	$ 15.9869	$ 15.4601	$ 14.2562	$ 12.4985	$ 8.0398	
98											
99	LNG Rate for Injections	Actual or Sch. 6, ln 165 * 10	$ -	$ 11.2880	$ 11.2880	$ 11.2880	$ 11.2880	$ 11.2880	$ 11.2880	$ 11.2880	

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Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
November 2022 – October 2023 LDAC
Factor Summary (EnergyNorth & Keene Service Area)
Table of Schedules

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
November 2022 – October 2023 LDAC
Factor Summary (EnergyNorth & Keene Service Area)
($/Therm)

Line No.	Rate Schedule	Energy Efficiency Charge	Demand Side Management Charge	Conservation Charge (CCx)	Relief Holder and pond at Gas Street, Concord, NH*	Manufactured Gas Plants	Environmental Surcharge (ES)	Revenue Decoupling Adjustment Factor* (RDAF)	Property Tax Adjustment Mechanism (PTAM)	Rate Case Expense Factor (RCEF)	Gas Assistance Program (GAP)	Total
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(K)
	Reference	Schedule 2	N/A	*(B)+(C)*	Schedule 3	Schedule 3	*(E)+(F)*	Schedule 4	Schedule 5	Schedule 6	Schedule 7	*(D)+(G)+(H)+ (I)+(J)+(K)*
	Residential Customers											
1	R-1 Non-Heating	$0.0664	$0.0000	$0 0664	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.1110
2	R-5 Non-Heating (MEP)	$0.0664	$0.0000	$0 0664	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.1110
3	R-3 Heating	$0.0664	$0.0000	$0 0664	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.1110
4	R-6 Heating (MEP)	$0.0664	$0.0000	$0 0664	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.1110
5	R-4 Heating Gas Assistance Program	$0.0664	$0.0000	$0 0664	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.1110
6	R-7 Heating Gas Assistance Program (MEP)	$0.0664	$0.0000	$0 0664	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.1110
	Commercial/Industrial Sales Customers											
7	G-41 Low Annual/High Winter Use	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
8	G-44 Low Annual/High Winter Use (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
9	G-51 Low Annual/Low Winter Use	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
10	G-55 Low Annual/Low Winter Use (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
11	G-42 Medium Annual/High Winter Use	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
12	G-45 Medium Annual/High Winter Use (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
13	G-52 Medium Annual/Low Winter Use	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
14	G-56 Medium Annual/Low Winter Use (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
15	G-43 High Annual/High Winter Use	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
16	G-46 High Annual/High Winter Use (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
17	G-53 High Annual/Load Factor < 90%	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
18	G-57 High Annual/Load Factor < 90% (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
19	G-54 High Annual/Load Factor > 90%	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
20	G-58 High Annual/Load Factor > 90% (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
	Commercial/Industrial Transportation Customers											
21	G-41 Low Annual/High Winter Use	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
22	G-44 Low Annual/High Winter Use (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
23	G-51 Low Annual/Low Winter Use	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
24	G-55 Low Annual/Low Winter Use (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
25	G-42 Medium Annual/High Winter Use	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
26	G-45 Medium Annual/High Winter Use (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
27	G-52 Medium Annual/Low Winter Use	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
28	G-56 Medium Annual/Low Winter Use (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
29	G-43 High Annual/High Winter Use	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
30	G-46 High Annual/High Winter Use (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
31	G-53 High Annual/Load Factor < 90%	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
32	G-57 High Annual/Load Factor < 90% (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
33	G-54 High Annual/Load Factor > 90%	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888
34	G-58 High Annual/Load Factor > 90% (MEP)	$0.0442	$0.0000	$0 0442	$0.0000	$0.0076	$0 0076	$0.0000	$0.0124	$0.0044	$0 0203	$0.0888

35 The application of the CC, RDAF, ES, RCE, and GAP applies to all therms and therefore the application to all customers, including Managed Expansion Program

36 *Per Order No. 26,692, Relief Holder and Pond at Gas Street, Concord and RDAF to be reviewed on a longer timeframe from rest of LDAC components effective November 1, 2022

36 LOCAL DISTRIBUTION ADJUSTMENT CHARGE CALCULATION

Local Delivery Adjustment Charge Calculation

		Sales Customers	Transportation Customers	
Residential Non Heating Rates - R-1				
Energy Efficiency Charge	0.0664			
Demand Side Management Charge	0.0000			
Conservation Charge (CCx)		0.0664		
Relief Holder and pond at Gas Street, Concord, NH	0.0000			
Manufactured Gas Plants	0.0076			
Environmental Surcharge (ES)		0.0076		
Revenue Decoupling Adjustment Factor (RDAF)		0.0000		
Property Tax Adjustment Mechanism (PTAM)		0.0124		
Rate Case Expense Factor (RCEF)		0.0044		
Gas Assistance Program (GAP)		0.0203		
LDAC		**0.1110**	**per therm**	
Residential Heating Rates - R-3, R-4, R-6, R-7				
Energy Efficiency Charge	0.0664			
Demand Side Management Charge	0.0000			
Conservation Charge (CCx)		0.0664		
Relief Holder and pond at Gas Street, Concord, NH	0.0000			
Manufactured Gas Plants	0.0076			
Environmental Surcharge (ES)		0.0076		
Revenue Decoupling Adjustment Factor (RDAF)		0.0000		
Property Tax Adjustment Mechanism (PTAM)		0.0124		
Rate Case Expense Factor (RCEF)		0.0044		
Gas Assistance Program (GAP)		0.0203		
LDAC		**0.1110**	**per therm**	
Commercial/Industrial Low Annual Use Rates - G-41, G-51, G-44, G-55				
Energy Efficiency Charge	0.0442			
Demand Side Management Charge	0.0000			
Conservation Charge (CCx)		0.0442	0.0442	
Relief Holder and pond at Gas Street, Concord, NH	0.0000			
Manufactured Gas Plants	0.0076			
Environmental Surcharge (ES)		0.0076	0.0076	
Revenue Decoupling Adjustment Factor (RDAF)		0.0000	0.0000	
Property Tax Adjustment Mechanism (PTAM)		0.0124	0.0124	
Rate Case Expense Factor (RCEF)		0.0044	0.0044	
Gas Assistance Program (GAP)		0.0203	0.0203	
LDAC		**0.0888**	**0.0888**	**per therm**
Commercial/Industrial Medium Annual Use Rates - G-42, G-52, G-45, G-56				
Energy Efficiency Charge	0.0442			
Demand Side Management Charge	0.0000			
Conservation Charge (CCx)		0.0442	0.0442	
Relief Holder and pond at Gas Street, Concord, NH	0.0000			
Manufactured Gas Plants	0.0076			
Environmental Surcharge (ES)		0.0076	0.0076	
Revenue Decoupling Adjustment Factor (RDAF)		0.0000	0.0000	
Property Tax Adjustment Mechanism (PTAM)		0.0124	0.0124	
Rate Case Expense Factor (RCEF)		0.0044	0.0044	
Gas Assistance Program (GAP)		0.0203	0.0203	
LDAC		**0.0888**	**0.0888**	**per therm**
Commercial/Industrial Large Annual Use Rates - G-43, G-53, G-54, G-46, G-56, G-57, G-58				
Energy Efficiency Charge	0.0442			
Demand Side Management Charge	0.0000			
Conservation Charge (CCx)		0.0442	0.0442	
Relief Holder and pond at Gas Street, Concord, NH	0.0000			
Manufactured Gas Plants	0.0076			
Environmental Surcharge (ES)		0.0076	0.0076	
Revenue Decoupling Adjustment Factor (RDAF)		0.0000	0.0000	
Property Tax Adjustment Mechanism (PTAM)		0.0124	0.0124	
Rate Case Expense Factor (RCEF)		0.0044	0.0044	
Gas Assistance Program (GAP)		0.0203	0.0203	
LDAC		**0.0888**	**0.0888**	**per therm**

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
November 2022 – October 2023 LDAC
Energy Efficiency Charge

Line No.	Description	Residential	Commercial & Industrial	Total		Reference
	(A)	(B)	(C)	(D)		(E)
	2022 and 2023 EEC Rates (as set by Statute in HB549)					
1	Energy Efficiency Charge Factor ($/Therm) Eff 1/1/22 - 12/31/22	$0.0664	$0.0442		HB549	

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
November 2022 – October 2023 LDAC
Environmental Surcharge

	Manufactured Gas Plants		
1	Required Annual Environmental Increase	$983,056	
2	DG 19-145 Audit adjustment of $1,024,167 amortized over 3 years,		
3	approved by Order No. 26,419 in Docket No. DG 20-141	$341,389	
4	Estimated Ending Balance on October 31, 2022	$89,763	
5	Environmental Subtotal	$1,414,208	
6	Overall Annual Net Increase to Rates	$1,414,208	
7	Estimated weather normalized firm therms billed for the		
8	twelve months ended 10/31/2023 - sales and transportation	186,338,561	therms
9	**MGP Surcharge per therm**	**$0.0076**	**per therm**
	Gasholder and pond at Gas Street, Concord, NH		
10	Required Annual Environmental Increase	$69,514	
11	Estimated weather normalized firm therms billed for the		
12	twelve months ended 10/31/2023 - sales and transportation	186,338,561	therms
13	**Gasholder and pond at Gas Street, Concord, NH Surcharge per therm**	**$0.0004**	**per therm**
14	**Total Environmental Surcharge (excluding Gasholder per Order No. 26,692)**	**$0.0076**	

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
November 2022 - October 2023
Environmental Collections Reconciliation

		(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Estimate)	(Estimate)
1	**FOR THE MONTH OF:**	**Nov-21**	**Dec-21**	**Jan-22**	**Feb-22**	**Mar-22**	**Apr-22**	**May-22**	**Jun-22**	**Jul-22**	**Aug-22**	**Sep-22**	**Oct-22**
2	**DAYS IN MONTH**	**30**	**31**	**31**	**28**	**31**	**30**	**31**	**30**	**31**	**31**	**30**	**31**
3	Beginning Balance	$ 2,833,284	$ 2,656,186	$ 2,354,611	$ 1,967,918	$ 1,526,129	$ 1,131,620	$ 853,408	$ 660,155	$ 548,839	$ 470,864	$ 399,857	$ 284,616
4													
5	Less: Collected Revenue	(177,098)	(301,575)	(386,693)	(441,789)	(394,508)	(278,213)	(193,253)	(111,316)	(77,975)	(71,006)	(115,241)	(194,853)
6													
7	Ending Balance	**$ 2,656,186**	**$ 2,354,611**	**$ 1,967,918**	**$ 1,526,129**	**$ 1,131,620**	**$ 853,408**	**$ 660,155**	**$ 548,839**	**$ 470,864**	**$ 399,857**	**$ 284,616**	**$ 89,763**

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. d/b/a LIBERTY
MANUFACTURED GAS PLANT ENVIRONMENTAL COSTS

2022 SUMMARY BY SITE

			1101	1102	1105	1106	1107		1108	1109	
LINE NO.	SITE	REF NO.	LEGAL EXPENSES	CONSULTING EXPENSES	REMEDIATION EXPENSES	SETTLEMENT EXPENSES	OTHER EXPENSES	100 % RECOVERABLE EXPENSES	INSURANCE & THIRD PARTY EXPENSES	INSURANCE & THIRD PARTY RECOVERIES	TOTAL
1	Concord Pond	DEF056	0.00	371,194.82	0.00	0.00	9,888.99	381,083.81	[redacted]	[redacted]	302,532.29
2	Concord MGP (excludes Relief Holder)	DEF077	0.00	81,185.19	0.00	0.00	27,222.25	108,407.44	[redacted]	[redacted]	38,415.91
3	Concord MGP (Relief Holder)	DEF077	37,199.00	157,345.37	0.00	0.00	36.26	194,580.63	[redacted]	[redacted]	486,595.63
4	Laconia/Liberty Hill	DEF086	0.00	46,580.03	0.00	0.00	2,304.75	48,884.78	[redacted]	[redacted]	48,884.78
5	Manchester MGP	DEF057	0.00	139,492.16	0.00	0.00	33,180.09	172,672.25	[redacted]	[redacted]	120,888.65
6	Nashua MGP	DEF054	0.00	247,416.41	0.00	0.00	182,710.49	430,126.90	[redacted]	[redacted]	331,326.67
7	General Expenses	DEF064	0.00	0.00	0.00	0.00	8,345.91	8,345.91	[redacted]	[redacted]	8,345.91
8									[redacted]	[redacted]	0.00
9	**Total Pool Activity**		**37,199.00**	**1,043,213.98**	**0.00**	**0.00**	**263,688.74**	**1,344,101.72**	**292,015.00**	**(299,126.88)**	**1,336,989.84**

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. d/b/a LIBERTY
MANUFACTURED GAS PLANT ENVIRONMENTAL COSTS
NASHUA - REMEDIATION
PROJECT DEF054

LINE NO.	VENDOR	REF NO.	1101 LEGAL EXPENSES	1102 CONSULTING EXPENSES	1105 REMEDIATION EXPENSES	1106 SETTLEMENT EXPENSES	1107 OTHER EXPENSES	SUBTOTAL EXPENSES	1108 INSURANCE & THIRD PARTY EXPENSE	1109 INSURANCE & THIRD PARTY RECOVERIES	TOTAL SUBMITTED
1	GZA GEOENV RONMENTAL INC	0815089		3,065.00				3,065.00			3,065 00
2	GZA GEOENV RONMENTAL INC	0816668		1,182.90				1,182.90			1,182 90
3	INNOVATIVE ENG NEERING SOLUTIONS, INC.	13882		2,058.64				2,058.64			2,058 64
4	INNOVATIVE ENG NEERING SOLUTIONS, INC.	13914		3,457.67				3,457.67			3,457 67
5	CLEAN HARBORS	1003857553					9,973 81	9,973.81			9,973 81
6	CLEAN HARBORS	1003857551					1,006 07	1,006.07			1,006 07
7	CASEY MARY	EXP0801-091021					50 52	50.52			50 52
[redacted]											
9	INNOVATIVE ENG NEERING SOLUTIONS, INC.	13943		20,467.15				20,467.15			20,467.15
10	ANDREW MILLS	EXP0802-083121					60.48	60.48			60.48
11	ANDERSON WELDING LLC	596					7,185 00	7,185.00			7,185 00
12	INNOVATIVE ENG NEERING SOLUTIONS, INC.	13969		6,405.06				6,405.06			6,405 06
13	NH DEPT OF ENVIRONMENTAL SERVICES	199810022 8323 A					313 68	313.68			313 68
14	INNOVATIVE ENG NEERING SOLUTIONS, INC.	13943		20,467.15				20,467.15			20,467.15
15	ANDREW MILLS	EXP09-103121					20.16	20.16			20.16
[redacted]											
17	INNOVATIVE ENG NEERING SOLUTIONS, INC.	13996		5,580.00				5,580.00			5,580 00
18	ANDERSON WELDING LLC	610		2,275.00				2,275.00			2,275 00
19	INNOVATIVE ENG NEERING SOLUTIONS, INC.	14023		4,976.49				4,976.49			4,976.49
20	ANDREW MILLS	EXP1101-122121					20.16	20.16			20.16
21	GZA GEOENV RONMENTAL INC	0827823		20,298.36				20,298.36			20,298 36
22	GZA GEOENV RONMENTAL INC	0827307		48,324.46				48,324.46			48,324.46
23	NH DEPT OF ENVIRONMENTAL SERVICES	199810022 012722					90 68	90.68			90 68
24	INNOVATIVE ENG NEERING SOLUTIONS, INC.	14054		16,544.55				16,544.55			16,544 55
25	INNOVATIVE ENG NEERING SOLUTIONS, INC.	14081		7,377.50				7,377.50			7,377 50
26	GZA GEOENV RONMENTAL INC	0830818		14,231.80				14 231.80			14 231 80
[redacted]											
28	CLEAN HARBORS	1004068680					1,626 34	1,626.34			1,626 34
29	ESMI OF NH	424890					2,123 30	2,123.30			2,123 30
30	INNOVATIVE ENG NEERING SOLUTIONS, INC.	14104		5,102.72				5,102.72			5,102.72
31	ESMI OF NH	425786					3,086.10	3,086.10			3,086.10
32	ESMI OF NH	425786					175 92	175.92			175 92
33	ESMI OF NH	426111					2,064 60	2,064.60			2,064 60
34	ESMI OF NH	426111					117 68	117.68			117 68
35	ESMI OF NH	427055					4,833 90	4,833.90			4,833 90
36	ESMI OF NH	427055					275 53	275.53			275 53
37	ESMI OF NH	428087					997 20	997.20			997 20

LINE NO.	VENDOR	REF NO.	1101 LEGAL EXPENSES	1102 CONSULTING EXPENSES	1105 REMEDIATION EXPENSES	1106 SETTLEMENT EXPENSES	1107 OTHER EXPENSES	SUBTOTAL EXPENSES	1108 INSURANCE & THIRD PARTY EXPENSE	1109 INSURANCE & THIRD PARTY RECOVERIES	TOTAL SUBMITTED
38	ESMI OF NH	428087					56 85	56.85			56 85
39	INNOVATIVE ENG NEERING SOLUTIONS, INC.	14135		11,358.10				11,358.10			11,358.10
40	ESMI OF NH	429270					476 38	476.38			476 38
41	ESMI OF NH	429250					4,136 85	4,136.85			4,136 85
42	ESMI OF NH	429250					235 80	235.80			235 80
43	ESMI OF NH	429266					1,393 20	1,393.20			1,393 20
44	ESMI OF NH	429270					8,357 85	8,357.85			8,357 85
45	ESMI OF NH	430161					581.15	581.15			581.15
46	ESMI OF NH	430161					10,195 65	10,195.65			10,195 65
47	NH DEPT OF ENVIRONMENTAL SERVICES	199810022 042822					154 95	154.95			154 95
48	ESMI OF NH	431318					7,938.45	7,938.45			7,938.45
49	ESMI OF NH	431318					452 50	452.50			452 50
50	GZA GEOENV RONMENTAL INC	0835263		27,218.46				27,218.46			27,218.46
51	ESMI OF NH	432120					5,043.15	5,043.15			5,043.15
52	ESMI OF NH	432120					287.45	287.45			287.45
53	ESMI OF NH	432893					50.17	50.17			50.17
54	ESMI OF NH	432893					880 20	880.20			880 20
55	ESMI OF NH	433522					4,360 05	4,360.05			4,360 05
56	ESMI OF NH	433522					196.76	196.76			196.76
57	ESMI OF NH	434619					1,004.10	1,004.10			1,004.10
58	LEIGHTON A. WHITE INC.	23024					57,653 27	57,653.27			57,653 27
59	LEIGHTON A. WHITE INC.	23082					18,752.47	18,752.47			18,752.47
60	INNOVATIVE ENG NEERING SOLUTIONS, INC.	14188		19,524.50				19,524.50			19,524 50
61	ESMI OF NH	437288					4,050 90	4,050.90			4,050 90
62	ESMI OF NH	437288					230 91	230.91			230 91
[redacted]											
64	ESMI OF NH	437876					19,180 35	19,180.35			19,180 35
65	ESMI OF NH	437876					1,093 28	1,093.28			1,093 28
66	INNOVATIVE ENG NEERING SOLUTIONS, INC.	14163		7,500.90				7,500.90			7,500 90
67								0.00			0 00
68	Environmental Staff Time						1,926 67	1,926.67			1,926 67
69	**Total Pool Activity**		**-**	**247,416.41**	**-**	**-**	**182,710.49**	**430,126.90**	**-**	**(98,800.23)**	**331,326.67**

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. d/b/a LIBERTY
MANUFACTURED GAS PLANT ENVIRONMENTAL COSTS
CONCORD POND - REMEDIATION
PROJECT DEF056

LINE NO.	VENDOR	REF NO.	1101 LEGAL EXPENSES	1102.00 CONSULTING EXPENSES	1105 REMEDIATION EXPENSES	1106 SETTLEMENT EXPENSES	1107 OTHER EXPENSES	SUBTOTAL EXPENSES	1108 INSURANCE & THIRD PARTY EXPENSES	1109 INSURANCE & THIRD PARTY RECOVERIES	TOTAL SUBMITTED
1	ANCHOR QEA LLC	02955		48,037.20				48,037.20			48,037 20
2	GEI CONSULTANTS, INC.	3092954		6,182.42				6,182.42			6,182.42
3	CITY OF CONCORD	22000267					1,020.00	1,020.00			1,020 00
4	ANCHOR QEA LLC	03612		66,021.94				66,021.94			66,021 94
5	GEI CONSULTANTS, INC.	3094516		4,132.45				4,132.45			4,132.45
6	NH DEPT OF ENV RONMENTAL SERVICES	199212014 4042B					1,452.47	1,452.47			1,452.47
7	ANCHOR QEA LLC	04148		24,148.20				24,148.20			24,148 20
[redacted]											
9	ANCHOR QEA LLC	04425		19,797.63				19,797.63			19,797 63
10	GEI CONSULTANTS, INC.	3096258		1,017.42				1,017.42			1,017.42
11	GEI CONSULTANTS, INC.	3097711		1,007.08				1,007.08			1,007 08
12	CLEAN HARBORS	1003899569					1,646.51	1,646.51			1,646 51
[redacted]											
14	ANCHOR QEA LLC	05119		51,443.85				51,443.85			51,443 85
15	ANCHOR QEA LLC	05659		31,461.32				31,461.32			31,461 32
16	GEI CONSULTANTS, INC.	3100642		223.18				223.18			223.18
17	ANCHOR QEA LLC	06332		28,984.48				28,984.48			28,984.48
18	GEI CONSULTANTS, INC.	3099637		973.83				973.83			973 83
19	GEI CONSULTANTS, INC.	3102182		2,182.09				2,182.09			2,182 09
20	NH DEPT OF ENV RONMENTAL SERVICES	199212014 012722					979.76	979.76			979.76
21	CLEAN HARBORS	1004036917					2,892.94	2,892.94			2,892 94
22	ANCHOR QEA LLC	06944		31,527.44				31,527.44			31,527.44
23	GEI CONSULTANTS, INC.	3104287		1,853.93				1,853.93			1,853.93
24	ANCHOR QEA LLC	07407		19,944.50				19,944.50			19,944.50
[redacted]											
26	GEI CONSULTANTS, INC.	3105662		2,635.65				2,635.65			2,635.65
27	ANCHOR QEA LLC	08072		8,715.22				8,715.22			8,715.22
28	ANCHOR QEA LLC	08380		5,995.25				5,995.25			5,995.25
29	NH DEPT OF ENV RONMENTAL SERVICES	199212014 042822					54.43	54.43			54.43
30	CLEAN HARBORS	1004068680					1,626.34	1,626.34			1,626.34
31	ANCHOR QEA LLC	08984		4,043.50				4,043.50			4,043.50
[redacted]											
33	GEI CONSULTANTS, INC.	3111045		8,535.29				8,535.29			8,535.29
34	GEI CONSULTANTS, INC.	3109033		2,330.95				2,330.95			2,330.95
35								-			0.00
36	Environmental Staff Time						216.54	216.54			216 54
	Total Pool Activity		**0.00**	**371,194.82**	**0.00**	**0.00**	**9,888.99**	**381,083.81**	**0.00**	**(78,551.52)**	**302,532.29**

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. d/b/a LIBERTY
MANUFACTURED GAS PLANT ENVIRONMENTAL COSTS
MANCHESTER - REMEDIATION
PROJECT DEF057

REDACTED
Schedule 3.2
MGP Sites

LINE NO.	VENDOR	REF NO.	1101 LEGAL EXPENSES	1102 CONSULTING EXPENSES	1105 REMEDIATION EXPENSES	1106 SETTLEMENT EXPENSES	1107 OTHER EXPENSES	SUBTOTAL EXPENSES	1108 INSURANCE & THIRD PARTY EXPENSE	1109 INSURANCE & THIRD PARTY RECOVERIES	TOTAL SUBMITTED
[redacted]											
2	GZA GEOENV RONMENTAL NC	0818690		22,733 68				22,733.68			22,733 68
3	GZA GEOENV RONMENTAL NC	0807134		15,469 92				15,469.92			15,469 92
4	ESMI OF NH	398407					783.84	783.84			783 84
5	CLEAN HARBORS	1003857554					2,712.91	2,712.91			2,712 91
6	CLEAN HARBORS	1003857552					4,135.74	4,135.74			4,135.74
7	GZA GEOENV RONMENTAL NC	0820374		12,363 69				12,363.69			12,363 69
[redacted]											
9	CLEAN HARBORS	1003899586					6,764.09	6,764.09			6,764 09
10	CLEAN HARBORS	1003899580					125.95	125.95			125 95
11	CLEAN HARBORS	1003926677					220.99	220.99			220 99
[redacted]											
14	GZA GEOENV RONMENTAL NC	0825914		28,248.14				28,248.14			28,248.14
15	GZA GEOENV RONMENTAL NC	0827858		7,723 30				7,723.30			7,723 30
16	CLEAN HARBORS	1004036920					948.88	948.88			948 88
[redacted]											
19	CLEAN HARBORS	1004102481					5,777.31	5,777.31			5,777 31
20	NH DEPT OF ENVIRONMENTAL SERVICES	2000003011 042822					581.87	581.87			581 87
21	CLEAN HARBORS	1004148869					10,981.62	10,981.62			10,981 62
[redacted]											
23	GZA GEOENV RONMENTAL NC	0832766		8,282.41				8,282.41			8,282.41
24	GZA GEOENV RONMENTAL NC	0837385		44,671 02				44,671.02			44,671 02
[redacted]											
26								0.00			0 00
27	Environmental Staff Time						146.89	146.89			146 89
	Total Pool Activity		**0.00**	**139,492.16**	**0.00**	**0.00**	**33,180.09**	**172,672.25**	**0.00**	**(51,783.60)**	**120,888.65**

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. d/b/a LIBERTY
MANUFACTURED GAS PLANT ENVIRONMENTAL COSTS
GENERAL EXPENSES
PROJECT DEF064

LINE NO.	VENDOR	REF NO.	1101 LEGAL EXPENSES	1102 CONSULTING EXPENSES	1105 REMEDIATION EXPENSES	1106 SETTLEMENT EXPENSES	1107 OTHER EXPENSES	SUBTOTAL EXPENSES	1108 INSURANCE & THIRD PARTY EXPENSE	1109 INSURANCE & THIRD PARTY RECOVERIES	TOTAL SUBMITTED
1	CASEY MARY	EXP0801-091021					7.42	7.42			7.42
2								0.00			0.00
3	Environmental Staff Time						8,338.49	8,338.49			8,338.49
	Total Pool Activity		**0.00**	**0.00**	**0.00**	**0.00**	**8,345.91**	**8,345.91**	**0.00**	**0.00**	**8,345.91**

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. d/b/a LIBERTY
MANUFACTURED GAS PLANT ENVIRONMENTAL COSTS
CONCORD MGP - REMEDIATION
PROJECT DEF077

LINE NO.	VENDOR	REF NO.	1101 LEGAL EXPENSES	1102 CONSULTING EXPENSES	1105 REMEDIATION EXPENSES	1106 SETTLEMENT EXPENSES	1107 OTHER EXPENSES	SUBTOTAL EXPENSES	1108 INSURANCE & THIRD PARTY EXPENSE	1109 INSURANCE & THIRD PARTY RECOVERIES	TOTAL SUBMITTED
1	JOE GAUCI LANDSCAP NG LLC	2021-5A-3576					585.00	585.00			585.00
2	JOE GAUCI LANDSCAP NG LLC	2021-6-3576					660.00	660.00			660.00
3	CITY OF CONCORD	22000267					1,020.00	1,020.00			1,020.00
4	GZA GEOENVIRONMENTAL INC	0818976		11,426.25				11,426.25			11,426.25
5	GZA GEOENVIRONMENTAL INC	0807135		24,782.95				24,782.95			24,782.95
6	CASEY MARY	EXP0701-073121					39.09	39.09			39.09
7	JOE GAUCI LANDSCAP NG LLC	2021-7-3576					700.00	700.00			700.00
8	CITY OF CONCORD GSD	410184-001 083021					10.20	10.20			10.20
9	NH DEPT OF ENV RONMENTAL SERVICES	198904063 1479B					2,369.54	2,369.54			2,369.54
[redacted]											
11	GZA GEOENVIRONMENTAL INC	0821673		8,996.49				8,996.49			8,996.49
12	CITY OF CONCORD GSD	410184-001 0921					10.20	10.20			10.20
13	CITY OF CONCORD GSD	410184-001 0721					10.50	10.50			10.50
14	NH DEPT OF ENV RONMENTAL SERVICES	198904063 1479 A					1,829.05	1,829.05			1,829.05
15	CITY OF CONCORD GSD	410184-001 1021					10.20	10.20			10.20
16	JOE GAUCI LANDSCAP NG LLC	2021-8-3576 REVISED					1,715.00	1,715.00			1,715.00
[redacted]											
18	JOE GAUCI LANDSCAP NG LLC	2021-9-3576					525.00	525.00			525.00
19	CITY OF CONCORD GSD	410184-001 113021					10.20	10.20			10.20
20	JOE GAUCI LANDSCAP NG LLC	2021-10-3576					467.00	467.00			467.00
21	CLEAN HARBORS	1003968358					7,545.36	7,545.36			7,545.36
22	GZA GEOENVIRONMENTAL INC	0825959		16,215.59				16,215.59			16,215.59
23	JOE GAUCI LANDSCAP NG LLC	2021-11-3576					245.00	245.00			245.00
24	CITY OF CONCORD	410184-001 NOV 2021					10.20	10.20			10.20
25	CLEAN HARBORS	1003899595					506.09	506.09			506.09
26	GZA GEOENVIRONMENTAL INC	0828847		10,685.71				10,685.71			10,685.71
27	CLEAN HARBORS	1004024891					245.25	245.25			245.25
28	NH DEPT OF ENV RONMENTAL SERVICES	198904063 012722					3,211.43	3,211.43			3,211.43
29	CITY OF CONCORD GSD	410184-001 0122					10.20	10.20			10.20
30	CLEAN HARBORS	1004036917					2,892.93	2,892.93			2,892.93
31	NH DEPT OF ENV RONMENTAL SERVICES	015477748FLE Q1 2021					1,296.00	1,296.00			1,296.00
32	CITY OF CONCORD GSD	410184-001 030122					10.20	10.20			10.20
[redacted]											
34	CITY OF CONCORD GSD	410184-001 0422					10.20	10.20			10.20
35	CITY OF CONCORD GSD	410184-001 0522					10.20	10.20			10.20
[redacted]											
37	GZA GEOENVIRONMENTAL INC	0837477		9,078.20				9,078.20			9,078.20
38								0.00			0.00
39	Environmental Staff Time						1,268.21	1,268.21			1,268.21
40	**Total Pool Activity**		**0.00**	**81,185.19**	**0.00**	**0.00**	**27,222.25**	**108,407.44**	**0.00**	**(69,991.53)**	**38,415.91**

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. d/b/a LIBERTY
MANUFACTURED GAS PLANT ENVIRONMENTAL COSTS
CONCORD GAS HOLDER
PROJECT DEF077

LINE NO.	VENDOR	REF NO.	1101 LEGAL EXPENSES	1102 CONSULTING EXPENSES	1105 REMEDIATION EXPENSES	1106 SETTLEMENT EXPENSES	1107 OTHER EXPENSES	SUBTOTAL EXPENSES	1108 INSURANCE & THIRD PARTY EXPENSE	1109 INSURANCE & THIRD PARTY RECOVERIES	TOTAL SUBMITTED
1	ORR & RENO, P A.	129019	8,359.00					8,359.00			8,359.00
2	ORR & RENO, P A.	129341	546.00					546.00			546.00
3	ORR & RENO, P A.	129824	468.00					468.00			468.00
4	ORR & RENO, P A.	130445	546.00					546.00			546.00
5	GZA GEOENVIRONMENTAL INC	0820439		9,471.98				9,471.98			9,471.98
6	ORR & RENO, P A.	131917	3,315.00					3,315.00			3,315.00
7	ORR & RENO, P A.	131081	13,152.00					13,152.00			13,152.00
8	ORR & RENO, P A.	131223	7,520.50					7,520.50			7,520.50
9	GZA GEOENVIRONMENTAL INC	0825957		15,357.31				15,357.31			15,357.31
10	HISTORIC PRESERVATION REDEVELOPMENT, LLC	APP #1						0.00	84,745.00		84,745.00
11	ORR & RENO, P A.	132501	702.00					702.00			702.00
12	ORR & RENO, P A.	133029	1,245.50					1,245.50			1,245.50
13	GZA GEOENVIRONMENTAL INC	0818835		32,123.49				32,123.49			32,123.49
14	ORR & RENO, P A.	133570	156.00					156.00			156.00
15	CASEY MARY	EXP0118-011822					36.26	36.26			36.26
16	ORR & RENO, P A.	014684-0126	369.00					369.00			369.00
17	ORR & RENO, P A.	134689	656.00					656.00			656.00
18	ORR & RENO, P A.	135704	164.00					164.00			164.00
19	HISTORIC PRESERVATION REDEVELOPMENT, LLC	APPLICATION #2						0.00	33,750.00		33,750.00
20	HISTORIC PRESERVATION REDEVELOPMENT, LLC	APP# 3						0.00	173,520.00		173,520.00
21	GZA GEOENVIRONMENTAL INC	0836284		10,380.43				10,380.43			10,380.43
22	GZA GEOENVIRONMENTAL INC	0836285		12,807.97				12,807.97			12,807.97
23	GZA GEOENVIRONMENTAL INC	0837392		77,204.19				77,204.19			77,204.19
24	**Total Pool Activity**		**37,199.00**	**157,345.37**	**0.00**	**0.00**	**36.26**	**194,580.63**	**292,015.00**	**0.00**	**486,595.63**

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. d/b/a LIBERTY
MANUFACTURED GAS PLANT ENVIRONMENTAL COSTS
LIBERTY HILL - REMEDIATION
PROJECT DEF086

LINE NO.	VENDOR	REF NO.	1101 LEGAL EXPENSES	1102 CONSULTING EXPENSES	1105 REMEDIATION EXPENSES	1106 SETTLEMENT EXPENSES	1107 OTHER EXPENSES	SUB-TOTAL EXPENSES	1108 INSURANCE & THIRD PARTY EXPENSES	1109 INSURANCE & THIRD PARTY RECOVERIES	TOTAL SUBMITTED
1	MULLER'S LAWN & LANDSCAP NG, LLC	5711					800 00	800 00			800 00
2	GEI CONSULTANTS, NC.	3096256		912.45				912.45			912.45
3	MULLER'S LAWN & LANDSCAP NG, LLC	5755					800 00	800 00			800 00
4	GEI CONSULTANTS, NC.	3097710		14,013 37				14,013 37			14,013 37
5	CLEAN HARBORS	1003926676					704.75	704.75			704.75
6	GEI CONSULTANTS, NC.	3100640		7,625 60				7,625 60			7,625 60
7	GEI CONSULTANTS, NC.	3099043		11,904 23				11,904 23			11,904 23
8	GEI CONSULTANTS, NC.	3102181		263 84				263 84			263 84
9	GEI CONSULTANTS, NC.	3104286		957 58				957 58			957 58
10	GEI CONSULTANTS, NC.	3105660		1,105 68				1,105 68			1,105 68
11	GEI CONSULTANTS, NC.	3107208		7,100 94				7,100 94			7,100 94
12	GEI CONSULTANTS, NC.	3109032		2,696 34				2,696 34			2,696 34
13								0 00			0 00
14	Environmental Staff Time						0 00	0 00			0 00
	Total Pool Activity		**0.00**	**46,580.03**	**0.00**	**0.00**	**2,304.75**	**48,884.78**			**48,884.78**

Filed under the following protective orders:
Order No 22 853 dated February 18 1998 in Docket No DR 97 130
Order No 23 316 dated October 11 1999 in Docket No DG 99 132

Liberty Utilities (EnergyNorth Natural Gas) Corp d/b/a Liberty
Environmental Remediation MGPs
ariff page 99

			General																	**Updated 7/29/22**		MGP
			(9/02 - 9/07) pool #1 - #5	(9/07 - 9/08) pool #6	(9/08 - 9/09) pool #7	(9/09 - 9/10) pool #8	(9/10 - 9/11) pool #9	(9/11 - 9/12) pool #10	(9/12 - 6/13) pool #11	(7/13 - 6/1) pool #12	(7/1 - 6/15) pool #13	(7/15 - 6/16) pool #1	(7/16 - 6 17) pool #15	(7/17 - 6/18) pool #16	(7/18 - 6/19) pool #17	(7/19 - 6/20) pool #18	(7/20 - 6/21) pool #19	(7/21 - 6/22) pool #20	subtotal	(7/21 - 6/22)	Total of each sub total	Remediation subtotal
1	1	Remediation costs (i.o. 500061)																	0			[redacted]
2		Remediation costs (i.o. 500005)	806,611	-181,000	-26,88	,199	69,286	93,03	75,20	13,139	16,612	11,879	6,5 7	10,799	6,868	7,111	5,6 6	8,3 6	927,397			
3	A	Subtotal - remediation costs	806,611	-181,000	-26,88	,199	69,286	93,03	75,20	13,139	16,612	11,879	6,5 7	10,799	6,868	7,111	5,6 6	8,3 6	927,397			
		Cash recoveries (i.o. 500061)	0	0	0														0			
5		Cash recoveries (i.o. 50000)																	0			
6		Recovery costs (i.o. 50000)		16,012	23,953	0	0	-1 ,068	-1,358	0	-2 ,250	0	0	0	0	0	0	0	288			
7		Transfer Credit from Gas Restructuring		-3,331															-3,331			
8	B	Subtotal - net recoveries	0	12,681	23,953	0	0	-1 ,068	-1,358	0	-2 ,250	0	0	0	0	0	0	0	-3,0 3			
9	A-B	Total net expenses to recover	806,611	-168,319	-2,931	,199	69,286	78,967	73,8 6	13,139	-7,638	11,879	6,5 7	10,799	6,868	7,111	5,6 6	8,3 6	92 ,355			
10		Surcharge revenue:																				
11	Act	June 1998 - October 1998																	0			(5 ,889)
12	Act	November 1998 - October 1999																	0			(538,1 3)
13	Act	November 1999 - October 2000																	0			(912,80)
1	Act	November 2000 - October 2001																	0			(1,336,776)
15	Act	November 2001 - October 2002																	0			(1,679,228)
16	Act	November 2002 - October 2003																	0			(1,732, 2)
17	Act	November 2003 - October 200	-8,265																-8,265			(1, 28,735)
18	Act	November 200 - October 2005	-70,898																-70,898			(1, 03,787)
19	Act	November 2005- October 2006	-96,2 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-96,2 7			(1,69 ,877)
20	Act	November 2006- October 2007	- 9,318	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	- 9,318			(2,036,113)
21	Act	November 2007- October 2008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			-
22	Act	November 2012- October 2013	0	0	0	0	-5,002	-5,002	0	0	0	0	0	0	0	0	0	0	-10,003			(160,0 8)
23	Act	November 2013- October 201					-12,7 9	-12,7 9	-12,7 9										-38,2 6			(293,217)
2	Act	Nov 2009-Oct 2010 Base Rate Rev																	0			(10,611)
25	Act	Nov 2010-Oct 2011 Base Rate Rev																	0			(77,509)
26	Act	Nov 2011-Oct 2012 Base Rate Rev																	0			(68,2)
27	Act	Nov 2012-Oct 2013 Base Rate Rev																	0			(76,335)
28	Act	Nov 2013-Oct 201 Base Rate Rev																	0			(85,298)
29	Act	Nov 201 -Oct 2015 Base Rate Rev																	0			(86,55)
30		AES collect ons																	0			(282,039)
31		Gas Street overco lection																	0			(23,511)
32		Prior Period Pool under/overcollect on	1, 86,6	2,068,527	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
33	C	Surcharge Subtotal	1,261,916	2,068,527	0	0	-17,750	-17,750	-12,7 9	0	0	0	0	0	0	0	0	0	-272,977	**128 642**	**13 981 161**	(13,981,161)
3	D	Net balance to be recovered (A-B C)	2,068,527	1,900,208	-2 931	,199	51,536	61,217	61,098	13,139	-7,638	11,879	6,5 7	10,799	6,868	7,111	5,6 6	8,3 6	651,378	**3 424 480**	**38 710 489**	[redacted]
35	E	Allocation of L tigated Recovery	0	-1,900,208	2,931	- ,199	-8,562	0	0	0	0	0	0	0	0	0	0	0	-1,910,037	**89 034**	**17 160 666**	
36		Surcharge calculation																				
37		Unrecovered costs (D E)		0	0	0	0	0	0	0	0	1,697	1,870	,628	3,925	5,079	,839	8,3 6	30,38	**834 926**	**2 652 278**	
38		remaining life	72	8	8	8	12	12	12	12	0	12	2	36	8	60	72	8				
39		one year	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12				
0	F	amortization	0	0	0	0	0	0	0	0	0	1,697	935	1,5 3	981	1,016	807	1,192				
1		Required annual increase in rates:																				
2		smaller of D or F	0	0	0	0	0	0	0	0	0	1,697	935	1,5 3	981	1,016	807	1,192	8,171	**119 275**	**983 056**	
3		forecasted therm sa es	179,57 ,679	179,57 ,679	179,57 679	179,57 ,679	179,57 ,679	179,57 ,679	179,57 ,679	179,57 ,679	179,57 ,679	179,57 ,679	179,57 ,679	179,57 ,679	179 57 ,679	179,57 ,679	186,338,561	186,338,561	186,338,561		367,99	**186 338 561**
		surcharge per therm	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0 0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000			**$0 0053**

LIBERTY UTILITIES (ENERGYNORTH NATURAL GAS) CORP. d/b/a LIBERTY
ENVIRONMENTAL OVER/UNDER CALCULATION

	Spend Period	Jul 11 - Jun 12	Jul 12 - Jun 13	Jul 13 - Jun 14	Jul 14 - Jun 15	Jul 15 - Jun 16	Jul 16 - Jun 17	Jul 17 - Jun 18	Jul 18 - Jun 19	Jul 19 - Jun 20	Jul 20 - Jun 21	Jul 21- Jun 22
	Collection Period	Jul 12 - Jun 13	Jul 13 - Jun 14	Jul 14 - Jun 15	Jul 15 - Jun 16	Jul 16 - Jun 17	Jul 17 - Jun 18	Jul 18 - Jun 19	Jul 19 - Jun 20	Jul 20 - Jun 21	Jul 21 - Jun 22	Jul 22 - Jun 23
1	**BEGINNING BALANCE**	$ (364,633)	$ 942,575	$ 1,123,799	$ 4,619,173	$ 13,369,967	$ 14,299,456	$ 12,011,196	$ 9,615,113	$ 7,352,013	$ 4,692,809	$ 2,830,563
2	**<u>SPEND / THIRD PARTY RECOVERIES</u>**											
3	Concord Pond	81 238	59 069	32 324	78 235	34 590	88 148	127 356	72 283	172 764	313 043	302 532
4	Liberty Hill	[redacted]										
5	Manchester	442,298	(188,619)	61,210	75,440	22,690	50,523	346,043	38,019	155,032	5,080	120,889
6	Nashua	396,411	(80,241)	35,950	65,217	62,435	85,314	15,523	81,969	11,472	61,016	331,327
7	Keene	[redacted]										
8	Concord (excluding gas holder)											
9	General	78,967	73,846	13,139	(7,638)	11,879	6,547	10,799	6,868	7,111	5,646	8,346
10	Difference between the GL and Filing	-	9,545	(10,312)	(921)	(2,506)	(783)	(84,532)	811	16,776	78,185	(192,396)
11	**TOTAL SPEND**	$ 1,526,211	$ 563,370	$ 4,408,258	$ 10,640,893	$ 3,405,922	$ 463,352	$ 506,790	$ 258,974	$ 457,668	$ 861,583	$ 657,998
12	**<u>ENVIRONMENTAL COSTS RECOVERED IN BASE RATES (DG 10-017)</u>**	$ (78,892)	$ (78,892)	$ (78,892)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
							-					
13	**<u>ACTUAL ENVIROMENTAL COLLECTIONS PER GL</u>**	$ (140,111)	$ (303,254)	$ (833,991)	$ (1,890,100)	$ (2,476,432)	$ (2,751,612)	$ (2,902,873)	$ (2,522,075)	$ (3,116,872)	$ (2,723,828)	$ -
14	Current Pool Under (Over) Collection	$ 942,575	$ 181,224	$ 3,495,375	$ 8,750,793	$ 929,490	$ (2,288,261)	$ (2,396,083)	$ (2,263,100)	$ (2,659,204)	$ (1,862,246)	$ 657,998
15	**ENDING BALANCE - UNDER (OVER) COLLECTION**	$ 942 575	$ 1 123 799	$ 4 619 173	$ 13 369 967	$ 14 299 456	$ 12 011 196	$ 9 615 113	$ 7 352 013	$ 4 692 809	$ 2 830 563	$ 3 488 561

16	**<u>Regulatory Filing Reconciliation (Balance through June 2019)</u>**	<u>Per Audit Staff</u>	
17	Balance in GL	$ 9,874,087	
18	Actual Balance per Filing	$ 8,844,611	
19	Adjustment to Tie to Audit Report dated April 9, 2020	$ 5 309	
20	Adjustment Necessary to Filing	$ 1 024 167	Collection over 3 years

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
November 2022 – October 2023 LDAC
Revenue Decoupling Adjustment Factor (RDAF)

	Residential		
1	Residential Projected October 31, 2022 Reconciliation Balance of Prior Recoveries / (Refunds)	$307,157	Sch 4, Pg 2 Col. I Line 16 + Col. M Line 16
2	Residential Revenue Decoupling Deficiency / (Excess) - Current Decoupling Period	$2,551,253	Sch 4, Pg 3 Line 10
3	Residential Revenue Decoupling Deficiency / (Excess) - Current Decoupling Period (removed per Order No. 26,692)	($2,858,410)	-(Line 1 + Line 2)
4	Total Residential Revenue Decoupling Deficiency / (Excess) - October 31, 2022	$0	Line 1 + Line 2 + Line 3
5	Estimated Residential November 2022 - October 2023 Sales (therms)	67,543,787	Company Forecast
6	Residential Revenue Decoupling Adjustment Factor rate per therm November 2022 - October 2023	$0.0000	Line 4 / Line 5
	Commercial		
7	Commercial Projected October 31, 2022 Reconciliation Balance of Prior Recoveries / (Refunds)	$420,513	Sch 4, Pg 2 Col. I Line 41 + Col. M Line 41
8	Commercial Revenue Decoupling Deficiency / (Excess) - Current Decoupling Period	$232,515	Sch 4, Pg 3 Line 20
9	Commercial Revenue Decoupling Deficiency / (Excess) - Current Decoupling Period (removed per Order No. 26,692)	($653,028)	-(Line 7 + Line 8)
10	Total Commercial Revenue Decoupling Deficiency / (Excess) - October 31, 2022	$0	Line 7 + Line 8 + Line 9
11	Estimated Commercial November 2022 - October 2023 Sales (therms)	118,794,774	Company Forecast
12	Commercial Revenue Decoupling Adjustment Factor rate per therm November 2022 - October 2023	$0.0000	Line 10 / Line 11

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Revenue Decoupling Reconciliation
Reconciliation of Previous Period November 2021 – October 2022

Line	Month	Beginning Balance	Collections	(Over)/Under Ending Balance	Balance Subject to Interest	Interest Rate	Days per Month	Interest	Cumulative Interest
1	**Residential**								
2									
3		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
4	DY 20/21 Deficiency/(Surplus)	$1,431,746							
5	Nov-21	$1,039,034	$87,443	$1,126,477	$1,082,756	3.25%	30	$2,892	$2,892
6	Dec-21	$1,129,369	($102,982)	$1,026,387	$1,077,878	3.25%	31	$2,975	$5,868
7	Jan-22	$1,029,362	($146,295)	$883,068	$956,215	3.25%	31	$2,639	$8,507
8	Feb-22	$885,707	($179,954)	$705,754	$795,730	3.25%	28	$1,984	$10,491
9	Mar-22	$707,737	($149,368)	$558,369	$633,053	3.25%	31	$1,747	$12,238
10	Apr-22	$560,117	($103,150)	$456,966	$508,542	3.50%	30	$1,463	$13,701
11	May-22	$458,429	($60,488)	$397,942	$428,186	3.50%	31	$1,273	$14,974
12	Jun-22	$399,215	($27,256)	$371,959	$385,587	4.00%	30	$1,268	$16,242
13	Jul-22	$373,226	($17,818)	$355,408	$364,317	4.75%	31	$1,470	$17,711
14	Aug-22	$356,878	($16,434)	$340,444	$348,661	5.50%	31	$1,629	$19,340
* 15	Sep-22	$342,072	($17,136)	$324,936	$333,504	5.50%	30	$1,508	$20,848
* 16	Oct-22	$326,443	($20,763)	$305,681	$316,062	5.50%	31	$1,476	$22,324
17	Total		($754,201)					$22,324	
18									
19	**Projected Cumulative Collection**		**($754,201)**						
20	**Total Approved Collection**		**$1,039,034**						
21	**(Over)/Under Collection, excluding interest**		**$284,833**						
22	**Cumulative Interest**		**$22,324**						
23	**Total (Over)/Under Collection, incuding interest**		**$307,157**						
24									
25									

Line	Month	Beginning Balance	Collections	(Over)/Under Ending Balance	Balance Subject to Interest	Interest Rate	Days per Month	Interest	Cumulative Interest
26	**Commercial**								
27									
28		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
29	DY 20/21 Deficiency/(Surplus)	$943,031							
30	Nov-21	$677,519	$98,009	$775,527	$726,523	3.25%	30	$1,941	$1,941
31	Dec-21	$777,468	($42,314)	$735,154	$756,311	3.25%	31	$2,088	$4,028
32	Jan-22	$737,241	($49,658)	$687,583	$712,412	3.25%	31	$1,966	$5,995
33	Feb-22	$689,550	($66,175)	$623,375	$656,462	3.25%	28	$1,637	$7,631
34	Mar-22	$625,012	($60,403)	$564,608	$594,810	3.25%	31	$1,642	$9,273
35	Apr-22	$566,250	($43,469)	$522,781	$544,516	3.50%	30	$1,566	$10,840
36	May-22	$524,347	($30,800)	$493,547	$508,947	3.50%	31	$1,513	$12,353
37	Jun-22	$495,060	($20,842)	$474,218	$484,639	4.00%	30	$1,593	$13,946
38	Jul-22	$475,812	($14,440)	$461,372	$468,592	4.75%	31	$1,890	$15,836
* 39	Aug-22	$463,262	($14,154)	$449,108	$456,185	5.50%	31	$2,131	$17,967
* 40	Sep-22	$451,239	($16,562)	$434,677	$442,958	5.50%	30	$2,002	$19,970
* 41	Oct-22	$436,679	($18,164)	$418,515	$427,597	5.50%	31	$1,997	$21,967
42	Total		($278,973)					$21,967	
43									
44	**Projected Cumulative Collection**		**($278,973)**						
45	**Total Approved Collection**		**$677,519**						
46	**(Over)/Under Collection, excluding interest**		**$398,545**						
47	**Cumulative Interest**		**$21,967**						
48	**Total (Over)/Under Collection, incuding interest**		**$420,513**						
49									

Line		
50	**References**	
51	(a)	Line 4 (Res) and Line 29 (Com): DG 21-130, revised with actuals through August 2021
52	(b)	Company records
53	(c)	Column (a) + Column (b)
54	(d)	[Column (a) + Column (c)] ÷ 2
55	(e)	Prime Rate effective first of each month
56	(f)	Days per month
57	(g)	[Column (d) x ((Column (e) / 365) * Column (f))]
58	(h)	Column (g) + Prior Month Column (h)
59	*	Projected

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
September 2021 through August 2022
Revenue Decoupling Activity by Sector

	RESIDENTIAL	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)
1	**FOR THE MONTH OF:**	**Sep-21**	**Oct-21**	**Nov-21**	**Dec-21**	**Jan-22**	**Feb-22**	**Mar-22**	**Apr-22**	**May-22**	**Jun-22**	**Jul-22**	**Aug-22**
2	**DAYS IN MONTH**	**30**	**31**	**30**	**31**	**31**	**28**	**31**	**30**	**31**	**30**	**31**	**31**
3	Over Under Beginning Balance	$ -	$ 187,568	$ 921,342	$ 1,529,463	$ 1,951,823	$ 1,933,976	$ 2,352,273	$ 2,447,842	$ 2,334,214	$ 2,332,558	$ 2,449,586	$ 2,439,812
4	Monthly revenue difference Inc/(Dec) revenue	$ 170,543	$ 695,995	$ 602,442	$ 288,165	$ (52,190)	$ 276,867	$ (263,559)	$ (180,617)	$ (103,419)	$ 59,549	$ (67,861)	$ 105,253
5	True up	$ 16,775	$ 36,250	$ 2,410	$ 129,397	$ 28,989	$ 136,093	$ 352,512	$ 60,121	$ 94,837	$ 49,631	$ 48,244	$ (5,442)
6	Ending Balance Pre-Interest	$ 187,318	$ 919,814	$ 1,526,194	$ 1,947,025	$ 1,928,621	$ 2,346,936	$ 2,441,226	$ 2,327,345	$ 2,325,632	$ 2,441,738	$ 2,429,969	$ 2,539,622
7	Month's Average Balance	$ 93,659	$ 553,691	$ 1,223,768	$ 1,738,244	$ 1,940,222	$ 2,140,456	$ 2,396,749	$ 2,387,594	$ 2,329,923	$ 2,387,148	$ 2,439,777	$ 2,489,717
8	Interest Rate	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.50%	3.50%	4.00%	4.75%	5.50%
9	Interest Applied	$ 250	$ 1,528	$ 3,269	$ 4,798	$ 5,356	$ 5,336	$ 6,616	$ 6,868	$ 6,926	$ 7,848	$ 9,843	$ 11,630
10	Ending Balance	**$ 187,568**	**$ 921,342**	**$ 1,529,463**	**$ 1,951,823**	**$ 1,933,976**	**$ 2,352,273**	**$ 2,447,842**	**$ 2,334,214**	**$ 2,332,558**	**$ 2,449,586**	**$ 2,439,812**	**$ 2,551,253**

	COMMERCIAL & INDUSTRIAL	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)
11	**FOR THE MONTH OF:**	**Sep-21**	**Oct-21**	**Nov-21**	**Dec-21**	**Jan-22**	**Feb-22**	**Mar-22**	**Apr-22**	**May-22**	**Jun-22**	**Jul-22**	**Aug-22**
12	**DAYS IN MONTH**	**30**	**31**	**30**	**31**	**31**	**28**	**31**	**30**	**31**	**30**	**31**	**31**
13	Over Under Beginning Balance	$ -	$ 46,351	$ (184,811)	$ (1,155,183)	$ (1,027,733)	$ (2,041,973)	$ (213,584)	$ 79,689	$ (311,294)	$ 126,301	$ 131,532	$ 217,203
14	Monthly revenue difference Inc/(Dec) revenue	$ 43,875	$ (239,968)	$ (949,941)	$ 25,392	$ (1,055,358)	$ 1,765,498	$ 9,429	$ (364,478)	$ 249,240	$ (59,661)	$ 90,541	$ (54,411)
15	True up	$ 2,414	$ 8,997	$ (18,644)	$ 105,067	$ 45,348	$ 65,699	$ 284,028	$ (26,173)	$ 188,630	$ 64,469	$ (5,572)	$ 68,675
16	Ending Balance Pre-Interest	$ 46,290	$ (184,620)	$ (1,153,395)	$ (1,024,724)	$ (2,037,742)	$ (210,776)	$ 79,874	$ (310,962)	$ 126,576	$ 131,109	$ 216,501	$ 231,467
17	Month's Average Balance	$ 23,145	$ (69,134)	$ (669,103)	$ (1,089,953)	$ (1,532,737)	$ (1,126,374)	$ (66,855)	$ (115,636)	$ (92,359)	$ 128,705	$ 174,017	$ 224,335
18	Interest Rate	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.50%	3.50%	4.00%	4.75%	5.50%
19	Interest Applied	$ 62	$ (191)	$ (1,787)	$ (3,009)	$ (4,231)	$ (2,808)	$ (185)	$ (333)	$ (275)	$ 423	$ 702	$ 1,048
20	Ending Balance	**$ 46,351**	**$ (184,811)**	**$ (1,155,183)**	**$ (1,027,733)**	**$ (2,041,973)**	**$ (213,584)**	**$ 79,689**	**$ (311,294)**	**$ 126,301**	**$ 131,532**	**$ 217,203**	**$ 232,515**

21	Total Ending Balance	**$ 233,919.74**	**$ 736,531.39**	**$ 374,279.82**	**$ 924,090.05**	**$ (107,996.70)**	**$ 2,138,688.79**	**$ 2,527,530.75**	**$ 2,022,919.52**	**$ 2,458,858.79**	**$ 2,581,118.33**	**$ 2,657,014.89**	**$ 2,783,767.73**

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Property Tax Adjustment Mechanism
Summary

Line	Property Tax Reconciliation	
1	Projected Prior Period (Over)/Under Balance through October 31, 2022, including interest	$241,127
2	PTY 2021 Municipal Property Taxes Variance	$2,013,469
3	Projected Interest	$47,256
4	Total Estimated Recovery	$2,301,852
5	Estimated November 2022 - October 2023 Sales (therms)	186,338,561
6	PTAM LDAC rate per therm November 2022 - October 2023	$0.0124

Reference:

1 Schedule 5 page 2, Col. C, Line 12 + Col. F, Line 12
2 Schedule 5 page 3, Line 3
3 Schedule 5 page 5, Col. F, Line 15
4 Line 1 + Line 2 + Line 3
5 Company Forecast
6 Line 4 divided by Line 5

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Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Property Tax Adjustment Mechanism
Reconciliation of Previous Period January 2022 – October 2022

	1	Month	Beginning Balance	Collections	(Over)/Under Ending Balance	Balance Subject to Interest	Interest Rate	Days per Month	Interest	Cumulative Interest
	2		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	3	Jan-22	$1,972,667	($100,243)	$1,872,424	$1,922,545	3.25%	31	$5,307	$5,307
	4	Feb-22	$1,877,730	($400,615)	$1,477,115	$1,677,423	3.25%	28	$4,182	$9,489
	5	Mar-22	$1,481,297	($358,337)	$1,122,960	$1,302,129	3.25%	31	$3,594	$13,083
	6	Apr-22	$1,126,554	($255,384)	$871,170	$998,862	3.25%	30	$2,668	$15,751
	7	May-22	$873,838	($171,971)	$701,868	$787,853	3.25%	31	$2,175	$17,926
	8	Jun-22	$704,043	($100,091)	$603,951	$653,997	3.25%	30	$1,747	$19,673
	9	Jul-22	$605,698	($69,283)	$536,415	$571,056	4.00%	31	$1,940	$21,613
	10	Aug-22	$538,355	($66,973)	$471,382	$504,868	4.00%	31	$1,715	$23,328
*	11	Sep-22	$473,097	($86,847)	$386,250	$429,673	4.00%	30	$1,413	$24,741
*	12	Oct-22	$387,663	($148,001)	$239,661	$313,662	5.50%	31	$1,465	$26,206
	13			($1,757,746)						

14	**Projected Cumulative Collection**	**($1,757,746)**
15	**Total Approved Collection**	**$1,972,667**
16	**(Over)/Under Collection, excluding interest**	**$214,921**
17	**Cumulative Interest**	**$26,206**
18	**Total (Over)/Under Collection, incuding interest**	**$241,127**

(a) Prior Period Col. (c) + Prior Period Col. (f); 1/1/22 Beginning balance approved in DG 21-128
(b) Actuals: Company financials; Forecast: PTAM Rate * Forecasted Therms
(c) Column (a) + Column (b)
(d) [Column (a) + Column (c)] ÷ 2
(e) Quarterly interest rate - https://www.energy.nh.gov/consumers/your-utility-service/utility-deposits
(f) Days per month
(g) [Column (d) x ((Column (e) / 365) * Column (f))]
(h) Column (g) + Prior Month Column (h)
* Projected

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Property Tax Adjustment Mechanism
Calculation of 2021 Municipal Property Taxes

Line	Amount	Reference	Source
1	$8,924,897	Calculated Municipal Property Taxes Included in Rates through 12/31/2021	Settlement Agreement - DG 20-105 Bates 32
2	$10,938,366	Municipal Property Taxes Billed April 2021 – March 2022	Schedule 5 Page 4, Line 68
3	$2,013,469	Increase To Rates Due To Municipal Property Tax Reconciliation	Line 2 minus Line 1

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Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Property Tax Adjustment Mechanism
Municipal Property Tax 2021 Invoices

			Tax Year 2021				
Line	**Municipality**	**Parcel**	**Installment #1**	**Installment #2**	**Installment #3**	**Installment #4**	**Total Due**
1	Allenstown	000400-000001-000000	31,268.00	25,077.00	-	-	56,345.00
2	Amherst	002-033-008	69,909.00	41,932.00	-	-	111,841.00
3	Amherst	002-033-007	3,592.00	1,829.00	-	-	5,421.00
4	Auburn	000001/000001/000UTL	687.00	918.00	-	-	1,605.00
5	Bedford	1-1-A	68,725.58	87,658.02	-	-	156,383.60
6	Belmont	999-000-000-001	20,581.07	21,482.20	-	-	42,063.27
7	Berlin	000404-000051.0000L1	9,747.00	9,491.00	-	-	19,238.00
8	Boscawen	000099-000002-000000	13,058.00	15,109.00	-	-	28,167.00
9	Bow	0-9-99	74,046.00	66,330.00	-	-	140,376.00
10	Canterbury	000000-000002-000000	3,450.00	1,916.00	-	-	5,366.00
11	Derry	35-102	46,778.41	61,748.78	-	-	108,527.19
12	Franklin	000-001-00	52,458.91	54,519.08	-	-	106,977.99
13	Gilford	200-003.000	3,886.00	2,411.00	-	-	6,297.00
14	Goffstown	99-4-3	46,701.04	46,537.41	-	-	93,238.45
15	Goffstown	99-4-2	1,381.22	1,376.37	-	-	2,757.59
16	Goffstown	99-4-1	N/A	N/A	-	-	-
17	Hollis	056-027-001	2,381.00	1,753.00	-	-	4,134.00
18	Hooksett	0GAS-0001	152,381.00	145,397.00	-	-	297,778.00
19	Hooksett	0036-0041-0001	3,095.00	2,953.00	-	-	6,048.00
20	Hudson	100-006-000	205,572.02	179,499.88	-	-	385,071.90
21	Hudson	167-030-000	846.31	875.24	-	-	1,721.55
22	Hudson	167-029-000	807.71	1,304.48	-	-	2,112.19
23	Laconia	425/44/83/1	156,290.00	161,711.00	-	-	318,001.00
24	Litchfield	000UTL-000UTL-000001	10,444.00	19,150.00	-	-	29,594.00
25	Londonderry	81-7-0	55,967.00	37,246.00	-	-	93,213.00
26	Londonderry	81-7-1	237,336.00	245,313.00	-	-	482,649.00
27	Londonderry	81-14-0	19,151.30	14,104.30	-	-	33,255.60
28	Londonderry	81-14-0	1,815.10	21,268.80	-	-	23,083.90
29	Loudon	000070-000004-000000	102,350.00	60,796.00	-	-	163,146.00
30	Manchester	0999A-0075	1,175,690.57	1,175,515.66	-	-	2,351,206.23
31	Manchester	0752-0001	24,155.36	17,292.84	-	-	41,448.20
32	Manchester	0508-0002A	74.71	50.48	-	-	125.19
33	Manchester	0394-0004	323.35	209.51	-	-	532.86
34	Manchester	0471-0008	551.93	361.32	-	-	913.25
35	Merrimack	006D-3-000000-000000	191,500.00	78,677.00	-	-	270,177.00
36	Milford	036-183-000-000	767.66	968.62	-	-	1,736.28
37	Milford	055-007-000-000	75,708.86	44,120.43	-	-	119,829.29
38	Nashua	0039-00026	1,544.88	1,630.67	-	-	3,175.55
39	Nashua	0038-00063	94.44	99.68	-	-	194.12
40	Nashua	0038-00020	148.84	157.11	-	-	305.95
41	Nashua	0041-00011	39,779.95	40,925.44	-	-	80,705.39
42	Nashua	0000PC-00005	1,284,551.84	1,342,094.32	-	-	2,626,646.16
43	Northfield	000999-000001-000001	30,147.00	21,438.00	-	-	51,585.00
44	Pembroke	999-11	77,788.00	76,893.00	-	-	154,681.00
45	Sanborton	00 003.000.000	2,664.00	1,673.00	-	-	4,337.00
46	Tilton	000R23-000013-000000	129,478.00	120,987.00	-	-	250,465.00
47	Tilton	000R23-000014-000000	11,634.00	8,984.00	-	-	20,618.00
48	7 DELTA DRIVE, LLC	2021P01001303	14,659.00	13,709.00	-	-	28,368.00
49	Concord	77Z/12	8,106.05	8,106.05	7,174.62	7,832.47	31,219.19
50	Concord	77Z/11	573.67	573.68	503.35	550.18	2,200.88
51	Concord	77Z/10	6,644.38	6,644.40	5,880.91	6,420.15	25,589.84
52	Concord	77Z/9	322.95	322.94	285.84	312 06	1,243.79
53	Concord	77Z/7	591.76	591.76	523.76	571.78	2,279.06
54	Concord	77Z/6	933.99	934.61	827.23	903 08	3,598.91
55	Concord	77Z/6/A	5.69	5.68	4.99	5.47	21.83
56	Concord	NO00/1/13	11,744.34	11,744.35	13,628.82	22,179 03	59,296.54
57	Concord	P000/1/6	933.91	933.93	785.38	1,635 83	4,289.05
58	Concord	792Z/2/1	424.99	425.01	262.39	125.68	1,238.07
59	Concord	P000/1/3	31,122.34	31,122.32	26,182.08	28,405 53	116,832.27
60	Concord	NO00/1/2	391,483.61	391,483.60	454,308.04	437,962.67	1,675,237.92
61	Concord	202Z/21	263.83	263.84	233.52	254 94	1,016.13
62	Concord	743Z/19	1,834.39	1,834.40	1,623.61	1,780.19	7,072.59
63	Concord	494Z/3	300.54	300.56	266.02	290 38	1,157.50
64	Keene	583038000001000	122,879.38	115,131.72	-	-	238,011.10
65	Keene	116039000000000	8080.69	10733.51	-	-	18,814.20
66	R&M REALTY	582014000000000	5301.22	4902.31	-	-	10,203.53
67	Keene Propane	047020020000	3549.06	4033.21	-	-	7,582.27
68	Total		5,051,064.85	4,865,581.52	512,490.56	509,229.44	10,938,366.37

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Property Tax Adjustment Mechanism
Forecasted Period November 2022 – October 2023

	1	Month	Beginning Balance	Rate ($/Therm)	Forecasted Therms	Collections	(Over)/Under Ending Balance	Balance Subject to Interest	Interest Rate	Days per Month	Interest	Cumulative Interest
	2		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
*	3	Nov-22	$2,254,596	$0.0124	18,136,869	($224,897)	$2,029,699	$2,142,147	5.50%	30	$9,684	$9,684
*	4	Dec-22	$2,039,382	$0.0124	25,743,913	($319,225)	$1,720,158	$1,879,770	5.50%	31	$8,781	$18,465
*	5	Jan-23	$1,728,939	$0.0124	29,871,794	($370,410)	$1,358,529	$1,543,734	5.50%	31	$7,211	$25,676
*	6	Feb-23	$1,365,740	$0.0124	25,118,132	($311,465)	$1,054,275	$1,210,007	5.50%	28	$5,105	$30,781
*	7	Mar-23	$1,059,380	$0.0124	22,114,523	($274,220)	$785,160	$922,270	5.50%	31	$4,308	$35,089
*	8	Apr-23	$789,468	$0.0124	14,278,524	($177,054)	$612,414	$700,941	5.50%	30	$3,169	$38,258
*	9	May-23	$615,583	$0.0124	10,395,230	($128,901)	$486,682	$551,133	5.50%	31	$2,574	$40,832
*	10	Jun-23	$489,257	$0.0124	6,716,470	($83,284)	$405,972	$447,615	5.50%	30	$2,023	$42,856
*	11	Jul-23	$407,996	$0.0124	6,090,557	($75,523)	$332,473	$370,234	5.50%	31	$1,729	$44,585
*	12	Aug-23	$334,202	$0.0124	6,296,037	($78,071)	$256,132	$295,167	5.50%	31	$1,379	$45,964
*	13	Sep-23	$257,510	$0.0124	7,971,933	($98,852)	$158,658	$208,084	5.50%	30	$941	$46,905
*	14	Oct-23	$159,599	$0.0124	13,604,579	($168,697)	($9,098)	$75,251	5.50%	31	$352	$47,256
	15	Total			186,338,561	($2,310,598)					$47,256	

16	**Projected Cumulative Collection**	**($2,310,598)**
17	**Total Approved Collection**	**$2,254,596**
18	**(Over)/Under Collection, excluding interest**	**($56,002)**
19	**Cumulative Interest**	**$47,256**
20	**Total (Over)/Under Collection, incuding interest**	**($8,746)**

(a) Prior period Column (e) + Prior period Column (h); 11/1/22 Beginning balance Schedule 5, Page 2, Col. (c), Line 12 + Col. (f), Line 12 + Page 3, Line 3
(b) Schedule 5, Page 1, Line 6
(c) Company forecast
(d) Column (a) * Column (b)
(e) Column (a) * Column (d)
(f) [Column (a) + Column (e)] ÷ 2
(g) Interest rate effective first of the month
(h) Days per month
(i) [Column (f) x ((Column (g) / 365) * Column (h))]
(j) Column (i) + Prior Month Column (j)
* Projected

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
November 2022 – October 2023 LDAC
Local Delivery Adjustment Charge (LDAC) - Recovery of Rate Case Expense and Recoupment

Line No.	Description (A)	Total (B)
1	Prior Period Recoupment/Rate Case Expense (Over)/Under Collection, including interest as of October 31, 2022	$ 129,039
2	Rate Case Expense DG 17-048	$ (4,836)
3	Rate Case Expense DG 20-105 approved per Order No. 26,691	$ 680,768
4	Rate Case Expense to Recover as of August 31, 2022	$ 675,932
5	Projected Recoupment/Rate Case Expense Recovery	$ 804,971
6	Projected Interest	$ 17,048
7	Total Projected Recovery, November 1, 2022 - October 31, 2023	$ 822,018
8	Forecast Throughput (Therms)	186,338,561
9	RCE Factor ($/Therm)	$0.0044

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Recoupment/Rate Case Expense Reconcilation
Reconciliation of Previous Period November 2021 – October 2022

	1	**Month**	**Beginning Balance**	**Collections**	**(Over)/Under Ending Balance**	**Balance Subject to Interest**	**Interest Rate**	**Days per Month**	**Interest**	**Cumulative Interest**
	2		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	3	Nov-21	$1,331,220	($20,125)	$1,311,095	$1,321,157	3.25%	30	$3,529	$3,529
	4	Dec-21	$1,314,624	($139,641)	$1,174,983	$1,244,804	3.25%	31	$3,436	$6,965
	5	Jan-22	$1,178,419	($179,012)	$999,407	$1,088,913	3.25%	31	$3,006	$9,971
	6	Feb-22	$1,002,413	($209,491)	$792,921	$897,667	3.25%	28	$2,238	$12,209
	7	Mar-22	$795,159	($186,570)	$608,589	$701,874	3.25%	31	$1,937	$14,146
	8	Apr-22	$610,526	($131,744)	$478,783	$544,655	3.50%	30	$1,567	$15,713
	9	May-22	$480,349	($90,760)	$389,589	$434,969	3.50%	31	$1,293	$17,006
	10	Jun-22	$390,882	($52,709)	$338,173	$364,528	4.00%	30	$1,198	$18,204
	11	Jul-22	$339,371	($36,523)	$302,848	$321,110	4.75%	31	$1,295	$19,500
	12	Aug-22	$304,143	($33,545)	$270,599	$287,371	5.50%	31	$1,342	$20,842
*	13	Sep-22	$271,941	($53,556)	$218,386	$245,163	5.50%	30	$1,108	$21,951
*	14	Oct-22	$219,494	($91,267)	$128,227	$173,860	5.50%	31	$812	$22,763
	15			#########						

16	**Projected Cumulative Collection**	**($1,224,944)**
17	**Total Approved Collection**	**$1,331,220**
18	**(Over)/Under Collection, excluding interest**	**$106,276**
19	**Cumulative Interest**	**$22,763**
20	**Total (Over)/Under Collection, incuding interest**	**$129,039**

(a) October 19, 2021, Updated Filing Bates 126
(b) Company records
(c) Column (a) + Column (b)
(d) [Column (a) + Column (c)] ÷ 2
(e) Prime Rate effective first of each month
(f) Days per month
(g) [Column (d) x ((Column (e) / 365) * Column (f))]
(h) Column (g) + Prior Month Column (h)
* Projected

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Recoupment/Rate Case Expense Reconcilation
Forecasted Recovery November 2022 – October 2023

		Month	Beginning Balance	Rate ($/Therm)	Therm Sales	Collections	(Over)/Under Ending Balance	Balance Subject to Interest	Interest Rate	Days per Month	Interest	Cumulative Interest
	1											
	2		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
*	3	Nov-22	$804,971	$0.0044	18,136,869	($79,802)	$725,169	$765,070	5.50%	30	$3,459	$3,459
*	4	Dec-22	$728,627	$0.0044	25,743,913	($113,273)	$615,354	$671,991	5.50%	31	$3,139	$6,598
*	5	Jan-23	$618,493	$0.0044	29,871,794	($131,436)	$487,057	$552,775	5.50%	31	$2,582	$9,180
*	6	Feb-23	$489,639	$0.0044	25,118,132	($110,520)	$379,119	$434,379	5.50%	28	$1,833	$11,012
*	7	Mar-23	$380,952	$0.0044	22,114,523	($97,304)	$283,648	$332,300	5.50%	31	$1,552	$12,565
*	8	Apr-23	$285,200	$0.0044	14,278,524	($62,826)	$222,375	$253,788	5.50%	30	$1,147	$13,712
*	9	May-23	$223,522	$0.0044	10,395,230	($45,739)	$177,783	$200,653	5.50%	31	$937	$14,649
*	10	Jun-23	$178,721	$0.0044	6,716,470	($29,552)	$149,168	$163,944	5.50%	30	$741	$15,390
*	11	Jul-23	$149,909	$0.0044	6,090,557	($26,798)	$123,111	$136,510	5.50%	31	$638	$16,028
*	12	Aug-23	$123,748	$0.0044	6,296,037	($27,703)	$96,046	$109,897	5.50%	31	$513	$16,541
*	13	Sep-23	$96,559	$0.0044	7,971,933	($35,077)	$61,483	$79,021	5.50%	30	$357	$16,899
*	14	Oct-23	$61,840	$0.0044	13,604,579	($59,860)	$1,980	$31,910	5.50%	31	$149	$17,048
	15	Total			186,338,561	($819,890)					$17,048	

16	**Projected Cumulative Collection**	**($819,890)**
17	**Total Approved Collection**	**$804,971**
18	**(Over)/Under Collection, excluding interest**	**($14,919)**
19	**Cumulative Interest**	**$17,048**
20	**Total (Over)/Under Collection, incuding interest**	**$2,129**

(a) Prior period Column (e) + Prior period Column (h); 11/1/22 Balance: Schedule 6, Page 2, Col. (e), Line 21 + Col (h), Line 21 + Page 1, Line 4
(b) Schedule 6, Page 1, Line 9
(c) Company forecast
(d) Column (b) * Column (c)
(e) Column (a) + Column (d)
(f) [Column (a) + Column (e)] ÷ 2
(g) Interest rate effective first of the month
(h) Days per month
(i) [Column (f) x ((Column (g) / 365) * Column (h))]
(j) Column (i) + Prior Month Column (j)
* Projected

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
Docket No. DG 20-105 Rate Case Expense
<u>To be Recovered November 2022 – October 2023</u>
As of August 31, 2022

Line No	Service Provider	Expense as of 8/31/22	DOE Recommended Reduction	Post Audit Expense - Approved	Amount Approved for Recovery per Order No. 26,691	Post Audit Expense - to be Reviewed	Description of Service
1	Concentric Energy Advisors	$ 48,381.75	$ (48,381.75)	$ -	$ -	$ -	Review of Decoupling Mechanism
2	FTI Consulting	$ 385,965.46	-	-	385,965.46	-	Revenue Requirement, Rate Design, Marginal Cost of Service , Functional Cost of Service, Decoupling Effects on EE, Cost of Capital
3	Keegan Werlin	$ 114,463.50	(12,892.50)	-	101,571.00	33,943.00	Legal Services
4	ScottMadden	$ 34,215.00	(34,215.00)	-	-	-	Tes imony Support
5	Management Applications Consul ing	$ 33,245.63	-	-	33,245.63	37,996.91	Review Status of Depreciation Reserve
6	Court Reporter	$ 3,053.00	-	(1,310.00)	1,743.00	-	Court Reporter
7	Customer Notice	$ 46,241.00	-	-	46,241.00	-	Customer Notice
8	Legal Notices	$ 466.50	-	-	466.50	-	Legal Notices
9	Printing Expenes	$ 159.60	-	-	159.60	-	Printing Expenses
10							
11	Subtotal	$ 666,191.44	(95,489.25)	(1,310.00)	569,392.19	71,939.91	
12							
13							
14	<u>DOE Consultants</u>						
15	Blue Ridge Consulting	$ 62,402.50	-	2,250.00	64,652.50	-	Revenue Requirement
16	J. Randall Woolridge	$ -	-	33,800.00	33,800.00	-	Cost of Capital
17					-		
18	<u>OCA Consultants</u>				-		
19	Exeter Associates	$ 12,923.70	-	-	12,923.70	-	Cost of Service/Rate Design
20							
21	Subtotal DOE/OCA	$ 75,326.20	-	36,050.00	111,376.20	-	
22							
23	Grand Total	$ 741,517.64	$ (95,489.25)	$ 34,740.00	$ 680,768.39	$ 71,939.91	Total Estimated Amount
24							
25							
26	Note: Amounts in "Post Audit Expense" column represent costs for which invoices were received after the comple ion of the Audit.						

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

1	**Distribution**	**Customer Charge**		**Block**		**Total**		
2	R-3 Base Rates	$	15.39	$	0.5632			
3	R-4 Base Rates at 55% of R-3	$	8.47	$	0.3098			
4	Program Distribution Subsidy	$	6.9260	$	0.2534			
5	Normal Winter Therms						621	
6	Estimated Winter 2022/2023 Distribution Subsidy	$	41.56	$	157.32	$	198.87	
7								
8	Number of Estimated 2022/2023 Participants		6,032		65		6,097	(a)
9	**COG**	**ENNG**		**Keene**		**Total**		
10	R-3 COG Rates	$	1.2295	$	0.1778			
11	R-4 COG Rates at 55% of R-3	$	0.6762	$	0.0978			
12	Program COG Subsidy	$	0.5533	$	0.0800	$	-	
13	Estimated Winter 2022/2023 COG Subsidy (Ln 5 * Ln 14)	$	343.44	$	49.66	$	393.10	
14	Winter Distribution Subsidy times Number of Participants (Ln 7 * Ln 9)					$	1,212,534	
15	Winter COG Subsidy times Number of Participants (Ln 9 * Ln 16)					$	2,074,829	
16	Prior Year Ending Balance - Gas Assistance Page 2					$	494,571	
17	Estimated Annual Administrative Costs						-	
18	Total Program Costs					$	3,781,934	
19	Estimated weather normalized firm therms billed for the							
20	Twelve months ended 10/31/22 sales and transporta ion						186,338,561	
21	**Total Gas Assistance Program Charge**					**$**	**0.0203**	

(a) Estimated number of participants for 2022/2023 is based on he actual number

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
November 2021 through October 2022
Residential Gas Assistance Program Reconciliation
Account 175.6

		(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Estimate)	(Estimate)	
1	**FOR THE MONTH OF**	**Nov-21**	**Dec-21**	**Jan-22**	**Feb-22**	**Mar-22**	**Apr-22**	**May-22**	**Jun-22**	**Jul-22**	**Aug-22**	**Sep-22**	**Oct-22**	**Total**
2	**DAYS IN MONTH**	**30**	**31**	**31**	**28**	**31**	**30**	**31**	**30**	**31**	**31**	**30**	**31**	
3	Beginning Balance	$ 318,947	$ 252,743	$ 367,814	$ 472,282	$ 549,335	$ 641,439	$ 773,225	$ 839,851	$ 741,214	$ 680,255	$ 626,159	$ 564,366	$ 318,947
4	Add: Actual Costs	56,232.0	412,301 2	485,497 5	516,893.4	484,054.4	407,554 0	256,657.9	9,968.5	13,906.8	13,564 3	-	-	2,656,630
5	Less: Collected Revenue	(123,198.4)	(298,085.1)	(382,187 5)	(441,112.0)	(393,591.4)	(277,800 2)	(192,426.4)	(111,199.4)	(77,727.7)	(70,704 9)	(64,477 2)	(72,263.2)	(2,504,773)
6	Add: Administrative and Start Up Costs	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Ending Balance Pre-Interest	$ 251,980	$ 366,959	$ 471,124	$ 548,063	$ 639,798	$ 771,193	$ 837,457	$ 738,620	$ 677,394	$ 623,115	$ 561,682	$ 492,103	**$ 470,803**
8	Month's Average Balance	$ 285,464	$ 309,851	$ 419,469	$ 510,173	$ 594,567	$ 706,316	$ 805,341	$ 789,235	$ 709,304	$ 651,685	$ 593,920	$ 528,235	
9	Interest Rate	3 25%	3 25%	3.25%	3 25%	3 25%	3.50%	3 50%	4 00%	4.75%	5.50%	5.50%	5.50%	
10	Interest Applied	$ 763	$ 855	$ 1 158	$ 1 272	$ 1 641	$ 2 032	$ 2 394	$ 2 595	$ 2 862	$ 3 044	$ 2 685	$ 2 468	**23,767**
11	Ending Balance	**$ 252,743**	**$ 367,814**	**$ 472,282**	**$ 549,335**	**$ 641,439**	**$ 773,225**	**$ 839,851**	**$ 741,214**	**$ 680,255**	**$ 626,159**	**$ 564,366**	**$ 494,571**	**$ 494,571**

Liberty Utilities (EnergyNorth Natural Gas) Corp d/b/a Liberty
Quarterly Report
Gas Assistance Program (GAP)
2021 22 Discounted 45%

		Nov 21	Dec 21	Jan 22	Feb 22	Mar 22	Apr 22	May 22	Jun 22	Jul 22	Aug 22	Sep 22	Oct 22	Summary: Actual/ Projected Total To Date (1)	Summary: Original Projection (2)	Summary: Variance
Customer Count		Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Projected	Projected	Projected	Projected			
Actual / Projected No. of Customers														Average		
LIHEAP		4,186	4,333	4,375	4,427	4,563	4,645	4,693	4,580	4,563	4,563	4,563	4,563	4,422	5,320	899
Non-LIHEAP		1 508	1 422	1 413	1 433	1 423	1 452	1 502	1 497	1 423	1 423	1 423	1 423	1 442	743	(699)
Total	(a)	5 694	5 755	5 788	5 860	5 986	6 097	6 195	6 077	5 986	5 986	5 986	5 986	5 863	6 063	200
GAP Recoveries																
Actual / Projected																
Therm Sales		9,552,677	19,373,741	24,840,510	28,516,452	25,446,880	17,948,293	12,446,101	7,178,867	5,533,972	5,725,074	7,237,234	12,333,426	176,133,228	182,829,872	6,696,644
GAP Rate Per Therm		$0.0156	$0.0156	$0.0156	$0.0156	$0.0156	$0.0156	$0.0156	$0.0156	$0.0156	$0.0156	$0.0156	$0.0156	$0.0156	$0.0156	
Total	(e)	$123 946	$302 230	$387 512	$444 857	$396 971.33	$279 993.37	$194 159.18	$111 990.33	$86 329.97	$89 311.15	$112 900.86	$192 401	$2 722 603	$2 852 146	$129 543
Adjustment		$854	-$1,110	-$1,390	$134	-$88	-$14	-$356	-$36	$0	$0	$0		-$2,005	$0	
Total Adjusted Recoveries (3)		$124 800	$301 121	$386 122	$444 991	$396 883	$279 980	$193 804	$111 955	$86 330	$89 311	$112 901	$192 401	$2 720 598	$2 852 146	$131 548
Program Costs																
Actual & Projected Costs																
Prior Period Ending Balance	(c)	322,341	0	0	0	0	0	0	0	0	0	0	0	322,341	208,239	(114,101)
IT		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
` Admin.	(b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Education		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other (incl. Reporting Costs)		773	871.67	1,185	1,309	1,699	2,109 `		2,691	0	0	0	0	10,638	0	(10,638)
Fixed Discount		7,364	44,048.77	41,747	41,552	46,657	46,145	34,020	1,290	41,459	41,459	41,459	41,459	428,658	221,076	(207,582)
Variable Discount		15,251	133,633.50	175,701	203,060	204,119	154,189	75,833	3,337	18,920	23,371	49,774	107,896	1,165,085	802,374	(362,711)
COG Discount		35 996	241 168.52	276 420	281 311	243 951	213 535	148 748	5 366	14 533	17 951	38 231	82 875	1 600 085	1 617 433	17 349
Total Monthly Costs (3)	(d)	$59 384.53	$419 722	$495 052	$527 231	$496 427	$415 978	$258 601	$12 684	$74 912	$82 781	$129 464	$232 230	$3 204 466	$2 640 884	($563 582)
Avg Monthly Residential Customer Bill		$ 129.67	$ 218.05	$ 241.99	$ 288.03	$ 258.56	$ 184.91	$ 79.73	$ 50.71	$ 35.58	$ 33.05	$ 33.05	$ 41.88	$1 595.22	$3 060.78	$1 465.56
Avg Monthly Residential Low Income Customer Bill		$ 57.51	$ 90.04	$ 92.71	$ 105.24	$ 101.93	$ 80.26	$ 75.57	$ 47.72	$ 33.84	$ 31.52	$ 31.99	$ 40.81	$789.13	$274.01	($515.12)
Avg Monthly GAP Customer Discount		$72.16	$128.02	$149.28	$182.78	$156.64	$104.65	$4.16	$3.00	$1.74	$1.53	$1.07	$1.08	$806.10	$2,786.77	$1,980.67
Avg Monthly GAP Customer Discount as a % to Avg Monthly Residential Customer Bill		55.65%	58.71%	61.69%	63.46%	60.58%	56.59%	5.22%	5.91%	4.89%	4.63%	3.23%	2.57%	50.53%	91.05%	
Gross Monthly Revenues		$9,747,498	$26,119,602	$30,570,568	$31,130,776	$27,291,640	$22,365,746	$15,576,461	$7,847,069	$4,997,762	$6,467,910	$5,113,368	$8,930,712	$196,159,110	$161,677,049	($34,482,061)
Total Costs as a percent of Gross Monthly Revenues		0.61%	1.61%	1.62%	1.69%	1.82%	1.86%	1.66%	0.16%	1.50%	1.28%	2.53%	2.60%	1.63%	1.63%	

(1) This column represents actual data for the months in which such data is ava lable plus projected data for the remaining months in the 12-month program year.
(2) GAP Projection on Bates 135 of the 2021-22 Cost of Gas Filing, DG 21-130.
(3) Ties to the Company's GAP deferral accounts 8840-2-0000-10-1169-1756 & 8843-2-0000-10-1169-1756.

(a) The actual number of customers provided for this report are the number of registered customers that were bi led during the month.
(b) Actual administrative costs consists of bill inserts and advertising.
(c) The Prior Year 2020-21 under/(over) ending balance.
(d) The total discount is calculated from the actual Residential Low Income R-4 & R-7 b lls for the month plus interest.
(e) The Total GAP recoveries for Nov-21 has an estimated volume split between Peak and Off Peak of 25/75 respectively.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
LDAC 2022 2023 Filing
LDAC Bill Comparisons, Proposed LDAC Rates November 1, 2022 October 31, 2023 vs. Current LDAC Rates

1	**Proposed LDAC Rates November 1, 2022 October 31, 2023**															
2	**Residential Customers (Rate Codes R 3)**															
3								**Winter**							**Summer**	**Total**
4		**Nov 22**	**Dec 22**	**Jan 23**	**Feb 23**	**Mar 23**	**Apr 23**	**Nov Apr**	**May 23**	**Jun 23**	**Jul 23**	**Aug 23**	**Sep 23**	**Oct 23**	**May Oct**	**Nov Oct**
5	**Typical Usage (Therms)**	45	92	117	148	130	88	621	55	24	15	14	13	19	141	762
6	Energy Efficiency	$ 0.0664	$ 0.0664	$ 0.0664	$ 0.0664	$ 0.0664	$ 0.0664		$ 0.0664	$ 0.0664	$ 0.0664	$ 0.0664	$ 0.0664	$ 0.0664		
7	Energy Efficiency Amount	$ 2.98	$ 6.14	$ 7.78	$ 9.83	$ 8.66	$ 5.83	$ 41.22	$ 3.65	$ 1.60	$ 1.03	$ 0.93	$ 0.89	$ 1.26	$ 9.35	$ 50.57
8	Gas Holder	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -		
9	Gas Holder Amount	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	MGP	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		
11	MGP Amount	$ 0.3402	$ 0.7014	$ 0.8895	$ 1.1233	$ 0.9898	$ 0.6668	$ 4.71	$ 0.4169	$ 0.1828	$ 0.1172	$ 0.1065	$ 0.1017	$ 0.1437	$ 1.07	$ 5.78
12	Environmental	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		
13	Total Environmental	$ 0.34	$ 0.70	$ 0.89	$ 1.12	$ 0.99	$ 0.67	$ 4.71	$ 0.42	$ 0.18	$ 0.12	$ 0.11	$ 0.10	$ 0.14	$ 1.07	$ 5.78
14	RDAF	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -		
15	RDAF amount	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
16	PTAM	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124		$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124		
17	PTAM amount	$ 0.55	$ 1.14	$ 1.45	$ 1.83	$ 1.61	$ 1.09	$ 7.67	$ 0.68	$ 0.30	$ 0.19	$ 0.17	$ 0.17	$ 0.23	$ 1.74	$ 9.41
18	RCE	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044		$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044		
19	RCE Amount	$ 0.20	$ 0.41	$ 0.52	$ 0.65	$ 0.57	$ 0.39	$ 2.73	$ 0.24	$ 0.11	$ 0.07	$ 0.06	$ 0.06	$ 0.08	$ 0.62	$ 3.35
20	GAP	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203		$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203		
21	GAP Amount	$ 0.91	$ 1.88	$ 2.38	$ 3.00	$ 2.65	$ 1.78	$ 12.60	$ 1.12	$ 0.49	$ 0.31	$ 0.28	$ 0.27	$ 0.38	$ 2.86	$ 15.46
22	LDAC	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110		$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110	$ 0.1110		
23	LDAC Amount	$ 4.98	$ 10.26	$ 13.01	$ 16.43	$ 14.48	$ 9.76	$ 68.93	$ 6.10	$ 2.67	$ 1.72	$ 1.56	$ 1.49	$ 2.10	$ 15.64	$ 84.57

24	**Current LDAC Rates**															
25	**Residential Customers (Rate Codes R 3)**															
26		**Nov 21**	**Dec 21**	**Jan 22**	**Feb 22**	**Mar 22**	**Apr 22**	**Winter Nov Apr**	**May 22**	**Jun 22**	**Jul 22**	**Aug 22**	**Sep 22**	**Oct 22**	**Summer May Oct**	**Total Nov Oct**
27	**Typical Usage (Therms)**	45	92	117	148	130	88	621	55	24	15	14	13	19	141	762
28	Energy Efficiency	$ 0.0640	$ 0.0640	$ 0.0640	$ 0.0640	$ 0.0640	$ 0.0640		$ 0.0640	$ 0.0640	$ 0.0640	$ 0.0640	$ 0.0640	$ 0.0640		
29	Energy Efficiency Amount	$ 2.87	$ 5.91	$ 4.99	$ 4.99	$ 4.99	$ 4.99	$ 28.72	$ 3.51	$ 1.54	$ 0.99	$ 0.90	$ 0.86	$ 1.21	$ 9.01	$ 37.72
30	Gas Holder	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -		
31	Gas Holder Amount	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
32	MGP	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		
33	MGP Amount	$ 0.6926	$ 1.4279	$ 1.2045	$ 1.2045	$ 1.2045	$ 1.2045	$ 6.94	$ 0.8487	$ 0.3720	$ 0.2387	$ 0.2168	$ 0.2071	$ 0.2925	$ 2.18	$ 9.11
34	Environmental	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		
35	Total Environmental	$ 0.69	$ 1.43	$ 1.20	$ 1.20	$ 1.20	$ 1.20	$ 6.94	$ 0.85	$ 0.37	$ 0.24	$ 0.22	$ 0.21	$ 0.29	$ 2.18	$ 9.11
36	RDAF	$ 0.0152	$ 0.0152	$ 0.0152	$ 0.0152	$ 0.0152	$ 0.0152		$ 0.0152	$ 0.0152	$ 0.0152	$ 0.0152	$ 0.0152	$ 0.0152		
37	RDAF amount	$ 0.68	$ 1.40	$ 1.18	$ 1.18	$ 1.18	$ 1.18	$ 6.83	$ 0.83	$ 0.37	$ 0.23	$ 0.21	$ 0.20	$ 0.29	$ 2.14	$ 8.97
38	PTAM	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142		$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142		
39	PTAM amount	$ 0.64	$ 1.31	$ 1.11	$ 1.11	$ 1.11	$ 1.11	$ 6.38	$ 0.78	$ 0.34	$ 0.22	$ 0.20	$ 0.19	$ 0.27	$ 2.00	$ 8.38
40	RCE	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074		$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074		
41	RCE Amount	$ 0.33	$ 0.68	$ 0.58	$ 0.58	$ 0.58	$ 0.58	$ 3.32	$ 0.41	$ 0.18	$ 0.11	$ 0.10	$ 0.10	$ 0.14	$ 1.04	$ 4.37
42	GAP	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156		$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156		
43	GAP Amount	$ 0.70	$ 1.44	$ 1.22	$ 1.22	$ 1.22	$ 1.22	$ 7.01	$ 0.86	$ 0.38	$ 0.24	$ 0.22	$ 0.21	$ 0.30	$ 2.20	$ 9.20
44	Total LDAC	$ 0.1318	$ 0.1318	$ 0.1318	$ 0.1318	$ 0.1318	$ 0.1318		$ 0.1318	$ 0.1318	$ 0.1318	$ 0.1318	$ 0.1318	$ 0.1318		
45	Total LDAC Amount	$ 5.91	$ 12.18	$ 15.45	$ 19.51	$ 17.19	$ 11.58	$ 81.81	$ 7.24	$ 3.17	$ 2.04	$ 1.85	$ 1.77	$ 2.50	$ 18.56	$ 100.37

46	**LDAC Bill Impact : Residential Customers (Rate Codes R 3)**															
47								**Winter**							**Summer**	**Total**
48		**Nov 22**	**Dec 22**	**Jan 23**	**Feb 23**	**Mar 23**	**Apr 23**	**Nov Apr**	**May 23**	**Jun 23**	**Jul 23**	**Aug 23**	**Sep 23**	**Oct 23**	**May Oct**	**Nov Oct**
49	Energy Efficiency	$ (0.11)	$ (0.23)	$ (2.80)	$ (4.84)	$ (3.67)	$ (0.85)	$ (12.50)	$ (0.13)	$ (0.06)	$ (0.04)	$ (0.03)	$ (0.03)	$ (0.05)	$ (0.35)	$ (12.84)
50	Energy Efficiency Amount	-3.8%	-3.8%	-56.1%	-97.1%	-73.7%	-17.0%	-15.3%	-3.8%	-4%	-4%	-4%	-4%	-4%	$ (0.04)	$ (0.34)
51	Environmental	$ 1.03	$ 2.13	$ 2.09	$ 2.33	$ 2.19	$ 1.87	$ 11.65	$ 1.27	$ 0.55	$ 0.36	$ 0.32	$ 0.31	$ 0.44	$ 3.24	$ 14.89
52	Total Environmental	149.1%	149.1%	173.9%	193.3%	182.2%	155.4%	167.9%	149.1%	149.1%	149.1%	149.1%	149.1%	149.1%	149.1%	163.4%
53	RDAF	$ 0.35	$ 0.73	$ 0.31	$ 0.08	$ 0.21	$ 0.54	$ 2.23	$ 0.43	$ 0.19	$ 0.12	$ 0.11	$ 0.11	$ 0.15	$ 1.11	$ 3.33
54	RDAF amount	51.7%	51.7%	26.6%	6.9%	18.1%	45.4%	32.6%	51.7%	51.7%	51.7%	51.7%	51.7%	51.7%	51.7%	37.2%
55	PTAM	$ 0.35	$ 0.73	$ 0.31	$ 0.08	$ 0.21	$ 0.54	$ 2.23	$ 0.43	$ 0.19	$ 0.12	$ 0.11	$ 0.11	$ 0.15	$ 1.11	$ 3.33
56	PTAM amount	55.4%	55.4%	28.4%	7.3%	19.4%	48.6%	34.9%	55.4%	55.4%	55.4%	55.4%	55.4%	55.4%	55.4%	39.8%
57	RCE	$ 0.68	$ 1.40	$ 1.18	$ 1.18	$ 1.18	$ 1.18	$ 6.83	$ 0.83	$ 0.37	$ 0.23	$ 0.21	$ 0.20	$ 0.29	$ 2.14	$ 8.97
58	RCE Amount	205.4%	205.4%	205.4%	205.4%	205.4%	205.4%	205.4%	205.4%	205.4%	205.4%	205.4%	205.4%	205.4%	205.4%	205.4%
59	GAP	$ 0.08	$ 0.17	$ (0.34)	$ (0.72)	$ (0.50)	$ 0.02	$ (1.29)	$ 0.10	$ 0.04	$ 0.03	$ 0.03	$ 0.02	$ 0.03	$ 0.26	$ (1.03)
60	GAP Amount	1.4%	1.4%	-2.2%	-3.7%	-2.9%	0.2%	-1.6%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	-1.0%
61	Total LDAC	$ (0.93)	$ (1.92)	$ (2.43)	$ (3.07)	$ (2.71)	$ (1.82)	$ (12.88)	$ (1.14)	$ (0.50)	$ (0.32)	$ (0.29)	$ (0.28)	$ (0.39)	$ (2.92)	$ (15.81)
62	Total LDAC Amount	-15.7%	-15.7%	-15.7%	-15.7%	-15.7%	-15.7%	-15.7%	-15.7%	-15.7%	-15.7%	-15.7%	-15.7%	-15.7%	-15.7%	-15.7%

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
LDAC 2022 2023 Filing
LDAC Bill Comparisons, Proposed LDAC Rates November 1, 2022 October 31, 2023 vs. Current LDAC Rates

1	**Proposed LDAC Rates November 1, 2022 October 31, 2023**															
2	**Commercial/Industrial Sales Customers and Commercial/Industrial Transportation Customers (Rate Codes G 41)**															
3								Winter							Summer	Total
4		Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	Nov Apr	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	May Oct	Nov Oct
5	**Typical Usage (Therms)**	111	274	376	483	425	270	1,939	154	55	24	21	13	44	310	2 249
6	Energy Efficiency	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442		$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442		
7	Energy Efficiency Amount	$ 4.93	$ 12.11	$ 16.61	$ 21.37	$ 18.76	$ 11.93	$ 85.70	$ 6.81	$ 2.42	$ 1.07	$ 0.91	$ 0.57	$ 1.93	$ 13.71	$ 99.41
8	Gas Holder	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -		
9	Gas Holder Amount	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	MGP	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		
11	MGP Amount	$ 0.85	$ 2.0790	$ 2.8516	$ 3.6690	$ 3.2217	$ 2.0487	$ 14.72	$ 1.1687	$ 0.4158	$ 0.1845	$ 0.1557	$ 0.0977	$ 0.3313	$ 2.35	$ 17.07
12	Environmental	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		
13	Total Environmental	$ 0.85	$ 2.08	$ 2.85	$ 3.67	$ 3.22	$ 2.05	$ 14.72	$ 1.17	$ 0.42	$ 0.18	$ 0.16	$ 0.10	$ 0.33	$ 2.35	$ 17.07
14	RDAF	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -		
15	RDAF amount	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
16	PTAM	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124		$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124		
17	PTAM amount	$ 1.38	$ 3.38	$ 4.64	$ 5.97	$ 5.24	$ 3.33	$ 23.95	$ 1.90	$ 0.68	$ 0.30	$ 0.25	$ 0.16	$ 0.54	$ 3.83	$ 27.78
18	RCE	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044		$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044		
19	RCE Amount	$ 0.49	$ 1.21	$ 1.65	$ 2.13	$ 1.87	$ 1.19	$ 8.53	$ 0.68	$ 0.24	$ 0.11	$ 0.09	$ 0.06	$ 0.19	$ 1.36	$ 9.90
20	GAP	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203		$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203		
21	GAP Amount	$ 2.26	$ 5.56	$ 7.63	$ 9.81	$ 8.62	$ 5.48	$ 39.36	$ 3.13	$ 1.11	$ 0.49	$ 0.42	$ 0.26	$ 0.89	$ 6.30	$ 45.66
22	LDAC	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888		$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888		
23	LDAC Amount	$ 9.90	$ 24.34	$ 33.38	$ 42.95	$ 37.71	$ 23.98	$ 172.26	$ 13.68	$ 4.87	$ 2.16	$ 1.82	$ 1.14	$ 3.88	$ 27.55	$ 199.82
24	**Current LDAC Rates November 1, 2022 October 31, 2023**															
25	**Commercial/Industrial Sales Customers and Commercial/Industrial Transportation Customers (Rate Codes G 41)**															
26								Winter							Summer	Total
27		Nov 21	Dec 21	Jan 22	Feb 22	Mar 22	Apr 22	Nov Apr	May 22	Jun 22	Jul 22	Aug 22	Sep 22	Oct 22	May Oct	Nov Oct
28	**Typical Usage (Therms)**	111	274	376	483	425	270	1 939	154	55	24	21	13	44	310	2 249
29	Energy Efficiency	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426		$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426		
30	Energy Efficiency Amount	$ 4.74	$ 11.66	$ 15.99	$ 20.57	$ 18.06	$ 11.49	$ 82.50	$ 6.55	$ 2.33	$ 1.03	$ 0.87	$ 0.55	$ 1.86	$ 13.20	$ 95.70
31	Gas Holder	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -		
32	Gas Holder Amount	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
33	MGP	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		
34	MGP Amount	$ 1.7218	$ 4.2323	$ 5.8051	$ 7.4690	$ 6.5586	$ 4.1705	$ 29.96	$ 2.3791	$ 0.8465	$ 0.3755	$ 0.3169	$ 0.1988	$ 0.6745	$ 4.79	$ 34.75
35	Environmental	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		
36	Total Environmental	$ 1.72	$ 4.23	$ 5.81	$ 7.47	$ 6.56	$ 4.17	$ 29.96	$ 2.38	$ 0.85	$ 0.38	$ 0.32	$ 0.20	$ 0.67	$ 4.79	$ 34.75
37	RDAF	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039		$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039		
38	RDAF amount	$ 0.43	$ 1.07	$ 1.47	$ 1.89	$ 1.66	$ 1.05	$ 7.56	$ 0.60	$ 0.21	$ 0.09	$ 0.08	$ 0.05	$ 0.17	$ 1.21	$ 8.77
39	PTAM	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142		$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142		
40	PTAM amount	$ 1.58	$ 3.89	$ 5.34	$ 6.86	$ 6.03	$ 3.83	$ 27.53	$ 2.19	$ 0.78	$ 0.35	$ 0.29	$ 0.18	$ 0.62	$ 4.40	$ 31.94
41	RCE	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074		$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074		
42	RCE Amount	$ 0.82	$ 2.03	$ 2.78	$ 3.58	$ 3.14	$ 2.00	$ 14.35	$ 1.14	$ 0.41	$ 0.18	$ 0.15	$ 0.10	$ 0.32	$ 2.29	$ 16.64
43	GAP	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156		$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156		
44	GAP Amount	$ 1.74	$ 4.27	$ 5.86	$ 7.54	$ 6.62	$ 4.21	$ 30.25	$ 2.40	$ 0.85	$ 0.38	$ 0.32	$ 0.20	$ 0.68	$ 4.84	$ 35.09
45	Total LDAC	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991		$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991		
46	Total LDAC Amount	$ 11.04	$ 27.15	$ 37.24	$ 47.91	$ 42.07	$ 26.75	$ 192.15	$ 15.26	$ 5.43	$ 2.41	$ 2.03	$ 1.28	$ 4.33	$ 30.73	$ 222.89
47	**LDAC Bill Impact : Commercial/Industrial Sales Customers and Commercial/Industrial Transportation Customers (Rate Codes G 41)**															
48								Winter							Summer	Total
49		Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	Nov Apr	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	May Oct	Nov Oct
50	Energy Efficiency Amount	$ 4.74	$ 11.66	$ 15.99	$ 20.57	$ 18.06	$ 11.49	$ 82.50	$ 6.55	$ 2.33	$ 1.03	$ 0.87	$ 0.55	$ 1.86	$ 13.20	$ 95.70
51	Energy Efficiency %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100%	100%	100%	100%	100%	$ 1.00	$ 1.00
52	Environmental Amount	$ (0.88)	$ (2.15)	$ (2.95)	$ (3.80)	$ (3.34)	$ (2.12)	$ (15.24)	$ (1.21)	$ (0.43)	$ (0.19)	$ (0.16)	$ (0.10)	$ (0.34)	$ (2.44)	$ (17.68)
53	Environmental %	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%
54	RDAF amount	$ (0.43)	$ (1.07)	$ (1.47)	$ (1.89)	$ (1.66)	$ (1.05)	$ (7.56)	$ (0.60)	$ (0.21)	$ (0.09)	$ (0.08)	$ (0.05)	$ (0.17)	$ (1.21)	$ (8.77)
55	RDAF %	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%
56	PTAM amount	$ (0.21)	$ (0.51)	$ (0.69)	$ (0.89)	$ (0.78)	$ (0.50)	$ (3.58)	$ (0.28)	$ (0.10)	$ (0.04)	$ (0.04)	$ (0.02)	$ (0.08)	$ (0.57)	$ (4.15)
57	PTAM %	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%
58	RCE Amount	$ (0.33)	$ (0.82)	$ (1.13)	$ (1.45)	$ (1.27)	$ (0.81)	$ (5.82)	$ (0.46)	$ (0.16)	$ (0.07)	$ (0.06)	$ (0.04)	$ (0.13)	$ (0.93)	$ (6.75)
59	RCE %	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%
60	GAP Amount	$ 0.52	$ 1.29	$ 1.77	$ 2.27	$ 2.00	$ 1.27	$ 9.11	$ 0.72	$ 0.26	$ 0.11	$ 0.10	$ 0.06	$ 0.21	$ 1.46	$ 10.57
61	GAP %	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%
62	Total LDAC Amount	$ (1.14)	$ (2.81)	$ (3.85)	$ (4.96)	$ (4.35)	$ (2.77)	$ (19.89)	$ (1.58)	$ (0.56)	$ (0.25)	$ (0.21)	$ (0.13)	$ (0.45)	$ (3.18)	$ (23.07)
63	Total LDAC %	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
LDAC 2022 2023 Filing
LDAC Bill Comparisons, Proposed LDAC Rates November 1, 2022 October 31, 2023 vs. Current LDAC Rates

1	**Proposed LDAC Rates November 1, 2022 October 31, 2023**															
2	**Commercial/Industrial Sales Customers and Commercial/Industrial Transportation Customers (Rate Codes G 42)**															
3								**Winter**							**Summer**	**Total**
4		**Nov 22**	**Dec 22**	**Jan 23**	**Feb 23**	**Mar 23**	**Apr 23**	**Nov Apr**	**May 23**	**Jun 23**	**Jul 23**	**Aug 23**	**Sep 23**	**Oct 23**	**May Oct**	**Nov Oct**
5	**Typical Usage (Therms)**	1,369	2,729	3,456	4,165	3,658	2,463	17,839	1,201	1,412	257	100	(1,437)	978	2,510	20,349
6	Energy Efficiency	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442		$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442		
7	Energy Efficiency Amount	$ 60.50	$ 120.61	$ 152.76	$ 184.07	$ 161.67	$ 108.88	$ 788.48	$ 53.08	$ 62.41	$ 11.34	$ 4.40	$ (63.53)	$ 43.23	$ 110.93	$ 899.41
8	Gas Holder	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -		
9	Gas Holder Amount	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	MGP	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		
11	MGP Amount	$ 10.39	$ 20.7089	$ 26.2293	$ 31.6065	$ 27.7594	$ 18.6950	$ 135.39	$ 9.1135	$ 10.7166	$ 1.9468	$ 0.7558	$ (10.9081)	$ 7.4226	$ 19.05	$ 154.44
12	Environmental	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		
13	Total Environmental	$ 10.39	$ 20.71	$ 26.23	$ 31.61	$ 27.76	$ 18.69	$ 135.39	$ 9.11	$ 10.72	$ 1.95	$ 0.76	$ (10.91)	$ 7.42	$ 19.05	$ 154.44
14	RDAF	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -		
15	RDAF amount	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
16	PTAM	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124		$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124		
17	PTAM amount	$ 16.91	$ 33.71	$ 42.69	$ 51.44	$ 45.18	$ 30.43	$ 220.37	$ 14.83	$ 17.44	$ 3.17	$ 1.23	$ (17.75)	$ 12.08	$ 31.00	$ 251.37
18	RCE	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044		$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044		
19	RCE Amount	$ 6.02	$ 12.01	$ 15.21	$ 18.32	$ 16.09	$ 10.84	$ 78.49	$ 5.28	$ 6.21	$ 1.13	$ 0.44	$ (6.32)	$ 4.30	$ 11.04	$ 89.53
20	GAP	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203		$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203		
21	GAP Amount	$ 27.79	$ 55.39	$ 70.16	$ 84.54	$ 74.25	$ 50.00	$ 362.13	$ 24.38	$ 28.66	$ 5.21	$ 2.02	$ (29.18)	$ 19.85	$ 50.95	$ 413.08
22	LDAC	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888		$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888		
23	LDAC Amount	$ 121.61	$ 242.42	$ 307.04	$ 369.99	$ 324.95	$ 218.84	$ 1 584.86	$ 106.68	$ 125.45	$ 22.79	$ 8.85	$ (127.69)	$ 86.89	$ 222.97	$ 1 807.83

24	**Current LDAC Rates November 1, 2022 October 31, 2023**															
25	**Commercial/Industrial Sales Customers and Commercial/Industrial Transportation Customers (Rate Codes G 42)**															
								Winter							**Summer**	**Total**
26		**Nov 21**	**Dec 21**	**Jan 22**	**Feb 22**	**Mar 22**	**Apr 22**	**Nov Apr**	**May 22**	**Jun 22**	**Jul 22**	**Aug 22**	**Sep 22**	**Oct 22**	**May Oct**	**Nov Oct**
27	**Typical Usage (Therms)**	1 369	2 729	3 456	4 165	3 658	2 463	17 839	1 201	1 412	257	100	(1 437)	978	2 510	20 349
28	Energy Efficiency	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426		$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426		
29	Energy Efficiency Amount	$ 58.25	$ 116.10	$ 147.05	$ 177.20	$ 155.63	$ 104.81	$ 759.05	$ 51.09	$ 60.08	$ 10.91	$ 4.24	$ (61.16)	$ 41.61	$ 106.79	$ 865.84
30	Gas Holder	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -		
31	Gas Holder Amount	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
32	MGP	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		
33	MGP Amount	$ 21.1490	$ 42.1576	$ 53.3954	$ 64.3419	$ 56.5103	$ 38.0577	$ 275.61	$ 18.5526	$ 21.8159	$ 3.9632	$ 1.5385	$ (22.2058)	$ 15.1103	$ 38.77	$ 314.39
34	Environmental	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		
35	Total Environmental	$ 21.15	$ 42.16	$ 53.40	$ 64.34	$ 56.51	$ 38.06	$ 275.61	$ 18.55	$ 21.82	$ 3.96	$ 1.54	$ (22.21)	$ 15.11	$ 38.77	$ 314.39
36	RDAF	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039		$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039		
37	RDAF amount	$ 5.34	$ 10.64	$ 13.48	$ 16.24	$ 14.26	$ 9.61	$ 69.57	$ 4.68	$ 5.51	$ 1.00	$ 0.39	$ (5.61)	$ 3.81	$ 9.79	$ 79.36
38	PTAM	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142		$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142		
39	PTAM amount	$ 19.44	$ 38.75	$ 49.08	$ 59.14	$ 51.94	$ 34.98	$ 253.31	$ 17.05	$ 20.05	$ 3.64	$ 1.41	$ (20.41)	$ 13.89	$ 35.64	$ 288.95
40	RCE	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074		$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074		
41	RCE Amount	$ 10.13	$ 20.19	$ 25.57	$ 30.82	$ 27.07	$ 18.23	$ 132.01	$ 8.89	$ 10.45	$ 1.90	$ 0.74	$ (10.64)	$ 7.24	$ 18.57	$ 150.58
42	GAP	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156		$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156		
43	GAP Amount	$ 21.35	$ 42.57	$ 53.91	$ 64.97	$ 57.06	$ 38.43	$ 278.29	$ 18.73	$ 22.03	$ 4.00	$ 1.55	$ (22.42)	$ 15.26	$ 39.15	$ 317.44
44	Total LDAC	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991		$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991		
45	Total LDAC Amount	$ 135.65	$ 270.41	$ 342.49	$ 412.70	$ 362.47	$ 244.11	$ 1 767.84	$ 119.00	$ 139.93	$ 25.42	$ 9.87	$ (142.43)	$ 96.92	$ 248.71	$ 2 016.55

46	**LDAC Bill Impact : Commercial/Industrial Sales Customers and Commercial/Industrial Transportation Customers (Rate Codes G 42)**															
47								**Winter**							**Summer**	**Total**
48		**Nov 22**	**Dec 22**	**Jan 23**	**Feb 23**	**Mar 23**	**Apr 23**	**Nov Apr**	**May 23**	**Jun 23**	**Jul 23**	**Aug 23**	**Sep 23**	**Oct 23**	**May Oct**	**Nov Oct**
49	Energy Efficiency Amount	$ 2.26	$ 4.5023	$ 5.7024	$ 6.8715	$ 6.0351	$ 4.0644	$ 29.4343	$ 1.9813	$ 2.3299	$ 0.4233	$ 0.1643	$ (2.3715)	$ 1.6137	$ 4.1410	$ 33.5753
50	Energy Efficiency %	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%
51	Total Environmental	$ (10.76)	$ (21.4487)	$ (27.1662)	$ (32.7354)	$ (28.7509)	$ (19.3627)	$ (140.2240)	$ (9.4390)	$ (11.0993)	$ (2.0164)	$ (0.7828)	$ 11.2977	$ (7.6877)	$ (19.7275)	$ (159.9515)
52	Environmental %	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%	-50.9%
53	RDAF amount	$ (5.34)	$ (10.6417)	$ (13.4785)	$ (16.2416)	$ (14.2647)	$ (9.6068)	$ (69.5720)	$ (4.6832)	$ (5.5069)	$ (1.0004)	$ (0.3884)	$ 5.6053	$ (3.8142)	$ (9.7878)	$ (79.3597)
54	RDAF %	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%	-100.0%
55	PTAM amount	$ (2.53)	$ (5.0396)	$ (6.3830)	$ (7.6916)	$ (6.7554)	$ (4.5495)	$ (32.9474)	$ (2.2178)	$ (2.6079)	$ (0.4738)	$ (0.1839)	$ 2.6545	$ (1.8063)	$ (4.6352)	$ (37.5827)
56	PTAM %	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%	-13.0%
57	RCE Amount	$ (4.11)	$ (8.1859)	$ (10.3680)	$ (12.4936)	$ (10.9729)	$ (7.3898)	$ (53.5169)	$ (3.6024)	$ (4.2361)	$ (0.7695)	$ (0.2987)	$ 4.3118	$ (2.9340)	$ (7.5291)	$ (61.0460)
58	RCE %	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%	-40.5%
59	GAP Amount	$ 6.43	$ 12.8246	$ 16.2433	$ 19.5733	$ 17.1908	$ 11.5774	$ 83.8431	$ 5.6438	$ 6.6366	$ 1.2056	$ 0.4680	$ (6.7552)	$ 4.5967	$ 11.7955	$ 95.6387
60	GAP %	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%	30.1%
61	Total LDAC Amount	$ (14.04)	$ (27.99)	$ (35.45)	$ (42.72)	$ (37.52)	$ (25.27)	$ (182.98)	$ (12.32)	$ (14.48)	$ (2.63)	$ (1.02)	$ 14.74	$ (10.03)	$ (25.74)	$ (208.73)
62	Total LDAC %	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty
LDAC 2022 2023 Filing
LDAC Bill Comparisons, Proposed LDAC Rates November 1, 2022   October 31, 2023 vs. Current LDAC Rates

1	**Proposed LDAC Rates November 1, 2022 October 31, 2023**															
2	**Commercial/Industrial Sales Customers and Commercial/Industrial Transportation Customers (Rate Codes G 52)**															
3								Winter							Summer	Total
4		Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	Nov Apr	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	May Oct	Nov Oct
5	**Typical Usage (Therms)**	1,340	1,718	1,891	2,207	1,964	1,672	10,793	1,339	1,123	1,070	1,088	8,875	1,097	14,592	25,385
6	Energy Efficiency	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442		$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442	$ 0.0442		
7	Energy Efficiency Amount	$ 59.23	$ 75.96	$ 83.60	$ 97.55	$ 86.81	$ 73.91	$ 477.05	$ 59.20	$ 49.62	$ 47.31	$ 48.09	$ 392.29	$ 48.47	$ 644.97	$ 1,122.02
8	Gas Holder	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -		
9	Gas Holder Amount	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	MGP	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		
11	MGP Amount	$ 10.17	$ 13.0420	$ 14.3544	$ 16.7504	$ 14.9061	$ 12.6914	$ 81.91	$ 10.1644	$ 8.5200	$ 8.1237	$ 8.2566	$ 67.3590	$ 8.3221	$ 110.75	$ 192.66
12	Environmental	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076	$ 0.0076		
13	Total Environmental	$ 10.17	$ 13.04	$ 14.35	$ 16.75	$ 14.91	$ 12.69	$ 81.91	$ 10.16	$ 8.52	$ 8.12	$ 8.26	$ 67.36	$ 8.32	$ 110.75	$ 192.66
14	RDAF	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -		
15	RDAF amount	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
16	PTAM	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124		$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124	$ 0.0124		
17	PTAM amount	$ 16.55	$ 21.23	$ 23.36	$ 27.26	$ 24.26	$ 20.66	$ 133.33	$ 16.54	$ 13.87	$ 13.22	$ 13.44	$ 109.64	$ 13.55	$ 180.26	$ 313.58
18	RCE	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044		$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044	$ 0.0044		
19	RCE Amount	$ 5.90	$ 7.56	$ 8.32	$ 9.71	$ 8.64	$ 7.36	$ 47.49	$ 5.89	$ 4.94	$ 4.71	$ 4.79	$ 39.05	$ 4.82	$ 64.21	$ 111.69
20	GAP	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203		$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203	$ 0.0203		
21	GAP Amount	$ 27.20	$ 34.88	$ 38.39	$ 44.80	$ 39.87	$ 33.95	$ 219.10	$ 27.19	$ 22.79	$ 21.73	$ 22.08	$ 180.17	$ 22.26	$ 296.22	$ 515.32
22	LDAC	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888		$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888	$ 0.0888		
23	LDAC Amount	$ 119.04	$ 152.67	$ 168.03	$ 196.08	$ 174.49	$ 148.57	$ 958.89	$ 118.99	$ 99.74	$ 95.10	$ 96.65	$ 788.51	$ 97.42	$ 1,296.40	$ 2,255.28

24	**Current LDAC Rates November 1, 2022 October 31, 2023**															
25	**Commercial/Industrial Sales Customers and Commercial/Industrial Transportation Customers (Rate Codes G 52)**															
26								Winter							Summer	Total
27		Nov 21	Dec 21	Jan 22	Feb 22	Mar 22	Apr 22	Nov Apr	May 22	Jun 22	Jul 22	Aug 22	Sep 22	Oct 22	May Oct	Nov Oct
28	**Typical Usage (Therms)**	1,340	1,718	1,891	2,207	1,964	1,672	10,793	1,339	1,123	1,070	1,088	8,875	1,097	14,592	25,385
29	Energy Efficiency	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426		$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426	$ 0.0426		
30	Energy Efficiency Amount	$ 57.01	$ 73.12	$ 80.48	$ 93.91	$ 83.57	$ 71.15	$ 459.25	$ 56.99	$ 47.77	$ 45.55	$ 46.29	$ 377.65	$ 46.66	$ 620.89	$ 1,080.14
31	Gas Holder	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ -		
32	Gas Holder Amount	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
33	MGP	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		
34	MGP Amount	$ 20.7021	$ 26.5499	$ 29.2214	$ 34.0991	$ 30.3446	$ 25.8360	$ 166.75	$ 20.6919	$ 17.3444	$ 16.5376	$ 16.8081	$ 137.1240	$ 16.9415	$ 225.45	$ 392.20
35	Environmental	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155	$ 0.0155		
36	Total Environmental	$ 20.70	$ 26.55	$ 29.22	$ 34.10	$ 30.34	$ 25.84	$ 166.75	$ 20.69	$ 17.34	$ 16.54	$ 16.81	$ 137.12	$ 16.94	$ 225.45	$ 392.20
37	RDAF	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039		$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039	$ 0.0039		
38	RDAF amount	$ 5.23	$ 6.70	$ 7.38	$ 8.61	$ 7.66	$ 6.52	$ 42.09	$ 5.22	$ 4.38	$ 4.17	$ 4.24	$ 34.61	$ 4.28	$ 56.91	$ 99.00
39	PTAM	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142		$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142	$ 0.0142		
40	PTAM amount	$ 19.03	$ 24.40	$ 26.86	$ 31.34	$ 27.89	$ 23.75	$ 153.26	$ 19.02	$ 15.94	$ 15.20	$ 15.45	$ 126.03	$ 15.57	$ 207.21	$ 360.47
41	RCE	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074		$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074	$ 0.0074		
42	RCE Amount	$ 9.92	$ 12.72	$ 14.00	$ 16.33	$ 14.53	$ 12.37	$ 79.87	$ 9.91	$ 8.31	$ 7.92	$ 8.05	$ 65.68	$ 8.11	$ 107.98	$ 187.85
43	GAP	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156		$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156	$ 0.0156		
44	GAP Amount	$ 20.90	$ 26.81	$ 29.51	$ 34.43	$ 30.64	$ 26.09	$ 168.37	$ 20.89	$ 17.51	$ 16.70	$ 16.97	$ 138.46	$ 17.11	$ 227.64	$ 396.01
45	Total LDAC	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991		$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991	$ 0.0991		
46	Total LDAC Amount	$ 132.79	$ 170.30	$ 187.43	$ 218.72	$ 194.64	$ 165.72	$ 1,069.59	$ 132.72	$ 111.25	$ 106.08	$ 107.81	$ 879.55	$ 108.67	$ 1,446.07	$ 2,515.67

47	**LDAC Bill Impact : Commercial/Industrial Sales Customers and Commercial/Industrial Transportation Customers (Rate Codes G 52)**															
48								Winter							Summer	Total
49		Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	Nov Apr	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	May Oct	Nov Oct
50	Energy Efficiency	$ 2.21	$ 2.8354	$ 3.1207	$ 3.6417	$ 3.2407	$ 2.7592		$ 2.2098	$ 1.8523	$ 1.7661	$ 1.7950	$ 14.6443	$ 1.8093		
51	Energy Efficiency Amount	3.9%	$ 0.04	$ 0.04	$ 0.04	$ 0.04	$ 0.04	$ 0.23	$ 0.04	$ 0.04	$ 0.04	$ 0.04	$ 0.04	$ 0.04	$ 0.23	$ 0.47
52	Environmental	$ (10.53)	$ (13.5079)	$ (14.8671)	$ (17.3487)	$ (15.4385)	$ (13.1447)		$ (10.5275)	$ (8.8244)	$ (8.4139)	$ (8.5515)	$ (69.7650)	$ (8.6194)		
53	Total Environmental	-50.9%	$ (0.51)	$ (0.51)	$ (0.51)	$ (0.51)	$ (0.51)	$ (3.05)	$ (0.51)	$ (0.51)	$ (0.51)	$ (0.51)	$ (0.51)	$ (0.51)	$ (3.05)	$ (6.11)
54	RDAF	$ (5.23)	$ (6.7019)	$ (7.3763)	$ (8.6075)	$ (7.6598)	$ (6.5217)		$ (5.2232)	$ (4.3782)	$ (4.1745)	$ (4.2428)	$ (34.6138)	$ (4.2765)		
55	RDAF amount	-100.0%	$ (1.00)	$ (1.00)	$ (1.00)	$ (1.00)	$ (1.00)	$ (6.00)	$ (1.00)	$ (1.00)	$ (1.00)	$ (1.00)	$ (1.00)	$ (1.00)	$ (6.00)	$ (12.00)
56	PTAM	$ (2.47)	$ (3.1739)	$ (3.4932)	$ (4.0763)	$ (3.6275)	$ (3.0885)		$ (2.4736)	$ (2.0734)	$ (1.9769)	$ (2.0093)	$ (16.3922)	$ (2.0252)		
57	PTAM amount	-13.0%	$ (0.13)	$ (0.13)	$ (0.13)	$ (0.13)	$ (0.13)	$ (0.78)	$ (0.13)	$ (0.13)	$ (0.13)	$ (0.13)	$ (0.13)	$ (0.13)	$ (0.78)	$ (1.56)
58	RCE	$ (4.02)	$ (5.1553)	$ (5.6741)	$ (6.6212)	$ (5.8921)	$ (5.0167)		$ (4.0178)	$ (3.3678)	$ (3.2112)	$ (3.2637)	$ (26.6260)	$ (3.2896)		
59	RCE Amount	-40.5%	$ (0.41)	$ (0.41)	$ (0.41)	$ (0.41)	$ (0.41)	$ (2.43)	$ (0.41)	$ (0.41)	$ (0.41)	$ (0.41)	$ (0.41)	$ (0.41)	$ (2.43)	$ (4.86)
60	GAP	$ 6.30	$ 8.0767	$ 8.8894	$ 10.3732	$ 9.2310	$ 7.8595		$ 6.2946	$ 5.2763	$ 5.0308	$ 5.1131	$ 41.7141	$ 5.1537		
61	GAP Amount	30.1%	$ 0.30	$ 0.30	$ 0.30	$ 0.30	$ 0.30	$ 1.81	$ 0.30	$ 0.30	$ 0.30	$ 0.30	$ 0.30	$ 0.30	$ 1.81	$ 3.62
62	Total LDAC	$ (13.74)	$ (17.6269)	$ (19.4005)	$ (22.6389)	$ (20.1462)	$ (17.1529)	$ (110.71)	$ (13.74)	$ (11.52)	$ (10.98)	$ (11.16)	$ (91.04)	$ (11.25)	$ (149.68)	$ (260.39)
63	Total LDAC Amount	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%	-10.4%