

FERC Account		Average Service Lives (Years)	Net Salvage Value (%)	Depreciation Rate
303	Intangible Plant (Amort.)			
	3-Year	3	N/A	33.33%
	5-Year	5	N/A	20.00%
	10-Year	10	N/A	10.00%
	<u>Production Plant</u>			
305	Structures and Improvements	35	0.0	2.86%
311	Liquid Petroleum Gas Equipment	35	0.0	2.86%
319	Gas Mixing Equipment	20	0.0	5.00%
320	Other Equipment - LNG	35	0.0	2.86%
	<u>Storage Plant</u>			
361	Structures and Improvements - LNG	35	0.0	2.86%
363	Other Equipment - LNG	35	0.0	2.86%
	<u>Transmission Plant</u>			
366	Structures and Improvements	35	0.0	2.86% (reclass to 375)
367	Mains	60	-15.0	1.92% (reclass to 376)
369	Measuring and Regulating Station Equipment	35	0.0	2.86% (reclass to 378)
	<u>Distribution Plant</u>			
375	Structures and Improvements	35	0.0	2.86%
376	Mains	60	-15.0	1.92%
378	Measuring and Regulating Station Equipment	35	0.0	2.86%
380	Services	45	-60.0	3.55%
381	Meters	33	0.0	3.03%
381.1	Meters - Instrument	33	0.0	3.03%
381.2	Meters - ERTs	20	0.0	5.00%
382	Meter Installations	33	0.0	3.03%
387	Other Equipment	19	0.0	5.26%
	<u>General Plant</u>			
390	Structures and Improvements	30	0.0	3.33%
391	Office Furniture and Equipment	18	5.0	5.28%
391.1	Office Furniture and Equipment - Computers	11	0.0	9.09%
391.2	Office Furniture and Equipment - Laptop Comp.	5	0.0	20.00%
392	Transportation Equipment	5	0.0	20.00%
393	Stores Equipment	30	0.0	3.33%
394	Tools, Shop and Garage Equipment	19	0.0	5.26%
396	Power Operated Equipment	5	0.0	20.00%
397	Communications Equipment	10	0.0	10.00%
398	Miscellaneous Equipment	12	0.0	8.33%

**Liberty Utilities (EnergyNorth)
Step Increase - EnergyNorth and Keene**

Line	Description	Misc. Intangible Plant	LNG Plant	Mains	Station Equipment	General Structures	Mains	Meas. & Reg. Station Equip.	Services	Meters	Structures and Improvements	Office Equipment	Vehicles	Stores Equipment	Tools	Total
1	Capital Spending - EnergyNorth	\$ 2,105,141	\$ 2,020,000	\$ 14,414,334	\$ 300,000	\$ 1,215,000	\$ 300,000	\$ 325,000	\$ 1,115,000	\$ 1,600,000	\$ 1,156,662	\$ 760,384	\$ 1,978,000	\$ 4,000	\$ 175,000	\$ 27,464,521
2	Capital Spending - Keene	25,000		236,000				55,000	50,000	10,000		65,000	45,000	4,000		490,000
3	Capital Spending - Total	2,130,141	2,020,000	14,650,334	300,000	1,215,000	300,000	380,000	1,165,000	1,610,000	1,156,662	825,384	2,023,000	4,000	175,000	27,954,521
4	Deferred Tax Calculation															
5	Tax Method	MACRS15	MACRS20	MACRS20	MACRS20	MACRS39	MACRS20	MACRS20	MACRS20	MACRS20	MACRS39	MACRS7	MACRS5	MACRS7	MACRS7	
6	Tax Depreciation Rate	5.00%	3.75%	3.75%	3.75%	1.28%	3.75%	3.75%	3.75%	3.75%	1.28%	14.29%	20.00%	14.29%	14.29%	
7	Bonus Depreciation @ 0.00%															
8	Tax Basis	\$ 2,130,141	\$ 2,020,000	\$ 14,650,334	\$ 300,000	\$ 1,215,000	\$ 300,000	\$ 380,000	\$ 1,165,000	\$ 1,610,000	\$ 1,156,662	\$ 825,384	\$ 2,023,000	\$ 4,000	\$ 175,000	\$ 27,954,521
9	MACRS Depreciation	\$ 106,507	\$ 75,750	\$ 549,388	\$ 11,250	\$ 15,577	\$ 11,250	\$ 14,250	\$ 43,688	\$ 60,375	\$ 14,829	\$ 117,912	\$ 404,600	\$ 571	\$ 25,000	\$ 1,450,946
10	Tax Depreciation - Federal	\$ 106,507	\$ 75,750	\$ 549,388	\$ 11,250	\$ 15,577	\$ 11,250	\$ 14,250	\$ 43,688	\$ 60,375	\$ 14,829	\$ 117,912	\$ 404,600	\$ 571	\$ 25,000	\$ 1,450,946
11	Tax Depreciation - State	\$ 106,507	\$ 75,750	\$ 549,388	\$ 11,250	\$ 15,577	\$ 11,250	\$ 14,250	\$ 43,688	\$ 60,375	\$ 14,829	\$ 117,912	\$ 404,600	\$ 571	\$ 25,000	\$ 1,450,946
12	Book Depreciation Rate - EN	16.13%	2.86%	1.92%	2.86%	2.86%	1.92%	2.86%	3.55%	3.03%	3.33%	5.28%	20.00%	3.33%	5.26%	
13	Book Depreciation - EN	\$ 339,559	\$ 57,772	\$ 276,755	\$ 8,580	\$ 34,749	\$ 5,760	\$ 9,295	\$ 39,583	\$ 48,480	\$ 38,517	\$ 40,148	\$ 395,600	\$ -	\$ 9,205	\$ 1,304,003
14	Book Depreciation Rate - Keene	16.13%	1.92%													
15	Book Depreciation - Keene	\$ 4,033	\$ 4,531					\$ 1,573	\$ 1,775	\$ 303		\$ 3,432	\$ 9,000	\$ 133		\$ 24,780
16	Book Depreciation - Total	\$ 343,592	\$ 57,772	\$ 281,286	\$ 8,580	\$ 34,749	\$ 5,760	\$ 10,868	\$ 41,358	\$ 48,783	\$ 38,517	\$ 43,580	\$ 404,600	\$ 133	\$ 9,205	\$ 1,328,783
17	Tax over (under) Book - Federal - EN	\$ (237,085)	\$ 17,978	\$ 268,101	\$ 2,670	\$ (19,172)	\$ 5,490	\$ 3,382	\$ 2,330	\$ 11,592	\$ (23,688)	\$ 74,332	\$ -	\$ 438	\$ 15,795	\$ 122,163
18	Tax over (under) Book - State - EN	\$ (237,085)	\$ 17,978	\$ 268,101	\$ 2,670	\$ (19,172)	\$ 5,490	\$ 3,382	\$ 2,330	\$ 11,592	\$ (23,688)	\$ 74,332	\$ -	\$ 438	\$ 15,795	\$ 122,163
19	Deferred Taxes - Federal @ 19.28% - EN	\$ (45,705)	\$ 3,466	\$ 51,685	\$ 515	\$ (3,696)	\$ 1,058	\$ 652	\$ 449	\$ 2,235	\$ (4,567)	\$ 14,330	\$ 0	\$ 84	\$ 3,045	\$ 23,551
20	Deferred Taxes - State @ 8.20% - EN	\$ (19,441)	\$ 1,474	\$ 21,984	\$ 219	\$ (1,572)	\$ 450	\$ 277	\$ 191	\$ 951	\$ (1,942)	\$ 6,095	\$ 0	\$ 36	\$ 1,295	\$ 10,017
21	Deferred Tax Balance @ 27.48%	\$ (65,146)	\$ 4,940	\$ 73,669	\$ 734	\$ (5,268)	\$ 1,509	\$ 929	\$ 640	\$ 3,185	\$ (6,509)	\$ 20,425	\$ -	\$ 120	\$ 4,340	\$ 33,568
22	Rate Base Calculation															
23	Plant in Service	\$ 2,130,141	\$ 2,020,000	\$ 14,650,334	\$ 300,000	\$ 1,215,000	\$ 300,000	\$ 380,000	\$ 1,165,000	\$ 1,610,000	\$ 1,156,662	\$ 825,384	\$ 2,023,000	\$ 4,000	\$ 175,000	\$ 27,954,521
24	Accumulated Depreciation	\$ (343,592)	\$ (57,772)	\$ (281,286)	\$ (8,580)	\$ (34,749)	\$ (5,760)	\$ (10,868)	\$ (41,358)	\$ (48,783)	\$ (38,517)	\$ (43,580)	\$ (404,600)	\$ (133)	\$ (9,205)	\$ (1,328,783)
25	Deferred Tax Balance	\$ 65,146	\$ (4,940)	\$ (73,669)	\$ (734)	\$ 5,268	\$ (1,509)	\$ (929)	\$ (640)	\$ (3,185)	\$ 6,509	\$ (20,425)	\$ 0	\$ (120)	\$ (4,340)	\$ (33,568)
26	Rate Base	\$ 1,851,695	\$ 1,957,288	\$ 14,295,379	\$ 290,686	\$ 1,185,519	\$ 292,731	\$ 368,203	\$ 1,123,002	\$ 1,558,032	\$ 1,124,654	\$ 761,379	\$ 1,618,400	\$ 3,746	\$ 161,455	\$ 26,592,170
27	Revenue Requirement Calculation															
28	Return on Rate Base @ 8.60%	\$ 159,246	\$ 168,327	\$ 1,229,403	\$ 24,999	\$ 101,955	\$ 25,175	\$ 31,665	\$ 96,578	\$ 133,991	\$ 96,720	\$ 65,479	\$ 139,182	\$ 322	\$ 13,885	\$ 2,286,927
29	Depreciation Expense	\$ 343,592	\$ 57,772	\$ 281,286	\$ 8,580	\$ 34,749	\$ 5,760	\$ 10,868	\$ 41,358	\$ 48,783	\$ 38,517	\$ 43,580	\$ 404,600	\$ 133	\$ 9,205	\$ 1,328,783
30	Property Tax @ 2.06% - EN Capital	\$ 41,512	\$ 296,222	\$ 6,165	\$ 24,969	\$ 6,679										\$ 405,483
31	Insurance @ 0.20% - EN Capital	\$ 3,983	\$ 28,421	\$ 592	\$ 2,396	\$ 592										\$ 50,001
32	Property Tax @ 4.17% - Keene Capital	\$ 9,838		\$ 9,838		\$ 2,293										\$ 14,633
33	Insurance @ 4.25% - Keene Capital	\$ 10,032		\$ 10,032		\$ 2,338										\$ 19,767
34	Annual Revenue Requirement	\$ 502,837	\$ 271,594	\$ 1,855,203	\$ 40,336	\$ 164,068	\$ 37,692	\$ 54,484	\$ 144,344	\$ 186,770	\$ 161,288	\$ 113,321	\$ 549,595	\$ 625	\$ 23,435	\$ 5,044,835

Rate of Return Calculation	Portion	After-Tax Cost	Tax	Pre-Tax WACC
Equity	49.20%	9.40%	27.48%	6.38%
Debt (ST)	0.95%	2.49%		0.02%
Debt (LT)	49.85%	4.42%		2.20%
	100.00%			8.60%

"Carry Over Cost Provision Adjustments" per DG 17-063, Knepper Direct Testimony

Unadjusted annual revenue requirement for FY 16	694,182
Adjusted annual revenue requirement for FY 16	688,807
Difference to be recovered	5,375

Estimated paving cost for FY 17	2,301,960
Recoverable paving cost for FY 17	899,390
Difference to be recovered	1,402,570
Revenue Requirement of the Difference, per CIBS model	155,703

Description - Property Tax and Insurance Rates for EnergyNorth	Reference	Amount
Property taxes (Account 408-P)	RR-StepWP2	\$ 9,386,306
Property insurance (Account 924)	RR-EN-2-1	\$ 38,113
Injuries and Damage (Casualty Insurance) (Account 925)	RR-EN-2-1	\$ 877,844
		\$ 9,386,306
Plant at Cost	RR-Step-EN-WP2	\$ 464,553,396
As % of Plant Cost		2.06%

Adjustments Identified in Rebuttal Testimony	Reference	Amount
Increase in Expense Portion of Pension and OPEB Costs	Response to Staff Tech 3-15	419,583
Legal Fees, 2017	Lafamme & Mullinax Direct, Schedule EN 4, Line 27	172,517
Degradation Fees, 2017	Lafamme & Mullinax Direct, Schedule EN 4, Line 35	186,065
Total Additional Expense - Goes to Line 35		778,165

New Tax Rate Analysis	
Federal Tax Rate	21.00%
State Tax Rate	8.20%
Combined Tax Rate	27.48%

Description - Property Tax and Insurance Rates for Keene	Reference	Amount
Property taxes (Account 408-P)	RR-K-2-1	153,854
Property insurance (Account 924)	RR-K-2-1	(2,183)
Injuries and Damage (Casualty Insurance) (Account 925)	RR-K-2-1	187,292
		153,854
Plant at Cost	RR-Step-K-WP2	3,690,589
		4,354,606

Priority	Project	Company	Project Description	CY2017 Capital Budget	FERC Account
LU CapEx - Growth	8840-1753	EnergyNorth	Install Main on Varney and Worthely and Rockland	\$ 350,000	367
LU CapEx - Improvement	8840-1721	EnergyNorth	Install Security Equipment - EN Facilities	\$ 125,000	391
LU CapEx - Improvement	TBD	EnergyNorth	Northeast Expansion		367
LU CapEx - Improvement	8840-1722	EnergyNorth	Inactive Service Program	\$ 75,000	380
LU CapEx - Improvement	8840-1723	EnergyNorth	Main & Service Replacement City/State Construction	\$ 5,200,000	367
LU CapEx - Improvement	8840-1725	EnergyNorth	Service Replacement Fitting City/State Construction	\$ 60,000	380
LU CapEx - Improvement	8840-1726	EnergyNorth	LNG/LPG Capital Improvements	\$ 100,000	320
LU CapEx - Improvement	8840-1727	EnergyNorth	Facility Improvements & Additions - Various	\$ 100,000	375
LU CapEx - Improvement	8840-1728	EnergyNorth	Upgrade Hi Line - Concord to Tilton Phase 2	\$ 350,000	367
LU CapEx - Improvement	8840-1729	EnergyNorth	Pre-Code Stee Pipe Protection Program	\$ 175,000	367
LU CapEx - Improvement	8840-1730	EnergyNorth	IT - Software, Equipment & Infrastructure	\$ 50,000	303
LU CapEx - Improvement	8840-1731	EnergyNorth	Gas System Planning & Reliability	\$ 500,000	367
LU CapEx - Improvement	8840-1732	EnergyNorth	Gas System Control & Regulation	\$ 300,000	369
LU CapEx - Improvement	8840-1733	EnergyNorth	Facility Improvements & Additions - Manchester	\$ 200,000	391
LU CapEx - Improvement	8840-1734	EnergyNorth	Facility Improvements & Additions - Nashua	\$ 100,000	391
LU CapEx - Improvement	8840-1735	EnergyNorth	Facility Improvements & Additions - Tilton	\$ 200,384	391
LU CapEx - Improvement	8840-1736	EnergyNorth	Facility Improvements & Additions - Londonderry	\$ 75,000	391
LU CapEx - Improvement	8840-1737	EnergyNorth	Facility Improvements & Additions - Concord	\$ 60,000	391
LU CapEx - Improvement	8840-1738	EnergyNorth	IT Systems Allocations - Corporate	\$ 750,000	303
LU CapEx - Improvement	8840-1739	EnergyNorth	Dresser Coupling Replacement Program	\$ 300,000	376
LU CapEx - Improvement	8840-1740	EnergyNorth	ERP Foundation Year	\$ 536,463	303
LU CapEx - Improvement	8840-1741	EnergyNorth	EAM Foundation Year	\$ 536,463	303
LU CapEx - Improvement	TBD	EnergyNorth	CIS Foundation Year	\$ -	303
LU CapEx - Improvement	8840-1742	EnergyNorth	GIS Gas Upgrade	\$ 118,544	303
LU CapEx - Improvement	8840-1743	EnergyNorth	GIS - One Graphic Card	\$ 15,440	303
LU CapEx - Improvement	8840-1744	EnergyNorth	GIS Marketing Enhancement	\$ 51,177	303
LU CapEx - Improvement	8840-1745	EnergyNorth	Mobiletech Enhancements	\$ 37,054	303
LU CapEx - Improvement	8840-1746	EnergyNorth	Concord Office	\$ 500,000	390
LU CapEx - Improvement	8840-1755	EnergyNorth	Motorized Gate for Concord Plant	\$ 55,000	375
LU CapEx - Improvement	8840-1756	EnergyNorth	Nashua Meter Building Repointing	\$ 150,000	375
LU CapEx - Improvement	8840-1757	EnergyNorth	CNG Fast Fill Station for Manchester and Tilton Yards	\$ 1,920,000	320
LU CapEx - Improvement	8840-1758	EnergyNorth	Manchester Solar Install	\$ 190,000	380
LU CapEx - Improvement	8840-1759	EnergyNorth	Paving Manchester Yard	\$ 900,000	375
LU CapEx - Improvement	TBD	EnergyNorth	Paving Nashua Yard	\$ -	375
LU CapEx - Improvement	8840-1762	EnergyNorth	Tilton Office Refresh	\$ 600,000	390
LU CapEx - Improvement	8840-1763	EnergyNorth	Manchester Kitchen Refresh	\$ 35,000	390
LU CapEx - Improvement	8840-1764	EnergyNorth	Supplemental AC for Londonderry (Dispatch/Training Rms)	\$ 21,000	390
LU CapEx - Improvement	8840-1765	EnergyNorth	Tilton Yard Shelving Replacement	\$ 8,662	390
LU CapEx - Improvement	8840-1766	EnergyNorth	Chestnut Street, Nashua Regulator Station Replacement	\$ 325,000	378
LU CapEx - Improvement	8840-1769	EnergyNorth	Laconia Phase II	\$ 850,000	367
LU CapEx - Improvement	8840-1770	EnergyNorth	Daniel Webster Highway	\$ 650,000	367
LU CapEx - Improvement	8840-C18800	EnergyNorth	Upgrade Hi Line - Concord to Tilton Phase 1	\$ 700,000	367
LU CapEx - Replenishment	8840-1701	EnergyNorth	Reserve for Unidentified Mandated/Growth Projects	\$ 3,139,334	367
LU CapEx - Replenishment	8840-1702	EnergyNorth	Meter Protection Program	\$ 50,000	381
LU CapEx - Replenishment	8840-1703	EnergyNorth	Cathodic Protection Program	\$ 750,000	367
LU CapEx - Replenishment	8840-1704	EnergyNorth	Replacement Services Random (Non Leaks)	\$ 490,000	380
LU CapEx - Replenishment	8840-1705	EnergyNorth	Replacement Services Random (Due to Leaks)	\$ 300,000	380
LU CapEx - Replenishment	8840-1706	EnergyNorth	Meter Work Project (Changes)	\$ 150,000	381
LU CapEx - Replenishment	8840-1707	EnergyNorth	Meter Work Project (Meter Purchases)	\$ 1,300,000	381
LU CapEx - Replenishment	8840-1708	EnergyNorth	Corrosion & Miscellaneous Fitting	\$ 100,000	367
LU CapEx - Replenishment	8840-1709	EnergyNorth	Valve Installation/Replacement	\$ 50,000	367
LU CapEx - Replenishment	8840-1710	EnergyNorth	Leak Repairs	\$ 250,000	367
LU CapEx - Replenishment	8840-1713	EnergyNorth	Main Replacement Fitting LPP	\$ 200,000	367
LU CapEx - Replenishment	8840-1714	EnergyNorth	K Meter Replacement Program	\$ 100,000	381
LU CapEx - Replenishment	8840-1715	EnergyNorth	Aldy1-A Replacement Program	\$ 550,000	367
LU CapEx - Replenishment	8840-1716	EnergyNorth	Main Replacement Reactive	\$ 100,000	367
LU CapEx - Replenishment	8840-1717	EnergyNorth	Dispatch and Control Center	\$ 10,000	375
LU CapEx - Replenishment	8840-1718	EnergyNorth	Purchase Misc Capital Equipment & Tools	\$ 175,000	394
LU CapEx - Replenishment	8840-1719	EnergyNorth	Transportation Fleet and Equipment Purchases	\$ 1,978,000	392
LU CapEx - Replenishment	8840-1720	EnergyNorth	SCADA Capital Improvements	\$ 10,000	303
LU CapEx - Replenishment	8840-1767	EnergyNorth	Replace Mueller Stopping Equipment w/ TD Williamson	\$ 500,000	367
		EnergyNorth	Bond Refund for Concord Training Center	\$ (8,000)	390
LU CapEx - Improvement	8843-1704	Keene	Facility Improvements & Additions - Keene	\$ 5,000	391
LU CapEx - Improvement	8843-1705	Keene	IT - Software, Equipment & Infrastructure	\$ 25,000	303
LU CapEx - Improvement	8843-1706	Keene	Facility Improvements & Additions - Keene	\$ 45,000	391
LU CapEx - Improvement	8843-C18750	Keene	Install Security Equipment - Keene	\$ 15,000	391
LU CapEx - Improvement	8843-EN1103	Keene	Main Replacement City/State Construction	\$ 50,000	367
LU CapEx - Improvement	8843-EN1137	Keene	Service Replacement City/State Construction	\$ 20,000	380
LU CapEx - Improvement	8843-REL105	Keene	Gas System Planning & Reliability	\$ 50,000	378
LU CapEx - Replenishment	8843-1701	Keene	Reserve for unidentified projects	\$ 25,000	367
LU CapEx - Replenishment	8843-1702	Keene	Purchase Misc. Capital Tools/Equipment	\$ 4,000	393
LU CapEx - Replenishment	8843-1703	Keene	Transportation Fleet and Equipment Purchases	\$ 45,000	392
LU CapEx - Replenishment	8843-EN1006	Keene	Cathodic Protection/Corrosion Mitigation Program	\$ 5,000	367
LU CapEx - Replenishment	8843-EN1007	Keene	Replacement Services Random	\$ 5,000	380
LU CapEx - Replenishment	8843-EN1100P	Keene	Meter Work Project (Meter Purchases)	\$ 10,000	381
LU CapEx - Replenishment	8843-EN1107	Keene	Main Replacement LPP	\$ 150,000	367
LU CapEx - Replenishment	8843-EN1117	Keene	Service Replacement LPP	\$ 25,000	380
LU CapEx - Replenishment	8843-REL109	Keene	SCADA Capital Improvements	\$ 5,000	378
LU CapEx - Replenishment	8843-REL110	Keene	Valve Installation/Replacement	\$ 6,000	367

Liberty Utilities (EnergyNorth Natural Gas) Corp.
 Docket No. DG 17-048
Calculation of Recoupment Amount

	(A)	(B)
1. Settlement Permanent Rate Increase	\$10,300,000	
2. Temporary Rate Increase	<u>\$6,750,000</u>	
3. Annual Recoupment		\$3,550,000
4. divided by: TY Weather Normal Deliveries (th)*		<u>159,761,663</u>
5. Recoupment per Therm		\$0.0222
6. Times: Actual/Estimated Jul-Apr Deliveries (th)**		<u>161,741,745</u>
7. Recoupment		<u><u>\$3,590,667</u></u>

* Test Year Delivery data from initial filing Schedule Rates-2, p.6

** Time Difference is number of months that Temporary Rates were in effect.
 Due to colder than normal temperatures, actual therms for the recoupment period exceeded the annual weather normalized sales.

Liberty Utilities (EnergyNorth Natural Gas) Corp.

Docket No. DG 17-048

Actual/Estimated Deliveries (th) for Recoupment Calculation

	<u>Month</u>	<u>Deliveries</u>	<u>*</u>
1.	Jul-17	5,277,399	A
2.	Aug-17	5,724,645	A
3.	Sep-17	5,838,102	A
4.	Oct-17	8,439,912	A
5.	Nov-17	16,780,042	A
6.	Dec-17	26,501,752	A
7.	Jan-18	26,925,176	E
8.	Feb-18	25,940,404	E
9.	Mar-18	23,074,433	E
10.	Apr-18	17,239,880	E
11.	<u>TOTAL</u>	<u>161,741,745</u>	

* Actual data (A), Estimated data (E)

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Rate Case Expense (Through February 15, 2018)
Docket No. DG 17-048

<u>Purpose</u>	<u>Provider</u>	<u>Amount</u>
Revenue Requirement	Concentric	\$ 136,829
Marginal Cost Study	Concentric	70,939
Functional Cost of Service Study	Concentric	14,993
Rate Design	Concentric	35,696
Decoupling	Concentric	29,826
Return on Equity	ScottMadden	39,830
Depreciation Study	MAC	43,444
Legal Notice		1,446
Court Reporter	Patnaude	472
Copying	Minuteman Press	2,753
<u>Staff Consultants</u>		
Revenue Requirement	Blue Ridge Consulting	34,691
Return on Equity	J. Randall Woolridge	-
Follow-Up	Liberty Consulting	<u>57,340</u>
Total through February 15, 2018		\$ 468,259
Additional Estimated Expenses through Conclusion of case		<u>61,741</u>
Total Rate Case Expenses (Actual through Feb. 15 plus estimate)		<u><u>\$ 530,000</u></u>

Permanent rate increase	10,300,000	
Original gross-up	<u>1.6504</u>	
Increase before gross-up	6,240,911	
Gross-up with new tax rates	<u>1.3789</u>	
Revised Grossed-up increase	8,605,593	
Difference in gross-up	(1,694,407)	
Excess DIT (amort. over 39.05 years) *	<u>(699,657)</u>	(27,321,620 / 39.05)
Total annual amount to return to customers	<u><u>(2,394,065)</u></u>	

* Revaluing the existind deferred tax assets and liabilities at the lower tax rates resulted in a net amount of excess deferred tax liaibility of \$27,321,620 which will be amortized and returned to customers over the average remaining life of the underlying assets which is 39.05 years.

Line
No

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

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
19	14	11	9	9	11	73	226
\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$89.28	\$178.56
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$8.03	\$5.91	\$4.50	\$3.83	\$3.77	\$4.64	\$30.69	\$94.91
\$22.91	\$20.79	\$19.38	\$18.71	\$18.65	\$19.52	\$119.97	\$273.47
\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.5984
\$5.99	\$4.41	\$3.36	\$2.86	\$2.81	\$3.46	\$22.89	\$135.22
\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037
\$1.98	\$1.46	\$1.11	\$0.95	\$0.93	\$1.15	\$7.58	\$23.44
\$30.89	\$26.66	\$23.84	\$22.51	\$22.39	\$24.14	\$150.44	\$432.13

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
19	14	11	9	9	11	73	226
\$16.88	\$16.88	\$16.88	\$16.88	\$16.88	\$16.88	\$101.28	\$202.56
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$4.27	\$3.14	\$2.39	\$2.04	\$2.00	\$2.47	\$16.30	\$50.42
\$21.15	\$20.02	\$19.27	\$18.92	\$18.88	\$19.35	\$117.58	\$252.98
\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.5984
\$5.99	\$4.41	\$3.36	\$2.86	\$2.81	\$3.46	\$22.89	\$135.22
\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856
\$1.64	\$1.21	\$0.92	\$0.78	\$0.77	\$0.95	\$6.25	\$19.35
\$28.78	\$25.64	\$23.54	\$22.55	\$22.46	\$23.76	\$146.73	\$407.55

\$2.11	\$1.03	\$0.30	(\$0.04)	(\$0.07)	\$0.38	\$3.71	\$24.58
7.34%	4.00%	1.28%	-0.17%	-0.32%	1.59%	2.53%	6.03%
\$1.77	\$0.77	\$0.11	(\$0.20)	(\$0.23)	\$0.18	\$2.38	\$20.49
8.35%	3.85%	0.56%	-1.08%	-1.24%	0.91%	2.03%	8.10%
\$0.35	\$0.25	\$0.19	\$0.17	\$0.16	\$0.20	\$1.32	\$4.09
4.54%	4.54%	4.54%	4.54%	4.54%	4.54%	4.54%	2.65%

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

PROPOSED	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
Residential Non-Heating (R1)	17	24	27	32	31	23	153
average Usage (Therms)	17	24	27	32	31	23	153
Winter:							
Cust. Chg	\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$89.28
Headblock	\$0.4200	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Tailblock	\$0.4200	\$6.93	\$9.91	\$11.48	\$13.29	\$13.10	\$64.22
HB Threshold	-						
Summer:							
Cust. Chg	\$14.88						
Headblock	\$0.4200						
Tailblock	\$0.4200						
HB Threshold	-						
Total Base Rate Amount	\$21.81	\$24.79	\$26.36	\$28.17	\$27.98	\$24.39	\$153.50
COG Rate - (Winter)	\$0.6445	\$0.6445	\$0.6445	\$0.8056	\$0.8056	\$0.8056	\$0.7346
COG amount - Winter	\$10.64	\$15.20	\$17.62	\$25.50	\$25.12	\$18.24	\$112.33
COG Rate - (Summer)							
COG amount - Summer							
LDAC	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037
LDAC amount	\$1.71	\$2.45	\$2.84	\$3.28	\$3.23	\$2.35	\$15.86
Total Bill	\$34.16	\$42.44	\$46.82	\$56.96	\$56.33	\$44.98	\$281.69

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

CURRENT	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
Residential Non-Heating (R1)	17	24	27	32	31	23	153
average Usage (Therms)	17	24	27	32	31	23	153
Winter:							
Cust. Chg	\$16.88	\$16.88	\$16.88	\$16.88	\$16.88	\$16.88	\$101.28
Headblock	\$0.2231	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Tailblock	\$0.2231	\$3.68	\$5.26	\$6.10	\$7.06	\$6.96	\$34.12
HB Threshold	-						
Summer:							
Cust. Chg	\$16.88						
Headblock	\$0.2231						
Tailblock	\$0.2231						
HB Threshold	-						
Total Base Rate Amount	\$20.56	\$22.14	\$22.98	\$23.94	\$23.84	\$21.93	\$135.40
COG Rate - (Winter)	\$0.6445	\$0.6445	\$0.6445	\$0.8056	\$0.8056	\$0.8056	\$0.7346
COG amount - Winter	\$10.64	\$15.20	\$17.62	\$25.50	\$25.12	\$18.24	\$112.33
COG Rate - (Summer)							
COG amount - Summer							
LDAC	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856
LDAC amount	\$1.41	\$2.02	\$2.34	\$2.71	\$2.67	\$1.94	\$13.09
Total Bill	\$32.61	\$39.37	\$42.95	\$52.16	\$51.63	\$42.11	\$260.82

DIFFERENCE:

Total Bill	\$1.55	\$3.07	\$3.88	\$4.80	\$4.70	\$2.87	\$20.87
% Change	4.74%	7.80%	9.03%	9.21%	9.11%	6.81%	8.00%
Base Rate	\$1.25	\$2.64	\$3.38	\$4.23	\$4.14	\$2.46	\$18.10
% Change	6.07%	11.94%	14.72%	17.68%	17.36%	11.20%	13.37%
COG & LDAC	\$0.30	\$0.43	\$0.49	\$0.57	\$0.56	\$0.41	\$2.77
% Change	2.48%	2.48%	2.48%	2.03%	2.03%	2.03%	2.21%

Line
No

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

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

73 Residential Heating (R3)

74	PROPOSED	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
75								
76	average Usage (Therms)	51	90	117	141	130	89	618
77								
78	Winter:							
79	Cust. Chg	\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$89.28
80	Headblock	\$0.5775	\$29.40	\$51.98	\$57.75	\$57.75	\$51.12	\$305.75
81	Tailblock	\$0.5775	\$0.00	\$0.00	\$10.04	\$23.80	\$0.00	\$51.00
82	HB Threshold	100						
83								
84	Summer:							
85	Cust. Chg	\$14.88						
86	Headblock	\$0.5775						
87	Tailblock	\$0.5775						
88	HB Threshold	20						
89								
90	Total Base Rate Amount	\$44.28	\$66.86	\$82.67	\$96.43	\$89.79	\$66.00	\$446.03
91								
92	COG Rate - (Winter)	\$0.6445	\$0.6445	\$0.6445	\$0.8056	\$0.8056	\$0.8056	\$0.7382
93	COG amount - Winter	\$32.81	\$58.01	\$75.66	\$113.76	\$104.50	\$71.32	\$456.05
94								
95	COG Rate - (Summer)							
96	COG amount - Summer							
97								
98	LDAC	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037
99	LDAC amount	\$5.28	\$9.33	\$12.17	\$14.64	\$13.45	\$9.18	\$64.06
100								
101	Total Bill	\$82.38	\$134.20	\$170.50	\$224.83	\$207.73	\$146.50	\$966.15

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

104 Residential Heating (R3)

105	CURRENT	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
106								
107	average Usage (Therms)	51	90	117	141	130	89	618
108								
109	Winter:							
110	Cust. Chg	\$24.43	\$24.43	\$24.43	\$24.43	\$24.43	\$24.43	\$146.58
111	Headblock	\$0.3863	\$19.67	\$34.77	\$38.63	\$38.63	\$34.20	\$204.52
112	Tailblock	\$0.3197	\$0.00	\$0.00	\$5.56	\$13.18	\$0.00	\$28.23
113	HB Threshold	100						
114								
115	Summer:							
116	Cust. Chg	\$24.43						
117	Headblock	\$0.3863						
118	Tailblock	\$0.3197						
119	HB Threshold	20						
120								
121	Total Base Rate Amount	\$44.10	\$59.20	\$68.62	\$76.24	\$72.56	\$58.63	\$379.34
122								
123	COG Rate - (Winter)	\$0.6445	\$0.6445	\$0.6445	\$0.8056	\$0.8056	\$0.8056	\$0.7382
124	COG amount - Winter	\$32.81	\$58.01	\$75.66	\$113.76	\$104.50	\$71.32	\$456.05
125								
126	COG Rate - (Summer)							
127	COG amount - Summer							
128								
129	LDAC	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856
130	LDAC amount	\$4.36	\$7.70	\$10.05	\$12.09	\$11.10	\$7.58	\$52.88
131								
132	Total Bill	\$81.27	\$124.91	\$154.32	\$202.08	\$188.16	\$137.52	\$888.27

134 DIFFERENCE:

135	Total Bill	\$1.11	\$9.29	\$16.18	\$22.75	\$19.58	\$8.98	\$77.88
136	% Change	1.36%	7.44%	10.48%	11.26%	10.40%	6.53%	8.77%
137								
138	Base Rate	\$0.18	\$7.66	\$14.05	\$20.19	\$17.23	\$7.38	\$66.70
139	% Change	0.42%	12.94%	20.48%	26.49%	23.75%	12.58%	17.58%
140								
141	COG & LDAC	\$0.92	\$1.63	\$2.12	\$2.56	\$2.35	\$1.60	\$11.18
142	% Change	2.48%	2.48%	2.48%	2.03%	2.03%	2.03%	2.20%

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
51	25	16	14	14	22	142	760
\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$89.28	\$178.56
\$11.55	\$11.55	\$9.35	\$8.14	\$8.12	\$11.55	\$60.26	\$366.02
\$17.86	\$3.10	\$0.00	\$0.00	\$0.00	\$0.97	\$21.93	\$72.93
\$44.29	\$29.53	\$24.23	\$23.02	\$23.00	\$27.40	\$171.47	\$617.50
\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.6587
\$15.95	\$7.95	\$5.07	\$4.42	\$4.40	\$6.79	\$44.59	\$500.64
\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037
\$5.28	\$2.63	\$1.68	\$1.46	\$1.46	\$2.25	\$14.76	\$78.82
\$65.52	\$40.12	\$30.99	\$28.90	\$28.86	\$36.44	\$230.82	\$1,196.97

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
51	25	16	14	14	22	142	760
\$24.43	\$24.43	\$24.43	\$24.43	\$24.43	\$24.43	\$146.58	\$293.16
\$7.73	\$7.73	\$6.26	\$5.45	\$5.43	\$7.73	\$40.31	\$244.84
\$9.89	\$1.72	\$0.00	\$0.00	\$0.00	\$0.54	\$12.14	\$40.37
\$42.04	\$33.87	\$30.69	\$29.88	\$29.86	\$32.69	\$199.03	\$578.37
\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.6587
\$15.95	\$7.95	\$5.07	\$4.42	\$4.40	\$6.79	\$44.59	\$500.64
\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856
\$4.36	\$2.17	\$1.39	\$1.21	\$1.20	\$1.86	\$12.18	\$65.06
\$62.35	\$44.00	\$37.15	\$35.50	\$35.47	\$41.34	\$255.80	\$1,144.07

\$3.17	(\$3.88)	(\$6.16)	(\$6.60)	(\$6.61)	(\$4.90)	(\$24.98)	\$52.89
5.08%	-8.82%	-16.58%	-18.59%	-18.63%	-11.86%	-9.77%	4.62%
\$2.25	(\$4.34)	(\$6.45)	(\$6.85)	(\$6.86)	(\$5.29)	(\$27.56)	\$39.14
5.34%	-12.81%	-21.03%	-22.94%	-22.98%	-16.19%	-13.85%	6.77%
\$0.92	\$0.46	\$0.29	\$0.26	\$0.25	\$0.39	\$2.58	\$13.76
4.54%	4.54%	4.54%	4.54%	4.54%	4.54%	4.54%	2.43%

Line
No

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

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

PROPOSED	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
average Usage (Therms)	46	81	105	127	122	87	568
Winter:							
Cust. Chg	\$5.95	\$5.95	\$5.95	\$5.95	\$5.95	\$5.95	\$35.71
Headblock	\$0.2310	\$10.71	\$18.62	\$23.10	\$23.10	\$20.21	\$118.84
Tailblock	\$0.2310	\$0.00	\$0.00	\$1.19	\$6.15	\$0.00	\$12.43
HB Threshold	100						
Summer:							
Cust. Chg	\$5.95						
Headblock	\$0.2310						
Tailblock	\$0.2310						
HB Threshold	20						
Total Base Rate Amount	\$16.66	\$24.57	\$30.24	\$35.20	\$34.14	\$26.16	\$166.98
COG Rate - (Winter)	\$0.6445	\$0.6445	\$0.6445	\$0.8056	\$0.8056	\$0.8056	\$0.7398
COG amount - Winter	\$29.89	\$51.96	\$67.78	\$101.99	\$98.30	\$70.47	\$420.38
COG Rate - (Summer)							
COG amount - Summer							
LDAC	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037
LDAC amount	\$4.81	\$8.36	\$10.91	\$13.13	\$12.65	\$9.07	\$58.93
Total Bill	\$51.36	\$84.89	\$108.93	\$150.32	\$145.10	\$105.70	\$646.29

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

CURRENT	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
average Usage (Therms)	46	81	105	127	122	87	568
Winter:							
Cust. Chg	\$9.77	\$9.77	\$9.77	\$9.77	\$9.77	\$9.77	\$58.62
Headblock	\$0.1545	\$7.16	\$12.45	\$15.45	\$15.45	\$13.51	\$79.48
Tailblock	\$0.1278	\$0.00	\$0.00	\$0.66	\$3.40	\$2.81	\$6.87
HB Threshold	100						
Summer:							
Cust. Chg	\$9.77						
Headblock	\$0.1545						
Tailblock	\$0.1278						
HB Threshold	20						
Total Base Rate Amount	\$16.93	\$22.22	\$25.88	\$28.62	\$28.03	\$23.28	\$144.98
COG Rate - (Winter)	\$0.6445	\$0.6445	\$0.6445	\$0.8056	\$0.8056	\$0.8056	\$0.7398
COG amount - Winter	\$29.89	\$51.96	\$67.78	\$101.99	\$98.30	\$70.47	\$420.38
COG Rate - (Summer)							
COG amount - Summer							
LDAC	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	0.0856
LDAC amount	\$3.97	\$6.90	\$9.00	\$10.84	\$10.45	\$7.49	\$48.64
Total Bill	\$50.79	\$81.08	\$102.66	\$141.45	\$136.78	\$101.24	\$614.00

204 DIFFERENCE:

Total Bill	\$0.57	\$3.81	\$6.27	\$8.87	\$8.31	\$4.46	\$32.28
% Change	1.12%	4.70%	6.11%	6.27%	6.08%	4.40%	5.26%
Base Rate	(\$0.27)	\$2.35	\$4.36	\$6.58	\$6.10	\$2.87	\$22.00
% Change	-1.60%	10.57%	16.86%	22.98%	21.78%	12.34%	15.17%
COG & LDAC	\$0.84	\$1.46	\$1.90	\$2.29	\$2.21	\$1.58	\$10.29
% Change	2.48%	2.48%	2.48%	2.03%	2.03%	2.03%	2.19%

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
58	27	17	14	14	20	150	718
\$5.95	\$5.95	\$5.95	\$5.95	\$5.95	\$5.95	\$35.71	\$71.42
\$4.62	\$4.62	\$3.90	\$3.31	\$3.23	\$4.62	\$24.30	\$143.14
\$8.71	\$1.55	\$0.00	\$0.00	\$0.00	\$0.09	\$10.35	\$22.77
\$19.28	\$12.12	\$9.85	\$9.27	\$9.18	\$10.66	\$70.36	\$237.34
\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.6507
\$18.08	\$8.37	\$5.29	\$4.49	\$4.38	\$6.38	\$46.99	\$467.38
\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037
\$5.98	\$2.77	\$1.75	\$1.49	\$1.45	\$2.11	\$15.55	\$74.48
\$43.35	\$23.26	\$16.90	\$15.25	\$15.01	\$19.15	\$132.91	\$779.19

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
58	27	17	14	14	20	150	718
\$9.77	\$9.77	\$9.77	\$9.77	\$9.77	\$9.77	\$58.62	\$117.24
\$3.09	\$3.09	\$2.61	\$2.22	\$2.16	\$3.09	\$16.25	\$95.74
\$4.82	\$0.86	\$0.00	\$0.00	\$0.00	\$0.05	\$5.72	\$12.60
\$17.68	\$13.72	\$12.38	\$11.99	\$11.93	\$12.91	\$80.60	\$225.58
\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.3133	\$0.6507
\$18.08	\$8.37	\$5.29	\$4.49	\$4.38	\$6.38	\$46.99	\$467.38
\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856	\$0.0856
\$4.94	\$2.29	\$1.45	\$1.23	\$1.20	\$1.74	\$12.84	\$61.48
\$40.70	\$24.37	\$19.12	\$17.71	\$17.50	\$21.03	\$140.43	\$754.43

\$2.65	(\$1.11)	(\$2.22)	(\$2.46)	(\$2.50)	(\$1.88)	(\$7.52)	\$24.76
6.51%	-4.57%	-11.62%	-13.90%	-14.26%	-8.94%	-5.36%	3.28%
\$1.60	(\$1.60)	(\$2.53)	(\$2.72)	(\$2.75)	(\$2.25)	(\$10.24)	\$11.76
9.07%	-11.64%	-20.41%	-22.70%	-23.04%	-17.43%	-12.70%	5.21%
\$1.04	\$0.48	\$0.31	\$0.26	\$0.25	\$0.37	\$2.71	\$13.00
4.54%	4.54%	4.54%	4.54%	4.54%	4.54%	4.54%	2.46%

Line
No

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

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

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

287	PROPOSED	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
288	average Usage (Therms)	940	1,649	2,259	2,699	2,446	1,639	11,632
291	Winter:							
292	Cust. Chg	\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$1,034.00
293	Headblock	\$0.4283	\$402.75	\$428.34	\$428.34	\$428.34	\$428.34	\$2,544.44
294	Tailblock	\$0.2853	\$0.00	\$185.06	\$359.26	\$484.90	\$412.63	\$1,624.06
295	HB Threshold	1,000						
296	Summer:							
297	Cust. Chg	\$172.33						
298	Headblock	\$0.4283						
299	Tailblock	\$0.2853						
300	HB Threshold	400						
301								
302	Total Base Rate Amount	\$575.09	\$785.73	\$959.93	\$1,085.57	\$1,013.30	\$782.89	\$5,202.50
303	COG Rate - (Winter)	\$0.6433	\$0.6433	\$0.6433	\$0.8041	\$0.8041	\$0.8041	\$0.7371
304	COG amount - Winter	\$604.88	\$1,060.55	\$1,453.31	\$2,170.65	\$1,966.98	\$1,317.63	\$8,573.99
305	COG Rate - (Summer)							
306	COG amount - Summer							
307	LDAC	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
308	LDAC amount	\$80.39	\$140.96	\$193.16	\$230.81	\$209.15	\$140.10	\$994.57
309	Total Bill	\$1,260.36	\$1,987.23	\$2,606.39	\$3,487.03	\$3,189.42	\$2,240.62	\$14,771.06

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

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

318	CURRENT	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
319	average Usage (Therms)	940	1,649	2,259	2,699	2,446	1,639	11,632
321	Winter:							
322	Cust. Chg	\$160.36	\$160.36	\$160.36	\$160.36	\$160.36	\$160.36	\$962.16
323	Headblock	\$0.3986	\$374.79	\$398.60	\$398.60	\$398.60	\$398.60	\$2,367.79
324	Tailblock	\$0.2655	\$0.00	\$172.20	\$334.30	\$451.21	\$383.96	\$1,511.24
325	HB Threshold	1,000						
326	Summer:							
327	Cust. Chg	\$160.36						
328	Headblock	\$0.3986						
329	Tailblock	\$0.2655						
330	HB Threshold	400						
331	Total Base Rate Amount	\$535.15	\$731.16	\$893.26	\$1,010.17	\$942.92	\$728.52	\$4,841.19
332	COG Rate - (Winter)	\$0.6433	\$0.6433	\$0.6433	\$0.8041	\$0.8041	\$0.8041	\$0.7371
333	COG amount - Winter	\$604.88	\$1,060.55	\$1,453.31	\$2,170.65	\$1,966.98	\$1,317.63	\$8,573.99
334	COG Rate - (Summer)							
335	COG amount - Summer							
336	LDAC	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674
337	LDAC amount	\$63.37	\$111.12	\$152.27	\$181.95	\$164.87	\$110.44	\$784.02
338	Total Bill	\$1,203.40	\$1,902.83	\$2,498.83	\$3,362.77	\$3,074.77	\$2,156.59	\$14,199.20

347 DIFFERENCE:

348	Total Bill	\$56.95	\$84.41	\$107.56	\$124.26	\$114.65	\$84.03	\$571.86
349	% Change	4.73%	4.44%	4.30%	3.70%	3.73%	3.90%	4.03%
350	Base Rate	\$39.93	\$54.57	\$66.67	\$75.40	\$70.38	\$54.37	\$361.31
351	% Change	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%
352	COG & LDAC	\$17.02	\$29.84	\$40.89	\$48.86	\$44.28	\$29.66	\$210.55
353	% Change	2.55%	2.55%	2.55%	2.08%	2.08%	2.08%	2.25%

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
1,001	491	269	267	264	437	2,729	14,362
\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$1,034.00	\$2,068.00
\$171.34	\$171.34	\$115.22	\$114.42	\$113.10	\$171.34	\$856.75	\$3,401.19
\$171.47	\$25.99	\$0.00	\$0.00	\$0.00	\$10.55	\$208.01	\$1,832.08
\$515.13	\$369.66	\$287.55	\$286.75	\$285.43	\$354.22	\$2,098.76	\$7,301.26
\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.6556
\$308.70	\$151.46	\$82.96	\$82.38	\$81.43	\$134.77	\$841.69	\$9,415.68
\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
\$85.58	\$41.99	\$23.00	\$22.84	\$22.58	\$37.36	\$233.35	\$1,227.92
\$909.41	\$563.11	\$393.51	\$391.98	\$389.44	\$526.35	\$3,173.80	\$17,944.86

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
1,001	491	269	267	264	437	2,729	14,362
\$160.36	\$160.36	\$160.36	\$160.36	\$160.36	\$160.36	\$962.16	\$1,924.32
\$159.44	\$159.44	\$107.22	\$106.48	\$105.25	\$159.44	\$797.27	\$3,165.06
\$159.55	\$24.19	\$0.00	\$0.00	\$0.00	\$9.82	\$193.56	\$1,704.80
\$479.35	\$343.99	\$267.58	\$266.84	\$265.61	\$329.62	\$1,952.99	\$6,794.18
\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.6556
\$308.70	\$151.46	\$82.96	\$82.38	\$81.43	\$134.77	\$841.69	\$9,415.68
\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674
\$67.46	\$33.10	\$18.13	\$18.00	\$17.80	\$29.45	\$183.95	\$967.97
\$855.51	\$528.54	\$368.67	\$367.22	\$364.84	\$493.84	\$2,978.63	\$17,177.83

\$53.90	\$34.56	\$24.84	\$24.75	\$24.60	\$32.51	\$195.17	\$767.03
6.30%	6.54%	6.74%	6.74%	6.74%	6.58%	6.55%	4.47%
\$35.78	\$25.67	\$19.97	\$19.92	\$19.83	\$24.60	\$145.77	\$507.08
7.46%	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%
\$18.12	\$8.89	\$4.87	\$4.84	\$4.78	\$7.91	\$49.40	\$259.95
4.82%	4.82%	4.82%	4.82%	4.82%	4.82%	4.82%	2.50%

Line
No

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

356 Winter Season (Jan. - Apr., Nov. - Dec.)
357 Commercial/Industrial - High Annual Use, High Winter Use (G-43)

358 PROPOSED	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
359 average Usage (Therms)	6,416	10,639	17,250	12,674	15,438	8,821	71,237
360 Winter:							
361 Cust. Chg	\$739.57	\$739.57	\$739.57	\$739.57	\$739.57	\$739.57	\$4,437.40
362 Headblock	\$0.2632	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
363 Tailblock	\$0.2632	\$1,688.76	\$2,800.47	\$4,540.59	\$3,336.05	\$4,063.64	\$2,321.94
364 HB Threshold	-						\$18,751.44
365 Summer:							
366 Cust. Chg	\$739.57						
367 Headblock	\$0.1203						
368 Tailblock	\$0.1203						
369 HB Threshold	-						
370 Total Base Rate Amount	\$2,428.32	\$3,540.04	\$5,280.15	\$4,075.62	\$4,803.20	\$3,061.51	\$23,188.84
371 COG Rate - (Winter)	\$0.6433	\$0.6433	\$0.6433	\$0.8041	\$0.8041	\$0.8041	\$0.7267
372 COG amount - Winter	\$4,127.15	\$6,844.06	\$11,096.72	\$10,190.88	\$12,413.50	\$7,093.02	\$51,765.33
373 COG Rate - (Summer)							
374 COG amount - Summer							
375 LDAC	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
376 LDAC amount	\$548.54	\$909.64	\$1,474.86	\$1,083.60	\$1,319.94	\$754.21	\$6,090.78
377 Total Bill	\$7,104.01	\$11,293.73	\$17,851.73	\$15,350.10	\$18,536.64	\$10,908.73	\$81,044.95

387 Winter Season (Jan. - Apr., Nov. - Dec.)
388 Commercial/Industrial - High Annual Use, High Winter Use (G-43)

389 CURRENT	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
390 average Usage (Therms)	6,416	10,639	17,250	12,674	15,438	8,821	71,237
391 Winter:							
392 Cust. Chg	\$688.20	\$688.20	\$688.20	\$688.20	\$688.20	\$688.20	\$4,129.20
393 Headblock	\$0.2449	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
394 Tailblock	\$0.2449	\$1,571.18	\$2,605.49	\$4,224.45	\$3,103.78	\$3,780.71	\$2,160.28
395 HB Threshold	-						\$17,445.88
396 Summer:							
397 Cust. Chg	\$688.20						
398 Headblock	\$0.1120						
399 Tailblock	\$0.1120						
400 HB Threshold	-						
401 Total Base Rate Amount	\$2,259.38	\$3,293.69	\$4,912.65	\$3,791.98	\$4,468.91	\$2,848.48	\$21,575.08
402 COG Rate - (Winter)	\$0.6433	\$0.6433	\$0.6433	\$0.8041	\$0.8041	\$0.8041	\$0.7267
403 COG amount - Winter	\$4,127.15	\$6,844.06	\$11,096.72	\$10,190.88	\$12,413.50	\$7,093.02	\$51,765.33
404 COG Rate - (Summer)							
405 COG amount - Summer							
406 LDAC	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674
407 LDAC amount	\$432.41	\$717.07	\$1,162.63	\$854.20	\$1,040.50	\$594.54	\$4,801.36
408 Total Bill	\$6,818.94	\$10,854.81	\$17,172.00	\$14,837.07	\$17,922.91	\$10,536.03	\$78,141.76

417 DIFFERENCE:

418 Total Bill	\$285.07	\$438.92	\$679.73	\$513.04	\$613.73	\$372.70	\$2,903.18
419 % Change	4.18%	4.04%	3.96%	3.46%	3.42%	3.54%	3.72%
420 Base Rate	\$168.95	\$246.35	\$367.50	\$283.64	\$334.30	\$213.03	\$1,613.76
421 % Change	7.48%	7.48%	7.48%	7.48%	7.48%	7.48%	7.48%
422 COG & LDAC	\$116.13	\$192.57	\$312.23	\$229.40	\$279.43	\$159.67	\$1,289.42
423 % Change	2.55%	2.55%	2.55%	2.08%	2.08%	2.08%	2.28%

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
6,834	2,784	1,051	2,379	1,365	1,638	16,052	87,288
\$739.57	\$739.57	\$739.57	\$739.57	\$739.57	\$739.57	\$4,437.40	\$8,874.79
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$822.36	\$335.01	\$126.50	\$286.24	\$164.26	\$197.11	\$1,931.48	\$20,682.93
\$1,561.92	\$1,074.58	\$866.07	\$1,025.81	\$903.83	\$936.68	\$6,368.88	\$29,557.72
\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.6498
\$2,107.68	\$858.63	\$324.21	\$733.64	\$420.99	\$505.20	\$4,950.34	\$56,715.67
\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
\$584.33	\$238.04	\$89.88	\$203.39	\$116.72	\$140.06	\$1,372.43	\$7,463.21
\$4,253.93	\$2,171.25	\$1,280.16	\$1,962.84	\$1,441.54	\$1,581.93	\$12,691.65	\$93,736.60

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
6,834	2,784	1,051	2,379	1,365	1,638	16,052	87,288
\$688.20	\$688.20	\$688.20	\$688.20	\$688.20	\$688.20	\$4,129.20	\$8,258.40
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$765.43	\$311.82	\$117.74	\$266.43	\$152.89	\$183.47	\$1,797.79	\$19,243.67
\$1,453.63	\$1,000.02	\$805.94	\$954.63	\$841.09	\$871.67	\$5,926.99	\$27,502.07
\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.3084	\$0.6498
\$2,107.68	\$858.63	\$324.21	\$733.64	\$420.99	\$505.20	\$4,950.34	\$56,715.67
\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674
\$460.63	\$187.65	\$70.86	\$160.33	\$92.01	\$110.41	\$1,081.88	\$5,883.24
\$4,021.94	\$2,046.30	\$1,201.01	\$1,848.60	\$1,354.09	\$1,487.27	\$11,959.22	\$90,100.98

\$231.99	\$124.95	\$79.15	\$114.24	\$87.44	\$94.66	\$732.44	\$3,635.62
5.77%	6.11%	6.59%	6.18%	6.46%	6.36%	6.12%	4.04%
\$108.29	\$74.56	\$60.12	\$71.18	\$62.74	\$65.01	\$441.89	\$2,055.65
7.45%	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%	7.47%
\$123.70	\$50.39	\$19.03	\$43.06	\$24.71	\$29.65	\$290.54	\$1,579.97
4.82%	4.82%	4.82%	4.82%	4.82%	4.82%	4.82%	2.52%

Line
No

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

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

428 Commercial/Industrial - Low Annual Use, Low Winter Use (G-51)

429 PROPOSED	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
430 average Usage (Therms)	174	237	290	343	331	246	1,621
431 Winter:							
432 Cust. Chg	\$57.44	\$57.44	\$57.44	\$57.44	\$57.44	\$57.44	\$344.67
433 Headblock	\$0.2839	\$28.39	\$28.39	\$28.39	\$28.39	\$28.39	\$170.34
434 Tailblock	\$0.1845	\$13.63	\$25.25	\$34.97	\$44.86	\$27.03	\$188.32
435 HB Threshold	100						
436 Summer:							
437 Cust. Chg	\$57.44						
438 Headblock	\$0.2839						
439 Tailblock	\$0.1845						
440 HB Threshold	100						
441 Total Base Rate Amount	\$99.47	\$111.08	\$120.81	\$130.69	\$128.42	\$112.86	\$703.32
442 COG Rate - (Winter)	\$0.6560	\$0.6560	\$0.6560	\$0.8171	\$0.8200	\$0.8200	\$0.7485
443 COG amount - Winter	\$114.08	\$155.38	\$189.96	\$280.39	\$271.30	\$202.13	\$1,213.24
444 COG Rate - (Summer)							
445 COG amount - Summer							
446 LDAC	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
447 LDAC amount	\$14.87	\$20.25	\$24.76	\$29.34	\$28.29	\$21.08	\$138.58
448 Total Bill	\$228.42	\$286.71	\$335.53	\$440.42	\$428.01	\$336.06	\$2,055.14

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

459 Commercial/Industrial - Low Annual Use, Low Winter Use (G-51)

460 CURRENT	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
461 average Usage (Therms)	174	237	290	343	331	246	1,621
462 Winter:							
463 Cust. Chg	\$53.45	\$53.45	\$53.45	\$53.45	\$53.45	\$53.45	\$320.70
464 Headblock	\$0.2642	\$26.42	\$26.42	\$26.42	\$26.42	\$26.42	\$158.52
465 Tailblock	\$0.1717	\$12.69	\$23.50	\$32.55	\$41.75	\$39.64	\$175.28
466 HB Threshold	100						
467 Summer:							
468 Cust. Chg	\$53.45						
469 Headblock	\$0.2642						
470 Tailblock	\$0.1717						
471 HB Threshold	100						
472 Total Base Rate Amount	\$92.56	\$103.37	\$112.42	\$121.62	\$119.51	\$105.02	\$654.50
473 COG Rate - (Winter)	\$0.6560	\$0.6560	\$0.6560	\$0.8171	\$0.8200	\$0.8200	\$0.7485
474 COG amount - Winter	\$114.08	\$155.38	\$189.96	\$280.39	\$271.30	\$202.13	\$1,213.24
475 COG Rate - (Summer)							
476 COG amount - Summer							
477 LDAC	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674
478 LDAC amount	\$11.72	\$15.96	\$19.52	\$23.13	\$22.30	\$16.61	\$109.24
479 Total Bill	\$218.36	\$274.71	\$321.90	\$425.14	\$413.11	\$323.77	\$1,976.98

488 DIFFERENCE:

489 Total Bill	\$10.06	\$12.00	\$13.63	\$15.28	\$14.90	\$12.30	\$78.16
490 % Change	4.61%	4.37%	4.23%	3.59%	3.61%	3.80%	3.95%
491 Base Rate	\$6.91	\$7.71	\$8.39	\$9.07	\$8.91	\$7.84	\$48.82
492 % Change	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%
493 COG & LDAC	\$3.15	\$4.29	\$5.24	\$6.21	\$5.99	\$4.46	\$29.34
494 % Change	2.50%	2.50%	2.50%	2.05%	2.04%	2.04%	2.22%

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
186	151	125	119	119	134	834	2,455
\$57.44	\$57.44	\$57.44	\$57.44	\$57.44	\$57.44	\$344.67	\$689.33
\$28.39	\$28.39	\$28.39	\$28.39	\$28.39	\$28.39	\$170.34	\$340.67
\$15.81	\$9.43	\$4.65	\$3.58	\$3.51	\$6.20	\$43.19	\$231.51
\$101.65	\$95.27	\$90.48	\$89.41	\$89.35	\$92.03	\$558.19	\$1,261.51
\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.6063
\$61.27	\$49.86	\$41.30	\$39.39	\$39.28	\$44.08	\$275.18	\$1,488.42
\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
\$15.88	\$12.92	\$10.70	\$10.21	\$10.18	\$11.42	\$71.32	\$209.90
\$178.80	\$158.05	\$142.49	\$139.02	\$138.80	\$147.53	\$904.69	\$2,959.83

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
186	151	125	119	119	134	834	2,455
\$53.45	\$53.45	\$53.45	\$53.45	\$53.45	\$53.45	\$320.70	\$641.40
\$26.42	\$26.42	\$26.42	\$26.42	\$26.42	\$26.42	\$158.52	\$317.04
\$14.72	\$8.78	\$4.33	\$3.33	\$3.27	\$5.77	\$40.20	\$215.48
\$94.59	\$88.65	\$84.20	\$83.20	\$83.14	\$85.64	\$519.42	\$1,173.92
\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.6063
\$61.27	\$49.86	\$41.30	\$39.39	\$39.28	\$44.08	\$275.18	\$1,488.42
\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674
\$12.52	\$10.19	\$8.44	\$8.05	\$8.02	\$9.00	\$56.22	\$165.47
\$168.38	\$148.70	\$133.94	\$130.65	\$130.44	\$138.72	\$850.82	\$2,827.80

\$10.42	\$9.35	\$8.55	\$8.37	\$8.36	\$8.81	\$53.87	\$132.03
6.19%	6.29%	6.38%	6.41%	6.41%	6.35%	6.33%	4.67%
\$7.06	\$6.62	\$6.29	\$6.21	\$6.21	\$6.39	\$38.77	\$87.60
7.46%	7.46%	7.47%	7.47%	7.47%	7.47%	7.46%	7.46%
\$3.36	\$2.74	\$2.27	\$2.16	\$2.15	\$2.42	\$15.10	\$44.44
4.56%	4.56%	4.56%	4.56%	4.56%	4.56%	4.56%	2.69%

Line
No

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

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

PROPOSED	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
average Usage (Therms)	1,158	1,463	1,820	1,382	1,954	1,515	9,292
Winter:							
Cust. Chg	\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$1,034.00
Headblock	\$0.2437	\$243.75	\$243.75	\$243.75	\$243.75	\$243.75	\$1,462.48
Tailblock	\$0.1624	\$25.60	\$75.18	\$133.11	\$62.10	\$83.59	\$534.48
HB Threshold	1,000						
Summer:							
Cust. Chg	\$172.33						
Headblock	\$0.1766						
Tailblock	\$0.1004						
HB Threshold	1,000						
Total Base Rate Amount	\$441.68	\$491.26	\$549.19	\$478.18	\$570.97	\$499.67	\$3,030.95
COG Rate - (Winter)	\$0.6560	\$0.6560	\$0.6560	\$0.8171	\$0.8200	\$0.8200	\$0.7412
COG amount - Winter	\$759.43	\$959.72	\$1,193.77	\$1,129.58	\$1,602.20	\$1,242.11	\$6,886.82
COG Rate - (Summer)							
COG amount - Summer							
LDAC	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
LDAC amount	\$98.98	\$125.09	\$155.59	\$118.20	\$167.06	\$129.51	\$794.43
Total Bill	\$1,300.10	\$1,576.07	\$1,898.56	\$1,725.96	\$2,340.23	\$1,871.30	\$10,712.21

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
1,188	953	818	759	782	898	5,398	14,690
\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$1,034.00	\$2,068.00
\$176.63	\$168.38	\$144.43	\$134.15	\$138.16	\$158.58	\$920.32	\$2,382.80
\$18.83	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$18.83	\$553.31
\$367.80	\$340.71	\$316.76	\$306.48	\$310.49	\$330.91	\$1,973.15	\$5,004.10
\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.5901
\$391.79	\$314.48	\$269.75	\$250.54	\$258.04	\$296.18	\$1,780.79	\$8,667.61
\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
\$101.54	\$81.51	\$69.91	\$64.93	\$66.88	\$76.76	\$461.53	\$1,255.96
\$861.13	\$736.70	\$656.43	\$621.96	\$635.41	\$703.85	\$4,215.47	\$14,927.68

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

CURRENT	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
average Usage (Therms)	1,158	1,463	1,820	1,382	1,954	1,515	9,292
Winter:							
Cust. Chg	\$160.36	\$160.36	\$160.36	\$160.36	\$160.36	\$160.36	\$962.16
Headblock	\$0.2268	\$226.80	\$226.80	\$226.80	\$226.80	\$226.80	\$1,360.80
Tailblock	\$0.1511	\$23.82	\$69.96	\$123.87	\$57.78	\$144.13	\$497.35
HB Threshold	1,000						
Summer:							
Cust. Chg	\$160.36						
Headblock	\$0.1644						
Tailblock	\$0.0934						
HB Threshold	1,000						
Total Base Rate Amount	\$410.98	\$457.12	\$511.03	\$444.94	\$531.29	\$464.94	\$2,820.31
COG Rate - (Winter)	\$0.6560	\$0.6560	\$0.6560	\$0.8171	\$0.8200	\$0.8200	\$0.7412
COG amount - Winter	\$759.43	\$959.72	\$1,193.77	\$1,129.58	\$1,602.20	\$1,242.11	\$6,886.82
COG Rate - (Summer)							
COG amount - Summer							
LDAC	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674
LDAC amount	\$78.03	\$98.61	\$122.65	\$93.18	\$131.69	\$102.10	\$626.25
Total Bill	\$1,248.45	\$1,515.45	\$1,827.45	\$1,667.70	\$2,265.18	\$1,809.15	\$10,333.38

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
1,188	953	818	759	782	898	5,398	14,690
\$160.36	\$160.36	\$160.36	\$160.36	\$160.36	\$160.36	\$962.16	\$1,924.32
\$164.40	\$156.72	\$134.43	\$124.85	\$128.59	\$147.60	\$856.58	\$2,217.38
\$17.52	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$17.52	\$514.87
\$342.28	\$317.08	\$294.79	\$285.21	\$288.95	\$307.96	\$1,836.27	\$4,656.58
\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.5901
\$391.79	\$314.48	\$269.75	\$250.54	\$258.04	\$296.18	\$1,780.79	\$8,667.61
\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674
\$80.04	\$64.25	\$55.11	\$51.19	\$52.72	\$60.51	\$363.82	\$990.07
\$814.12	\$695.81	\$619.65	\$586.95	\$599.71	\$664.64	\$3,980.88	\$14,314.27

560 **DIFFERENCE:**

Total Bill	\$51.65	\$60.62	\$71.10	\$58.26	\$75.04	\$62.14	\$378.82
% Change	4.14%	4.00%	3.89%	3.49%	3.31%	3.43%	3.67%
Base Rate	\$30.70	\$34.14	\$38.17	\$33.23	\$39.68	\$34.73	\$210.64
% Change	7.47%	7.47%	7.47%	7.47%	7.47%	7.47%	7.47%
COG & LDAC	\$20.95	\$26.48	\$32.94	\$25.02	\$35.37	\$27.42	\$168.18
% Change	2.50%	2.50%	2.50%	2.05%	2.04%	2.04%	2.24%

\$47.01	\$40.89	\$36.78	\$35.01	\$35.70	\$39.21	\$234.59	\$613.41
5.77%	5.88%	5.93%	5.96%	5.95%	5.90%	5.89%	4.29%
\$25.51	\$23.63	\$21.98	\$21.26	\$21.54	\$22.96	\$136.88	\$347.53
7.45%	7.45%	7.45%	7.46%	7.46%	7.45%	7.45%	7.46%
\$21.50	\$17.25	\$14.80	\$13.75	\$14.16	\$16.25	\$97.71	\$265.89
4.56%	4.56%	4.56%	4.56%	4.56%	4.56%	4.56%	2.75%

Line
No

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

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

570 Commercial/Industrial - High Annual Use, Load Factor Less Than 90% (G-53)

571 PROPOSED		Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
572 average Usage (Therms)		6,008	7,795	10,754	11,944	8,606	19,165	64,272
573 Winter:								
576 Cust. Chg	\$761.10	\$761.10	\$761.10	\$761.10	\$761.10	\$761.10	\$761.10	\$4,566.61
577 Headblock	\$0.1703	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
578 Tailblock	\$0.1703	\$1,023.32	\$1,327.73	\$1,831.88	\$2,034.56	\$1,465.90	\$3,264.51	\$10,947.89
579 HB Threshold	-							
580 Summer:								
581 Cust. Chg	\$761.10							
582 Headblock	\$0.0817							
583 Tailblock	\$0.0817							
584 HB Threshold	-							
585 Total Base Rate Amount		\$1,784.42	\$2,088.83	\$2,592.98	\$2,795.66	\$2,227.00	\$4,025.61	\$15,514.51
588 COG Rate - (Winter)		\$0.6560	\$0.6560	\$0.6560	\$0.8171	\$0.8200	\$0.8200	\$0.7568
589 COG amount - Winter		\$3,940.99	\$5,113.32	\$7,054.90	\$9,759.69	\$7,056.78	\$15,715.27	\$48,640.95
591 COG Rate - (Summer)								
592 COG amount - Summer								
593 LDAC	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
596 LDAC amount		\$513.65	\$666.45	\$919.51	\$1,021.24	\$735.80	\$1,638.61	\$5,495.27
597 Total Bill		\$6,239.06	\$7,868.60	\$10,567.39	\$13,576.59	\$10,019.58	\$21,379.50	\$69,650.73

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

601 Commercial/Industrial - High Annual Use, Load Factor Less Than 90% (G-53)

602 CURRENT		Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
603 average Usage (Therms)		6,008	7,795	10,754	11,944	8,606	19,165	64,272
604 Winter:								
607 Cust. Chg	\$708.24	\$708.24	\$708.24	\$708.24	\$708.24	\$708.24	\$708.24	\$4,249.44
608 Headblock	\$0.1585	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
609 Tailblock	\$0.1585	\$952.20	\$1,235.46	\$1,704.58	\$1,893.17	\$1,364.02	\$3,037.65	\$10,187.08
610 HB Threshold	-							
611 Summer:								
612 Cust. Chg	\$708.24							
613 Headblock	\$0.0760							
614 Tailblock	\$0.0760							
615 HB Threshold	-							
616 Total Base Rate Amount		\$1,660.44	\$1,943.70	\$2,412.82	\$2,601.41	\$2,072.26	\$3,745.89	\$14,436.52
619 COG Rate - (Winter)		\$0.6560	\$0.6560	\$0.6560	\$0.8171	\$0.8200	\$0.8200	\$0.7568
620 COG amount - Winter		\$3,940.99	\$5,113.32	\$7,054.90	\$9,759.69	\$7,056.78	\$15,715.27	\$48,640.95
622 COG Rate - (Summer)								
623 COG amount - Summer								
624 LDAC	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674
627 LDAC amount		\$404.91	\$525.36	\$724.85	\$805.05	\$580.03	\$1,291.72	\$4,331.92
628 Total Bill		\$6,006.34	\$7,582.38	\$10,192.56	\$13,166.14	\$9,709.08	\$20,752.88	\$67,409.39

630 DIFFERENCE:

631 Total Bill		\$232.72	\$286.22	\$374.83	\$410.45	\$310.50	\$626.62	\$2,241.34
632 % Change		3.87%	3.77%	3.68%	3.12%	3.20%	3.02%	3.32%
633 Base Rate		\$123.98	\$145.13	\$180.17	\$194.25	\$154.73	\$279.73	\$1,077.98
634 % Change		7.47%	7.47%	7.47%	7.47%	7.47%	7.47%	7.47%
635 COG & LDAC		\$108.74	\$141.09	\$194.66	\$216.20	\$155.77	\$346.90	\$1,163.35
636 % Change		2.50%	2.50%	2.50%	2.05%	2.04%	2.04%	2.20%

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
6,115	4,271	3,375	2,386	3,068	3,979	23,193	87,465
\$761.10	\$761.10	\$761.10	\$761.10	\$761.10	\$761.10	\$4,566.61	\$9,133.22
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$499.71	\$349.01	\$275.79	\$194.99	\$250.69	\$325.21	\$1,895.40	\$12,843.30
\$1,260.82	\$1,110.11	\$1,036.89	\$956.09	\$1,011.79	\$1,086.31	\$6,462.01	\$21,976.52
\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.6436
\$2,017.22	\$1,408.88	\$1,113.28	\$787.13	\$1,011.98	\$1,312.80	\$7,651.29	\$56,292.24
\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
\$522.81	\$365.14	\$288.53	\$204.00	\$262.28	\$340.24	\$1,982.99	\$7,478.27
\$3,800.85	\$2,884.14	\$2,438.70	\$1,947.22	\$2,286.05	\$2,739.35	\$16,096.30	\$85,747.02

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
6,115	4,271	3,375	2,386	3,068	3,979	23,193	87,465
\$708.24	\$708.24	\$708.24	\$708.24	\$708.24	\$708.24	\$4,249.44	\$8,498.88
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$464.71	\$324.57	\$256.47	\$181.33	\$233.13	\$302.43	\$1,762.65	\$11,949.73
\$1,172.95	\$1,032.81	\$964.71	\$889.57	\$941.37	\$1,010.67	\$6,012.09	\$20,448.61
\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.6436
\$2,017.22	\$1,408.88	\$1,113.28	\$787.13	\$1,011.98	\$1,312.80	\$7,651.29	\$56,292.24
\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674
\$412.13	\$287.84	\$227.45	\$160.81	\$206.75	\$268.21	\$1,563.19	\$5,895.11
\$3,602.31	\$2,729.53	\$2,305.44	\$1,837.51	\$2,160.11	\$2,591.68	\$15,226.57	\$82,635.96

\$198.54	\$154.61	\$133.26	\$109.71	\$125.94	\$147.67	\$869.73	\$3,111.06
5.51%	5.66%	5.78%	5.97%	5.83%	5.70%	5.71%	3.76%
\$87.86	\$77.31	\$72.18	\$66.52	\$70.42	\$75.64	\$449.92	\$1,527.91
7.49%	7.49%	7.48%	7.48%	7.48%	7.48%	7.48%	7.47%
\$110.68	\$77.30	\$61.08	\$43.19	\$55.52	\$72.03	\$419.80	\$1,583.15
4.56%	4.56%	4.56%	4.56%	4.56%	4.56%	4.56%	2.55%

Line
No

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

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

641 Commercial/Industrial - High Annual Use, Load Factor Greater Than 90% (G-54)

642 PROPOSED		Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
643 average Usage (Therms)		11,937	12,313	28,452	31,015	31,889	33,999	149,606
644 Winter:								
645 Cust. Chg	\$761.10	\$761.10	\$761.10	\$761.10	\$761.10	\$761.10	\$761.10	\$4,566.61
646 Headblock	\$0.0650	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
647 Tailblock	\$0.0650	\$775.61	\$800.06	\$1,848.71	\$2,015.20	\$2,072.00	\$2,209.12	\$9,720.71
648 HB Threshold	-							
649 Summer:								
650 Cust. Chg	\$761.10							
651 Headblock	\$0.0353							
652 Tailblock	\$0.0353							
653 HB Threshold	-							
654 Total Base Rate Amount		\$1,536.72	\$1,561.16	\$2,609.81	\$2,776.30	\$2,833.10	\$2,970.22	\$14,287.32
655 COG Rate - (Winter)		\$0.6560	\$0.6560	\$0.6560	\$0.8171	\$0.8200	\$0.8200	\$0.7616
656 COG amount - Winter		\$7,830.72	\$8,077.52	\$18,664.84	\$25,342.26	\$26,149.04	\$27,879.53	\$113,943.89
657 COG Rate - (Summer)								
658 COG amount - Summer								
659 LDAC	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
660 LDAC amount		\$1,020.63	\$1,052.79	\$2,432.70	\$2,651.79	\$2,726.53	\$2,906.97	\$12,791.41
661 Total Bill		\$10,388.06	\$10,691.47	\$23,707.35	\$30,770.35	\$31,708.67	\$33,756.72	\$141,022.62

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

672 Commercial/Industrial - High Annual Use, Load Factor Greater Than 90% (G-54)

673 CURRENT		Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
674 average Usage (Therms)		11,937	12,313	28,452	31,015	31,889	33,999	149,606
675 Winter:								
676 Cust. Chg	\$708.24	\$708.24	\$708.24	\$708.24	\$708.24	\$708.24	\$708.24	\$4,249.44
677 Headblock	\$0.0605	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
678 Tailblock	\$0.0605	\$722.19	\$744.95	\$1,721.38	\$1,876.40	\$1,929.29	\$2,056.97	\$9,051.18
679 HB Threshold	-							
680 Summer:								
681 Cust. Chg	\$708.24							
682 Headblock	\$0.0328							
683 Tailblock	\$0.0328							
684 HB Threshold	-							
685 Total Base Rate Amount		\$1,430.43	\$1,453.19	\$2,429.62	\$2,584.64	\$2,637.53	\$2,765.21	\$13,300.62
686 COG Rate - (Winter)		\$0.6560	\$0.6560	\$0.6560	\$0.8171	\$0.8200	\$0.8200	\$0.7616
687 COG amount - Winter		\$7,830.72	\$8,077.52	\$18,664.84	\$25,342.26	\$26,149.04	\$27,879.53	\$113,943.89
688 COG Rate - (Summer)								
689 COG amount - Summer								
690 LDAC	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674
691 LDAC amount		\$804.56	\$829.92	\$1,917.70	\$2,090.40	\$2,149.32	\$2,291.56	\$10,083.46
692 Total Bill		\$10,065.71	\$10,360.63	\$23,012.15	\$30,017.30	\$30,935.89	\$32,936.29	\$137,327.97

702 DIFFERENCE:

703 Total Bill		\$322.35	\$330.84	\$695.20	\$753.05	\$772.78	\$820.43	\$3,694.65
704 % Change		3.20%	3.19%	3.02%	2.51%	2.50%	2.49%	2.69%
705 Base Rate		\$106.28	\$107.97	\$180.19	\$191.66	\$195.57	\$205.02	\$986.70
706 % Change		7.43%	7.43%	7.42%	7.42%	7.42%	7.41%	7.42%
707 COG & LDAC		\$216.07	\$222.88	\$515.00	\$561.39	\$577.21	\$615.41	\$2,707.95
708 % Change		2.50%	2.50%	2.50%	2.05%	2.04%	2.04%	2.18%

Summer Season (May - Oct.)

	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
	23,395	12,360	7,196	9,964	10,085	14,348	77,349	226,955
	\$761.10	\$761.10	\$761.10	\$761.10	\$761.10	\$761.10	\$4,566.61	\$9,133.22
	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	\$825.35	\$436.07	\$253.87	\$351.52	\$355.80	\$506.18	\$2,728.79	\$12,449.50
	\$1,586.46	\$1,197.17	\$1,014.97	\$1,112.62	\$1,116.90	\$1,267.28	\$7,295.40	\$21,582.72
	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.6145
	\$7,718.02	\$4,077.72	\$2,373.98	\$3,287.12	\$3,327.14	\$4,733.34	\$25,517.30	\$139,461.19
	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
	\$2,000.29	\$1,056.83	\$615.27	\$851.93	\$862.30	\$1,226.74	\$6,613.34	\$19,404.75
	\$11,304.76	\$6,331.71	\$4,004.21	\$5,251.66	\$5,306.34	\$7,227.36	\$39,426.04	\$180,448.66

Summer Season (May - Oct.)

	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
	23,395	12,360	7,196	9,964	10,085	14,348	77,349	226,955
	\$708.24	\$708.24	\$708.24	\$708.24	\$708.24	\$708.24	\$4,249.44	\$8,498.88
	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	\$767.36	\$405.42	\$236.03	\$326.82	\$330.80	\$470.61	\$2,537.03	\$11,588.21
	\$1,475.60	\$1,113.66	\$944.27	\$1,035.06	\$1,039.04	\$1,178.85	\$6,786.47	\$20,087.09
	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.3299	\$0.6145
	\$7,718.02	\$4,077.72	\$2,373.98	\$3,287.12	\$3,327.14	\$4,733.34	\$25,517.30	\$139,461.19
	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674	\$0.0674
	\$1,576.82	\$833.10	\$485.01	\$671.57	\$679.75	\$967.04	\$5,213.30	\$15,296.75
	\$10,770.44	\$6,024.48	\$3,803.26	\$4,993.75	\$5,045.92	\$6,879.23	\$37,517.07	\$174,845.04

	\$534.32	\$307.24	\$200.95	\$257.92	\$260.41	\$348.13	\$1,908.97	\$5,603.63
	4.96%	5.10%	5.28%	5.16%	5.16%	5.06%	5.09%	3.20%
	\$110.86	\$83.50	\$70.70	\$77.56	\$77.86	\$88.43	\$508.92	\$1,495.63
	7.51%	7.50%	7.49%	7.49%	7.49%	7.50%	7.50%	7.45%
	\$423.46	\$223.73	\$130.25	\$180.35	\$182.55	\$259.70	\$1,400.05	\$4,108.00
	4.56%	4.56%	4.56%	4.56%	4.56%	4.56%	4.56%	2.65%

Line
No

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

711 **Winter Season (Jan. - Apr., Nov. - Dec.)**
712 **Keene Residential to EnergyNorth Residential Non-Heating (R1)**

713	PROPOSED	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
714								
715	average Usage (Therms)	14	18	18	20	21	16	108
716								
717	Winter:							
718	Cust. Chg	\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$89.28
719	Headblock	\$0.4200	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
720	Tailblock	\$0.4200	\$6.04	\$7.65	\$7.48	\$8.52	\$6.91	\$45.35
721	HB Threshold	-						
722								
723	Summer:							
724	Cust. Chg	\$14.88						
725	Headblock	\$0.4200						
726	Tailblock	\$0.4200						
727	HB Threshold	-						
728								
729	Total Base Rate Amount	\$20.92	\$22.53	\$22.36	\$23.40	\$23.61	\$21.79	\$134.63
730								
731	COG Rate - (Winter)	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5666	\$1.4281
732	COG amount - Winter	\$18.04	\$22.84	\$23.18	\$31.80	\$32.58	\$25.77	\$154.20
733								
734	COG Rate - (Summer)							
735	COG amount - Summer							
736								
737	LDAC	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037
738	LDAC amount	\$1.49	\$1.89	\$1.85	\$2.10	\$2.16	\$1.71	\$11.20
739								
740	Total Bill	\$40.45	\$47.26	\$47.39	\$57.31	\$58.35	\$49.26	\$300.02

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
15	11	9	8	7	10	60	168
\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$89.28	\$178.56
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$6.32	\$4.63	\$3.68	\$3.31	\$2.95	\$4.12	\$25.00	\$70.35
\$21.20	\$19.51	\$18.56	\$18.19	\$17.83	\$19.00	\$114.28	\$248.91
\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.7007	\$1.1696
\$9.46	\$6.92	\$6.02	\$6.12	\$5.51	\$7.70	\$41.72	\$195.92
\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037
\$1.56	\$1.14	\$0.91	\$0.82	\$0.73	\$1.02	\$6.17	\$17.37
\$32.22	\$27.57	\$25.48	\$25.13	\$24.06	\$27.71	\$162.17	\$462.20

742 **Winter Season (Jan. - Apr., Nov. - Dec.)**
743 **Keene Residential to EnergyNorth Residential Non-Heating (R1)**

744	CURRENT	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
745								
746	average Usage (Therms)	14	18	18	20	21	16	108
747								
748	Winter:							
749	Cust. Chg	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00
750	Block 1	\$1.1522	\$16.58	\$21.00	\$20.53	\$23.39	\$23.96	\$124.41
751	Block 2	\$0.9442	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
752	Block 3	\$0.7946	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
753	BL1 Threshold	80						
754	BL2 Threshold	120						
755								
756	Summer:							
757	Cust. Chg	\$9.00						
758	Block 1	\$1.1522						
759	Block 2	\$0.9442						
760	Block 3	\$0.7946						
761	BL1 Threshold	80						
762	BL2 Threshold	120						
763								
764	Total Base Rate Amount	\$25.58	\$30.00	\$29.53	\$32.39	\$32.96	\$27.95	\$178.41
765								
766	COG Rate - (Winter)	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5666	\$1.4281
767	COG amount - Winter	\$18.04	\$22.84	\$23.18	\$31.80	\$32.58	\$25.77	\$154.20
768								
769	COG Rate - (Summer)							
770	COG amount - Summer							
771								
772	LDAC	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.0000
773	LDAC amount	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
774								
775	Total Bill	\$43.62	\$52.83	\$52.71	\$64.18	\$65.54	\$53.72	\$332.61

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
15	11	9	8	7	10	60	168
\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00	\$108.00
\$17.35	\$12.69	\$10.09	\$9.08	\$8.08	\$11.30	\$68.59	\$193.01
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$26.35	\$21.69	\$19.09	\$18.08	\$17.08	\$20.30	\$122.59	\$301.01
\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.7007	\$1.1696
\$9.46	\$6.92	\$6.02	\$6.12	\$5.51	\$7.70	\$41.72	\$195.92
\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$35.81	\$28.61	\$25.11	\$24.20	\$22.59	\$27.99	\$164.31	\$496.92

777 **DIFFERENCE:**

778	Total Bill	(\$3.17)	(\$5.57)	(\$5.32)	(\$6.88)	(\$7.19)	(\$4.46)	(\$32.59)
779	% Change	-7.26%	-10.55%	-10.09%	-10.72%	-10.97%	-8.30%	-9.80%
780								
781	Base Rate	(\$4.66)	(\$7.46)	(\$7.17)	(\$8.98)	(\$9.35)	(\$6.16)	(\$43.79)
782	% Change	-18.21%	-24.88%	-24.27%	-27.74%	-28.36%	-22.05%	-24.54%
783								
784	COG & LDAC	\$1.49	\$1.89	\$1.85	\$2.10	\$2.16	\$1.71	\$11.20
785	% Change	8.27%	8.27%	7.97%	6.62%	6.62%	6.62%	7.26%

(\$3.58)	(\$1.04)	\$0.37	\$0.93	\$1.47	(\$0.28)	(\$2.14)	(\$34.73)
-10.01%	-3.65%	1.49%	3.83%	6.51%	-1.01%	-1.30%	-6.99%
(\$5.15)	(\$2.19)	(\$0.54)	\$0.11	\$0.74	(\$1.30)	(\$8.31)	(\$52.10)
-19.53%	-10.08%	-2.80%	0.61%	4.36%	-6.40%	-6.78%	-17.31%
\$1.56	\$1.14	\$0.91	\$0.82	\$0.73	\$1.02	\$6.17	\$17.37
16.51%	16.51%	15.10%	13.35%	13.21%	13.21%	14.80%	8.87%

Line
No

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

786 Winter Season (Jan. - Apr., Nov. - Dec.)
787 Keene Residential to EnergyNorth Residential Heating (R3)

PROPOSED	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
average Usage (Therms)	34	70	67	93	103	58	424
Winter:							
Cust. Chg	\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$89.28
Headblock	\$0.5775	\$19.49	\$40.19	\$38.86	\$53.75	\$57.75	\$243.56
Tailblock	\$0.5775	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.48
HB Threshold	100						
Summer:							
Cust. Chg	\$14.88						
Headblock	\$0.5775						
Tailblock	\$0.5775						
HB Threshold	20						
Total Base Rate Amount	\$34.37	\$55.07	\$53.74	\$68.63	\$74.11	\$48.40	\$334.32
COG Rate - (Winter)	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5666	\$1.4481
COG amount - Winter	\$42.31	\$87.22	\$87.54	\$145.80	\$160.67	\$90.93	\$614.46
COG Rate - (Summer)							
COG amount - Summer							
LDAC	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037
LDAC amount	\$3.50	\$7.22	\$6.98	\$9.65	\$10.64	\$6.02	\$44.00
Total Bill	\$80.18	\$149.50	\$148.26	\$224.08	\$245.41	\$145.34	\$992.78

817 Winter Season (Jan. - Apr., Nov. - Dec.)
818 Keene Residential to EnergyNorth Residential Heating (R3)

CURRENT	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
average Usage (Therms)	34	70	67	93	103	58	424
Winter:							
Cust. Chg	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00
Block 1	\$1.1522	\$38.89	\$80.18	\$77.54	\$92.18	\$66.87	\$447.84
Block 2	\$0.9442	\$0.00	\$0.00	\$0.00	\$12.34	\$21.30	\$33.64
Block 3	\$0.7946	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BL1 Threshold	80						
BL2 Threshold	120						
Summer:							
Cust. Chg	\$9.00						
Block 1	\$1.1522						
Block 2	\$0.9442						
Block 3	\$0.7946						
BL1 Threshold	80						
BL2 Threshold	120						
Total Base Rate Amount	\$47.89	\$89.18	\$86.54	\$113.51	\$122.48	\$75.87	\$535.48
COG Rate - (Winter)	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5666	\$1.4481
COG amount - Winter	\$42.31	\$87.22	\$87.54	\$145.80	\$160.67	\$90.93	\$614.46
COG Rate - (Summer)							
COG amount - Summer							
LDAC	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.0000
LDAC amount	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Bill	\$90.20	\$176.40	\$174.08	\$259.31	\$283.15	\$166.80	\$1,149.94

852 DIFFERENCE:

Total Bill	(\$10.02)	(\$26.90)	(\$25.82)	(\$35.24)	(\$37.73)	(\$21.46)	(\$157.16)
% Change	-11.11%	-15.25%	-14.83%	-13.59%	-13.33%	-12.86%	-13.67%
Base Rate	(\$13.52)	(\$34.11)	(\$32.79)	(\$44.89)	(\$48.37)	(\$27.48)	(\$201.16)
% Change	-28.23%	-38.25%	-37.90%	-39.54%	-39.49%	-36.21%	-37.57%
COG & LDAC	\$3.50	\$7.22	\$6.98	\$9.65	\$10.64	\$6.02	\$44.00
% Change	8.27%	8.27%	7.97%	6.62%	6.62%	6.62%	7.16%

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
38	14	9	8	7	12	87	511
\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$14.88	\$89.28	\$178.56
\$11.55	\$8.14	\$5.15	\$4.42	\$3.81	\$6.82	\$39.89	\$283.45
\$10.42	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10.42	\$11.90
\$36.85	\$23.02	\$20.03	\$19.30	\$18.69	\$21.70	\$139.59	\$473.91
\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.6803	\$1.3173
\$23.90	\$8.85	\$6.12	\$5.95	\$5.18	\$9.28	\$59.27	\$673.72
\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037	\$0.1037
\$3.95	\$1.46	\$0.92	\$0.79	\$0.68	\$1.23	\$9.03	\$53.04
\$64.69	\$33.33	\$27.07	\$26.04	\$24.55	\$32.20	\$207.89	\$1,200.67

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
38	14	9	8	7	12	87	511
\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00	\$108.00
\$43.83	\$16.24	\$10.27	\$8.82	\$7.60	\$13.61	\$100.37	\$548.21
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$33.64
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$52.83	\$25.24	\$19.27	\$17.82	\$16.60	\$22.61	\$154.37	\$689.85
\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.6803	\$1.3173
\$23.90	\$8.85	\$6.12	\$5.95	\$5.18	\$9.28	\$59.27	\$673.72
\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$76.73	\$34.09	\$25.38	\$23.77	\$21.77	\$31.89	\$213.64	\$1,363.58

(\$12.04)	(\$0.76)	\$1.68	\$2.27	\$2.77	\$0.31	(\$5.75)	(\$162.91)
-15.69%	-2.23%	6.63%	9.56%	12.74%	0.99%	-2.69%	-11.95%
(\$15.98)	(\$2.22)	\$0.76	\$1.48	\$2.09	(\$0.91)	(\$14.79)	(\$215.95)
-30.25%	-8.80%	3.94%	8.30%	12.60%	-4.03%	-9.58%	-31.30%
\$3.95	\$1.46	\$0.92	\$0.79	\$0.68	\$1.23	\$9.03	\$53.04
16.51%	16.51%	15.10%	13.35%	13.21%	13.21%	15.24%	7.87%

Line
No

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

861 Winter Season (Jan. - Apr., Nov. - Dec.)
862 Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Low Annual Use, High Winter Use (G-41)

PROPOSED	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
863 average Usage (Therms)	64	120	158	251	245	132	970
864 Winter:							
865 Cust. Chg	\$57.44	\$57.44	\$57.44	\$57.44	\$57.44	\$57.44	\$344.67
866 Headblock	\$0.4710	\$29.98	\$47.10	\$47.10	\$47.10	\$47.10	\$265.47
867 Tailblock	\$0.3163	\$0.00	\$6.42	\$18.40	\$47.73	\$9.99	\$128.48
868 HB Threshold	100						
869 Summer:							
870 Cust. Chg	\$57.44						
871 Headblock	\$0.4710						
872 Tailblock	\$0.3163						
873 HB Threshold	20						
874 Total Base Rate Amount	\$87.42	\$110.96	\$122.94	\$152.28	\$150.47	\$114.54	\$738.61
875 COG Rate - (Winter)	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5666	\$1.4638
876 COG amount - Winter	\$79.78	\$150.76	\$205.75	\$393.07	\$384.13	\$206.15	\$1,419.62
877 COG Rate - (Summer)							
878 COG amount - Summer							
879 LDAC	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
880 LDAC amount	\$5.44	\$10.28	\$13.52	\$21.45	\$20.96	\$11.25	\$82.92
881 Total Bill	\$172.64	\$272.00	\$342.21	\$566.80	\$555.56	\$331.94	\$2,241.16

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
91	28	14	10	9	20	173	1,143
\$57.44	\$57.44	\$57.44	\$57.44	\$57.44	\$57.44	\$344.67	\$689.33
\$9.42	\$9.42	\$6.78	\$4.73	\$4.32	\$9.42	\$44.08	\$309.55
\$22.36	\$2.62	\$0.00	\$0.00	\$0.00	\$0.08	\$25.06	\$153.54
\$89.22	\$69.49	\$64.22	\$62.17	\$61.76	\$66.95	\$413.81	\$1,152.42
\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.6683	\$1.3435
\$56.95	\$17.77	\$9.88	\$7.80	\$7.20	\$15.91	\$115.51	\$1,535.13
\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
\$7.75	\$2.42	\$1.23	\$0.86	\$0.78	\$1.73	\$14.78	\$97.70
\$153.93	\$89.68	\$75.33	\$70.83	\$69.74	\$84.59	\$544.10	\$2,785.25

892 Winter Season (Jan. - Apr., Nov. - Dec.)
893 Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Low Annual Use, High Winter Use (G-41)

CURRENT	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
894 average Usage (Therms)	64	120	158	251	245	132	970
895 Winter:							
896 Cust. Chg	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00
897 Block 1	\$1.1522	\$73.34	\$92.18	\$92.18	\$92.18	\$92.18	\$534.22
898 Block 2	\$0.9442	\$0.00	\$38.04	\$73.81	\$113.30	\$48.71	\$387.17
899 Block 3	\$0.7946	\$0.00	\$0.00	\$0.00	\$40.45	\$35.91	\$76.36
900 BL1 Threshold	80						
901 BL2 Threshold	120						
902 Summer:							
903 Cust. Chg	\$18.00						
904 Block 1	\$1.1522						
905 Block 2	\$0.9442						
906 Block 3	\$0.7946						
907 BL1 Threshold	80						
908 BL2 Threshold	120						
909 Total Base Rate Amount	\$91.34	\$148.22	\$183.98	\$263.93	\$259.39	\$158.89	\$1,105.75
910 COG Rate - (Winter)	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5666	\$1.4638
911 COG amount - Winter	\$79.78	\$150.76	\$205.75	\$393.07	\$384.13	\$206.15	\$1,419.62
912 COG Rate - (Summer)							
913 COG amount - Summer							
914 LDAC	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.0000
915 LDAC amount	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
916 Total Bill	\$171.12	\$298.97	\$389.73	\$657.00	\$643.52	\$365.04	\$2,525.38

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
91	28	14	10	9	20	173	1,143
\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00	\$216.00
\$92.18	\$32.60	\$16.58	\$11.57	\$10.56	\$23.35	\$186.84	\$721.06
\$10.08	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10.08	\$397.25
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$76.36
\$120.26	\$50.60	\$34.58	\$29.57	\$28.56	\$41.35	\$304.92	\$1,410.67
\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.6683	\$1.3435
\$56.95	\$17.77	\$9.88	\$7.80	\$7.20	\$15.91	\$115.51	\$1,535.13
\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$177.21	\$68.37	\$44.46	\$37.37	\$35.76	\$57.26	\$420.42	\$2,945.80

927 DIFFERENCE:

928 Total Bill	\$1.53	(\$26.97)	(\$47.52)	(\$90.20)	(\$87.96)	(\$33.10)	(\$284.22)
929 % Change	0.89%	-9.02%	-12.19%	-13.73%	-13.67%	-9.07%	-11.25%
930 Base Rate	(\$3.92)	(\$37.26)	(\$61.04)	(\$111.65)	(\$108.92)	(\$44.35)	(\$367.14)
931 % Change	-4.29%	-25.14%	-33.18%	-42.30%	-41.99%	-27.91%	-33.20%
932 COG & LDAC	\$5.44	\$10.28	\$13.52	\$21.45	\$20.96	\$11.25	\$82.92
933 % Change	6.82%	6.82%	6.57%	5.46%	5.46%	5.46%	5.84%

(\$23.28)	\$21.31	\$30.87	\$33.46	\$33.98	\$27.33	\$123.67	(\$160.55)
-13.14%	31.16%	69.44%	89.55%	95.04%	47.73%	29.42%	-5.45%
(\$31.04)	\$18.89	\$29.64	\$32.60	\$33.20	\$25.60	\$108.90	(\$258.24)
-26.81%	37.33%	85.72%	110.26%	116.24%	61.91%	35.71%	-18.31%
\$7.75	\$2.42	\$1.23	\$0.86	\$0.78	\$1.73	\$14.78	\$97.70
13.61%	13.61%	12.45%	11.01%	10.89%	10.89%	12.79%	6.36%

Line
No

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

936 Winter Season (Jan. - Apr., Nov. - Dec.)
937 Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Medium Annual Use, High Winter Use (G-42)

PROPOSED							
	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
940 average Usage (Therms)	1,086	1,629	2,089	2,903	2,860	1,797	12,363
941 Winter:							
942 Cust. Chg	\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$1,034.00
944 Headblock	\$0.4283	\$428.34	\$428.34	\$428.34	\$428.34	\$428.34	\$2,570.03
945 Tailblock	\$0.2853	\$24.50	\$179.42	\$310.61	\$542.89	\$227.45	\$1,815.51
946 HB Threshold	1,000						
947 Summer:							
948 Cust. Chg	\$172.33						
949 Headblock	\$0.4283						
950 Tailblock	\$0.2853						
951 HB Threshold	400						
952 Total Base Rate Amount	\$625.18	\$780.09	\$911.28	\$1,143.56	\$1,131.31	\$828.12	\$5,419.54
955 COG Rate - (Winter)	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5666	\$1.4529
956 COG amount - Winter	\$1,360.94	\$2,041.42	\$2,716.89	\$4,547.42	\$4,480.16	\$2,815.43	\$17,962.27
957 COG Rate - (Summer)							
958 COG amount - Summer							
959 LDAC	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
960 LDAC amount	\$92.84	\$139.27	\$178.58	\$248.19	\$244.51	\$153.66	\$1,057.05
961 Total Bill	\$2,078.96	\$2,960.78	\$3,806.74	\$5,939.17	\$5,855.99	\$3,797.21	\$24,438.85

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
1,432	746	754	43	377	621	3,971	16,334
\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$1,034.00	\$2,068.00
\$171.34	\$171.34	\$171.34	\$18.24	\$161.28	\$171.34	\$864.86	\$3,434.89
\$294.47	\$98.71	\$100.94	\$0.00	\$0.00	\$62.92	\$557.03	\$2,372.54
\$638.14	\$442.37	\$444.61	\$190.57	\$333.62	\$406.59	\$2,455.89	\$7,875.43
\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.6802	\$1.2650
\$899.47	\$468.53	\$517.54	\$33.07	\$295.62	\$487.17	\$2,701.39	\$20,663.66
\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
\$122.44	\$63.78	\$64.45	\$3.64	\$32.19	\$53.05	\$339.56	\$1,396.60
\$1,660.05	\$974.68	\$1,026.59	\$227.28	\$661.43	\$946.81	\$5,496.84	\$29,935.69

967 Winter Season (Jan. - Apr., Nov. - Dec.)
968 Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Medium Annual Use, High Winter Use (G-42)

CURRENT							
	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
970 average Usage (Therms)	1,086	1,629	2,089	2,903	2,860	1,797	12,363
971 Winter:							
972 Cust. Chg	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00
973 Block 1	\$1.1522	\$92.18	\$92.18	\$92.18	\$92.18	\$92.18	\$553.06
974 Block 2	\$0.9442	\$113.30	\$113.30	\$113.30	\$113.30	\$113.30	\$679.82
975 Block 3	\$0.7946	\$703.92	\$1,135.35	\$1,500.70	\$2,147.59	\$1,269.10	\$8,870.15
976 BL1 Threshold	80						
977 BL2 Threshold	120						
978 Summer:							
979 Cust. Chg	\$18.00						
980 Block 1	\$1.1522						
981 Block 2	\$0.9442						
982 Block 3	\$0.7946						
983 BL1 Threshold	80						
984 BL2 Threshold	120						
985 Total Base Rate Amount	\$927.40	\$1,358.83	\$1,724.18	\$2,371.07	\$2,336.96	\$1,492.58	\$10,211.03
986 COG Rate - (Winter)	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5666	\$1.4529
987 COG amount - Winter	\$1,360.94	\$2,041.42	\$2,716.89	\$4,547.42	\$4,480.16	\$2,815.43	\$17,962.27
988 COG Rate - (Summer)							
989 COG amount - Summer							
990 LDAC	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.0000
991 LDAC amount	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
992 Total Bill	\$2,288.34	\$3,400.25	\$4,441.07	\$6,918.50	\$6,817.12	\$4,308.02	\$28,173.30

Summer Season (May - Oct.)

May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
1,432	746	754	43	377	621	3,971	16,334
\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00	\$216.00
\$92.18	\$92.18	\$92.18	\$49.06	\$92.18	\$92.18	\$509.94	\$1,063.00
\$113.30	\$113.30	\$113.30	\$0.00	\$113.30	\$113.30	\$566.52	\$1,246.34
\$978.99	\$433.81	\$440.03	\$0.00	\$140.27	\$334.14	\$2,327.24	\$11,197.39
\$1,202.47	\$657.29	\$663.51	\$67.06	\$363.75	\$557.62	\$3,511.70	\$13,722.74
\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.6802	\$1.2650
\$899.47	\$468.53	\$517.54	\$33.07	\$295.62	\$487.17	\$2,701.39	\$20,663.66
\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$2,101.94	\$1,125.81	\$1,181.05	\$100.13	\$659.37	\$1,044.79	\$6,213.09	\$34,386.39

1002 DIFFERENCE:

Total Bill	(\$209.38)	(\$439.48)	(\$634.33)	(\$979.33)	(\$961.13)	(\$510.81)	(\$3,734.45)
1003 % Change	-9.15%	-12.92%	-14.28%	-14.16%	-14.10%	-11.86%	-13.26%
1004 Base Rate	(\$302.23)	(\$578.74)	(\$812.90)	(\$1,227.51)	(\$1,205.65)	(\$664.47)	(\$4,791.50)
1005 % Change	-32.59%	-42.59%	-47.15%	-51.77%	-51.59%	-44.52%	-46.92%
1006 COG & LDAC	\$92.84	\$139.27	\$178.58	\$248.19	\$244.51	\$153.66	\$1,057.05
1007 % Change	6.82%	6.82%	6.57%	5.46%	5.46%	5.46%	5.88%

(\$441.89)	(\$151.14)	(\$154.45)	\$127.15	\$2.06	(\$97.98)	(\$716.26)	(\$4,450.71)
-21.02%	-13.42%	-13.08%	126.98%	0.31%	-9.38%	-11.53%	-12.94%
(\$564.34)	(\$214.91)	(\$218.90)	\$123.51	(\$30.14)	(\$151.04)	(\$1,055.81)	(\$5,847.31)
-46.93%	-32.70%	-32.99%	184.17%	-8.28%	-27.09%	-30.07%	-42.61%
\$122.44	\$63.78	\$64.45	\$3.64	\$32.19	\$53.05	\$339.56	\$1,396.60
13.61%	13.61%	12.45%	11.01%	10.89%	10.89%	12.57%	6.76%

Line
No

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

1011 Winter Season (Jan. - Apr., Nov. - Dec.)

1012 Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Low Annual Use, Low Winter Use (G-51)							
1013 PROPOSED							
	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
1014 average Usage (Therms)	143	101	140	178	179	138	878
1015							
1016							
1017 Winter:							
1018 Cust. Chg	\$57.44	\$57.44	\$57.44	\$57.44	\$57.44	\$57.44	\$344.67
1019 Headblock	\$0.2839	\$28.39	\$28.39	\$28.39	\$28.39	\$28.39	\$170.34
1020 Tailblock	\$0.1845	\$7.93	\$0.22	\$7.29	\$14.32	\$7.08	\$51.34
1021 HB Threshold	100						
1022							
1023 Summer:							
1024 Cust. Chg	\$57.44						
1025 Headblock	\$0.2839						
1026 Tailblock	\$0.1845						
1027 HB Threshold	100						
1028							
1029 Total Base Rate Amount	\$93.76	\$86.06	\$93.12	\$100.15	\$100.33	\$92.92	\$566.34
1030							
1031 COG Rate - (Winter)	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5666	\$1.4373
1032 COG amount - Winter	\$179.18	\$126.85	\$181.48	\$278.23	\$279.81	\$216.82	\$1,262.36
1033							
1034 COG Rate - (Summer)							
1035 COG amount - Summer							
1036							
1037 LDAC	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
1038 LDAC amount	\$12.22	\$8.65	\$11.93	\$15.18	\$15.27	\$11.83	\$75.09
1039							
1040 Total Bill	\$285.16	\$221.56	\$286.53	\$393.56	\$395.41	\$321.57	\$1,903.80

1041 Winter Season (Jan. - Apr., Nov. - Dec.)

1042 Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Low Annual Use, Low Winter Use (G-51)							
1043 CURRENT							
	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
1044 average Usage (Therms)	143	101	140	178	179	138	878
1045							
1046							
1047 Winter:							
1048 Cust. Chg	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00
1049 Block 1	\$1.1522	\$92.18	\$92.18	\$92.18	\$92.18	\$92.18	\$553.06
1050 Block 2	\$0.9442	\$59.45	\$20.03	\$56.19	\$92.15	\$93.10	\$376.07
1051 Block 3	\$0.7946	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
1052 BL1 Threshold	80						
1053 BL2 Threshold	120						
1054							
1055 Summer:							
1056 Cust. Chg	\$18.00						
1057 Block 1	\$1.1522						
1058 Block 2	\$0.9442						
1059 Block 3	\$0.7946						
1060 BL1 Threshold	80						
1061 BL2 Threshold	120						
1062							
1063							
1064 Total Base Rate Amount	\$169.63	\$130.21	\$166.37	\$202.33	\$203.28	\$165.32	\$1,037.13
1065							
1066 COG Rate - (Winter)	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5666	\$1.4373
1067 COG amount - Winter	\$179.18	\$126.85	\$181.48	\$278.23	\$279.81	\$216.82	\$1,262.36
1068							
1069 COG Rate - (Summer)							
1070 COG amount - Summer							
1071							
1072 LDAC	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.0000
1073 LDAC amount	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
1074							
1075 Total Bill	\$348.80	\$257.06	\$347.84	\$480.56	\$483.09	\$382.14	\$2,299.49

1076 DIFFERENCE:

1077 Total Bill	(\$63.64)	(\$35.50)	(\$61.32)	(\$87.00)	(\$87.67)	(\$60.57)	(\$395.69)
1078 % Change	-18.25%	-13.81%	-17.63%	-18.10%	-18.15%	-15.85%	-17.21%
1079							
1080 Base Rate	(\$75.87)	(\$44.15)	(\$73.24)	(\$102.18)	(\$102.95)	(\$72.40)	(\$470.79)
1081 % Change	-44.73%	-33.91%	-44.03%	-50.50%	-50.64%	-43.79%	-45.39%
1082							
1083 COG & LDAC	\$12.22	\$8.65	\$11.93	\$15.18	\$15.27	\$11.83	\$75.09
1084 % Change	6.82%	6.82%	6.57%	5.46%	5.46%	5.46%	5.95%

Summer Season (May - Oct.)

	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
137	109	97	98	90	105	635	1,513	
\$57.44	\$57.44	\$57.44	\$57.44	\$57.44	\$57.44	\$344.67	\$689.33	
\$28.39	\$28.39	\$27.53	\$27.90	\$25.54	\$28.39	\$166.13	\$336.47	
\$6.76	\$1.63	\$0.00	\$0.00	\$0.00	\$0.83	\$9.22	\$60.56	
\$92.59	\$87.47	\$84.97	\$85.35	\$82.98	\$86.66	\$520.02	\$1,086.36	
\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.7081	\$1.1312	
\$85.81	\$68.37	\$66.57	\$76.32	\$70.63	\$82.05	\$449.75	\$1,712.11	
\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	
\$11.68	\$9.31	\$8.29	\$8.40	\$7.69	\$8.94	\$54.31	\$129.40	
\$190.09	\$165.14	\$159.83	\$170.07	\$161.30	\$177.65	\$1,024.07	\$2,927.87	

Summer Season (May - Oct.)

	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
137	109	97	98	90	105	635	1,513	
\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00	\$216.00	
\$92.18	\$92.18	\$92.18	\$92.18	\$92.18	\$92.18	\$553.06	\$1,106.11	
\$53.46	\$27.23	\$16.01	\$17.26	\$9.41	\$23.14	\$146.51	\$522.58	
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
\$163.64	\$137.41	\$126.19	\$127.44	\$119.58	\$133.31	\$807.57	\$1,844.70	
\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.7081	\$1.1312	
\$85.81	\$68.37	\$66.57	\$76.32	\$70.63	\$82.05	\$449.75	\$1,712.11	
\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
\$249.45	\$205.78	\$192.75	\$203.76	\$190.21	\$215.36	\$1,257.31	\$3,556.80	

(\$59.37)	(\$40.64)	(\$32.93)	(\$33.69)	(\$28.91)	(\$37.71)	(\$233.24)	(\$628.93)
-23.80%	-19.75%	-17.08%	-16.53%	-15.20%	-17.51%	-18.55%	-17.68%
(\$71.05)	(\$49.95)	(\$41.22)	(\$42.09)	(\$36.60)	(\$46.65)	(\$287.55)	(\$758.34)
-43.42%	-36.35%	-32.66%	-33.03%	-30.60%	-34.99%	-35.61%	-41.11%
\$11.68	\$9.31	\$8.29	\$8.40	\$7.69	\$8.94	\$54.31	\$129.40
13.61%	13.61%	12.45%	11.01%	10.89%	10.89%	12.08%	7.56%

Line
No

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

1086 Winter Season (Jan. - Apr., Nov. - Dec.)

1087 Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Medium Annual Use, Low Winter Use (G-52)							
1088 PROPOSED							
	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
1090 average Usage (Therms)	1,738	1,988	2,323	2,764	2,724	1,985	13,521
1091							
1092 Winter:							
1093 Cust. Chg	\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$1,034.00
1094 Headblock	\$0.2437	\$243.75	\$243.75	\$243.75	\$243.75	\$243.75	\$1,462.48
1095 Tailblock	\$0.1624	\$119.80	\$160.41	\$214.77	\$286.47	\$279.96	\$1,221.28
1096 HB Threshold	1,000						
1097							
1098 Summer:							
1099 Cust. Chg	\$172.33						
1100 Headblock	\$0.1766						
1101 Tailblock	\$0.1004						
1102 HB Threshold	1,000						
1103							
1104 Total Base Rate Amount	\$535.88	\$576.48	\$630.85	\$702.55	\$696.04	\$575.95	\$3,717.76
1105							
1106 COG Rate - (Winter)	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5666	\$1.4346
1107 COG amount - Winter	\$2,177.97	\$2,491.37	\$3,021.27	\$4,330.43	\$4,267.64	\$3,109.01	\$19,397.68
1108							
1109 COG Rate - (Summer)							
1110 COG amount - Summer							
1111							
1112 LDAC	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
1113 LDAC amount	\$148.58	\$169.96	\$198.59	\$236.34	\$232.92	\$169.68	\$1,156.07
1114							
1115 Total Bill	\$2,862.43	\$3,237.81	\$3,850.70	\$5,269.32	\$5,196.60	\$3,854.64	\$24,271.50

1117 Winter Season (Jan. - Apr., Nov. - Dec.)

1118 Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Medium Annual Use, Low Winter Use (G-52)							
1119 CURRENT							
	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	Winter
1121 average Usage (Therms)	1,738	1,988	2,323	2,764	2,724	1,985	13,521
1122							
1123 Winter:							
1124 Cust. Chg	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00
1125 Block 1	\$1.1522	\$92.18	\$92.18	\$92.18	\$92.18	\$92.18	\$553.06
1126 Block 2	\$0.9442	\$113.30	\$113.30	\$113.30	\$113.30	\$113.30	\$679.82
1127 Block 3	\$0.7946	\$1,221.92	\$1,420.62	\$1,686.64	\$2,037.53	\$2,005.68	\$9,790.41
1128 BL1 Threshold	80						
1129 BL2 Threshold	120						
1130							
1131 Summer:							
1132 Cust. Chg	\$18.00						
1133 Block 1	\$1.1522						
1134 Block 2	\$0.9442						
1135 Block 3	\$0.7946						
1136 BL1 Threshold	80						
1137 BL2 Threshold	120						
1138							
1139 Total Base Rate Amount	\$1,445.40	\$1,644.10	\$1,910.12	\$2,261.01	\$2,229.16	\$1,641.49	\$11,131.29
1140							
1141 COG Rate - (Winter)	\$1.2533	\$1.2533	\$1.3008	\$1.5666	\$1.5666	\$1.5666	\$1.4346
1142 COG amount - Winter	\$2,177.97	\$2,491.37	\$3,021.27	\$4,330.43	\$4,267.64	\$3,109.01	\$19,397.68
1143							
1144 COG Rate - (Summer)							
1145 COG amount - Summer							
1146							
1147 LDAC	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.0000
1148 LDAC amount	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
1149							
1150 Total Bill	\$3,623.37	\$4,135.47	\$4,931.39	\$6,591.44	\$6,496.80	\$4,750.49	\$30,528.97

1152 DIFFERENCE:

1153 Total Bill	(\$760.94)	(\$897.66)	(\$1,080.69)	(\$1,322.12)	(\$1,300.20)	(\$895.86)	(\$6,257.46)
1154 % Change	-21.00%	-21.71%	-21.91%	-20.06%	-20.01%	-18.86%	-20.50%
1155							
1156 Base Rate	(\$909.52)	(\$1,067.62)	(\$1,279.27)	(\$1,558.46)	(\$1,533.12)	(\$1,065.54)	(\$7,413.53)
1157 % Change	-62.93%	-64.94%	-66.97%	-68.93%	-68.78%	-64.91%	-66.60%
1158							
1159 COG & LDAC	\$148.58	\$169.96	\$198.59	\$236.34	\$232.92	\$169.68	\$1,156.07
1160 % Change	6.82%	6.82%	6.57%	5.46%	5.46%	5.46%	5.96%

Summer Season (May - Oct.)

	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
	1,777	1,318	1,199	1,307	1,127	1,447	8,175	21,696
	\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$172.33	\$1,034.00	\$2,068.00
	\$176.63	\$176.63	\$176.63	\$176.63	\$176.63	\$176.63	\$1,059.80	\$2,522.28
	\$78.01	\$31.92	\$19.97	\$30.84	\$12.72	\$44.86	\$218.32	\$1,439.60
	\$426.98	\$380.89	\$368.93	\$379.81	\$361.68	\$393.83	\$2,312.12	\$6,029.87
	\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.7099	\$1.1615
	\$1,116.26	\$827.84	\$823.20	\$1,015.22	\$884.56	\$1,136.02	\$5,803.09	\$25,200.77
	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855	\$0.0855
	\$151.95	\$112.69	\$102.51	\$111.77	\$96.33	\$123.72	\$698.97	\$1,855.04
	\$1,695.18	\$1,321.42	\$1,294.64	\$1,506.79	\$1,342.57	\$1,653.57	\$8,814.18	\$33,085.69

Summer Season (May - Oct.)

	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Summer	Total 2017/18
	1,777	1,318	1,199	1,307	1,127	1,447	8,175	21,696
	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00	\$216.00
	\$92.18	\$92.18	\$92.18	\$92.18	\$92.18	\$92.18	\$553.06	\$1,106.11
	\$113.30	\$113.30	\$113.30	\$113.30	\$113.30	\$113.30	\$679.82	\$1,359.65
	\$1,253.24	\$888.37	\$793.76	\$879.83	\$736.34	\$990.85	\$5,542.39	\$15,332.80
	\$1,476.72	\$1,111.85	\$1,017.24	\$1,103.31	\$959.82	\$1,214.33	\$6,883.27	\$18,014.56
	\$0.6281	\$0.6281	\$0.6866	\$0.7766	\$0.7851	\$0.7851	\$0.7099	\$1.1615
	\$1,116.26	\$827.84	\$823.20	\$1,015.22	\$884.56	\$1,136.02	\$5,803.09	\$25,200.77
	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000
	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	\$2,592.98	\$1,939.69	\$1,840.44	\$2,118.52	\$1,844.38	\$2,350.35	\$12,686.37	\$43,215.33

	(\$897.79)	(\$618.27)	(\$545.80)	(\$611.73)	(\$501.81)	(\$696.78)	(\$3,872.19)	(\$10,129.65)
	-34.62%	-31.87%	-29.66%	-28.88%	-27.21%	-29.65%	-30.52%	-23.44%
	(\$1,049.74)	(\$730.96)	(\$648.31)	(\$723.50)	(\$598.14)	(\$820.50)	(\$4,571.16)	(\$11,984.69)
	-71.09%	-65.74%	-63.73%	-65.58%	-62.32%	-67.57%	-66.41%	-66.53%
	\$151.95	\$112.69	\$102.51	\$111.77	\$96.33	\$123.72	\$698.97	\$1,855.04
	13.61%	13.61%	12.45%	11.01%	10.89%	10.89%	12.04%	7.36%