Matthew DeCourcey

Managing Director

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Education

MBA in Finance, University of Massachusetts at Amherst

B.A. in Political Science, University of Massachusetts at Boston

Experienced management consultant advising clients in power and gas industries in jurisdictions throughout North America. Core competencies include regulatory analysis and strategy, transactions, financial analysis, and corporate strategy.

PROFESSIONAL EXPERIENCE

- *FTI Consulting,* Managing Director, Boston MA, March 2018 – Present
- *Concentric Energy Advisors*, Project Manager and Principal, Marlborough MA, January 2016 – February 2018
- *Levitan & Associates*, Senior Consultant, Boston MA, October 2004 – December 2015

Selected Engagements

Spire Energy. Estimated the net benefits to market participants of Spire Energy's STL pipeline, currently in development. Used GPCM in conjunction with an electric simulation model to estimate price reductions attributable to STL's commercialization. Results were developed into an expert report filed with STL's CPCN application before the Federal Energy Regulatory Commission ("FERC").

Atmos Pipeline Texas ("APT"). Advised APT on its general rate case before the Texas Railroad Commission. Prepared testimony, conducted analyses of captive customers, and evaluated APT's competitiveness in support of a recommendation on the high end of the zone of reasonableness on ROE.

Jacksonville Electric Authority ("JEA"). Served as an advisor to JEA and its bankers regarding the company's privatization. Evaluated options for transaction structuring from a regulatory perspective, supported development of rate and financial models, developed strategies for NewCo commission approval.

Municipal Light & Power. Advisory services for the municipal utility serving Anchorage, AK, in its recent rate case before the state regulator regarding matters related to the prudence of its investment in new generation. Managed a consulting team that conducted research of prudence issues and standards in Alaska and other jurisdictions, drafted testimony, managed discovery, and developed analyses related to current and expected operational benefits used to rationalize the investment.

Spire Missouri. Advised Spire during its participation in the most recent rate case for Mississippi River Transmission. Analyzed billing determinants, evaluated settlement proposals, participated in negotiations, and developed testimony filed at the FERC.

Eastern Interconnect Planning Collaborative ("EIPC"). EIPC is a consortium of the six Independent System Operators ("ISO") that comprise the North American Eastern Interconnect. As part of a major study on gas-electric interdependence issues funded by the

U.S. Department of Energy and administered by EIPC, conducted simulation modeling in each area of the Eastern Interconnect using the GPCM Daily model in conjunction with a production cost model for the electric market to analyze gas deliverability under peak demand conditions and quantify generation at risk arising from gas pipeline constraints.

New Jersey Resources. Conducted a market study to demonstrate the benefits of the proposed Adelphia Gateway expansion project. Managed a team that generated price forecasts using GPCM to quantify the impact on delivered gas prices attributable to the project, estimated related electric market impacts using an econometric energy price forecasting model, and oversaw an analysis to estimate socioeconomic benefits using IMPLAN. Expert report included in the project's application to the FERC.

Maryland of Office of People's Council ("OPC"). Advised OPC regarding a request for a change in rates filed at the FERC by the Exelon companies serving Maryland. Analyzed the companies' proposal regarding rate changes attributable to the Tax Cuts and Jobs Act ("TCJA") and its effect on Accumulated Deferred Income Taxes ("ADIT") and related matters.

ISO New England ("ISO-NE"). Managed a team of internal and external consultants providing market and policy analysis related to ISO-NE's capacity market and its triennial reset of The Net Cost of New Entry and the Offer Review Trigger Price. Oversaw market analysis and price forecasting to generate a 20-year outlook of market conditions, managed engineering subcontractors' commercial evaluation of conventional and renewable generation options, and communicated the consulting team's findings to stakeholders.

Institutional Investor. Provided market analysis and advisory services to an investment bank seeking to purchase a High Voltage, Direct Current ("HVDC") interconnector between RTOs. Analyzed capacity and energy price spreads and conducted financial modeling to estimate project cash flows.

EnergyFairness. On behalf of an advocacy group representing the interests of regulated utilities, provided advisory and advocacy related to a proposed Florida ballot initiative to deregulate the electric market in that state. Conducted analyses, supported outreach, and delivered presentations regarding the risks and costs of the proposed measure to the Florida legislature.

Industrial Power Consumers Association of Alberta. Advised a group of industrial consumers of electricity on matters related to the implementation of a capacity market in Alberta. Analyzed proposed market rules, identified potential weaknesses, and assisted in the development of an expert report filed with the provincial regulator.

Multinational Energy Company. Advised an Asian conglomerate regarding the purchase of gas utilities in the U.S. Developed a study to compare regulatory environments on a state-by-state basis and estimated the regulatory advantage in each jurisdiction. Participated in negotiations with acquisition targets. Liaison with client's finance team to conduct due diligence on acquisition and to parameterize risks and opportunities related to the regulatory environment.

LNG Project Developer. Provided market analysis and commercial support for the developer of an LNG-to-power project in Central America. Working in partnership with an engineering partner, provided advisory services for the full development cycle including price forecasting and risk management advisory, development of project financials, selection of appropriate gas turbine and Floating Storage and Regasification Unit technologies, marketing of project output, and contract negotiations.

Maryland Public Service Commission. Managed the development of a study for Maryland's state regulator to evaluate long-term options for the state's energy future. Developed long-run economic outlooks of various conventional and renewable generation options as well as demand-side measures to quantify the impact of achieving renewable policy mandates on ratepayers.

Publications and Memberships

Member, Energy Bar Association

Member, Global Association of Risk Professionals

2008. "Managing Regret Risk." International District Energy Association Annual Conference

2010. "How to Shop for Power." MassBusiness Magazine (with E.G. Cool)

2017. "Overview of Gas-Fired Generation Development." Power-Gen University Course at Power-Gen International (with K. Paul)

2019. "Building the Generation Fleet of the Future." Power-Gen University Course at Power-Gen International (with K. Paul)

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Incremental Production Cost Support Summary (LNG Facility)

Line	Description	Total	Units	
1	Cost of incremental LNG capacity	6,417,840	*$, 2016*	[1]
2	Incremental capacity	10,000	*dth*	[2]
3	Unit cost of incremental capacity	641.78	*$/dth*	[3]
4	Year of pressure support analysis	2016		[4]
5	Base year of MCS study	2019		[5]
6	Period adjustment	1.037		[6]
7	Current-year unit cost of incremental capacity	665.27	*$/dth*	[7]
8	Percentage related to pressure support	8.73%		[8]
9	Marginal cost of production plant for distribution function ($/dth)	58.10	*$/dth*	[9]

[1] Source: Company data

[2] Source: Company data

[3] Equals [1]/[2]

[6] Source: U.S. Bureau of Economic Analysis, Gross State Product Implicit Price Deflator

[7] Equals [3]*[6]

[8] Source: Company data

[9] Equals [7]*[8]

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Marginal Capacity-Related Distribution Plant Costs for Reinforcements

Line No.	Year	Design Day Demand (Dth)	Dummy Variable: 2021 - 2029	Incremental Design Day Demand (Dth)	Reinforcement Cost (Constant $)	Cumulative Total
	[1]	[2]		[3]	[4]	[5]
1	2019	166,467	0	0	$12,000,000	0
2	2020	168,699	0	2,232	$1,000,000	$1,000,000
3	2021	170,932	1	2,232	$6,150,000	$7,150,000
4	2022	173,377	1	2,445	$500,000	$7,650,000
5	2023	181,097	1	7,720	$200,000	$7,850,000
6	2024	184,065	1	2,967	$500,000	$8,350,000
7	2025	186,987	1	2,923	$200,000	$8,550,000
8	2026	189,963	1	2,975	$200,000	$8,750,000
9	2027	192,968	1	3,006	$200,000	$8,950,000
10	2028	196,015	1	3,047	$200,000	$9,150,000
11	2029	199,042	1	3,027	$200,000	$9,350,000
12						
13	Total (2020 - 2029)			32,575	$9,350,000	
14						
15	**REGRESSION RESULTS**				Col. [5] vs. Col. [2]	
16	Slope				76.400	
17	Y Intercept				(12,303,309.585)	
18	R^2				0.996	
19	t-stat				0.000	
20	p-value				56.479	
21						
22	Regression Estimate			[Line 16]	$76.40	
23						
24	ASSUMED MARGINAL COSTS FOR REINFORCEMENT					
25	$s per Design Day Therm				**$76.40**	

NOTES:
1
Forecast used to develop marginal distribution investment taken from engineer's estimates (company data).

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.99790704
R Square	0.99581846
Adjusted R Square	0.994773075
Standard Error	236929.3382
Observations	11

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	1.06948E+14	5.34739E+13	952.5853743	3.05735E-10
Residual	8	4.49084E+11	56135511301		
Total	10	1.07397E+14			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-12303309.59	1457311.851	-8.442468631	2.95799E-05	-15663876.74	-8942742.432
X Variable 1	76.39964929	8.638386796	8.844203332	2.10658E-05	56.47949361	96.31980496
X Variable 2	6505853.964	244440.4589	26.61529108	4.27178E-09	5942173.255	7069534.673

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Marginal Capacity Related Distribution Plant Costs for Mains Extensions

Line No.	Year	Design Day Demand (Dth)	Dummy Variable: 2009 -2018	Interaction Variable: Col [2] x Col [3]	Dummy Variable: 2001 - 2003	Incremental Design Day Demand (Dth)	Cost of Mains Installed ($)	Handy-Whitman Cost Index	Conversion Factor ($2018)	Cost of Mains Installed ($2018)	Cumulative Total
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
1	1989	94,340	0	0	0	0	$2,102,827	280	2.09	$4,385,896	$4,385,896
2	1990	95,525	0	0	0	1,185	$1,724,250	289	2.02	$3,487,314	$7,873,211
3	1991	97,891	0	0	0	2,366	$1,341,529	297	1.97	$2,637,889	$10,511,099
4	1992	101,018	0	0	0	3,127	$1,489,922	302	1.94	$2,883,561	$13,394,660
5	1993	101,899	0	0	0	882	$1,018,848	310	1.88	$1,919,378	$15,314,038
6	1994	104,535	0	0	0	2,635	$975,268	316	1.85	$1,805,250	$17,119,289
7	1995	107,163	0	0	0	2,628	$667,884	322	1.81	$1,211,318	$18,330,606
8	1996	112,323	0	0	0	5,160	$1,138,184	330	1.77	$2,017,297	$20,347,903
9	1997	118,475	0	0	0	6,152	$4,396,282	337	1.73	$7,618,483	$27,966,386
10	1998	119,650	0	0	0	1,176	$1,792,794	344	1.70	$3,045,794	$31,012,180
11	1999	127,994	0	0	0	8,344	$2,415,815	351	1.67	$4,025,210	$35,037,390
12	2000	123,296	0	0	0	-4,698	$3,440,754	358	1.63	$5,612,849	$40,650,239
13	2001	120,420	0	0	1	-2,876	$8,588,507	367	1.59	$13,676,041	$54,326,280
14	2002	117,163	0	0	1	-3,257	$5,787,927	374	1.56	$9,031,796	$63,358,076
15	2003	129,188	0	0	1	12,025	$6,335,289	381	1.53	$9,717,160	$73,075,235
16	2004	135,096	0	0	0	5,908	$2,804,933	397	1.47	$4,126,148	$77,201,383
17	2005	138,566	0	0	0	3,470	$1,761,281	422	1.39	$2,440,304	$79,641,688
18	2006	142,066	0	0	0	3,500	$1,531,679	443	1.32	$2,018,049	$81,659,737
19	2007	146,269	0	0	0	4,203	$2,092,072	467	1.25	$2,614,655	$84,274,392
20	2008	148,760	0	0	0	2,491	$1,779,635	492	1.19	$2,114,562	$86,388,953
21	2009	147,487	1	147,487	0	-1,273	$5,177,230	512	1.14	$5,905,277	$92,294,231
22	2010	150,439	1	150,439	0	2,952	$1,853,067	505	1.16	$2,144,014	$94,438,245
23	2011	145,478	1	145,478	0	-4,961	$1,419,065	522	1.12	$1,588,374	$96,026,619
24	2012	149,203	1	149,203	0	3,725	$3,379,136	541	1.08	$3,647,718	$99,674,337
25	2013	154,471	1	154,471	0	5,268	$2,245,707	545	1.07	$2,408,619	$102,082,955
26	2014	160,216	1	160,216	0	5,745	$2,424,524	551	1.06	$2,572,065	$104,655,021
27	2015	158,060	1	158,060	0	-2,157	$2,684,371	559	1.05	$2,805,678	$107,460,699
28	2016	163,606	1	163,606	0	5,546	$2,246,935	567	1.03	$2,316,346	$109,777,045
29	2017	169,976	1	169,976	0	6,370	$4,426,087	575	1.02	$4,497,320	$114,274,365
30	2018	173,822	1	173,822	0	3,846	$9,277,518	584	1.00	$9,277,518	$123,551,883
31											
32	Total (1989 - 2018)	3,954,393				79,482	$88,319,318			$123,551,883	
33	Total (2009 - 2018)	1,572,756				25,062	$35,133,639			$37,162,929	
34	Total (2014 - 2018)	825,679				19,351	$21,059,434			$21,468,927	
35											
36											
37	**REGRESSION RESULTS**					Col. [11] vs. Col. [2] to Col [5]					
38	Slope for the period 2009 and beyond					964.645					
39	Y Intercept					(148,791,649.58)					
40	R^2					0.973					
41	t-stat					17.182					
42	p-value					0.000					
43											
44	Regression Estimate				[Line 37]	$964.65					
45	Incremental Average Cost										
46	1989 - 2018				[Line 32], Col [10] / Col [6]	$1,554.47					
47	2009 - 2018				[Line 33], Col [10] / Col [6]	$1,482.86					
48	2014 - 2018				[Line 34], Col [10] / Col [6]	$1,109.47					
49											
50	MARGINAL COSTS FOR MAINS ADDITIONS										
51	$s per Design Day Therm					**$964.65**					

NOTES:
1 Source: Company data.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.986321074
R Square	0.972829262
Adjusted R Square	0.968481944
Standard Error	6869827.883
Observations	30

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	4.22442E+16	1.0561E+16	223.7768744	3.51185E-19
Residual	25	1.17986E+15	4.71945E+13		
Total	29	4.3424E+16			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-148791649.6	11015685.47	-13.50725291	5.46103E-13	-171478878.5	-126104420.7	-171478878.5	-126104420.7
X Variable 1	1578.550184	91.87316042	17.18184262	2.35041E-15	1389.333868	1767.7665	1389.333868	1767.7665
X Variable 2	101500001.4	38950449.84	2.605874948	0.01521986	21280048.34	181719954.5	21280048.34	181719954.5
X Variable 3	-613.9048318	254.3193203	-2.413913466	0.023434626	-1137.685277	-90.124387	-1137.685277	-90.124387
X Variable 4	19389255.45	4315720.617	4.49270404	0.00013879	10500862.46	28277648.45	10500862.46	28277648.45

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Marginal Capacity-Related Distribution O&M Expense

Line No.	Year	Design Day Demand (Dth)	Capacity-Related O&M Expense ($)	GDP Implicit Price Deflator	Conversion Factor ($2018)	Capacity-Related O&M Expense ($2018)
	[1]	[2]	[3]	[4]	[5]	[6]
1	1989	94,340	$1,945,026	61.37	1.80	$3,499,360
2	1990	95,525	$1,893,462	63.67	1.73	$3,283,693
3	1991	97,891	$1,918,550	65.83	1.68	$3,218,326
4	1992	101,018	$2,040,158	67.33	1.64	$3,346,072
5	1993	101,899	$2,151,230	68.92	1.60	$3,446,587
6	1994	104,535	$2,529,506	70.39	1.57	$3,967,894
7	1995	107,163	$2,598,141	71.87	1.54	$3,991,856
8	1996	112,323	$2,558,264	73.18	1.51	$3,859,961
9	1997	118,475	$2,645,969	74.45	1.48	$3,924,614
10	1998	119,650	$2,768,391	75.28	1.47	$4,060,489
11	1999	127,994	$2,626,392	76.37	1.45	$3,797,384
12	2000	123,296	$2,781,957	78.08	1.41	$3,934,319
13	2001	120,420	$2,518,609	79.79	1.38	$3,485,460
14	2002	117,163	$2,241,570	81.05	1.36	$3,053,769
15	2003	129,188	$3,479,902	82.56	1.34	$4,654,370
16	2004	135,096	$3,370,059	84.78	1.30	$4,389,266
17	2005	138,566	$3,675,620	87.42	1.26	$4,642,615
18	2006	142,066	$4,093,085	90.07	1.23	$5,018,081
19	2007	146,269	$4,154,511	92.49	1.19	$4,960,115
20	2008	148,760	$4,431,308	94.29	1.17	$5,189,638
21	2009	147,487	$4,882,340	95.00	1.16	$5,674,582
22	2010	150,439	$5,316,649	96.11	1.15	$6,108,192
23	2011	145,478	$4,976,899	98.12	1.13	$5,600,900
24	2012	149,203	$3,277,420	100.00	1.10	$3,618,928
25	2013	154,471	$4,743,594	101.76	1.09	$5,147,537
26	2014	160,216	$7,930,472	103.64	1.07	$8,449,437
27	2015	158,060	$7,395,141	104.72	1.05	$7,797,888
28	2016	163,606	$6,414,281	105.80	1.04	$6,694,312
29	2017	169,976	$5,679,124	107.79	1.02	$5,817,475
30	2018	173,822	$6,515,569	110.42	1.00	$6,515,569
31						
32	Total (1989 - 2018)	3,954,393	$113,553,201			$141,148,687
33	Total (2009 - 2018)	1,572,756	$57,131,490			$61,424,821
34	Total (2014 - 2018)	825,679	$33,934,587			$35,274,681
35						
36	**REGRESSION RESULTS**				Col. [6] vs. Col. [2]	
37	Slope				47.865	
38	Y Intercept				(1,604,291.52)	
39	R^2				0.672	
40	t-stat				7.577	
41	p-value				0.000	
42						
43	Regression Estimate			[Line 37]	$47.87	
44	Average Cost					
45	1989 - 2016			[Line 32], Col [6] / Col [2]	$35.69	
46	2009 - 2018			[Line 33], Col [6] / Col [2]	$39.06	
47	2014 - 2018			[Line 34], Col [6] / Col [2]	$42.72	
48						
49	ASSUMED MARGINAL COSTS FOR CAPACITY-RELATED O&M					
50	$s per Design Day Therm				**$47.87**	

NOTES:
1 Source: Company data.
2 GDP implicit price deflator obtained from Bureau of Economic Analysis.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.81985899
R Square	0.672168763
Adjusted R Square	0.660460505
Standard Error	803832.0133
Observations	30

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	3.70951E+13	3.70951E+13	57.40979892	2.97192E-08
Residual	28	1.80921E+13	6.46146E+11		
Total	29	5.51872E+13			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-1604291.523	845526.3047	-1.897388069	0.068133422	-3336273.644	127690.5984
X Variable 1	47.86510017	6.317219384	7.576925427	2.97192E-08	34.92486287	60.80533748

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Marginal Capacity-Related Production Expense

Line No.	Year	Design Day Demand (Dth)	Capacity-Related Production Expense ($)	GDP Implicit Price Deflator	Conversion Factor ($2018)	Capacity-Related Production Expense ($2018)
	[1]	[2]	[3]	[4]	[5]	[6]
1	1989	94,340	$1,544,027	61.37	1.80	$2,777,910
2	1990	95,525	$1,752,291	63.67	1.73	$3,038,871
3	1991	97,891	$1,620,490	65.83	1.68	$2,718,337
4	1992	101,018	$1,467,204	67.33	1.64	$2,406,367
5	1993	101,899	$1,566,459	68.92	1.60	$2,509,698
6	1994	104,535	$1,714,538	70.39	1.57	$2,689,500
7	1995	107,163	$1,647,159	71.87	1.54	$2,530,741
8	1996	112,323	$1,722,081	73.18	1.51	$2,598,311
9	1997	118,475	$1,784,059	74.45	1.48	$2,646,192
10	1998	119,650	$1,760,381	75.28	1.47	$2,582,007
11	1999	127,994	$1,591,292	76.37	1.45	$2,300,779
12	2000	123,296	$679,438	78.08	1.41	$960,879
13	2001	120,420	$575,485	79.79	1.38	$796,404
14	2002	117,163	$845,341	81.05	1.36	$1,151,638
15	2003	129,188	$545,839	82.56	1.34	$730,060
16	2004	135,096	$591,437	84.78	1.30	$770,305
17	2005	138,566	$699,365	87.42	1.26	$883,356
18	2006	142,066	$768,391	90.07	1.23	$942,040
19	2007	146,269	$757,630	92.49	1.19	$904,542
20	2008	148,760	$812,189	94.29	1.17	$951,179
21	2009	147,487	$693,185	95.00	1.16	$805,666
22	2010	150,439	$592,199	96.11	1.15	$680,366
23	2011	145,478	$472,046	98.12	1.13	$531,231
24	2012	149,203	($69,221)	$100	$1	($76,434)
25	2013	154,471	$1,412,098	101.76	1.09	$1,532,346
26	2014	160,216	$2,057,282	103.64	1.07	$2,191,909
27	2015	158,060	$1,818,960	104.72	1.05	$1,918,022
28	2016	163,606	$1,666,705	105.80	1.04	$1,739,469
29	2017	169,976	$2,656,076	107.79	1.02	$2,720,781
30	2018	173,822	$2,971,810	110.42	1.00	$2,971,810
31						
32	Total (1989 - 2018)	3,954,393	$38,716,236			$51,904,283
33	Total (2000 - 2018)	2,773,582	$20,546,255			$23,105,570
34	Total (2014 - 2018)	825,679	$11,170,833			$11,541,992
35						
36	**REGRESSION RESULTS**				Col. [6] vs. Col. [2]	
37	Slope				(15.058)	
38	Y Intercept				3,715,046.25	
39	R^2				0.148	
40	t-stat				(2.202)	
41	p-value				0.036	
42						
43	Regression Estimate			[Line 38]	($15.06)	
44	Average Cost					
45	1989-2018			[Line 41], Col [6] / Col [2]	$13.13	
46						
47	ASSUMED MARGINAL COSTS FOR CAPACITY-RELATED PRODUCTION					
48	$s per Design Day Therm				**$13.13**	

Allocation to Distribution Function	Production (Pressure Support) Expense
8.73%	**$1.15**

NOTES:
1 Source: Company data.
2 GDP implicit price deflator obtained from Bureau of Economic Analysis.
3 Regression results show negative coefficient, low R^2 value, so average cost estimate used.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.384202417
R Square	0.147611497
Adjusted R Square	0.11716905
Standard Error	870161.3774
Observations	30

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	3.67147E+12	3.67147E+12	4.848871024	0.036067912
Residual	28	2.12011E+13	7.57181E+11		
Total	29	2.48725E+13			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	3715046.251	915296.1337	4.058846219	0.0003588	1840147.114	5589945.388
X Variable 1	-15.05846764	6.8384939	-2.202015219	0.036067912	-29.06648739	-1.050447899

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Services and Meters Plant Investment Costs

Line	Description	R-1	R3, R-4	G-41	G-42	G-43	G-51	G-52	G-53	G-54	
1	Service Costs										
2	Representatiave Cost	$5,346	$5,346	$4,995	$6,346	$10,913	$15,649	$6,583	$39,407	$9,647	[1]
3	Services per Customer	0.76	0.76	0.76	1.00	1.00	0.76	1.00	1.00	1.00	[2]
4	Average Service Cost Per Customer	$4,063	$4,063	$3,796	$6,346	$10,913	$11,894	$6,583	$39,407	$9,647	[3]
5	Meter Costs										
6	Installed Cost per Customer	$440	$440	$1,077	$2,750	$9,333	$3,483	$2,750	$3,995	$11,904	[4]
7	Meters per Customer	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	[5]
8	Average Meter Cost per Customre	$440	$440	$1,077	$2,750	$9,333	$3,483	$2,750	$3,995	$11,904	[6]

[1] Source: Company data
[2] Source: Company data
[3] Equals [1]*[2]
[4] Source: Company data
[5] Source: Company data
[6] Equals [4]*[5]

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Marginal Customer-Related O&M Expense

Line No.	Year	Annual Customers	Customer-Related O&M Expense ($)	GDP Implicit Price Deflator	Conversion Factor ($2018)	Customer-Related O&M Expense ($2018)
	[1]	[2]	[3]	[4]	[5]	[6]
1	1989	58,809	$3,265,009	61.37	1.80	$5,874,187
2	1990	60,216	$3,297,919	63.67	1.73	$5,719,342
3	1991	60,958	$3,391,122	65.83	1.68	$5,688,533
4	1992	61,725	$3,502,421	67.33	1.64	$5,744,334
5	1993	62,566	$3,522,064	68.92	1.60	$5,642,866
6	1994	64,044	$3,720,493	70.39	1.57	$5,836,130
7	1995	65,385	$3,736,123	71.87	1.54	$5,740,284
8	1996	66,464	$3,391,523	73.18	1.51	$5,117,199
9	1997	67,928	$3,405,043	74.45	1.48	$5,050,505
10	1998	69,588	$3,507,511	75.28	1.47	$5,144,579
11	1999	71,291	$3,481,936	76.37	1.45	$5,034,377
12	2000	73,106	$2,984,429	78.08	1.41	$4,220,659
13	2001	74,959	$3,275,394	79.79	1.38	$4,532,761
14	2002	74,721	$2,439,210	81.05	1.36	$3,323,022
15	2003	78,438	$2,340,691	82.56	1.34	$3,130,674
16	2004	80,221	$2,348,327	84.78	1.30	$3,058,531
17	2005	81,735	$2,621,664	87.42	1.26	$3,311,379
18	2006	82,474	$2,750,067	90.07	1.23	$3,371,554
19	2007	83,637	$3,087,832	92.49	1.19	$3,686,594
20	2008	83,943	$3,445,440	94.29	1.17	$4,035,058
21	2009	84,346	$3,828,174	95.00	1.16	$4,449,359
22	2010	84,420	$4,444,691	96.11	1.15	$5,106,416
23	2011	85,286	$4,037,750	98.12	1.13	$4,544,002
24	2012	85,862	$3,209,604	100.00	1.10	$3,544,044
25	2013	86,972	$3,817,221	101.76	1.09	$4,142,279
26	2014	87,754	$6,271,678	103.64	1.07	$6,682,092
27	2015	90,335	$5,696,782	104.72	1.05	$6,007,035
28	2016	90,867	$5,706,842	105.80	1.04	$5,955,988
29	2017	93,291	$7,314,420	107.79	1.02	$7,492,608
30	2018	94,965	$8,073,464	110.42	1.00	$8,073,464
31						
32	Total (1989 - 2018)		$115,914,843			$149,259,858
33	Total (2009 - 2018)		$52,400,625			$55,997,288
34	Total (2014 - 2018)		$33,063,186			$34,211,188
35						
36	**REGRESSION RESULTS**				Col. [6] vs. Col. [2]	
37	Slope				(0.999)	
38	Y Intercept				5,052,136.05	
39	R^2				0.000	
40	t-stat				(0.046)	
41	p-value				0.964	
42						
43	Regression Estimate			[Line 37]	($1.00)	
44	Average Cost					
45	1989 - 2018				$64.72	
46	2009 - 2018				$63.34	
47	2014 - 2018				$74.83	
48	Current Average Cost per Customer				$85.02	
49						
50	ASSUMED MARGINAL COSTS FOR CUSTOMER-RELATED O&M					
51	$s per Customer				**$64.72**	

NOTES:
1 Source: Company data.
2 GDP implicit price deflator obtained from Bureau of Economic Analysis.
3 Regression results show extremely low R^2 value and negative coefficient, so average cost estimate used.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.008643176
R Square	7.47045E-05
Adjusted R Square	-0.035636913
Standard Error	1293424.795
Observations	30

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	3499608921	3499608921	0.002091882	0.963844445
Residual	28	4.68425E+13	1.67295E+12		
Total	29	4.6846E+13			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	5052136.052	1695847.343	2.979121955	0.005914778	1578350.244	8525921.861
X Variable 1	-0.999097658	21.84436203	-0.045737095	0.963844445	-45.74524485	43.74704954

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Class Weighting of Services and Meter Plant Expense

Line	Description	R1	R-3, R-4	G-41	G-42	G-43	G-51	G-52	G-53	G-54	Total	
1	Test year customers	3,155	78,422	9,370	1,396	55	1,184	377	37	29	94,025	[1]
2	Meters cost per customer	$440	$440	$1,077	$2,750	$9,333	$3,483	$2,750	$3,995	$11,904		[2]
3	Services cost per customer	$4,063	$4,063	$3,796	$6,346	$10,913	$11,894	$6,583	$39,407	$9,647		[3]
4	Services and meters per customer total	$4,503	$4,503	$4,873	$9,097	$20,245	$15,376	$9,333	$43,403	$21,552		[4]
5	Total cost	$14,205,574	$353,120,620	$45,657,629	$12,699,869	$1,118,659	$18,198,538	$3,521,741	$1,625,305	$615,367	$450,763,303	[5]
6	Average cost per customer										$4,794	[6]
7	Relative weight per customer	0.94	0.94	1.02	1.90	4.22	3.21	1.95	9.05	4.50		[7]
8	System average marginal cost per customer	$64.72	$64.72	$64.72	$64.72	$64.72	$64.72	$64.72	$64.72	$64.72		[8]
9	Class weighted marginal cost per customer	$60.79	$60.79	$65.78	$122.80	$273.30	$207.58	$125.99	$585.92	$290.94		[9]

[1] Source: Company data
[2] MCOS-3, p. 1, ln 8
[3] MCOS-3, p. 1, ln 4
[4] Equals [2]+[3]
[5] Equals [1]*[4]
[6] Equals $\sum_{[5]}/\sum_{[1]}$
[7] Equals *n* /[6]
[8] MCOS-3, p. 2, ln 48
[9] Equals [7]*[8]

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Marginal Customer-Related Accounting & Marketing Expense

Line No.	Year	Annual Customers	Customer-Related Accounting & Marketing Expense ($)	GDP Implicit Price Deflator	Conversion Factor ($2018)	Customer-Related Accounting & Marketing Expense ($2018)
	[1]	[2]	[3]	[4]	[5]	[6]
1	1989	58,809	$2,864,392	61.37	1.80	$5,153,423
2	1990	60,216	$3,442,112	63.67	1.73	$5,969,405
3	1991	60,958	$3,565,057	65.83	1.68	$5,980,305
4	1992	61,725	$3,740,667	67.33	1.64	$6,135,083
5	1993	62,566	$4,032,636	68.92	1.60	$6,460,877
6	1994	64,044	$3,935,631	70.39	1.57	$6,173,605
7	1995	65,385	$3,677,860	71.87	1.54	$5,650,767
8	1996	66,464	$3,695,729	73.18	1.51	$5,576,191
9	1997	67,928	$3,390,219	74.45	1.48	$5,028,517
10	1998	69,588	$3,377,588	75.28	1.47	$4,954,017
11	1999	71,291	$3,319,897	76.37	1.45	$4,800,092
12	2000	73,106	$3,042,687	78.08	1.41	$4,303,049
13	2001	74,959	$1,318,450	79.79	1.38	$1,824,580
14	2002	74,721	$1,114,892	81.05	1.36	$1,518,857
15	2003	78,438	$2,340,981	82.56	1.34	$3,131,062
16	2004	80,221	$3,171,337	84.78	1.30	$4,130,444
17	2005	81,735	$3,204,083	87.42	1.26	$4,047,024
18	2006	82,474	$4,130,827	90.07	1.23	$5,064,352
19	2007	83,637	$3,990,833	92.49	1.19	$4,764,697
20	2008	83,943	$3,927,632	94.29	1.17	$4,599,768
21	2009	84,346	$4,317,533	95.00	1.16	$5,018,125
22	2010	84,420	$4,816,133	96.11	1.15	$5,533,159
23	2011	85,286	$7,556,567	98.12	1.13	$8,504,007
24	2012	85,862	$9,647,965	100.00	1.10	$10,653,283
25	2013	86,972	$3,519,219	101.76	1.09	$3,818,900
26	2014	87,754	$5,036,775	103.64	1.07	$5,366,378
27	2015	90,335	$5,637,886	104.72	1.05	$5,944,932
28	2016	90,867	$4,737,995	105.80	1.04	$4,944,843
29	2017	93,291	$3,544,533	107.79	1.02	$3,630,882
30	2018	94,965	$3,005,303	110.42	1.00	$3,005,303
31						
32	Total (1989 - 2018)		$117,103,418			$151,685,927
33	Total (2009 - 2018)		$51,819,908			$56,419,812
34	Total (2014 - 2018)		$21,962,492			$22,892,338
35						
36	**REGRESSION RESULTS**				Col. [6] vs. Col. [2]	
37	Slope				(19.507)	
38	Y Intercept				6,555,844.83	
39	R^2				0.015	
40	t-stat				(0.655)	
41	p-value				0.518	
42						
43	Regression Estimate			[Line 37]	($19.51)	
44	Average Cost					
45	1989 - 2018				$65.77	
46	2009 - 2018				$63.82	
47	2014 - 2018				$50.07	
48	Current Average Cost per Customer				$31.65	
49						
50	ASSUMED MARGINAL COSTS FOR CUSTOMER-RELATED O&M					
51	$s per Customer				**$65.77**	

NOTES:
1 Source: Company data.
2 GDP implicit price deflator obtained from Bureau of Economic Analysis.
3 Regression results show extremely low R^2 value and negative coefficient, so average cost estimate used.

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.122922857
R Square	0.015110029
Adjusted R Square	-0.020064613
Standard Error	1762291.228
Observations	30

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	1.33411E+12	1.33411E+12	0.429571642	0.517548487
Residual	28	8.69588E+13	3.10567E+12		
Total	29	8.82929E+13			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	6555844.828	2310591.931	2.837301013	0.008366334	1822811.814	11288877.84
X Variable 1	-19.50714288	29.76294233	-0.655417151	0.517548487	-80.4737665	41.45948075

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Plant-Related A&G Marginal Loading Factor

Line No.	Year	Plant Related A&G Expense ($)	Total Utility Plant ($)	Loading Factor
	[1]	[2]	[3]	[4]
1	1989	$1,364,240	$90,119,098	1.51%
2	1990	$1,429,254	$99,467,339	1.44%
3	1991	$1,427,802	$106,202,255	1.34%
4	1992	$1,435,822	$112,423,806	1.28%
5	1993	$1,445,997	$118,656,821	1.22%
6	1994	$1,342,813	$124,120,097	1.08%
7	1995	$1,200,572	$129,472,654	0.93%
8	1996	$1,405,850	$135,806,318	1.04%
9	1997	$1,422,193	$145,866,429	0.97%
10	1998	$1,311,090	$156,424,246	0.84%
11	1999	$1,624,095	$166,682,099	0.97%
12	2000	$2,209,040	$174,018,261	1.27%
13	2001	$1,000,753	$189,363,169	0.53%
14	2002	$1,127,386	$202,252,941	0.56%
15	2003	$413,762	$227,692,187	0.18%
16	2004	$401,446	$239,474,276	0.17%
17	2005	$686,615	$242,115,491	0.28%
18	2006	$696,565	$263,405,595	0.26%
19	2007	$705,896	$280,967,870	0.25%
20	2008	$734,523	$298,931,548	0.25%
21	2009	$756,942	$318,900,861	0.24%
22	2010	$1,218,997	$328,222,369	0.37%
23	2011	$388,947	$338,986,146	0.11%
24	2012	$689,718	$339,610,905	0.20%
25	2013	$1,071,232	$360,914,157	0.30%
26	2014	$1,132,042	$379,562,429	0.30%
27	2015	$1,135,511	$426,165,148	0.27%
28	2016	$850,423	$453,429,242	0.19%
29	2017	$776,521	$485,723,431	0.16%
30	2018	$939,134	$537,746,391	0.17%
31				
32				
33	Average Loading Factor			Col [2] / Col [3]
34	1989 - 2018			0.62%
35	2009 - 2018			0.23%
36	2014 - 2018			0.22%
37	Current			0.17%
38				
39	MARGINAL LOADING FACTOR FOR PLANT A&G			
40	%			**0.62%**

NOTES:
1 Source: Company data.

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Non-Plant Related A&G Marginal Loading Factor

Line No.	Year	Non-Plant Related A&G Expense ($)	Adjusted O&M ($)	Loading Factor
	[1]	[2]	[3]	[4]
1	1989	$5,909,986	$8,789,813	67.24%
2	1990	$5,916,868	$9,468,756	62.49%
3	1991	$6,262,331	$9,604,565	65.20%
4	1992	$6,307,455	$9,919,580	63.59%
5	1993	$6,311,505	$10,375,088	60.83%
6	1994	$6,463,160	$10,955,356	59.00%
7	1995	$5,625,812	$10,756,889	52.30%
8	1996	$5,708,347	$10,442,201	54.67%
9	1997	$5,543,252	$10,255,675	54.05%
10	1998	$5,620,410	$10,423,880	53.92%
11	1999	$6,187,199	$10,155,876	60.92%
12	2000	$6,308,523	$9,150,670	68.94%
13	2001	$11,088,012	$7,533,407	147.18%
14	2002	$4,904,823	$6,352,629	77.21%
15	2003	$4,376,775	$8,615,202	50.80%
16	2004	$5,713,357	$9,367,067	60.99%
17	2005	$4,218,671	$10,090,659	41.81%
18	2006	$5,464,787	$11,466,986	47.66%
19	2007	$5,829,666	$11,734,639	49.68%
20	2008	$7,666,805	$12,318,347	62.24%
21	2009	$7,997,073	$13,469,376	59.37%
22	2010	$9,072,506	$14,925,410	60.79%
23	2011	$6,668,773	$16,907,246	39.44%
24	2012	$14,901,222	$16,624,967	89.63%
25	2013	$13,527,831	$12,972,812	104.28%
26	2014	$9,650,588	$20,243,503	47.67%
27	2015	$11,452,287	$19,797,077	57.85%
28	2016	$11,771,039	$17,879,185	65.84%
29	2017	$16,019,761	$18,922,068	84.66%
30	2018	$17,481,590	$20,052,772	87.18%
31				
32				
33	Average Loading Factor			Col [2] / Col [3]
34	1989 - 2018			65.25%
35	2009 - 2018			69.67%
36	2014 - 2018			68.64%
37	Current			87.18%
38				
39	MARGINAL LOADING FACTOR FOR NON-PLANT A&G			
40	%			**65.25%**

NOTES:
1 Source: Company data.

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Materials & Supplies and Prepayments Marginal Loading Factor

Line No.	Year	Materials & Supplies and Prepayments ($)	Total Utility Plant ($)	Loading Factor
	[1]	[2]	[3]	[4]
1	1989	$3,629,263	$90,119,098	4.03%
2	1990	$2,814,685	$99,467,339	2.83%
3	1991	$2,978,851	$106,202,255	2.80%
4	1992	$2,903,000	$112,423,806	2.58%
5	1993	$2,911,222	$118,656,821	2.45%
6	1994	$2,603,364	$124,120,097	2.10%
7	1995	$2,653,717	$129,472,654	2.05%
8	1996	$2,551,060	$135,806,318	1.88%
9	1997	$2,737,535	$145,866,429	1.88%
10	1998	$2,351,916	$156,424,246	1.50%
11	1999	$2,472,925	$166,682,099	1.48%
12	2000	$1,694,816	$174,018,261	0.97%
13	2001	$1,423,213	$189,363,169	0.75%
14	2002	$688,197	$202,252,941	0.34%
15	2003	$12,491	$227,692,187	0.01%
16	2004	$89,880	$239,474,276	0.04%
17	2005	$464,721	$242,115,491	0.19%
18	2006	$570,708	$263,405,595	0.22%
19	2007	$556,729	$280,967,870	0.20%
20	2008	$338,049	$298,931,548	0.11%
21	2009	$356,896	$318,900,861	0.11%
22	2010	$46,167	$328,222,369	0.01%
23	2011	$2,715,050	$338,986,146	0.80%
24	2012	$3,479,465	$339,610,905	1.02%
25	2013	$2,870,074	$360,914,157	0.80%
26	2014	$4,730,829	$379,562,429	1.25%
27	2015	$6,132,549	$426,165,148	1.44%
28	2016	$6,861,095	$453,429,242	1.51%
29	2017	$8,629,234	$485,723,431	1.78%
30	2018	$11,010,586	$537,746,391	2.05%
31				
32				
33	Average Loading Factor			Col [2] / Col [3]
34	1989 - 2018			1.31%
35	2009 - 2018			1.08%
36	2014 - 2018			1.60%
37	Current			2.05%
38				
39	MARGINAL LOADING FACTOR FOR MATERIALS & SUPPLIES AND PREPAYMENTS			
40	%			**1.31%**

NOTES:
1 Source: Company data.

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

General Plant Marginal Loading Factor

Line No.	Year	General Plant ($)	Total Utility Plant ($)	Total Utility Plant Less General Plant ($)	Loading Factor
	[1]	[2]	[3]	[4]	[5]
1	1989	$5,933,582	$90,119,098	$84,185,516	7.05%
2	1990	$6,503,724	$99,467,339	$92,963,615	7.00%
3	1991	$6,849,445	$106,202,255	$99,352,810	6.89%
4	1992	$7,659,250	$112,423,806	$104,764,556	7.31%
5	1993	$7,970,207	$118,656,821	$110,686,614	7.20%
6	1994	$8,384,740	$124,120,097	$115,735,357	7.24%
7	1995	$8,221,795	$129,472,654	$121,250,859	6.78%
8	1996	$8,870,155	$135,806,318	$126,936,163	6.99%
9	1997	$9,203,222	$145,866,429	$136,663,207	6.73%
10	1998	$9,478,301	$156,424,246	$146,945,945	6.45%
11	1999	$11,244,509	$166,682,099	$155,437,590	7.23%
12	2000	$7,255,965	$174,018,261	$166,762,296	4.35%
13	2001	$8,348,042	$189,363,169	$181,015,127	4.61%
14	2002	$11,173,887	$202,252,941	$191,079,054	5.85%
15	2003	$11,582,178	$227,692,187	$216,110,009	5.36%
16	2004	$10,499,392	$239,474,276	$228,974,884	4.59%
17	2005	$10,220,042	$242,115,491	$231,895,449	4.41%
18	2006	$11,333,343	$263,405,595	$252,072,252	4.50%
19	2007	$12,089,175	$280,967,870	$268,878,695	4.50%
20	2008	$15,097,758	$298,931,548	$283,833,790	5.32%
21	2009	$16,049,203	$318,900,861	$302,851,658	5.30%
22	2010	$16,060,707	$328,222,369	$312,161,662	5.14%
23	2011	$16,195,189	$338,986,146	$322,790,957	5.02%
24	2012	$8,811,783	$339,610,905	$330,799,122	2.66%
25	2013	$9,473,843	$360,914,157	$351,440,314	2.70%
26	2014	$10,590,671	$379,562,429	$368,971,758	2.87%
27	2015	$18,670,190	$426,165,148	$407,494,958	4.58%
28	2016	$23,326,152	$453,429,242	$430,103,090	5.42%
29	2017	$24,927,246	$485,723,431	$460,796,185	5.41%
30	2018	$29,522,360	$537,746,391	$508,224,031	5.81%
31					
32					
33	Average Loading Factor			Col [2] / Col [4]	
34	1989 - 2018			5.51%	
35	2009 - 2018			4.49%	
36	2014 - 2018			4.82%	
37	Current Average Cost per Customer			5.49%	
38					
39	MARGINAL LOADING FACTOR FOR GENERAL PLANT				
40	%			**5.51%**	

NOTES:
1 Source: Company data.

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Class Weighted Bad Debt Expense

Line No.	Rate Class	Gross Bad Debt Expense	Percent of Total	Adjusted Bad Debt Accounts Expense	Total Normalized Distribution Revenues	Bad Debt Expense Percentage
		[1]	[2]	[3]	[4]	[5]
1	R-1	$61,861	2.53%	$42,115	$895,559	4.70%
2	R-3, R-4	$2,139,934	87.61%	$1,456,876	$46,836,151	3.11%
3	G-41	$163,535	6.70%	$111,335	$14,691,765	0.76%
4	G-42	$49,107	2.01%	$33,432	$13,862,372	0.24%
5	G-43	$0	0.00%	$0	$2,979,914	0.00%
6	G-51	$22,491	0.92%	$15,312	$1,687,389	0.91%
7	G-52	$5,526	0.23%	$3,762	$2,248,398	0.17%
8	G-53	$0	0.00%	$0	$1,703,104	0.00%
9	G-54	$0	0.00%	$0	$1,105,561	0.00%
10	Total	$2,442,454	100.00%	$1,662,832	$86,010,213	1.93%

[1] Company data
[2] Col [1] Line (n) / Col [1] Line 10
[3] Col [2] Line (n) x Col [3] Line 10
[4] RATES-3
[5] Col [3] / Col [4]

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Carrying Charges Inputs

Line	Description	Peaking plant	Distribution	Services	Meters	
1	Plant data					
2	Capitalized cost	$1,000	$1,000	$1,000	$1,000	
3	Book life	35	59	45	29	[1]
4	Salvage value	0%	-15%	-60%	0%	[2]
5	MACRS life	20	20	20	20	[3]
6	Capital structure					
7	Long-term debt ratio	50%	50%	50%	50%	[4]
8	Short-term debt ratio	0%	0%	0%	0%	[5]
9	Preferred ratio	0%	0%	0%	0%	[6]
10	Common ratio	50%	50%	50%	50%	[7]
11	Other	0%	0%	0%	0%	[8]
12	Cost of capital					
13	Long-term debt cost	4.42%	4.42%	4.42%	4.42%	[9]
14	Short-term debt cost	0.00%	0.00%	0.00%	0.00%	
15	Preferred cost	0.00%	0.00%	0.00%	0.00%	[10]
16	Common cost	10.00%	10.00%	10.00%	10.00%	[11]
17	Other	0.00%	0.00%	0.00%	0.00%	[12]
18	WACC	7.21%	7.21%	7.21%	7.21%	[13]
19	After tax WACC	7.79%	7.79%	7.79%	7.79%	[14]
20	Tax affected cost of capital	10.71%	10.71%	10.71%	10.71%	[15]
21	Tax info					
22	Tax rate	27.08%	27.08%	27.08%	27.08%	[16]
23	Property tax rate	2.57%	2.57%	2.57%	2.57%	[17]
24	Property insurance rate	0.16%	0.01%	0.01%	0.01%	[18]
25	Misc data					
26	Inflation rate	1.95%	1.95%	1.95%	1.95%	[19]
27	Constant $ disc rate	5.84%	5.84%	5.84%	5.84%	[20]
28	Property tax escalation rate	1.95%	1.95%	1.95%	1.95%	[21]

[1] MCOS-5 Page 2
[2] MCOS-5 Page 2
[3] MCOS-5 Page 2
[4] Direct testimony of John Cochrane
[5] Direct testimony of John Cochrane
[6] Direct testimony of John Cochrane
[7] Direct testimony of John Cochrane
[8] Direct testimony of John Cochrane
[9] Direct testimony of John Cochrane
[10] Direct testimony of John Cochrane
[11] Direct testimony of John Cochrane
[12] Direct testimony of John Cochrane
[13] Line 7 x Line 13 + Line 8 x Line 14 + Line 9 x Line 15 + Line 10 x Line 16 + Line 11 x Line 17
[14] (1 - Line 22) * Line 18
[15] Line 19 / (1 - Line 22)
[16] Revenue Requirements RR-1
[17] Revenue Requirements Step-EN
[18] Revenue Requirements Step-EN
[20] Line 19 - Line 26
[21] Line 26

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Development of Plant Service Lives and Net Salvage

Line	Account	Description	[A] Test Year Plant Balance	[B] Average Service Life	[C] Net Salvage Value	
1		Production Plant				
2	361	Structures and Improvement	$96,980	35.0	0%	[1]
3	361.5	Other Equipment	$0	35.0	0%	[2]
4		**Production Plant Total**	$96,980	35.0	0%	[3]
5		Distribution				
6	366.2	Structures and Improvement	$252,675	35.0	0%	[4]
7	366.3	Structures and Improvement	$353,851	35.0	0%	[5]
8	367.0	Mains	$239,064,768	60.0	-15%	[6]
9	369.0	Measuring and Regulation S	$4,881,531	35.0	0%	[7]
10	387	Other Equipment	$1,044,334	19.0	0%	[8]
		Distribution Total	$245,597,159	59.3	-15%	[9]
11		Services				
12	380	Services	$185,013,119	45.0	-60%	[10]
13	380.1	Services - Stub	$2,225,746	45.0	-60%	[11]
		Services Total	$187,238,865	45.0	-60%	[12]
14		Meters				
15	381.0	Meters	$13,396,339	32.0	0%	[13]
16	381.1	Meters-Instrument	$276,522	32.0	0%	[14]
17	381.2	Meters - ERTs	$6,038,019	15.0	0%	[15]
18	382	Meter Installation	$18,597,177	32.0	0%	[16]
19		**Meters Total**	$38,308,057	29.3	0%	[17]

[1] Source: Company data
[2] Source: Company data
[3] Col A Equals [1]+[2], Cols B,C = Weighted Average of Lines [1] to [2]
[4] Source: Company data
[5] Source: Company data
[6] Source: Company data
[7] Source: Company data
[8] Source: Company data
[9] Col A Equals ∑ lines [4] to [8], Cols B, C Equal Weighted Average of Lines [4] to [8]
[10] Source: Company data
[11] Source: Company data
[12] Col A Equals [10]+[11], Cols B,C Equal Weighted Average of Lines [10] to [11]
[13] Source: Company data
[14] Source: Company data
[15] Source: Company data
[16] Source: Company data
[17] Col A = ∑ lines [13] to [16], Cols B, C = Weighted Average of Lines [13] to [16]

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Development of Revenue Requirements Stream
Peaker Plant

Year	Rate Base	Interest on Debt	Return on Preferred Equity	Return on Common Equity	Tax Depreciation	Tax Depreciation Rate	Book Depreciation	Deferred Taxes	Taxable Income	Income Taxes	Property Tax	Property Insurance	Revenue Requirement	% of Original Investment Revenue	PV of Revenue Requirement
0	1000														
1	969.01	21.40	0.00	48.45	37.50	3.75%	28.57	2.42	57.66	15.71	25.70	1.60	143.76	14.38%	133.37
2	928.63	20.51	0.00	46.43	72.19	7.22%	28.57	11.81	20.19	5.50	26.20	1.63	140.62	14.06%	121.02
3	889.71	19.65	0.00	44.49	66.77	6.68%	28.57	10.34	22.93	6.25	26.71	1.66	137.62	13.76%	109.87
4	852.15	18.82	0.00	42.61	61.77	6.18%	28.57	8.99	25.35	6.90	27.23	1.70	134.75	13.48%	99.81
5	815.85	18.02	0.00	40.79	57.13	5.71%	28.57	7.73	27.49	7.49	27.76	1.73	132.01	13.20%	90.71
6	780.70	17.24	0.00	39.03	52.85	5.29%	28.57	6.57	29.35	8.00	28.30	1.76	129.39	12.94%	82.48
7	746.63	16.49	0.00	37.33	48.88	4.89%	28.57	5.50	30.98	8.44	28.86	1.80	126.88	12.69%	75.03
8	713.55	15.76	0.00	35.68	45.22	4.52%	28.57	4.51	32.36	8.82	29.42	1.83	124.47	12.45%	68.28
9	680.63	15.03	0.00	34.03	44.62	4.46%	28.57	4.35	30.70	8.36	29.99	1.87	122.08	12.21%	62.13
10	647.72	14.30	0.00	32.39	44.61	4.46%	28.57	4.34	28.44	7.75	30.58	1.90	119.71	11.97%	56.52
11	614.80	13.58	0.00	30.74	44.62	4.46%	28.57	4.35	26.17	7.13	31.17	1.94	117.35	11.74%	51.40
12	581.88	12.85	0.00	29.09	44.61	4.46%	28.57	4.34	23.92	6.52	31.78	1.98	115.00	11.50%	46.73
13	548.97	12.12	0.00	27.45	44.62	4.46%	28.57	4.35	21.64	5.90	32.40	2.02	112.67	11.27%	42.47
14	516.05	11.40	0.00	25.80	44.61	4.46%	28.57	4.34	19.39	5.28	33.03	2.06	110.34	11.03%	38.59
15	483.13	10.67	0.00	24.16	44.62	4.46%	28.57	4.35	17.12	4.66	33.67	2.10	108.03	10.80%	35.05
16	450.22	9.94	0.00	22.51	44.61	4.46%	28.57	4.34	14.86	4.05	34.33	2.14	105.74	10.57%	31.82
17	417.30	9.22	0.00	20.87	44.62	4.46%	28.57	4.35	12.59	3.43	35.00	2.18	103.46	10.35%	28.89
18	384.39	8.49	0.00	19.22	44.61	4.46%	28.57	4.34	10.34	2.82	35.68	2.22	101.19	10.12%	26.21
19	351.47	7.76	0.00	17.57	44.62	4.46%	28.57	4.35	8.06	2.20	36.38	2.26	98.93	9.89%	23.77
20	318.56	7.04	0.00	15.93	44.61	4.46%	28.57	4.34	5.81	1.58	37.09	2.31	96.69	9.67%	21.55
21	291.68	6.44	0.00	14.58	22.31	2.23%	28.57	(1.70)	26.26	7.15	37.81	2.35	95.02	9.50%	19.65
22	270.85	5.98	0.00	13.54	0.00		28.57	(7.74)	47.14	12.84	38.55	2.40	93.91	9.39%	18.02
23	250.01	5.52	0.00	12.50	0.00		28.57	(7.74)	45.71	12.45	39.30	2.45	92.82	9.28%	16.52
24	229.18	5.06	0.00	11.46	0.00		28.57	(7.74)	44.29	12.06	40.06	2.49	91.74	9.17%	15.15
25	208.34	4.60	0.00	10.42	0.00		28.57	(7.74)	42.86	11.67	40.85	2.54	90.68	9.07%	13.89
26	187.51	4.14	0.00	9.38	0.00		28.57	(7.74)	41.43	11.29	41.64	2.59	89.63	8.96%	12.74
27	166.67	3.68	0.00	8.33	0.00		28.57	(7.74)	40.00	10.90	42.45	2.64	88.60	8.86%	11.68
28	145.84	3.22	0.00	7.29	0.00		28.57	(7.74)	38.57	10.51	43.28	2.69	87.59	8.76%	10.71
29	125.01	2.76	0.00	6.25	0.00		28.57	(7.74)	37.14	10.12	44.12	2.75	86.60	8.66%	9.82
30	104.17	2.30	0.00	5.21	0.00		28.57	(7.74)	35.71	9.73	44.98	2.80	85.62	8.56%	9.01
31	83.34	1.84	0.00	4.17	0.00		28.57	(7.74)	34.29	9.34	45.86	2.86	84.66	8.47%	8.27
32	62.50	1.38	0.00	3.13	0.00		28.57	(7.74)	32.86	8.95	46.75	2.91	83.72	8.37%	7.58
33	41.67	0.92	0.00	2.08	0.00		28.57	(7.74)	31.43	8.56	47.67	2.97	82.79	8.28%	6.96
34	20.83	0.46	0.00	1.04	0.00		28.57	(7.74)	30.00	8.17	48.60	3.03	81.89	8.19%	6.38
35	0.00	0.00	0.00	0.00	0.00		28.57	(7.74)	28.57	7.78	49.54	3.08	81.01	8.10%	5.86
Total		**328.60**		**743.95**	**1,000.00**		**1,000.00**	**0.00**	**1,021.61**	**278.29**	**1,272.76**	**79.24**	**3,696.97**	**369.70%**	**1,417.94**
PV		**165.05**		**373.66**	**513.69**		**340.09**	**47.29**	**339.95**	**92.60**	**377.24**	**22.02**	**1,417.94**	**141.79%**	
Levelized payment current $		**13.87**		**31.39**	**43.16**		**28.57**	**3.97**	**28.56**	**7.78**	**31.69**	**1.85**	**119.12**	**11.91%**	
Levelized payment constant $		**11.18**		**25.30**	**34.79**		**23.03**	**3.20**	**23.02**	**6.27**	**25.55**	**1.49**	**96.02**	**9.60%**	

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Development of Revenue Requirements Stream
Capacity-Related Distribution

Year	Rate Base	Interest on Debt	Return on Preferred Equity	Return on Common Equity	Tax Depreciation	Tax Depreciation Rate	Book Depreciation	Deferred Taxes	Taxable Income	Income Taxes	Property Tax	Property Insurance	Revenue Requirement	% of Original Investment Revenue	PV of Revenue Requirement
0	1000.00														
1	975.68	21.55	0.00	48.78	37.50	3.75%	19.42	4.90	48.97	13.34	25.70	0.15	133.87	13.39%	124.19
2	941.97	20.80	0.00	47.10	72.19	7.22%	19.42	14.29	11.96	3.26	26.20	0.15	131.30	13.13%	113.00
3	909.72	20.09	0.00	45.49	66.77	6.68%	19.42	12.82	15.16	4.13	26.71	0.15	128.88	12.89%	102.90
4	878.83	19.41	0.00	43.94	61.77	6.18%	19.42	11.47	18.03	4.91	27.23	0.16	126.59	12.66%	93.76
5	849.20	18.75	0.00	42.46	57.13	5.71%	19.42	10.21	20.63	5.62	27.76	0.16	124.43	12.44%	85.50
6	820.72	18.13	0.00	41.04	52.85	5.29%	19.42	9.05	22.95	6.25	28.30	0.16	122.38	12.24%	78.01
7	793.32	17.52	0.00	39.67	48.88	4.89%	19.42	7.98	25.03	6.82	28.86	0.17	120.45	12.04%	71.23
8	766.91	16.94	0.00	38.35	45.22	4.52%	19.42	6.99	26.87	7.32	29.42	0.17	118.61	11.86%	65.07
9	740.66	16.36	0.00	37.03	44.62	4.46%	19.42	6.82	25.67	6.99	29.99	0.17	116.80	11.68%	59.44
10	714.42	15.78	0.00	35.72	44.61	4.46%	19.42	6.82	23.87	6.50	30.58	0.18	115.00	11.50%	54.30
11	688.17	15.20	0.00	34.41	44.62	4.46%	19.42	6.82	22.05	6.01	31.17	0.18	113.21	11.32%	49.59
12	661.93	14.62	0.00	33.10	44.61	4.46%	19.42	6.82	20.26	5.52	31.78	0.18	111.44	11.14%	45.28
13	635.68	14.04	0.00	31.78	44.62	4.46%	19.42	6.82	18.44	5.02	32.40	0.19	109.67	10.97%	41.34
14	609.44	13.46	0.00	30.47	44.61	4.46%	19.42	6.82	16.65	4.53	33.03	0.19	107.92	10.79%	37.74
15	583.19	12.88	0.00	29.16	44.62	4.46%	19.42	6.82	14.83	4.04	33.67	0.20	106.18	10.62%	34.45
16	556.95	12.30	0.00	27.85	44.61	4.46%	19.42	6.82	13.03	3.55	34.33	0.20	104.46	10.45%	31.44
17	530.70	11.72	0.00	26.53	44.62	4.46%	19.42	6.82	11.22	3.06	35.00	0.20	102.74	10.27%	28.69
18	504.45	11.14	0.00	25.22	44.61	4.46%	19.42	6.82	9.42	2.57	35.68	0.21	101.04	10.10%	26.17
19	478.21	10.56	0.00	23.91	44.62	4.46%	19.42	6.82	7.60	2.07	36.38	0.21	99.35	9.94%	23.87
20	451.96	9.98	0.00	22.60	44.61	4.46%	19.42	6.82	5.81	1.58	37.09	0.22	97.68	9.77%	21.77
21	431.76	9.54	0.00	21.59	22.31	2.23%	19.42	0.78	26.72	7.28	37.81	0.22	96.57	9.66%	19.97
22	417.59	9.22	0.00	20.88	0.00		19.42	(5.26)	48.06	13.09	38.55	0.22	96.03	9.60%	18.42
23	403.43	8.91	0.00	20.17	0.00		19.42	(5.26)	47.09	12.83	39.30	0.23	95.50	9.55%	17.00
24	389.27	8.60	0.00	19.46	0.00		19.42	(5.26)	46.12	12.56	40.06	0.23	94.99	9.50%	15.68
25	375.10	8.28	0.00	18.76	0.00		19.42	(5.26)	45.14	12.30	40.85	0.24	94.49	9.45%	14.47
26	360.94	7.97	0.00	18.05	0.00		19.42	(5.26)	44.17	12.03	41.64	0.24	94.01	9.40%	13.36
27	346.77	7.66	0.00	17.34	0.00		19.42	(5.26)	43.20	11.77	42.45	0.25	93.54	9.35%	12.33
28	332.61	7.35	0.00	16.63	0.00		19.42	(5.26)	42.23	11.50	43.28	0.25	93.09	9.31%	11.38
29	318.45	7.03	0.00	15.92	0.00		19.42	(5.26)	41.26	11.24	44.12	0.26	92.66	9.27%	10.51
30	304.28	6.72	0.00	15.21	0.00		19.42	(5.26)	40.29	10.97	44.98	0.26	92.24	9.22%	9.71
31	290.12	6.41	0.00	14.51	0.00		19.42	(5.26)	39.32	10.71	45.86	0.27	91.84	9.18%	8.97
32	275.95	6.09	0.00	13.80	0.00		19.42	(5.26)	38.35	10.45	46.75	0.27	91.45	9.15%	8.28
33	261.79	5.78	0.00	13.09	0.00		19.42	(5.26)	37.37	10.18	47.67	0.28	91.09	9.11%	7.65
34	247.63	5.47	0.00	12.38	0.00		19.42	(5.26)	36.40	9.92	48.60	0.28	90.74	9.07%	7.07
35	233.46	5.16	0.00	11.67	0.00		19.42	(5.26)	35.43	9.65	49.54	0.29	90.41	9.04%	6.54
36	219.30	4.84	0.00	10.96	0.00		19.42	(5.26)	34.46	9.39	50.51	0.29	90.09	9.01%	6.04
37	205.14	4.53	0.00	10.26	0.00		19.42	(5.26)	33.49	9.12	51.49	0.30	89.80	8.98%	5.59
38	190.97	4.22	0.00	9.55	0.00		19.42	(5.26)	32.52	8.86	52.50	0.30	89.53	8.95%	5.17
39	176.81	3.90	0.00	8.84	0.00		19.42	(5.26)	31.55	8.59	53.52	0.31	89.27	8.93%	4.78
40	162.64	3.59	0.00	8.13	0.00		19.42	(5.26)	30.58	8.33	54.56	0.32	89.04	8.90%	4.42
41	148.48	3.28	0.00	7.42	0.00		19.42	(5.26)	29.61	8.06	55.63	0.32	88.83	8.88%	4.09
42	134.32	2.97	0.00	6.72	0.00		19.42	(5.26)	28.63	7.80	56.71	0.33	88.63	8.86%	3.79
43	120.15	2.65	0.00	6.01	0.00		19.42	(5.26)	27.66	7.54	57.82	0.34	88.46	8.85%	3.51
44	105.99	2.34	0.00	5.30	0.00		19.42	(5.26)	26.69	7.27	58.94	0.34	88.31	8.83%	3.25
45	91.82	2.03	0.00	4.59	0.00		19.42	(5.26)	25.72	7.01	60.09	0.35	88.18	8.82%	3.01
46	77.66	1.72	0.00	3.88	0.00		19.42	(5.26)	24.75	6.74	61.26	0.36	88.08	8.81%	2.79
47	63.50	1.40	0.00	3.17	0.00		19.42	(5.26)	23.78	6.48	62.46	0.36	88.00	8.80%	2.59
48	49.33	1.09	0.00	2.47	0.00		19.42	(5.26)	22.81	6.21	63.67	0.37	87.94	8.79%	2.40
49	35.17	0.78	0.00	1.76	0.00		19.42	(5.26)	21.84	5.95	64.92	0.38	87.90	8.79%	2.22
50	21.00	0.46	0.00	1.05	0.00		19.42	(5.26)	20.86	5.68	66.18	0.38	87.89	8.79%	2.06
51	6.84	0.15	0.00	0.34	0.00		19.42	(5.26)	19.89	5.42	67.47	0.39	87.91	8.79%	1.91
52	(7.32)	(0.16)	0.00	(0.37)	0.00		19.42	(5.26)	18.92	5.15	0.00	0.40	19.16	1.92%	0.39
53	(21.49)	(0.47)	0.00	(1.07)	0.00		19.42	(5.26)	17.95	4.89	0.00	0.41	17.88	1.79%	0.34
54	(35.65)	(0.79)	0.00	(1.78)	0.00		19.42	(5.26)	16.98	4.63	0.00	0.41	16.61	1.66%	0.29
55	(49.82)	(1.10)	0.00	(2.49)	0.00		19.42	(5.26)	16.01	4.36	0.00	0.42	15.33	1.53%	0.25
56	(63.98)	(1.41)	0.00	(3.20)	0.00		19.42	(5.26)	15.04	4.10	0.00	0.43	14.06	1.41%	0.21
57	(78.14)	(1.73)	0.00	(3.91)	0.00		19.42	(5.26)	14.07	3.83	0.00	0.44	12.78	1.28%	0.18
58	(92.31)	(2.04)	0.00	(4.62)	0.00		19.42	(5.26)	13.10	3.57	0.00	0.45	11.51	1.15%	0.15
59	(146.01)	(3.22)	0.00	(7.30)	146.01		19.42	34.28	-136.60	(37.21)	0.00	0.46	6.62	0.66%	0.08

	Interest on Debt	Return on Preferred Equity	Return on Common Equity	Tax Depreciation	Tax Depreciation Rate	Book Depreciation	Deferred Taxes	Taxable Income	Income Taxes	Property Tax	Property Insurance	Revenue Requirement	% of Original Investment Revenue	PV of Revenue Requirement
Total	**450.44**		**1019.78**	**1146.01**		**1146.01**	**0.00**	**1,399.88**	**381.33**	**2,210.48**	**16.23**	**5,222.49**	**522.25%**	**1,428.61**
PV	**186.25**		**421.67**	**515.43**		**246.25**	**73.33**	**310.35**	**84.54**	**414.12**	**2.45**	**1,428.61**	**142.86%**	
Levelized payment current $	**14.69**		**33.26**	**40.66**		**19.42**	**5.78**	**24.48**	**6.67**	**32.66**	**0.19**	**112.69**	**11.27%**	
Levelized payment constant $	**11.28**		**25.54**	**31.22**		**14.91**	**4.44**	**18.80**	**5.12**	**25.08**	**0.15**	**86.53**	**8.65%**	

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Development of Revenue Requirements Stream
Services

Year	Rate Base	Interest on Debt	Return on Preferred Equity	Return on Common Equity	Tax Depreciation	Tax Depreciation Rate	Book Depreciation	Deferred Taxes	Taxable Income	Income Taxes	Property Tax	Property Insurance	Revenue Requirement	% of Original Investment Revenue	PV of Revenue Requirement
0	1000.00														
1	963.92	21.29	0.00	48.20	37.50	3.75%	35.56	0.53	64.29	17.51	25.70	0.15	148.93	14.89%	138.16
2	918.44	20.28	0.00	45.92	72.19	7.22%	35.56	9.92	26.48	7.21	26.20	0.15	145.30	14.53%	125.05
3	874.43	19.31	0.00	43.72	66.77	6.68%	35.56	8.45	28.87	7.86	26.71	0.15	141.81	14.18%	113.22
4	831.78	18.37	0.00	41.59	61.77	6.18%	35.56	7.10	30.93	8.43	27.23	0.16	138.46	13.85%	102.55
5	790.38	17.46	0.00	39.52	57.13	5.71%	35.56	5.84	32.73	8.91	27.76	0.16	135.23	13.52%	92.92
6	750.14	16.57	0.00	37.51	52.85	5.29%	35.56	4.68	34.24	9.33	28.30	0.16	132.12	13.21%	84.22
7	710.98	15.70	0.00	35.55	48.88	4.89%	35.56	3.61	35.52	9.67	28.86	0.17	129.12	12.91%	76.35
8	672.81	14.86	0.00	33.64	45.22	4.52%	35.56	2.62	36.55	9.96	29.42	0.17	126.22	12.62%	69.24
9	634.80	14.02	0.00	31.74	44.62	4.46%	35.56	2.45	34.54	9.41	29.99	0.17	123.34	12.33%	62.77
10	596.79	13.18	0.00	29.84	44.61	4.46%	35.56	2.45	31.94	8.70	30.58	0.18	120.47	12.05%	56.88
11	558.78	12.34	0.00	27.94	44.62	4.46%	35.56	2.45	29.31	7.99	31.17	0.18	117.62	11.76%	51.52
12	520.77	11.50	0.00	26.04	44.61	4.46%	35.56	2.45	26.71	7.28	31.78	0.18	114.78	11.48%	46.64
13	482.76	10.66	0.00	24.14	44.62	4.46%	35.56	2.45	24.09	6.56	32.40	0.19	111.95	11.19%	42.20
14	444.75	9.82	0.00	22.24	44.61	4.46%	35.56	2.45	21.49	5.85	33.03	0.19	109.13	10.91%	38.16
15	406.74	8.98	0.00	20.34	44.62	4.46%	35.56	2.45	18.86	5.14	33.67	0.20	106.33	10.63%	34.49
16	368.73	8.14	0.00	18.44	44.61	4.46%	35.56	2.45	16.26	4.43	34.33	0.20	103.53	10.35%	31.16
17	330.72	7.30	0.00	16.54	44.62	4.46%	35.56	2.45	13.64	3.71	35.00	0.20	100.76	10.08%	28.13
18	292.72	6.46	0.00	14.64	44.61	4.46%	35.56	2.45	11.03	3.01	35.68	0.21	97.99	9.80%	25.38
19	254.71	5.63	0.00	12.74	44.62	4.46%	35.56	2.45	8.41	2.29	36.38	0.21	95.24	9.52%	22.88
20	216.70	4.79	0.00	10.83	44.61	4.46%	35.56	2.45	5.81	1.58	37.09	0.22	92.50	9.25%	20.62
21	184.73	4.08	0.00	9.24	22.31	2.23%	35.56	(3.59)	25.91	7.06	37.81	0.22	90.32	9.03%	18.68
22	158.80	3.51	0.00	7.94	0.00		35.56	(9.63)	46.44	12.65	38.55	0.22	88.71	8.87%	17.02
23	132.88	2.93	0.00	6.64	0.00		35.56	(9.63)	44.67	12.17	39.30	0.23	87.12	8.71%	15.51
24	106.95	2.36	0.00	5.35	0.00		35.56	(9.63)	42.89	11.68	40.06	0.23	85.54	8.55%	14.12
25	81.02	1.79	0.00	4.05	0.00		35.56	(9.63)	41.11	11.20	40.85	0.24	83.98	8.40%	12.86
26	55.10	1.22	0.00	2.75	0.00		35.56	(9.63)	39.33	10.71	41.64	0.24	82.43	8.24%	11.71
27	29.17	0.64	0.00	1.46	0.00		35.56	(9.63)	37.56	10.23	42.45	0.25	80.90	8.09%	10.66
28	3.24	0.07	0.00	0.16	0.00		35.56	(9.63)	35.78	9.75	43.28	0.25	79.38	7.94%	9.71
29	(22.69)	(0.50)	0.00	(1.13)	0.00		35.56	(9.63)	34.00	9.26	0.00	0.00	33.50	3.35%	3.80
30	(48.61)	(1.07)	0.00	(2.43)	0.00		35.56	(9.63)	32.22	8.78	0.00	0.00	31.15	3.12%	3.28
31	(74.54)	(1.65)	0.00	(3.73)	0.00		35.56	(9.63)	30.44	8.29	0.00	0.00	28.80	2.88%	2.81
32	(100.47)	(2.22)	0.00	(5.02)	0.00		35.56	(9.63)	28.67	7.81	0.00	0.00	26.45	2.65%	2.40
33	(126.39)	(2.79)	0.00	(6.32)	0.00		35.56	(9.63)	26.89	7.32	0.00	0.00	24.10	2.41%	2.03
34	(152.32)	(3.36)	0.00	(7.62)	0.00		35.56	(9.63)	25.11	6.84	0.00	0.00	21.75	2.18%	1.70
35	(178.25)	(3.94)	0.00	(8.91)	0.00		35.56	(9.63)	23.33	6.36	0.00	0.00	19.41	1.94%	1.40
36	(204.18)	(4.51)	0.00	(10.21)	0.00		35.56	(9.63)	21.56	5.87	0.00	0.00	17.06	1.71%	1.14
37	(230.10)	(5.08)	0.00	(11.51)	0.00		35.56	(9.63)	19.78	5.39	0.00	0.00	14.71	1.47%	0.92
38	(256.03)	(5.65)	0.00	(12.80)	0.00		35.56	(9.63)	18.00	4.90	0.00	0.00	12.36	1.24%	0.71
39	(281.96)	(6.23)	0.00	(14.10)	0.00		35.56	(9.63)	16.22	4.42	0.00	0.00	10.01	1.00%	0.54
40	(307.88)	(6.80)	0.00	(15.39)	0.00		35.56	(9.63)	14.44	3.93	0.00	0.00	7.66	0.77%	0.38
41	(333.81)	(7.37)	0.00	(16.69)	0.00		35.56	(9.63)	12.67	3.45	0.00	0.00	5.31	0.53%	0.24
42	(359.74)	(7.94)	0.00	(17.99)	0.00		35.56	(9.63)	10.89	2.97	0.00	0.00	2.96	0.30%	0.13
43	(385.67)	(8.52)	0.00	(19.28)	0.00		35.56	(9.63)	9.11	2.48	0.00	0.00	0.61	0.06%	0.02
44	(411.59)	(9.09)	0.00	(20.58)	0.00		35.56	(9.63)	7.33	2.00	0.00	0.00	-1.74	-0.17%	-0.06
45	(600.00)	(13.25)	0.00	(30.00)	600.00		35.56	153.75	-605.68	(164.99)	0.00	0.00	-18.93	-1.89%	-0.65
Total		**183.31**		**415.00**	**1,600.00**		**1,600.00**	**0.00**	**570.37**	**155.37**	**945.23**	**5.48**	**3,304.39**	**330.44%**	**1,393.64**
PV		**146.80**		**332.35**	**534.18**		**440.64**	**25.48**	**363.24**	**98.95**	**347.41**	**2.01**	**1,393.64**	**139.36%**	
Levelized payment current $		**11.85**		**26.82**	**43.10**		**35.56**	**2.06**	**29.31**	**7.98**	**28.03**	**0.16**	**112.45**	**11.25%**	
Levelized payment constant $		**9.30**		**21.06**	**33.85**		**27.92**	**1.61**	**23.02**	**6.27**	**22.01**	**0.13**	**88.30**	**8.83%**	

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Development of Revenue Requirements Stream
Meters

Year	Rate Base	Interest on Debt	Return on Preferred Equity	Return on Common Equity	Tax Depreciation	Tax Depreciation Rate	Book Depreciation	Deferred Taxes	Taxable Income	Income Taxes	Property Tax	Property Insurance	Revenue Requirement	% of Original Investment Revenue	PV of Revenue Requirement
0	1000.00														
1	964.70	21.31	0.00	48.24	37.50	3.75%	34.48	0.82	63.28	17.24	25.70	0.15	147.93	14.79%	137.23
2	920.01	20.32	0.00	46.00	72.19	7.22%	34.48	10.21	25.51	6.95	26.20	0.15	144.37	14.44%	124.25
3	876.78	19.36	0.00	43.84	66.77	6.68%	34.48	8.74	27.96	7.62	26.71	0.15	140.95	14.10%	112.54
4	834.91	18.44	0.00	41.75	61.77	6.18%	34.48	7.39	30.08	8.19	27.23	0.16	137.67	13.77%	101.97
5	794.29	17.54	0.00	39.71	57.13	5.71%	34.48	6.13	31.92	8.70	27.76	0.16	134.51	13.45%	92.43
6	754.84	16.67	0.00	37.74	52.85	5.29%	34.48	4.97	33.49	9.12	28.30	0.16	131.47	13.15%	83.81
7	716.45	15.82	0.00	35.82	48.88	4.89%	34.48	3.90	34.82	9.48	28.86	0.17	128.54	12.85%	76.01
8	679.06	15.00	0.00	33.95	45.22	4.52%	34.48	2.91	35.91	9.78	29.42	0.17	125.71	12.57%	68.96
9	641.84	14.17	0.00	32.09	44.62	4.46%	34.48	2.75	33.95	9.25	29.99	0.17	122.90	12.29%	62.55
10	604.61	13.35	0.00	30.23	44.61	4.46%	34.48	2.74	31.40	8.55	30.58	0.18	120.11	12.01%	56.71
11	567.38	12.53	0.00	28.37	44.62	4.46%	34.48	2.75	28.83	7.85	31.17	0.18	117.33	11.73%	51.39
12	530.16	11.71	0.00	26.51	44.61	4.46%	34.48	2.74	26.28	7.16	31.78	0.18	114.56	11.46%	46.55
13	492.93	10.89	0.00	24.65	44.62	4.46%	34.48	2.75	23.71	6.46	32.40	0.19	111.80	11.18%	42.14
14	455.70	10.06	0.00	22.79	44.61	4.46%	34.48	2.74	21.16	5.76	33.03	0.19	109.05	10.91%	38.14
15	418.48	9.24	0.00	20.92	44.62	4.46%	34.48	2.75	18.59	5.06	33.67	0.20	106.32	10.63%	34.49
16	381.25	8.42	0.00	19.06	44.61	4.46%	34.48	2.74	16.04	4.37	34.33	0.20	103.60	10.36%	31.18
17	344.02	7.60	0.00	17.20	44.62	4.46%	34.48	2.75	13.48	3.67	35.00	0.20	100.89	10.09%	28.17
18	306.80	6.78	0.00	15.34	44.61	4.46%	34.48	2.74	10.93	2.98	35.68	0.21	98.19	9.82%	25.43
19	269.57	5.95	0.00	13.48	44.62	4.46%	34.48	2.75	8.36	2.28	36.38	0.21	95.51	9.55%	22.95
20	232.34	5.13	0.00	11.62	44.61	4.46%	34.48	2.74	5.81	1.58	37.09	0.22	92.84	9.28%	20.70
21	201.16	4.44	0.00	10.06	22.31	2.23%	34.48	(3.30)	25.97	7.07	37.81	0.22	90.74	9.07%	18.76
22	176.01	3.89	0.00	8.80	0.00		34.48	(9.34)	46.55	12.68	38.55	0.22	89.20	8.92%	17.11
23	150.87	3.33	0.00	7.54	0.00		34.48	(9.34)	44.83	12.21	39.30	0.23	87.68	8.77%	15.60
24	125.72	2.78	0.00	6.29	0.00		34.48	(9.34)	43.10	11.74	40.06	0.23	86.17	8.62%	14.23
25	100.58	2.22	0.00	5.03	0.00		34.48	(9.34)	41.38	11.27	40.85	0.24	84.68	8.47%	12.97
26	75.43	1.67	0.00	3.77	0.00		34.48	(9.34)	39.66	10.80	41.64	0.24	83.20	8.32%	11.82
27	50.29	1.11	0.00	2.51	0.00		34.48	(9.34)	37.93	10.33	42.45	0.25	81.74	8.17%	10.78
28	25.14	0.56	0.00	1.26	0.00		34.48	(9.34)	36.21	9.86	43.28	0.25	80.29	8.03%	9.82
29	(0.00)	(0.00)	0.00	(0.00)	0.00		34.48	(9.34)	34.48	9.39	44.12	0.26	78.86	7.89%	8.95
Total		**280.29**		**634.57**	**1,000.00**		**1,000.00**	**(0.00)**	**871.61**	**237.43**	**989.35**	**5.74**	**3,146.81**	**314.68%**	**1,377.64**
PV		**153.45**		**347.41**	**513.69**		**392.25**	**33.08**	**356.04**	**96.99**	**352.41**	**2.04**	**1,377.64**	**137.76%**	
Levelized payment current $		**13.49**		**30.54**	**45.16**		**34.48**	**2.91**	**31.30**	**8.53**	**30.98**	**0.18**	**121.11**	**12.11%**	
Levelized payment constant $		**11.11**		**25.15**	**37.18**		**28.39**	**2.39**	**25.77**	**7.02**	**25.51**	**0.15**	**99.72**	**9.97%**	

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Fixed Carrying Charge Rates

Line	Description	Production Plant				Mains				Services				Meters			
		Current Dollars Engineer's FCCR		*Constant Dollars* Economist's FCCR		*Current Dollars* Engineer's FCCR		*Constant Dollars* Economist's FCCR		*Current Dollars* Engineer's FCCR		*Constant Dollars* Economist's FCCR		*Current Dollars* Engineer's FCCR		*Constant Dollars* Economist's FCCR	
		Current Levelized Dollars	% of Capital Investment	Constant Levelized Dollars	% of Capital Investment	Current Levelized Dollars	% of Capital Investment	Constant Levelized Dollars	% of Capital Investment	Current Levelized Dollars	% of Capital Investment	Constant Levelized Dollars	% of Capital Investment	Current Levelized Dollars	% of Capital Investment	Constant Levelized Dollars	% of Capital Investment
1	Interest on Debt	$13.87	1.4%	$11.18	1.1%	$14.69	1.5%	$11.28	1.1%	$11.85	1.2%	$9.30	0.9%	$13.49	1.3%	$11.11	1.1%
2	Return on Preferred	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%
3	Return on Common	$31.39	3.1%	$25.30	2.5%	$33.26	3.3%	$25.54	2.6%	$26.82	2.7%	$21.06	2.1%	$30.54	3.1%	$25.15	2.5%
4	Total Return	$45.26	4.5%	$36.48	3.6%	$47.95	4.8%	$36.82	3.7%	$38.66	3.9%	$30.36	3.0%	$44.03	4.4%	$36.25	3.6%
5	Depreciation	$28.57	2.9%	$23.03	2.3%	$19.42	1.9%	$14.91	1.5%	$35.56	3.6%	$27.92	2.8%	$34.48	3.4%	$28.39	2.8%
6	Income tax	$7.78	0.8%	$6.27	0.6%	$6.67	0.7%	$5.12	0.5%	$7.98	0.8%	$6.27	0.6%	$8.53	0.9%	$7.02	0.7%
7	Deferred Taxes	$3.97	0.4%	$3.20	0.3%	$5.78	0.6%	$4.44	0.4%	$2.06	0.2%	$1.61	0.2%	$2.91	0.3%	$2.39	0.2%
8	Revenue Tax	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%	$0.00	0.0%
9	Property Tax	$31.69	3.2%	$25.55	2.6%	$32.66	3.3%	$25.08	2.5%	$28.03	2.8%	$22.01	2.2%	$30.98	3.1%	$25.51	2.6%
10	Total Taxes	$43.44	4.3%	$35.02	3.5%	$45.12	4.5%	$34.64	3.5%	$38.07	3.8%	$29.90	3.0%	$42.41	4.2%	$34.92	3.5%
11	Property Insurance	$1.85	0.2%	$1.49	0.1%	$0.19	0.0%	$0.15	0.0%	$0.16	0.0%	$0.13	0.0%	$0.18	0.0%	$0.15	0.0%
12	Total Revenue Required	$119.12	11.9%	$96.02	9.6%	$112.69	11.3%	$86.53	8.7%	$112.45	11.2%	$88.30	8.8%	$121.11	12.1%	$99.72	10.0%

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Summary of Marginal Capacity-Related Costs

Line	Description	Production in lieu of reinforcement	Mains reinforcement	Mains extension	Total distribution	
1	**Plant Investment**					
2	Long-run unit costs - $/design day dth	$58.10	$76.40	$964.65	$1,099.15	[1]
3	General plant loading factor	5.51%	5.51%	5.51%	--	[2]
4	Gross-up unit costs	$61.30	$80.61	$1,017.79	$1,159.70	[3]
5	Fixed charge rate	9.60%	8.65%	8.65%	--	[4]
6	Plant-related A&G loading factor	0.62%	0.62%	0.62%	--	[5]
7	Grossed up fixed charge rate	10.23%	9.28%	9.28%	--	[6]
8	Annualized cost	$6.27	$7.48	$94.40	$108.15	[7]
9	**Operating Expense**					
10	Production capacity costs	$1.15	--	--	$1.15	[8]
11	Distribution capacity costs	--	--	$47.87	$47.87	[9]
12	Non-plant A&G loading factor	65.25%	65.25%	65.25%	--	[10]
13	Total O&M expense	$1.89	$0.00	$79.10	$80.99	[11]
14	**Working Capital**					
15	M&S and prepayments rate	1.31%	1.31%	1.31%	0.00%	[12]
16	M&S and prepayments cost	$0.80	$1.05	$13.29	$15.15	[13]
17	Working cash allowance lag (days)	26.10	26.10	26.10	--	[14]
18	Working cash allowance lag (rate)	7.15%	7.15%	7.15%	--	[15]
19	Working cash O&M allowance	$0.59	$0.54	$12.57	$13.70	[16]
20	Total working capital	$1.39	$1.59	$25.86	$28.85	[17]
21	Tax affected cost of capital rate	10.71%	10.71%	10.71%	0.00%	[18]
22	Working capital revenue requirement	$0.15	$0.17	$2.77	$3.09	[19]
23	**System Seasonal Capacity Related Cost**					
24	$/design day dth	$8.31	$7.65	$176.27	$192.23	[20]
25	Sales/sendout factor	95.65%	95.65%	95.65%	--	[21]
26	Inflation	1.95%	1.95%	1.95%	--	[22]
27	**Seasonal Capacity Cost**	$8.84	$8.14	$187.52	$204.50	[23]

[1] MCOS-1 and MCOS-2
[2] MCOS-4
[3] (1 + Line 3) x Line 2
[4] MCOS-5
[5] MCOS-4
[6] Line 5 + Line 6
[7] Line 4 x Line 8
[8] MCOS-2
[9] MCOS-2
[10] MCOS-4
[11] (1 + Line 12) x (Line 10 + Line 11)
[12] MCOS-4
[13] Line 15 x Line 4
[14] Company data
[15] Line 17 / 365
[16] (Line 8 + Line 13) x Line 18
[17] Line 19 + Line 16
[18] MCOS-5
[19] Line 21 x Line 20
[20] Line 22 + Line 13 + Line 8
[21] Company data
[23] (1 + (1 - Line 25) x Line 24) x (1 + Line 26)

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Summary of Marginal Customer-Related Costs

Line	Description	R-1	R3, R-4	G-41	G-42	G-43	G-51	G-52	G-53	G-54	
1	**Plant Investment**										
2	Meters and regulators	$439.76	$439.76	$1,076.76	$2,750.07	$9,332.68	$3,482.86	$2,750.07	$3,995.06	$11,904.46	[1]
3	General plant loading factor	5.51%	5.51%	5.51%	5.51%	5.51%	5.51%	5.51%	5.51%	5.51%	[2]
4	Grossed up meter costs	$463.99	$463.99	$1,136.08	$2,901.57	$9,846.82	$3,674.73	$2,901.57	$4,215.14	$12,560.28	[3]
5	Fixed charge rate	9.97%	9.97%	9.97%	9.97%	9.97%	9.97%	9.97%	9.97%	9.97%	[4]
6	Meter carrying costs	$46.27	$46.27	$113.29	$289.34	$981.92	$366.44	$289.34	$420.33	$1,252.51	[5]
7	Services	$4,063.04	$4,063.04	$3,796.20	$6,346.48	$10,912.52	$11,893.51	$6,582.61	$39,407.48	$9,647.45	[6]
8	General plant loading factor	5.51%	5.51%	5.51%	5.51%	5.51%	5.51%	5.51%	5.51%	5.51%	[7]
9	Grossed up services costs	$4,286.87	$4,286.87	$4,005.33	$6,696.11	$11,513.69	$12,548.73	$6,945.25	$41,578.45	$10,178.93	[8]
10	Fixed charge rate	8.83%	8.83%	8.83%	8.83%	8.83%	8.83%	8.83%	8.83%	8.83%	[9]
11	Services carrying costs	$378.55	$378.55	$353.69	$591.29	$1,016.70	$1,108.10	$613.29	$3,671.53	$898.84	[10]
12	Total plant carrying costs	$424.82	$424.82	$466.98	$880.64	$1,998.63	$1,474.54	$902.64	$4,091.86	$2,151.35	[11]
13	Plant -related A&G loading factor	0.62%	0.62%	0.62%	0.62%	0.62%	0.62%	0.62%	0.62%	0.62%	[12]
14	Annualized cost	$427.46	$427.46	$469.88	$886.12	$2,011.07	$1,483.72	$908.26	$4,117.34	$2,164.75	[13]
15	**Operating Expense**										
16	Plant-related O&M/customer	$60.79	$60.79	$65.78	$122.80	$273.30	$207.58	$125.99	$585.92	$290.94	[14]
17	Customer accounting & marketing expense	$65.77	$65.77	$65.77	$65.77	$65.77	$65.77	$65.77	$65.77	$65.77	[15]
18	Non-plant A&G loading factor	65.25%	65.25%	65.25%	65.25%	65.25%	65.25%	65.25%	65.25%	65.25%	[16]
19	Total O&M expense	$209.13	$209.13	$217.39	$311.61	$560.31	$451.70	$316.87	$1,076.90	$589.46	[20]
20	**Working Capital**										
21	M&S and prepayments rate	1.31%	1.31%	1.31%	1.31%	1.31%	1.31%	1.31%	1.31%	1.31%	[21]
22	M&S and prepayments cost	$62.05	$62.05	$67.16	$125.36	$279.00	$211.91	$128.62	$598.14	$297.01	[22]
23	Working cash allowance (days)	26.10	26.10	26.10	26.10	26.10	26.10	26.10	26.10	26.10	[23]
24	Working cash lag (rate)	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	7.15%	[24]
25	Working cash O&M allowance	$46.11	$46.11	$49.78	$86.76	$186.27	$140.20	$88.75	$376.26	$199.51	[25]
26	Total working capital	$108.17	$108.17	$116.94	$212.12	$465.27	$352.10	$217.36	$974.40	$496.52	[26]
27	Tax affected cost of capital	10.71%	10.71%	10.71%	10.71%	10.71%	10.71%	10.71%	10.71%	10.71%	[27]
28	Working capital revenue requirement	$11.59	$11.59	$12.53	$22.72	$49.84	$37.72	$23.28	$104.37	$53.18	[28]
29	**Customer Related Cost**										
30	Annual cost per customer	$648.18	$648.18	$699.80	$1,220.45	$2,621.22	$1,973.14	$1,248.41	$5,298.61	$2,807.39	[29]
31	Inflation	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	1.95%	[30]
32	Annual customer related cost	$660.81	$660.81	$713.44	$1,244.24	$2,672.31	$2,011.60	$1,272.75	$5,401.89	$2,862.11	[31]

[1] Company data
[2] MCOS-4
[3] (1 + Line 3) x Line 2
[4] MCOS-5
[5] Line 5 x Line 4
[6] Company data
[7] MCOS-4
[8] (1 + Line 8) x Line 7
[9] MCOS-5
[10] Line 10 x Line 9
[11] Line 11 + Line 6
[12] MCOS-4
[13] (1 + Line 13) x Line 12
[14] MCOS-3
[15] MCOS-3
[16] MCOS-4
[20] (Line 16 + Line 17) x (1 + Line 18)
[21] MCOS-4
[22] (Line 9 + Line 4) x Line 21
[23] Company data
[24] Line 23 / 365
[25] (Line 19 + Line 14) x Line 24
[26] Line 25 + Line 22
[27] MCOS-5
[28] Line 26 x Line 27
[29] Line 28 + Line 19 + Line 14
[31] Line 30 x (1 + Line 31)

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Marginal Cost Study

Marginal Cost Estimates

Line	Description	R-1	R3, R-4	G-41	G-42	G-43	G-51	G-52	G-53	G-54	
1	**Bad debt factor**	4.70%	3.11%	0.76%	0.24%	0.00%	0.91%	0.17%	0.00%	0.00%	[1]
2	**Monthly Charge**										
3	Monthly customer charge	$55.07	$55.07	$59.45	$103.69	$222.69	$167.63	$106.06	$450.16	$238.51	[2]
4	Adjustment for uncollectible	$2.59	$1.71	$0.45	$0.25	$0.00	$1.52	$0.18	$0.00	$0.00	[3]
5	Grossed up monthly cust charge	$57.66	$56.78	$59.90	$103.94	$222.69	$169.15	$106.24	$450.16	$238.51	[4]
6	**Winter Charge**										
7	Distribution charge - pressure support	$8.84	$8.84	$8.84	$8.84	$8.84	$8.84	$8.84	$8.84	$8.84	[5]
8	Distribution charge - reinforcement	$8.14	$8.14	$8.14	$8.14	$8.14	$8.14	$8.14	$8.14	$8.14	[6]
9	Distribution charge - main extension	$187.52	$187.52	$187.52	$187.52	$187.52	$187.52	$187.52	$187.52	$187.52	[7]
10	Adjustment for uncollectible	$9.62	$6.36	$1.55	$0.49	$0.00	$1.86	$0.34	$0.00	$0.00	[8]
11	Grossed up winter charge	$214.12	$210.86	$206.05	$204.99	$204.50	$206.35	$204.84	$204.50	$204.50	[9]
12	**Summer Charge**										
13	Summer Charge	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	[10]
13	**Billing Determinants**										
14	Customers	3,155	78,422	9,370	1,396	55	1,184	377	37	29	[11]
15	Design day demand	566	71,646	32,034	38,331	11,757	2,402	5,296	5,843	4,046	[12]
16	Winter demand	47,924	5,253,595	2,233,841	2,798,135	859,686	241,209	570,400	628,403	874,779	[13]
17	Summer demand	23,322	1,103,261	349,294	572,121	266,655	149,505	363,473	447,242	958,300	[14]
18	**Total Marginal Costs**										
19	Total customer-related cost (annual)	$2,182,788	$53,434,457	$6,735,272	$1,741,292	$147,660	$2,402,406	$481,082	$202,286	$81,721	[15]
20	**Capacity-related, winter**										
21	Pressure support	$5,237	$653,213	$285,395	$339,748	$103,959	$21,429	$46,906	$51,669	$35,775	[16]
22	Reinforcements	$4,819	$601,016	$262,590	$312,600	$95,652	$19,716	$43,158	$47,540	$32,916	[17]
23	Main extension	$111,067	$13,852,975	$6,052,506	$7,205,185	$2,204,701	$454,450	$994,756	$1,095,770	$758,695	[18]
24	Total winter	$121,122	$15,107,204	$6,600,491	$7,857,533	$2,404,312	$495,595	$1,084,820	$1,194,980	$827,387	[19]
25	**Capacity-related, summer**										
26	Capacity related - summer	$0	$0	$0	$0	$0	$0	$0	$0	$0	[20]
27	**Totals**										
28	Total Annual Marginal Cost	$2,303,911	$68,541,661	$13,335,763	$9,598,824	$2,551,972	$2,898,001	$1,565,902	$1,397,266	$909,108	[21]
29	Share	2%	66%	13%	9%	2%	3%	2%	1%	1%	[22]
30	**Unit Costs**										
31	$/customer	$57.66	$56.78	$59.90	$103.94	$222.69	$169.15	$106.24	$450.16	$238.51	[23]
32	Winter ($/dth)										
33	Pressure support	$0.11	$0.12	$0.13	$0.12	$0.12	$0.09	$0.08	$0.08	$0.04	[24]
34	Reinforcements	$0.10	$0.11	$0.12	$0.11	$0.11	$0.08	$0.08	$0.08	$0.04	[25]
35	Main extensions	$2.32	$2.64	$2.71	$2.57	$2.56	$1.88	$1.74	$1.74	$0.87	[26]
36	Summer ($/dth)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	[27]
37	Average Annual ($/dth)	$1.70	$2.38	$2.56	$2.33	$2.13	$1.27	$1.16	$1.11	$0.45	[28]

[1] MCOS-4
[2] MCOS-6 Page 2 Line 32 / 12
[3] Line 1 x Line 3
[4] Line 4 + Line 3
[5] MCOS-6 Page 1 Line 27
[6] MCOS-6 Page 1 Line 27
[7] MCOS-6 Page 1 Line 27
[8] (Line 7 + Line 8 + Line 9) x Line 1
[9] Line 7 + Line 8 + Line 9 + Line 10
[10] Company data
[11] Company data
[12] Company data
[13] Company data
[14] Company data
[15] Line 14 x Line 5 x 12
[16] Line 1 x Line 15 x Line 7
[17] Line 1 x Line 15 x Line 8
[18] Line 1 x Line 15 x Line 9
[19] Line 21 + Line 22 + Line 23
[20] Company data
[21] Line 19 + Line 24
[22] Line 28 / Sum of Line 28
[23] Line 5
[24] Line 21 / Line 16
[25] Line 22 / Line 16
[26] Line 23 / Line 16
[27] Line 26 / Line 17
[28] (Line 26 + Line 24) / (Line 16 + Line 17)

Per Books Data

	Customer Count - Actual Number of Bills	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	12 Month Average
1	R-1	3,428	3,399	3,513	3,423	3,335	3,601	3,665	3,392	3,368	3,397	3,523	3,593	3,470
2	R-3	71,368	69,612	73,017	71,524	69,186	76,030	77,739	71,346	71,242	71,330	74,030	74,738	72,597
3	R-4	5,763	5,469	5,592	5,313	4,661	5,678	5,974	6,118	6,221	6,463	6,612	5,983	5,821
4	R-5	33	42	46	49	57	55	74	61	66	69	68	68	57
5	R-6	93	82	102	103	137	142	219	188	189	202	218	232	159
6	R-7	1	1	1	1	1	3	2	2	7	3	3	3	2
7	Total Residential	80,687	78,605	82,270	80,413	77,376	85,508	87,673	81,106	81,094	81,465	84,453	84,617	82,106
8														
9	G-41	9,235	8,623	9,130	8,836	8,778	9,784	10,049	9,080	9,327	9,615	9,351	9,560	9,281
10	G-42	1,456	1,376	1,384	1,354	1,339	1,457	1,485	1,350	1,376	1,414	1,394	1,424	1,401
11	G-43	56	55	55	52	57	60	61	59	55	58	57	57	57
12	G-44	0	0	0	1	1	1	1	2	2	2	2	2	1
13	G-45	2	2	2	4	3	3	8	4	4	4	4	4	4
14	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
15	G-51	1,238	1,205	1,316	1,264	1,230	1,366	1,390	1,280	1,271	1,284	1,316	1,336	1,291
16	G-52	400	376	387	377	365	399	404	364	373	389	382	401	385
17	G-53	44	37	38	37	37	39	38	36	34	36	34	36	37
18	G-54	28	28	28	30	29	28	29	27	27	29	28	27	28
19	G-55	0	2	2	2	2	2	3	4	2	3	3	3	2
20	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
21	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G-58	0	0	0	0	1	1	1	1	1	1	1	1	1
23	Total C/I	12,459	11,704	12,343	11,955	11,840	13,141	13,468	12,206	12,474	12,835	12,573	12,850	12,487
24														
25	Total	93,146	90,308	94,613	92,368	89,217	98,650	101,141	93,312	93,568	94,300	97,026	97,467	94,593

Per Books Data

	Actual - Therms billed	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
26	R-1	36,476	30,902	32,792	37,814	53,231	78,010	88,312	89,781	85,523	75,772	61,312	51,500	721,424
27	R-3	1,131,149	942,577	1,000,631	1,469,855	4,255,809	8,322,044	9,524,781	10,512,561	9,418,226	6,541,933	3,756,481	2,077,526	58,953,574
28	R-4	95,074	74,483	78,443	106,823	267,848	570,306	685,665	832,335	791,552	616,505	385,336	169,582	4,673,952
29	R-5	157	170	202	514	1,333	1,957	2,459	2,208	2,403	1,506	924	499	14,333
30	R-6	1,144	704	916	2,085	8,816	14,981	25,681	25,315	22,848	15,536	9,324	4,598	131,948
31	R-7	13	11	11	17	45	195	182	169	461	158	88	30	1,380
32	Total Residential	1,264,013	1,048,848	1,112,995	1,617,107	4,587,082	8,987,494	10,327,081	11,462,368	10,321,013	7,251,410	4,213,465	2,303,735	64,496,610
33														
34	G-41	296,600	217,535	235,012	432,968	1,624,710	3,574,741	4,321,413	4,808,165	4,439,730	3,005,894	1,489,238	701,903	25,147,910
35	G-42	611,045	482,871	539,991	893,025	2,567,425	4,830,647	5,585,268	6,067,067	5,658,958	4,176,998	2,326,679	1,242,218	34,982,192
36	G-43	318,454	256,175	280,832	361,132	817,270	1,330,347	1,545,052	1,835,644	1,589,381	1,418,349	888,296	588,694	11,229,625
37	G-44	0	0	0	94	43	469	508	896	844	536	285	147	3,822
38	G-45	535	247	565	1,777	4,408	9,729	18,414	17,636	15,951	11,831	6,553	5,647	93,293
39	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
40	G-51	236,818	210,764	236,685	246,158	297,978	409,187	457,491	483,241	469,505	380,588	333,668	301,708	4,063,790
41	G-52	578,587	522,197	577,073	614,664	747,522	993,496	1,058,630	1,094,095	1,050,193	906,153	756,556	652,598	9,551,764
42	G-53	794,347	656,784	701,261	707,307	878,687	982,759	1,073,624	1,230,849	1,084,725	1,063,450	838,251	776,896	10,788,941
43	G-54	1,616,929	1,603,219	1,662,474	1,756,861	1,928,870	1,663,112	1,341,350	1,310,289	1,231,408	1,204,395	1,373,982	1,643,240	18,336,129
44	G-55	0	1	11	9	18	10	527	1,081	308	546	313	189	3,013
45	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
46	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
47	G-58	0	0	0	0	5,042	4,684	3,712	3,510	225,768	59,302	63,292	42,032	407,342
48	Total C/I	4,453,315	3,949,791	4,233,904	5,013,995	8,871,974	13,799,181	15,405,988	16,852,474	15,766,771	12,228,043	8,077,112	5,955,271	114,607,820
49														
50	Total	5,717,328	4,998,639	5,346,899	6,631,102	13,459,056	22,786,674	25,733,069	28,314,842	26,087,784	19,479,453	12,290,577	8,259,006	179,104,430

Per Books Data

	Actual - Base Revenue (Margin) w/o Normal Weather Adjustment	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
1	R-1	$65,386	$63,198	$65,672	$66,252	$70,815	$83,294	$88,102	$84,541	$82,588	$79,357	$75,851	$73,241	$898,296
2	R-3	$1,697,052	$1,574,027	$1,660,011	$1,902,102	$3,418,897	$5,722,642	$6,408,219	$6,855,501	$6,251,924	$4,670,732	$3,178,741	$2,265,520	$45,605,368
3	R-4	$55,576	$49,605	$51,190	$55,925	$87,913	$159,747	$186,824	$219,993	$211,632	$174,548	$124,565	$73,282	$1,450,800
4	R-5	$729	$900	$1,002	$1,213	$1,765	$2,020	$2,632	$2,268	$2,461	$2,078	$1,774	$1,564	$20,405
5	R-6	$2,645	$2,113	$2,654	$3,545	$9,053	$13,496	$22,656	$21,772	$20,028	$15,064	$10,919	$7,817	$131,761
6	R-7	$12	$11	$11	$13	$21	$80	$70	$63	$187	$70	$49	$31	$617
7	Total Residential	$1,818,014	$1,686,830	$1,776,873	$2,024,279	$3,577,626	$5,965,682	$6,683,144	$7,160,034	$6,546,144	$4,924,638	$3,379,156	$2,412,042	$48,107,246
8														
9	G-41	$621,240	$564,288	$598,648	$648,668	$1,040,442	$1,764,498	$2,018,048	$2,104,957	$2,006,531	$1,574,033	$1,049,624	$767,206	$14,758,183
10	G-42	$458,009	$403,741	$423,336	$531,801	$1,041,264	$1,772,503	$1,992,383	$2,086,784	$1,980,377	$1,582,659	$1,017,020	$645,801	$13,935,678
11	G-43	$77,987	$70,420	$73,684	$80,529	$145,702	$380,243	$437,697	$510,222	$445,329	$403,689	$259,578	$110,833	$2,995,913
12	G-44	$0	$0	$0	$92	$92	$286	$294	$530	$531	$380	$290	$211	$2,707
13	G-45	$705	$576	$748	$1,624	$2,453	$4,730	$9,367	$8,037	$7,299	$5,791	$3,907	$3,290	$48,528
14	G-46	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	G-51	$119,769	$113,552	$125,434	$124,210	$131,291	$158,438	$168,535	$166,450	$163,492	$148,156	$141,541	$136,746	$1,697,614
16	G-52	$149,348	$138,598	$147,687	$149,964	$172,320	$252,639	$264,983	$260,610	$256,120	$237,092	$198,080	$157,032	$2,384,472
17	G-53	$96,728	$80,759	$85,214	$84,601	$102,671	$189,960	$205,105	$229,603	$204,554	$202,072	$159,103	$88,359	$1,728,729
18	G-54	$76,539	$76,373	$78,579	$83,254	$88,563	$125,436	$106,050	$102,066	$97,869	$97,225	$105,783	$76,071	$1,113,807
19	G-55	$0	$132	$136	$150	$144	$163	$350	$544	$258	$350	$320	$275	$2,824
20	G-56	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
21	G-57	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
22	G-58	$0	$0	$0	$0	$1,624	$1,410	$1,263	$1,311	$17,498	$5,784	$6,207	$2,882	$37,979
23	Total C/I	$1,600,325	$1,448,307	$1,533,330	$1,704,744	$2,724,797	$4,648,731	$5,202,461	$5,469,259	$5,162,103	$4,251,097	$2,934,927	$1,985,551	$38,706,435
24														
25	Total	$3,418,338	$3,135,138	$3,310,203	$3,729,024	$6,302,423	$10,614,413	$11,885,605	$12,629,293	$11,708,247	$9,175,735	$6,314,082	$4,397,592	$86,813,681

Calculated

	Calculated - Base Revenue (Margin) w/o Normal Weather Adjustment	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
26	R-1	$65,529	$63,202	$65,668	$66,255	$70,518	$83,294	$88,082	$84,536	$82,587	$79,370	$75,849	$73,240	$898,130
27	R-3	$1,700,221	$1,575,212	$1,661,142	$1,903,457	$3,397,721	$5,722,910	$6,408,266	$6,855,612	$6,251,934	$4,670,728	$3,178,743	$2,265,622	$45,591,569
28	R-4	$55,675	$49,606	$51,191	$55,925	$87,540	$159,738	$186,834	$219,992	$211,632	$174,549	$124,553	$73,282	$1,450,516
29	R-5	$728	$901	$1,002	$1,214	$1,715	$2,019	$2,632	$2,268	$2,461	$2,078	$1,774	$1,564	$20,356
30	R-6	$2,646	$2,115	$2,656	$3,548	$8,908	$13,492	$22,656	$21,772	$20,028	$15,064	$10,919	$7,817	$131,621
31	R-7	$12	$11	$11	$13	$21	$79	$70	$63	$187	$70	$49	$31	$617
32	Total Residential	$1,821,424	$1,688,020	$1,778,001	$2,025,637	$3,555,780	$5,965,942	$6,683,182	$7,160,140	$6,546,153	$4,924,647	$3,379,144	$2,412,144	$48,092,809
33														
34	G-41	$622,165	$564,275	$598,708	$648,665	$1,034,752	$1,773,042	$2,027,092	$2,113,129	$2,014,932	$1,582,688	$1,055,352	$767,345	$14,802,144
35	G-42	$458,797	$403,795	$423,333	$531,794	$1,034,744	$1,772,501	$1,992,383	$2,086,784	$1,980,377	$1,582,660	$1,016,937	$645,801	$13,929,905
36	G-43	$78,292	$70,422	$73,684	$80,529	$145,353	$380,243	$437,697	$510,222	$445,329	$403,689	$259,578	$110,833	$2,995,872
37	G-44	$0	$0	$0	$92	$92	$286	$296	$532	$534	$382	$291	$211	$2,716
38	G-45	$709	$577	$748	$1,624	$2,434	$4,718	$9,340	$8,037	$7,299	$5,791	$3,907	$3,290	$48,475
39	G-46	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
40	G-51	$119,977	$113,568	$125,435	$124,210	$130,547	$158,437	$168,535	$166,452	$163,492	$148,156	$141,541	$136,746	$1,697,096
41	G-52	$149,593	$138,611	$147,688	$149,964	$171,647	$252,640	$264,983	$260,610	$256,120	$237,092	$197,504	$157,032	$2,383,485
42	G-53	$97,069	$80,759	$85,214	$84,601	$102,427	$189,960	$205,105	$229,603	$204,554	$202,072	$159,103	$88,359	$1,728,827
43	G-54	$76,860	$76,373	$78,579	$83,254	$88,538	$125,436	$106,050	$102,066	$97,869	$97,225	$105,783	$76,071	$1,114,103
44	G-55	$0	$133	$136	$150	$143	$163	$350	$544	$258	$350	$320	$275	$2,823
45	G-56	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
46	G-57	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
47	G-58	$0	$0	$0	$0	$1,612	$1,407	$1,263	$1,311	$17,466	$5,784	$6,207	$2,882	$37,931
48	Total C/I	$1,603,461	$1,448,380	$1,533,388	$1,704,735	$2,710,533	$4,657,262	$5,211,480	$5,477,436	$5,170,506	$4,259,755	$2,939,997	$1,985,689	$38,743,377
49														
50	Total	$3,424,885	$3,136,400	$3,311,389	$3,730,372	$6,266,313	$10,623,204	$11,894,662	$12,637,575	$11,716,660	$9,184,402	$6,319,142	$4,397,833	$86,836,186

	Calculated to Actual Difference - Base Revenue (Margin)	Calculated												
		Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
1	R-1	($143)	$4	($4)	$3	($297)	$0	($20)	($5)	($1)	$12	($2)	($1)	($452)
2	R-3	$3,169	$1,185	$1,131	$1,355	($21,176)	$268	$47	$111	$10	($4)	$2	$103	($13,798)
3	R-4	$98	$0	$1	$0	($373)	($9)	$11	($1)	($0)	$1	($12)	($0)	($284)
4	R-5	($1)	$1	$0	$0	($50)	($1)	$0	$0	$0	($0)	$0	$0	($49)
5	R-6	$0	$2	$2	$4	($145)	($4)	$0	$0	$0	$0	$0	($0)	($140)
6	R-7	($0)	($0)	($0)	($0)	$0	($0)	($0)	($0)	($0)	$0	$0	$0	($0)
7	Total Residential	$3,124	$1,193	$1,131	$1,362	($22,041)	$255	$38	$105	$9	$9	($11)	$102	($14,723)
8														
9	G-41	$925	($13)	$60	($3)	($5,690)	$8,544	$9,044	$8,173	$8,401	$8,656	$5,727	$139	$43,962
10	G-42	$787	$54	($3)	($7)	($6,519)	($2)	$0	($0)	$0	$0	($83)	$0	($5,773)
11	G-43	$305	$3	$0	$0	($350)	($0)	($0)	$0	$0	$0	$0	$0	($42)
12	G-44	$0	$0	$0	($0)	($1)	$0	$1	$2	$3	$2	$2	$0	$10
13	G-45	$3	$1	$0	$0	($19)	($12)	($26)	$0	$0	$0	$0	$0	($54)
14	G-46	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	G-51	$208	$16	$1	($0)	($744)	($1)	$0	$2	$0	$0	($0)	$0	($518)
16	G-52	$245	$13	$1	$0	($673)	$1	$0	$0	$0	$0	($576)	$0	($988)
17	G-53	$341	$0	$0	$0	($244)	$0	$0	$0	($0)	$0	$0	$0	$97
18	G-54	$321	$0	($0)	$0	($25)	($0)	$0	($0)	$0	$0	$0	$0	$296
19	G-55	$0	$1	($0)	($0)	($1)	($0)	$0	$0	$0	$0	$0	$0	($1)
20	G-56	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
21	G-57	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
22	G-58	$0	$0	$0	$0	($13)	($4)	$0	$0	($32)	$0	$0	$0	($48)
23	Total C/I	$3,136	$73	$58	($10)	($14,278)	$8,527	$9,019	$8,177	$8,372	$8,658	$5,071	$139	$36,942
24														
25	Total	$6,260	$1,266	$1,189	$1,352	($36,319)	$8,782	$9,056	$8,282	$8,381	$8,668	$5,059	$241	$22,219

	Actual to Calculated Pct Diff - Base Revenue (Margin)	Calculated												
		Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
26	R-1	(0.2%)	0.0%	(0.0%)	0.0%	(0.4%)	0.0%	(0.0%)	(0.0%)	(0.0%)	0.0%	(0.0%)	(0.0%)	(0.1%)
27	R-3	0.2%	0.1%	0.1%	0.1%	(0.6%)	0.0%	0.0%	0.0%	0.0%	(0.0%)	0.0%	0.0%	(0.0%)
28	R-4	0.2%	0.0%	0.0%	0.0%	(0.4%)	(0.0%)	0.0%	(0.0%)	(0.0%)	0.0%	(0.0%)	(0.0%)	(0.0%)
29	R-5	(0.1%)	0.1%	0.0%	0.0%	(2.9%)	(0.0%)	0.0%	0.0%	0.0%	(0.0%)	0.0%	0.0%	(0.2%)
30	R-6	0.0%	0.1%	0.1%	0.1%	(1.6%)	(0.0%)	0.0%	0.0%	0.0%	0.0%	0.0%	(0.0%)	(0.1%)
31	R-7	(0.2%)	(0.1%)	(0.1%)	(0.1%)	1.3%	(0.2%)	(0.0%)	(0.0%)	(0.1%)	0.0%	0.0%	0.0%	(0.0%)
32	Total Residential	0.2%	0.1%	0.1%	0.1%	(0.6%)	0.0%	0.0%	0.0%	0.0%	0.0%	(0.0%)	0.0%	(0.0%)
33														
34	G-41	0.1%	(0.0%)	0.0%	(0.0%)	(0.5%)	0.5%	0.4%	0.4%	0.4%	0.5%	0.5%	0.0%	0.3%
35	G-42	0.2%	0.0%	(0.0%)	(0.0%)	(0.6%)	(0.0%)	0.0%	(0.0%)	0.0%	0.0%	(0.0%)	0.0%	(0.0%)
36	G-43	0.4%	0.0%	0.0%	0.0%	(0.2%)	(0.0%)	(0.0%)	0.0%	0.0%	0.0%	0.0%	0.0%	(0.0%)
37	G-44	0.0%	0.0%	0.0%	(0.0%)	(0.8%)	0.1%	0.4%	0.4%	0.5%	0.6%	0.6%	0.0%	0.4%
38	G-45	0.5%	0.1%	0.0%	0.0%	(0.8%)	(0.2%)	(0.3%)	0.0%	0.0%	0.0%	0.0%	0.0%	(0.1%)
39	G-46	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
40	G-51	0.2%	0.0%	0.0%	(0.0%)	(0.6%)	(0.0%)	0.0%	0.0%	0.0%	0.0%	(0.0%)	0.0%	(0.0%)
41	G-52	0.2%	0.0%	0.0%	0.0%	(0.4%)	0.0%	0.0%	0.0%	0.0%	0.0%	(0.3%)	0.0%	(0.0%)
42	G-53	0.4%	0.0%	0.0%	0.0%	(0.2%)	0.0%	0.0%	0.0%	(0.0%)	0.0%	0.0%	0.0%	0.0%
43	G-54	0.4%	0.0%	(0.0%)	0.0%	(0.0%)	(0.0%)	0.0%	(0.0%)	0.0%	0.0%	0.0%	0.0%	0.0%
44	G-55	0.0%	0.4%	(0.0%)	(0.0%)	(0.8%)	(0.3%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	(0.0%)
45	G-56	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
46	G-57	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
47	G-58	0.0%	0.0%	0.0%	0.0%	(0.8%)	(0.3%)	0.0%	0.0%	(0.2%)	0.0%	0.0%	0.0%	(0.1%)
48	Total C/I	0.2%	0.0%	0.0%	(0.0%)	(0.5%)	0.2%	0.2%	0.1%	0.2%	0.2%	0.2%	0.0%	0.1%
49														
50	Total	0.2%	0.0%	0.0%	0.0%	(0.6%)	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%

Per Books Data

	Customer Count - Actual Number of Bills	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	12 Month Average
1	R-1	3,428	3,399	3,513	3,423	3,335	3,601	3,665	3,392	3,368	3,397	3,523	3,593	3,470
2	R-3	71,368	69,612	73,017	71,524	69,186	76,030	77,739	71,346	71,242	71,330	74,030	74,738	72,597
3	R-4	5,763	5,469	5,592	5,313	4,661	5,678	5,974	6,118	6,221	6,463	6,612	5,983	5,821
4	R-5	33	42	46	49	57	55	74	61	66	69	68	68	57
5	R-6	93	82	102	103	137	142	219	188	189	202	218	232	159
6	R-7	1	1	1	1	1	3	2	2	7	3	3	3	2
7	Total Residential	80,687	78,605	82,270	80,413	77,376	85,508	87,673	81,106	81,094	81,465	84,453	84,617	82,106
8														
9	G-41	9,235	8,623	9,130	8,836	8,778	9,784	10,049	9,080	9,327	9,615	9,351	9,560	9,281
10	G-42	1,456	1,376	1,384	1,354	1,339	1,457	1,485	1,350	1,376	1,414	1,394	1,424	1,401
11	G-43	56	55	55	52	57	60	61	59	55	58	57	57	57
12	G-44	0	0	0	1	1	1	1	2	2	2	2	2	1
13	G-45	2	2	2	4	3	3	8	4	4	4	4	4	4
14	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
15	G-51	1,238	1,205	1,316	1,264	1,230	1,366	1,390	1,280	1,271	1,284	1,316	1,336	1,291
16	G-52	400	376	387	377	365	399	404	364	373	389	382	401	385
17	G-53	44	37	38	37	37	39	38	36	34	36	34	36	37
18	G-54	28	28	28	30	29	28	29	27	27	29	28	27	28
19	G-55	0	2	2	2	2	2	3	4	2	3	3	3	2
20	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
21	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G-58	0	0	0	0	1	1	1	1	1	1	1	1	1
23	Total C/I	12,459	11,704	12,343	11,955	11,840	13,141	13,468	12,206	12,474	12,835	12,573	12,850	12,487
24														
25	Total	93,146	90,308	94,613	92,368	89,217	98,650	101,141	93,312	93,568	94,300	97,026	97,467	94,593

Calculated

	Calendarization Adjustment - Bills	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	12 Month Average
26	R-1	109	143	(73)	127	102	(57)	(120)	(195)	173	25	12	(182)	5
27	R-3	1,906	3,530	(1,983)	2,433	2,415	(1,727)	(3,255)	(3,926)	3,504	909	407	(2,906)	109
28	R-4	12	205	(309)	170	1,284	524	232	(521)	(54)	(591)	(659)	(307)	(1)
29	R-5	4	1	1	5	(2)	9	(7)	(1)	1	(2)	3	2	1
30	R-6	(7)	13	(1)	21	9	37	(28)	(10)	13	9	15	5	6
31	R-7	(0)	0	(0)	1	2	0	1	1	(4)	(0)	0	0	0
32	Total Residential	2,024	3,893	(2,366)	2,757	3,810	(1,214)	(3,177)	(4,651)	3,633	350	(222)	(3,388)	121
33														
34	G-41	(110)	481	(315)	490	500	(102)	(335)	(278)	421	(232)	173	(518)	15
35	G-42	(6)	35	(31)	61	45	(22)	(48)	(50)	62	(33)	29	(53)	(1)
36	G-43	(1)	1	(1)	6	(0)	0	(1)	(5)	4	(2)	1	(1)	(0)
37	G-44	0	0	1	0	0	(0)	0	(0)	(0)	0	(0)	(0)	0
38	G-45	0	1	2	1	1	1	(3)	(1)	0	0	0	(0)	0
39	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
40	G-51	23	91	(51)	49	59	(31)	(53)	(73)	64	5	8	(54)	3
41	G-52	(3)	15	(11)	12	13	(9)	(14)	(11)	19	(8)	14	(17)	(0)
42	G-53	(6)	1	(1)	1	0	(1)	(0)	(2)	1	(1)	2	(1)	(1)
43	G-54	1	1	0	(1)	(1)	1	(1)	(1)	1	(2)	0	0	(0)
44	G-55	1	0	0	0	0	1	0	(1)	1	0	(0)	0	0
45	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
46	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
47	G-58	0	0	1	1	(0)	(0)	0	(0)	0	0	(0)	0	0
48	Total C/I	(102)	627	(408)	620	618	(161)	(454)	(423)	574	(272)	226	(644)	17
49														
50	Total	1,922	4,520	(2,774)	3,377	4,428	(1,375)	(3,632)	(5,074)	4,208	78	4	(4,032)	138

		Calculated												
	Calendar Month - Bills	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	12 Month Average
1	R-1	3,537	3,542	3,440	3,550	3,437	3,544	3,545	3,197	3,541	3,422	3,535	3,411	3,475
2	R-3	73,274	73,142	71,034	73,957	71,602	74,303	74,485	67,420	74,747	72,239	74,437	71,832	72,706
3	R-4	5,776	5,674	5,283	5,483	5,945	6,202	6,206	5,597	6,167	5,872	5,953	5,676	5,819
4	R-5	37	43	47	53	55	63	66	60	67	67	70	70	58
5	R-6	86	94	100	125	146	180	191	178	202	212	233	237	165
6	R-7	1	1	1	2	3	3	3	3	3	3	3	3	2
7	Total Residential	82,711	82,498	79,905	83,170	81,187	84,295	84,496	76,455	84,727	81,814	84,231	81,229	82,226
8														
9	G-41	9,125	9,104	8,815	9,325	9,278	9,682	9,714	8,802	9,749	9,383	9,524	9,041	9,295
10	G-42	1,450	1,412	1,353	1,415	1,384	1,435	1,437	1,299	1,438	1,382	1,422	1,371	1,400
11	G-43	55	56	54	57	57	60	60	54	59	56	58	56	57
12	G-44	0	0	1	1	1	1	1	2	2	2	2	2	1
13	G-45	2	3	4	4	4	4	4	4	4	4	4	4	4
14	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
15	G-51	1,260	1,296	1,264	1,313	1,289	1,336	1,337	1,206	1,336	1,289	1,325	1,282	1,294
16	G-52	396	391	376	389	378	391	390	352	392	381	396	384	385
17	G-53	38	38	37	38	37	38	37	34	35	34	36	35	36
18	G-54	29	29	28	29	28	29	28	26	29	27	28	27	28
19	G-55	1	2	2	2	2	3	3	3	3	3	3	3	3
20	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
21	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G-58	0	0	1	1	1	1	1	1	1	1	1	1	1
23	Total C/I	12,357	12,331	11,935	12,575	12,458	12,980	13,013	11,783	13,048	12,563	12,799	12,206	12,504
24														
25	Total	95,068	94,828	91,839	95,745	93,645	97,275	97,509	88,238	97,776	94,377	97,030	93,435	94,731

Per Books Data

	Actual - Therms billed	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
1	R-1	36,476	30,902	32,792	37,814	53,231	78,010	88,312	89,781	85,523	75,772	61,312	51,500	721,424
2	R-3	1,131,149	942,577	1,000,631	1,469,855	4,255,809	8,322,044	9,524,781	10,512,561	9,418,226	6,541,933	3,756,481	2,077,526	58,953,574
3	R-4	95,074	74,483	78,443	106,823	267,848	570,306	685,665	832,335	791,552	616,505	385,336	169,582	4,673,952
4	R-5	157	170	202	514	1,333	1,957	2,459	2,208	2,403	1,506	924	499	14,333
5	R-6	1,144	704	916	2,085	8,816	14,981	25,681	25,315	22,848	15,536	9,324	4,598	131,948
6	R-7	13	11	11	17	45	195	182	169	461	158	88	30	1,380
7	Total Residential	1,264,013	1,048,848	1,112,995	1,617,107	4,587,082	8,987,494	10,327,081	11,462,368	10,321,013	7,251,410	4,213,465	2,303,735	64,496,610
8														
9	G-41	296,600	217,535	235,012	432,968	1,624,710	3,574,741	4,321,413	4,808,165	4,439,730	3,005,894	1,489,238	701,903	25,147,910
10	G-42	611,045	482,871	539,991	893,025	2,567,425	4,830,647	5,585,268	6,067,067	5,658,958	4,176,998	2,326,679	1,242,218	34,982,192
11	G-43	318,454	256,175	280,832	361,132	817,270	1,330,347	1,545,052	1,835,644	1,589,381	1,418,349	888,296	588,694	11,229,625
12	G-44	0	0	0	94	43	469	508	896	844	536	285	147	3,822
13	G-45	535	247	565	1,777	4,408	9,729	18,414	17,636	15,951	11,831	6,553	5,647	93,293
14	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
15	G-51	236,818	210,764	236,685	246,158	297,978	409,187	457,491	483,241	469,505	380,588	333,668	301,708	4,063,790
16	G-52	578,587	522,197	577,073	614,664	747,522	993,496	1,058,630	1,094,095	1,050,193	906,153	756,556	652,598	9,551,764
17	G-53	794,347	656,784	701,261	707,307	878,687	982,759	1,073,624	1,230,849	1,084,725	1,063,450	838,251	776,896	10,788,941
18	G-54	1,616,929	1,603,219	1,662,474	1,756,861	1,928,870	1,663,112	1,341,350	1,310,289	1,231,408	1,204,395	1,373,982	1,643,240	18,336,129
19	G-55	0	1	11	9	18	10	527	1,081	308	546	313	189	3,013
20	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
21	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G-58	0	0	0	0	5,042	4,684	3,712	3,510	225,768	59,302	63,292	42,032	407,342
23	Total C/I	4,453,315	3,949,791	4,233,904	5,013,995	8,871,974	13,799,181	15,405,988	16,852,474	15,766,771	12,228,043	8,077,112	5,955,271	114,607,820
24														
25	Total	5,717,328	4,998,639	5,346,899	6,631,102	13,459,056	22,786,674	25,733,069	28,314,842	26,087,784	19,479,453	12,290,577	8,259,006	179,104,430

Calculated

	Calendarization Adjustment - Therms	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
26	R-1	(4,356)	1,686	1,645	16,044	18,381	5,369	9,683	(7,515)	(4,549)	(13,339)	(10,182)	(12,527)	341
27	R-3	(141,178)	46,130	211,560	2,235,950	2,912,697	596,633	1,510,786	(1,359,639)	(1,587,610)	(2,190,072)	(1,296,546)	(795,309)	143,402
28	R-4	(15,102)	4,112	11,437	162,591	298,593	138,247	200,194	(105,230)	(163,284)	(267,769)	(190,497)	(65,088)	8,205
29	R-5	14	7	95	367	256	260	(41)	(42)	(426)	(251)	(122)	(22)	95
30	R-6	(393)	107	462	3,551	4,395	5,586	(910)	(2,586)	(2,520)	(3,429)	(2,251)	(1,301)	710
31	R-7	(1)	1	2	52	120	23	54	50	(256)	(26)	(14)	(1)	4
32	Total Residential	(161,016)	52,042	225,201	2,418,556	3,234,443	746,118	1,719,766	(1,474,961)	(1,758,645)	(2,474,886)	(1,499,611)	(874,248)	152,757
33														
34	G-41	(51,207)	15,655	98,980	941,418	1,449,458	454,444	846,987	(533,574)	(909,961)	(1,249,083)	(627,412)	(348,378)	87,327
35	G-42	(104,116)	46,429	203,778	1,357,868	1,697,370	446,393	941,326	(600,114)	(936,101)	(1,517,228)	(849,188)	(548,759)	137,658
36	G-43	(67,986)	29,848	59,592	457,832	517,616	178,413	360,600	(275,578)	(175,726)	(523,681)	(282,499)	(231,536)	46,893
37	G-44	0	0	100	28	392	91	327	(125)	(273)	(259)	(132)	(75)	74
38	G-45	(240)	1,125	2,353	4,783	6,222	5,815	(1,348)	(2,627)	(4,023)	(5,492)	(1,410)	(4,662)	496
39	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
40	G-51	(17,829)	24,116	(5,898)	62,369	77,503	23,796	55,822	(46,655)	(46,703)	(48,500)	(36,021)	(52,548)	(10,550)
41	G-52	(37,629)	51,770	(4,755)	157,264	166,678	14,855	108,952	(106,682)	(74,617)	(133,907)	(99,889)	(89,221)	(47,182)
42	G-53	(148,669)	43,003	(26,668)	192,827	104,569	54,215	263,381	(165,624)	(46,170)	(236,566)	(63,044)	(113,306)	(142,051)
43	G-54	(38,332)	74,895	(3,616)	222,330	(232,187)	(305,605)	(13,105)	(105,144)	(45,600)	105,251	262,315	(17,898)	(96,697)
44	G-55	2	10	(1)	9	27	568	158	(445)	249	(256)	(126)	(127)	67
45	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
46	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
47	G-58	0	0	21,102	37,826	36,999	33,118	34,319	64,449	(162,577)	(543)	(20,359)	(7,667)	36,667
48	Total C/I	(466,006)	286,851	344,965	3,434,552	3,824,646	906,102	2,597,419	(1,772,119)	(2,401,504)	(3,610,264)	(1,717,766)	(1,414,175)	12,700
49														
50	Total	(627,023)	338,894	570,166	5,853,108	7,059,088	1,652,220	4,317,185	(3,247,081)	(4,160,149)	(6,085,150)	(3,217,377)	(2,288,424)	165,457

Calculated

	Calendar Month - Therms	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
1	R-1	32,119	32,588	34,436	53,859	71,612	83,379	97,996	82,265	80,974	62,432	51,130	38,972	721,764
2	R-3	989,971	988,707	1,212,191	3,705,805	7,168,507	8,918,677	11,035,567	9,152,922	7,830,616	4,351,861	2,459,935	1,282,217	59,096,976
3	R-4	79,972	78,596	89,880	269,414	566,441	708,553	885,859	727,105	628,268	348,736	194,840	104,494	4,682,157
4	R-5	171	177	297	881	1,589	2,217	2,418	2,166	1,977	1,255	802	477	14,428
5	R-6	751	811	1,378	5,636	13,212	20,567	24,771	22,729	20,328	12,107	7,073	3,298	132,658
6	R-7	12	12	13	69	165	218	236	219	205	132	74	29	1,384
7	Total Residential	1,102,997	1,100,890	1,338,195	4,035,663	7,821,525	9,733,611	12,046,847	9,987,407	8,562,368	4,776,523	2,713,854	1,429,487	64,649,367
8														
9	G-41	245,393	233,190	333,991	1,374,386	3,074,168	4,029,185	5,168,400	4,274,591	3,529,770	1,756,812	861,825	353,525	25,235,237
10	G-42	506,929	529,299	743,768	2,250,894	4,264,795	5,277,040	6,526,594	5,466,954	4,722,857	2,659,770	1,477,491	693,459	35,119,849
11	G-43	250,469	286,023	340,424	818,963	1,334,886	1,508,759	1,905,651	1,560,066	1,413,655	894,668	605,797	357,158	11,276,518
12	G-44	0	0	100	122	435	560	835	771	571	277	153	72	3,896
13	G-45	295	1,372	2,918	6,560	10,630	15,544	17,066	15,009	11,928	6,338	5,143	985	93,788
14	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
15	G-51	218,989	234,880	230,787	308,527	375,480	432,982	513,313	436,586	422,801	332,088	297,646	249,160	4,053,240
16	G-52	540,958	573,966	572,318	771,928	914,200	1,008,351	1,167,582	987,412	975,576	772,246	656,667	563,376	9,504,581
17	G-53	645,678	699,787	674,593	900,134	983,256	1,036,974	1,337,005	1,065,225	1,038,556	826,884	775,207	663,591	10,646,889
18	G-54	1,578,597	1,678,114	1,658,858	1,979,190	1,696,683	1,357,506	1,328,245	1,205,146	1,185,808	1,309,647	1,636,297	1,625,342	18,239,432
19	G-55	2	11	10	18	45	578	685	636	557	290	187	62	3,080
20	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
21	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G-58	0	0	21,102	37,826	42,041	37,802	38,031	67,959	63,191	58,759	42,933	34,365	444,010
23	Total C/I	3,987,308	4,236,643	4,578,869	8,448,547	12,696,619	14,705,283	18,003,407	15,080,355	13,365,268	8,617,779	6,359,347	4,541,096	114,620,520
24														
25	Total	5,090,305	5,337,533	5,917,064	12,484,210	20,518,144	24,438,894	30,050,254	25,067,761	21,927,636	13,394,302	9,073,201	5,970,583	179,269,887

Calculated

	Headblock Volume Ratio	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19
26	R-1	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%
27	R-3	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%
28	R-4	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%
29	R-5	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%
30	R-6	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%
31	R-7	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%
32													
33													
34	G-41	23.2735%	24.6968%	21.9354%	16.3389%	22.7185%	20.9671%	17.9141%	18.3969%	23.0198%	32.1918%	22.4346%	21.0165%
35	G-42	51.0679%	48.6054%	41.6184%	27.8958%	29.0168%	26.3087%	22.6175%	22.9892%	29.0309%	41.6991%	38.6383%	44.4582%
36	G-43	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%
37	G-44	0.0000%	0.0000%	16.6725%	27.5908%	19.9995%	18.4579%	17.3965%	22.3132%	29.6302%	45.5067%	22.4305%	34.6539%
38	G-45	95.5992%	64.9511%	47.2627%	30.3443%	33.0577%	26.5907%	24.2196%	24.8747%	34.2544%	53.1992%	35.5228%	90.8021%
39	G-46	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
40	G-51	34.1096%	34.1262%	33.4723%	28.6742%	23.7372%	21.2882%	19.3194%	19.3823%	21.7855%	25.8557%	28.3589%	31.4927%
41	G-52	58.9327%	57.8506%	55.2981%	48.0109%	40.2051%	37.3063%	34.0257%	34.1604%	38.1347%	45.5222%	52.1481%	56.4831%
42	G-53	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%
43	G-54	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%
44	G-55	100.0000%	100.0000%	100.0000%	100.0000%	34.9571%	19.5641%	17.8776%	16.9964%	20.2768%	40.5759%	60.7673%	100.0000%
45	G-56	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
46	G-57	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
47	G-58	0.0000%	0.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%	100.0000%

Calculated

	Calendar Month Headblock - Therms	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
1	R-1	32,119	32,588	34,436	53,859	71,612	83,379	97,996	82,265	80,974	62,432	51,130	38,972	721,764
2	R-3	989,971	988,707	1,212,191	3,705,805	7,168,507	8,918,677	11,035,567	9,152,922	7,830,616	4,351,861	2,459,935	1,282,217	59,096,976
3	R-4	79,972	78,596	89,880	269,414	566,441	708,553	885,859	727,105	628,268	348,736	194,840	104,494	4,682,157
4	R-5	171	177	297	881	1,589	2,217	2,418	2,166	1,977	1,255	802	477	14,428
5	R-6	751	811	1,378	5,636	13,212	20,567	24,771	22,729	20,328	12,107	7,073	3,298	132,658
6	R-7	12	12	13	69	165	218	236	219	205	132	74	29	1,384
7	Total Residential	1,102,997	1,100,890	1,338,195	4,035,663	7,821,525	9,733,611	12,046,847	9,987,407	8,562,368	4,776,523	2,713,854	1,429,487	64,649,367
8														
9	G-41	57,111	57,590	73,262	224,560	698,404	844,805	925,870	786,391	812,547	565,549	193,347	74,299	5,313,737
10	G-42	258,878	257,268	309,544	627,905	1,237,508	1,388,319	1,476,151	1,256,811	1,371,086	1,109,100	570,877	308,299	10,171,748
11	G-43	250,469	286,023	340,424	818,963	1,334,886	1,508,759	1,905,651	1,560,066	1,413,655	894,668	605,797	357,158	11,276,518
12	G-44	0	0	17	34	87	103	145	172	169	126	34	25	913
13	G-45	282	891	1,379	1,991	3,514	4,133	4,133	3,733	4,086	3,372	1,827	895	30,236
14	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
15	G-51	74,696	80,156	77,250	88,467	89,129	92,174	99,169	84,620	92,110	85,864	84,409	78,467	1,026,511
16	G-52	318,801	332,043	316,481	370,610	367,555	376,179	397,277	337,304	372,033	351,543	342,439	318,213	4,200,478
17	G-53	645,678	699,787	674,593	900,134	983,256	1,036,974	1,337,005	1,065,225	1,038,556	826,884	775,207	663,591	10,646,889
18	G-54	1,578,597	1,678,114	1,658,858	1,979,190	1,696,683	1,357,506	1,328,245	1,205,146	1,185,808	1,309,647	1,636,297	1,625,342	18,239,432
19	G-55	2	11	10	18	16	113	122	108	113	118	114	62	806
20	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
21	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G-58	0	0	21,102	37,826	42,041	37,802	38,031	67,959	63,191	58,759	42,933	34,365	444,010
23	Total C/I	3,184,514	3,391,883	3,472,920	5,049,697	6,453,079	6,646,869	7,511,801	6,367,535	6,353,352	5,205,630	4,253,283	3,460,715	61,351,279
24														
25	Total	4,287,510	4,492,773	4,811,115	9,085,361	14,274,604	16,380,480	19,558,648	16,354,942	14,915,720	9,982,153	6,967,137	4,890,202	126,000,646

Calculated

	Calendar Month Tailblock - Therms	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
26	R-1	0	0	0	0	0	0	0	0	0	0	0	0	0
27	R-3	0	0	0	0	0	0	0	0	0	0	0	0	0
28	R-4	0	0	0	0	0	0	0	0	0	0	0	0	0
29	R-5	0	0	0	0	0	0	0	0	0	0	0	0	0
30	R-6	0	0	0	0	0	0	0	0	0	0	0	0	0
31	R-7	0	0	0	0	0	0	0	0	0	0	0	0	0
32	Total Residential	0	0	0	0	0	0	0	0	0	0	0	0	0
33														
34	G-41	188,281	175,600	260,729	1,149,826	2,375,764	3,184,380	4,242,530	3,488,200	2,717,223	1,191,262	668,478	279,226	19,921,499
35	G-42	248,051	272,031	434,224	1,622,989	3,027,287	3,888,721	5,050,442	4,210,143	3,351,771	1,550,670	906,613	385,160	24,948,102
36	G-43	0	0	0	0	0	0	0	0	0	0	0	0	0
37	G-44	0	0	83	89	348	456	690	599	402	151	119	47	2,983
38	G-45	13	481	1,539	4,569	7,116	11,411	12,933	11,275	7,842	2,966	3,316	91	63,552
39	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
40	G-51	144,292	154,724	153,537	220,059	286,352	340,808	414,144	351,966	330,692	246,224	213,237	170,693	3,026,729
41	G-52	222,157	241,924	255,837	401,318	546,645	632,173	770,304	650,109	603,543	420,702	314,228	245,164	5,304,103
42	G-53	0	0	0	0	0	0	0	0	0	0	0	0	0
43	G-54	0	0	0	0	0	0	0	0	0	0	0	0	0
44	G-55	0	0	0	0	29	465	562	528	444	172	73	0	2,273
45	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
46	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
47	G-58	0	0	0	0	0	0	0	0	0	0	0	0	0
48	Total C/I	802,794	844,759	1,105,949	3,398,850	6,243,540	8,058,414	10,491,606	8,712,820	7,011,915	3,412,149	2,106,064	1,080,380	53,269,242
49														
50	Total	802,794	844,759	1,105,949	3,398,850	6,243,540	8,058,414	10,491,606	8,712,820	7,011,915	3,412,149	2,106,064	1,080,380	53,269,242

	Weather Normalization Headblock Adj- Therms	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
		Calculated												
1	R-1	0	0	0	0	(6,409)	2,226	(1,051)	1,189	353	1,364	0	0	(2,329)
2	R-3	0	0	0	0	(960,077)	334,329	(156,268)	179,089	48,097	144,329	0	0	(410,500)
3	R-4	0	0	0	0	(74,833)	26,249	(12,439)	14,084	3,819	11,405	0	0	(31,716)
4	R-5	0	0	0	0	0	0	0	0	0	0	0	0	0
5	R-6	0	0	0	0	0	0	0	0	0	0	0	0	0
6	R-7	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Total Residential	0	0	0	0	(1,041,319)	362,803	(169,758)	194,362	52,270	157,098	0	0	(444,545)
8														
9	G-41	0	0	0	0	0	0	0	0	0	0	0	0	0
10	G-42	0	0	0	0	0	0	0	0	0	0	0	0	0
11	G-43	0	0	0	0	(164,007)	51,272	(25,119)	28,139	7,931	26,561	0	0	(75,224)
12	G-44	0	0	0	0	0	0	0	0	0	0	0	0	0
13	G-45	0	0	0	0	0	0	0	0	0	0	0	0	0
14	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
15	G-51	0	0	0	0	0	0	0	0	0	0	0	0	0
16	G-52	0	0	0	0	0	0	0	0	0	0	0	0	0
17	G-53	0	0	0	0	(51,342)	15,845	(10,610)	10,274	2,928	9,373	0	0	(23,532)
18	G-54	0	0	0	0	0	0	0	0	0	0	0	0	0
19	G-55	0	0	0	0	0	0	0	0	0	0	0	0	0
20	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
21	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G-58	0	0	0	0	0	0	0	0	0	0	0	0	0
23	Total C/I	0	0	0	0	(215,349)	67,117	(35,729)	38,413	10,859	35,933	0	0	(98,756)
24														
25	Total	0	0	0	0	(1,256,668)	429,920	(205,487)	232,775	63,128	193,031	0	0	(543,301)

	Weather Normalization Tailblock Adj - Therms	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
		Calculated												
26	R-1	0	0	0	0	0	0	0	0	0	0	0	0	0
27	R-3	0	0	0	0	0	0	0	0	0	0	0	0	0
28	R-4	0	0	0	0	0	0	0	0	0	0	0	0	0
29	R-5	0	0	0	0	0	0	0	0	0	0	0	0	0
30	R-6	0	0	0	0	0	0	0	0	0	0	0	0	0
31	R-7	0	0	0	0	0	0	0	0	0	0	0	0	0
32	Total Residential	0	0	0	0	0	0	0	0	0	0	0	0	0
33														
34	G-41	0	0	0	0	(437,497)	159,114	(76,399)	87,658	23,030	64,408	0	0	(179,687)
35	G-42	0	0	0	0	(583,034)	201,078	(93,616)	108,591	29,627	92,269	0	0	(245,086)
36	G-43	0	0	0	0	0	0	0	0	0	0	0	0	0
37	G-44	0	0	0	0	0	0	0	0	0	0	0	0	0
38	G-45	0	0	0	0	0	0	0	0	0	0	0	0	0
39	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
40	G-51	0	0	0	0	(22,670)	8,267	(4,297)	4,830	1,308	4,405	0	0	(8,158)
41	G-52	0	0	0	0	(58,592)	19,184	(9,560)	10,585	2,956	9,887	0	0	(25,541)
42	G-53	0	0	0	0	0	0	0	0	0	0	0	0	0
43	G-54	0	0	0	0	0	0	0	0	0	0	0	0	0
44	G-55	0	0	0	0	0	0	0	0	0	0	0	0	0
45	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
46	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
47	G-58	0	0	0	0	0	0	0	0	0	0	0	0	0
48	Total C/I	0	0	0	0	(1,101,794)	387,642	(183,872)	211,664	56,920	170,968	0	0	(458,471)
49														
50	Total	0	0	0	0	(1,101,794)	387,642	(183,872)	211,664	56,920	170,968	0	0	(458,471)

	Calendar Month Weather Normal Headblock - Therms	Calculated												
		Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
1	R-1	32,119	32,588	34,436	53,859	65,202	85,605	96,945	83,454	81,327	63,796	51,130	38,972	719,435
2	R-3	989,971	988,707	1,212,191	3,705,805	6,208,430	9,253,006	10,879,299	9,332,011	7,878,713	4,496,190	2,459,935	1,282,217	58,686,476
3	R-4	79,972	78,596	89,880	269,414	491,607	734,802	873,420	741,189	632,088	360,141	194,840	104,494	4,650,441
4	R-5	171	177	297	881	1,589	2,217	2,418	2,166	1,977	1,255	802	477	14,428
5	R-6	751	811	1,378	5,636	13,212	20,567	24,771	22,729	20,328	12,107	7,073	3,298	132,658
6	R-7	12	12	13	69	165	218	236	219	205	132	74	29	1,384
7	Total Residential	1,102,997	1,100,890	1,338,195	4,035,663	6,780,206	10,096,414	11,877,089	10,181,768	8,614,637	4,933,621	2,713,854	1,429,487	64,204,822
8														
9	G-41	57,111	57,590	73,262	224,560	698,404	844,805	925,870	786,391	812,547	565,549	193,347	74,299	5,313,737
10	G-42	258,878	257,268	309,544	627,905	1,237,508	1,388,319	1,476,151	1,256,811	1,371,086	1,109,100	570,877	308,299	10,171,748
11	G-43	250,469	286,023	340,424	818,963	1,170,879	1,560,031	1,880,532	1,588,205	1,421,586	921,228	605,797	357,158	11,201,294
12	G-44	0	0	17	34	87	103	145	172	169	126	34	25	913
13	G-45	282	891	1,379	1,991	3,514	4,133	4,133	3,733	4,086	3,372	1,827	895	30,236
14	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
15	G-51	74,696	80,156	77,250	88,467	89,129	92,174	99,169	84,620	92,110	85,864	84,409	78,467	1,026,511
16	G-52	318,801	332,043	316,481	370,610	367,555	376,179	397,277	337,304	372,033	351,543	342,439	318,213	4,200,478
17	G-53	645,678	699,787	674,593	900,134	931,915	1,052,819	1,326,395	1,075,500	1,041,483	836,257	775,207	663,591	10,623,358
18	G-54	1,578,597	1,678,114	1,658,858	1,979,190	1,696,683	1,357,506	1,328,245	1,205,146	1,185,808	1,309,647	1,636,297	1,625,342	18,239,432
19	G-55	2	11	10	18	16	113	122	108	113	118	114	62	806
20	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
21	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G-58	0	0	21,102	37,826	42,041	37,802	38,031	67,959	63,191	58,759	42,933	34,365	444,010
23	Total C/I	3,184,514	3,391,883	3,472,920	5,049,697	6,237,730	6,713,985	7,476,072	6,405,948	6,364,211	5,241,563	4,253,283	3,460,715	61,252,522
24														
25	Total	4,287,510	4,492,773	4,811,115	9,085,361	13,017,936	16,810,400	19,353,161	16,587,717	14,978,848	10,175,185	6,967,137	4,890,202	125,457,345

	Calendar Month Weather Normal Tailblock - Therms	Calculated												
		Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
26	R-1	0	0	0	0	0	0	0	0	0	0	0	0	0
27	R-3	0	0	0	0	0	0	0	0	0	0	0	0	0
28	R-4	0	0	0	0	0	0	0	0	0	0	0	0	0
29	R-5	0	0	0	0	0	0	0	0	0	0	0	0	0
30	R-6	0	0	0	0	0	0	0	0	0	0	0	0	0
31	R-7	0	0	0	0	0	0	0	0	0	0	0	0	0
32	Total Residential	0	0	0	0	0	0	0	0	0	0	0	0	0
33														
34	G-41	188,281	175,600	260,729	1,149,826	1,938,267	3,343,494	4,166,132	3,575,858	2,740,252	1,255,670	668,478	279,226	19,741,813
35	G-42	248,051	272,031	434,224	1,622,989	2,444,253	4,089,799	4,956,826	4,318,734	3,381,398	1,642,939	906,613	385,160	24,703,016
36	G-43	0	0	0	0	0	0	0	0	0	0	0	0	0
37	G-44	0	0	83	89	348	456	690	599	402	151	119	47	2,983
38	G-45	13	481	1,539	4,569	7,116	11,411	12,933	11,275	7,842	2,966	3,316	91	63,552
39	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
40	G-51	144,292	154,724	153,537	220,059	263,682	349,075	409,846	356,796	332,000	250,629	213,237	170,693	3,018,571
41	G-52	222,157	241,924	255,837	401,318	488,052	651,357	760,745	660,694	606,499	430,589	314,228	245,164	5,278,562
42	G-53	0	0	0	0	0	0	0	0	0	0	0	0	0
43	G-54	0	0	0	0	0	0	0	0	0	0	0	0	0
44	G-55	0	0	0	0	29	465	562	528	444	172	73	0	2,273
45	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
46	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
47	G-58	0	0	0	0	0	0	0	0	0	0	0	0	0
48	Total C/I	802,794	844,759	1,105,949	3,398,850	5,141,746	8,446,056	10,307,734	8,924,483	7,068,836	3,583,117	2,106,064	1,080,380	52,810,770
49														
50	Total	802,794	844,759	1,105,949	3,398,850	5,141,746	8,446,056	10,307,734	8,924,483	7,068,836	3,583,117	2,106,064	1,080,380	52,810,770

	Calendar Month Weather Normal Total - Therms	Calculated												
		Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
1	R-1	32,119	32,588	34,436	53,859	65,202	85,605	96,945	83,454	81,327	63,796	51,130	38,972	719,435
2	R-3	989,971	988,707	1,212,191	3,705,805	6,208,430	9,253,006	10,879,299	9,332,011	7,878,713	4,496,190	2,459,935	1,282,217	58,686,476
3	R-4	79,972	78,596	89,880	269,414	491,607	734,802	873,420	741,189	632,088	360,141	194,840	104,494	4,650,441
4	R-5	171	177	297	881	1,589	2,217	2,418	2,166	1,977	1,255	802	477	14,428
5	R-6	751	811	1,378	5,636	13,212	20,567	24,771	22,729	20,328	12,107	7,073	3,298	132,658
6	R-7	12	12	13	69	165	218	236	219	205	132	74	29	1,384
7	Total Residential	1,102,997	1,100,890	1,338,195	4,035,663	6,780,206	10,096,414	11,877,089	10,181,768	8,614,637	4,933,621	2,713,854	1,429,487	64,204,822
8														
9	G-41	245,393	233,190	333,991	1,374,386	2,636,671	4,188,299	5,092,002	4,362,249	3,552,799	1,821,219	861,825	353,525	25,055,550
10	G-42	506,929	529,299	743,768	2,250,894	3,681,761	5,478,118	6,432,978	5,575,544	4,752,483	2,752,039	1,477,491	693,459	34,874,764
11	G-43	250,469	286,023	340,424	818,963	1,170,879	1,560,031	1,880,532	1,588,205	1,421,586	921,228	605,797	357,158	11,201,294
12	G-44	0	0	100	122	435	560	835	771	571	277	153	72	3,896
13	G-45	295	1,372	2,918	6,560	10,630	15,544	17,066	15,009	11,928	6,338	5,143	985	93,788
14	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
15	G-51	218,989	234,880	230,787	308,527	352,810	441,249	509,015	441,417	424,109	336,493	297,646	249,160	4,045,082
16	G-52	540,958	573,966	572,318	771,928	855,608	1,027,535	1,158,022	997,997	978,532	782,132	656,667	563,376	9,479,040
17	G-53	645,678	699,787	674,593	900,134	931,915	1,052,819	1,326,395	1,075,500	1,041,483	836,257	775,207	663,591	10,623,358
18	G-54	1,578,597	1,678,114	1,658,858	1,979,190	1,696,683	1,357,506	1,328,245	1,205,146	1,185,808	1,309,647	1,636,297	1,625,342	18,239,432
19	G-55	2	11	10	18	45	578	685	636	557	290	187	62	3,080
20	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
21	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G-58	0	0	21,102	37,826	42,041	37,802	38,031	67,959	63,191	58,759	42,933	34,365	444,010
23	Total C/I	3,987,308	4,236,643	4,578,869	8,448,547	11,379,477	15,160,041	17,783,806	15,330,432	13,433,046	8,824,681	6,359,347	4,541,096	114,063,293
24														
25	Total	5,090,305	5,337,533	5,917,064	12,484,210	18,159,682	25,256,456	29,660,895	25,512,200	22,047,684	13,758,302	9,073,201	5,970,583	178,268,115

Per Books Data

	Actual - Base Revenue (Margin) w/o Normal Weather Adjustment	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
1	R-1	$65,386	$63,198	$65,672	$66,252	$70,815	$83,294	$88,102	$84,541	$82,588	$79,357	$75,851	$73,241	$898,296
2	R-3	$1,697,052	$1,574,027	$1,660,011	$1,902,102	$3,418,897	$5,722,642	$6,408,219	$6,855,501	$6,251,924	$4,670,732	$3,178,741	$2,265,520	$45,605,368
3	R-4	$55,576	$49,605	$51,190	$55,925	$87,913	$159,747	$186,824	$219,993	$211,632	$174,548	$124,565	$73,282	$1,450,800
4	R-5	$729	$900	$1,002	$1,213	$1,765	$2,020	$2,632	$2,268	$2,461	$2,078	$1,774	$1,564	$20,405
5	R-6	$2,645	$2,113	$2,654	$3,545	$9,053	$13,496	$22,656	$21,772	$20,028	$15,064	$10,919	$7,817	$131,761
6	R-7	$12	$11	$11	$13	$21	$80	$70	$63	$187	$70	$49	$31	$617
7	Total Residential	$1,821,400	$1,689,854	$1,780,540	$2,029,049	$3,588,465	$5,981,278	$6,708,502	$7,184,137	$6,568,820	$4,941,851	$3,391,897	$2,421,453	$48,107,246
8														
9	G-41	$621,240	$564,288	$598,648	$648,668	$1,040,442	$1,764,498	$2,018,048	$2,104,957	$2,006,531	$1,574,033	$1,049,624	$767,206	$14,758,183
10	G-42	$458,009	$403,741	$423,336	$531,801	$1,041,264	$1,772,503	$1,992,383	$2,086,784	$1,980,377	$1,582,659	$1,017,020	$645,801	$13,935,678
11	G-43	$77,987	$70,420	$73,684	$80,529	$145,702	$380,243	$437,697	$510,222	$445,329	$403,689	$259,578	$110,833	$2,995,913
12	G-44	$0	$0	$0	$92	$92	$286	$294	$530	$531	$380	$290	$211	$2,707
13	G-45	$705	$576	$748	$1,624	$2,453	$4,730	$9,367	$8,037	$7,299	$5,791	$3,907	$3,290	$48,528
14	G-46	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	G-51	$119,769	$113,552	$125,434	$124,210	$131,291	$158,438	$168,535	$166,450	$163,492	$148,156	$141,541	$136,746	$1,697,614
16	G-52	$149,348	$138,598	$147,687	$149,964	$172,320	$252,639	$264,983	$260,610	$256,120	$237,092	$198,080	$157,032	$2,384,472
17	G-53	$96,728	$80,759	$85,214	$84,601	$102,671	$189,960	$205,105	$229,603	$204,554	$202,072	$159,103	$88,359	$1,728,729
18	G-54	$76,539	$76,373	$78,579	$83,254	$88,563	$125,436	$106,050	$102,066	$97,869	$97,225	$105,783	$76,071	$1,113,807
19	G-55	$0	$132	$136	$150	$144	$163	$350	$544	$258	$350	$320	$275	$2,824
20	G-56	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
21	G-57	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
22	G-58	$0	$0	$0	$0	$1,624	$1,410	$1,263	$1,311	$17,498	$5,784	$6,207	$2,882	$37,979
23	Total C/I	$1,600,325	$1,448,439	$1,533,467	$1,704,895	$2,726,565	$4,650,305	$5,204,075	$5,471,113	$5,179,859	$4,257,231	$2,941,453	$1,988,708	$38,706,435
24														
25	Total	$3,421,725	$3,138,293	$3,314,006	$3,733,944	$6,315,031	$10,631,582	$11,912,577	$12,655,251	$11,748,679	$9,199,082	$6,333,351	$4,410,161	$86,813,681

Calculated

	Calendar Month Base Revenue Adjustment	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
26	R-1	$392	$2,848	($442)	$8,289	$7,601	$1,130	$1,804	($5,736)	$899	($4,597)	($3,622)	($7,420)	$1,146
27	R-3	($38,933)	$81,402	$89,591	$1,295,563	$1,600,562	$300,290	$782,097	($807,081)	($820,949)	($1,191,342)	($707,218)	($481,071)	$102,912
28	R-4	($2,875)	$2,177	$782	$37,678	$72,450	$33,436	$45,405	($26,364)	($36,327)	($62,530)	($45,930)	($16,193)	$1,710
29	R-5	$81	$29	$63	$255	$82	$297	($165)	($38)	($186)	($167)	($8)	$34	$277
30	R-6	($428)	$310	$287	$2,923	$3,242	$4,721	($1,202)	($2,039)	($1,543)	($2,275)	($1,317)	($838)	$1,840
31	R-7	($0)	$1	$0	$22	$50	$7	$22	$21	($104)	($9)	($3)	$0	$6
32	Total Residential	($41,763)	$86,767	$90,281	$1,344,730	$1,683,987	$339,881	$827,961	($841,236)	($858,211)	($1,260,919)	($758,098)	($505,488)	$107,892
33														
34	G-41	($19,767)	$32,252	$15,311	$341,415	$523,700	$136,970	$246,723	($186,003)	($259,356)	($427,994)	($226,029)	($144,190)	$33,032
35	G-42	($32,979)	$20,871	$58,976	$429,522	$541,067	$119,283	$257,533	($183,368)	($243,735)	($462,437)	($291,593)	($182,188)	$30,954
36	G-43	($8,216)	$4,147	$6,260	$58,332	$235,515	$48,096	$91,594	($73,283)	($42,170)	($135,102)	($147,396)	($28,957)	$8,820
37	G-44	$0	$0	$104	$39	$170	$32	$176	($54)	($121)	($100)	($72)	($33)	$141
38	G-45	($92)	$813	$1,433	$2,006	$2,871	$2,502	($1,587)	($1,157)	($1,376)	($2,035)	($831)	($1,906)	$641
39	G-46	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
40	G-51	($1,348)	$10,298	($4,398)	$14,810	$16,214	$2,283	$7,283	($13,027)	($4,615)	($8,704)	($6,405)	($13,244)	($853)
41	G-52	($4,609)	$9,453	($3,491)	$20,261	$63,677	$990	$15,314	($19,723)	($7,722)	($24,076)	($42,709)	($14,571)	($7,206)
42	G-53	($16,088)	$4,236	($3,146)	$16,522	$87,017	$9,017	$43,152	($28,887)	($6,939)	($40,054)	($71,085)	($10,022)	($16,277)
43	G-54	($71)	$3,548	($26)	$7,115	$38,975	($18,575)	($1,434)	($6,885)	($1,825)	$5,317	($29,200)	($528)	($3,589)
44	G-55	$77	$9	$14	$8	$18	$210	$49	($180)	$110	($51)	($38)	($36)	$190
45	G-56	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
46	G-57	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
47	G-58	$0	$0	$1,524	$2,690	$2,778	$2,677	$2,843	$5,150	($11,331)	($12)	($3,305)	($394)	$2,619
48	Total C/I	($83,094)	$85,628	$72,563	$892,721	$1,512,003	$303,484	$661,645	($507,418)	($579,079)	($1,095,249)	($818,664)	($396,069)	$48,471
49														
50	Total	($124,857)	$172,395	$162,844	$2,237,451	$3,195,990	$643,365	$1,489,606	($1,348,654)	($1,437,290)	($2,356,168)	($1,576,762)	($901,556)	$156,363

	Calendar Month Base Revenues (Margin) w/o NWA	Calculated												
		Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
1	R-1	$ 65,778	$ 66,046	$ 65,230	$ 74,541	$ 78,417	$ 84,424	$ 89,906	$ 78,804	$ 83,486	$ 74,760	$ 72,229	$ 65,820	$899,442
2	R-3	$ 1,658,119	$ 1,655,429	$ 1,749,602	$ 3,197,665	$ 5,019,460	$ 6,022,932	$ 7,190,316	$ 6,048,420	$ 5,430,975	$ 3,479,390	$ 2,471,523	$ 1,784,449	$45,708,280
3	R-4	$ 52,701	$ 51,782	$ 51,972	$ 93,603	$ 160,364	$ 193,183	$ 232,229	$ 193,629	$ 175,305	$ 112,018	$ 78,635	$ 57,089	$1,452,510
4	R-5	$ 810	$ 929	$ 1,065	$ 1,468	$ 1,847	$ 2,317	$ 2,467	$ 2,230	$ 2,275	$ 1,912	$ 1,765	$ 1,598	$20,683
5	R-6	$ 2,217	$ 2,423	$ 2,940	$ 6,467	$ 12,295	$ 18,216	$ 21,453	$ 19,733	$ 18,485	$ 12,790	$ 9,602	$ 6,978	$133,601
6	R-7	$ 12	$ 11	$ 12	$ 34	$ 71	$ 87	$ 92	$ 85	$ 83	$ 61	$ 45	$ 32	$623
7	Total Residential	$1,779,637	$1,776,620	$1,870,821	$3,373,779	$5,272,452	$6,321,159	$7,536,463	$6,342,902	$5,710,609	$3,680,932	$2,633,799	$1,915,966	$48,215,138
8														
9	G-41	$ 601,473	$ 596,540	$ 613,959	$ 990,083	$ 1,564,142	$ 1,901,468	$ 2,264,771	$ 1,918,954	$ 1,747,175	$ 1,146,039	$ 823,595	$ 623,015	$14,791,214
10	G-42	$ 425,030	$ 424,612	$ 482,313	$ 961,323	$ 1,582,331	$ 1,891,785	$ 2,249,917	$ 1,903,416	$ 1,736,643	$ 1,120,222	$ 725,427	$ 463,614	$13,966,632
11	G-43	$ 69,771	$ 74,567	$ 79,945	$ 138,861	$ 381,217	$ 428,338	$ 529,290	$ 436,939	$ 403,160	$ 268,587	$ 112,182	$ 81,876	$3,004,733
12	G-44	$ -	$ -	$ 104	$ 131	$ 263	$ 318	$ 470	$ 476	$ 410	$ 280	$ 217	$ 178	$2,848
13	G-45	$ 613	$ 1,390	$ 2,180	$ 3,630	$ 5,325	$ 7,232	$ 7,779	$ 6,881	$ 5,923	$ 3,756	$ 3,076	$ 1,384	$49,169
14	G-46	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
15	G-51	$ 118,420	$ 123,850	$ 121,036	$ 139,021	$ 147,505	$ 160,721	$ 175,818	$ 153,422	$ 158,877	$ 139,452	$ 135,136	$ 123,502	$1,696,761
16	G-52	$ 144,739	$ 148,051	$ 144,196	$ 170,226	$ 235,996	$ 253,628	$ 280,296	$ 240,887	$ 248,398	$ 213,016	$ 155,371	$ 142,461	$2,377,266
17	G-53	$ 80,640	$ 84,996	$ 82,068	$ 101,124	$ 189,687	$ 198,977	$ 248,257	$ 200,716	$ 197,615	$ 162,017	$ 88,018	$ 78,337	$1,712,452
18	G-54	$ 76,468	$ 79,921	$ 78,553	$ 90,369	$ 127,537	$ 106,860	$ 104,615	$ 95,181	$ 96,045	$ 102,542	$ 76,583	$ 75,544	$1,110,218
19	G-55	$ 77	$ 141	$ 151	$ 158	$ 162	$ 373	$ 399	$ 364	$ 368	$ 299	$ 282	$ 239	$3,014
20	G-56	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
21	G-57	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
22	G-58	$ -	$ -	$ 1,524	$ 2,690	$ 4,402	$ 4,087	$ 4,106	$ 6,461	$ 6,166	$ 5,772	$ 2,902	$ 2,488	$40,599
23	Total C/I	$1,517,231	$1,534,068	$1,606,029	$2,597,616	$4,238,568	$4,953,789	$5,865,720	$4,963,696	$4,600,780	$3,161,982	$2,122,790	$1,592,639	$38,754,906
24														
25	Total	$3,296,868	$3,310,688	$3,476,850	$5,971,395	$9,511,020	$11,274,947	$13,402,182	$11,306,597	$10,311,389	$6,842,913	$4,756,589	$3,508,605	$86,970,044

	Calendar Month Weather Normal Base Revenue Adjustment	Calculated												
		Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
26	R-1	$0	$0	$0	$0	($2,398)	$833	($393)	$445	$132	$510	$0	$0	($871)
27	R-3	$0	$0	$0	$0	($528,208)	$183,938	($85,974)	$98,530	$26,462	$79,406	$0	$0	($225,846)
28	R-4	$0	$0	$0	$0	($16,468)	$5,776	($2,737)	$3,099	$841	$2,510	$0	$0	($6,980)
29	R-5	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
30	R-6	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	R-7	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	Total Residential	$0	$0	$0	$0	($547,074)	$190,548	($89,105)	$102,074	$27,434	$82,426	$0	$0	($233,697)
33														
34	G-41	$0	$0	$0	$0	($134,173)	$48,797	($23,430)	$26,883	$7,063	$19,753	$0	$0	($55,107)
35	G-42	$0	$0	$0	$0	($161,268)	$55,618	($25,894)	$30,036	$8,195	$25,522	$0	$0	($67,791)
36	G-43	$0	$0	$0	$0	($41,854)	$13,084	($6,410)	$7,181	$2,024	$6,778	$0	$0	($19,197)
37	G-44	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
38	G-45	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
39	G-46	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
40	G-51	$0	$0	$0	$0	($4,055)	$1,479	($769)	$864	$234	$788	$0	$0	($1,459)
41	G-52	$0	$0	$0	$0	($9,221)	$3,019	($1,505)	$1,666	$465	$1,556	$0	$0	($4,020)
42	G-53	$0	$0	$0	$0	($8,479)	$2,617	($1,752)	$1,697	$484	$1,548	$0	$0	($3,886)
43	G-54	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
44	G-55	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
45	G-56	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
46	G-57	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
47	G-58	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
48	Total C/I	$0	$0	$0	$0	($359,051)	$124,615	($59,760)	$68,327	$18,464	$55,945	$0	$0	($151,460)
49														
50	Total	$0	$0	$0	$0	($906,125)	$315,163	($148,865)	$170,401	$45,899	$138,371	$0	$0	($385,157)

	Calendar Month Weather Normal Base Revenues (Margin)	Calculated												
		Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
1	R-1	$ 65,778	$ 66,046	$ 65,230	$ 74,541	$ 76,019	$ 85,257	$ 89,513	$ 79,249	$ 83,618	$ 75,271	$ 72,229	$ 65,820	$898,570
2	R-3	$ 1,658,119	$1,655,429	$ 1,749,602	$ 3,197,665	$ 4,491,252	$ 6,206,870	$ 7,104,341	$ 6,146,950	$ 5,457,437	$ 3,558,796	$ 2,471,523	$ 1,784,449	$45,482,434
3	R-4	$ 52,701	$ 51,782	$ 51,972	$ 93,603	$ 143,895	$ 198,959	$ 229,491	$ 196,729	$ 176,145	$ 114,528	$ 78,635	$ 57,089	$1,445,530
4	R-5	$ 810	$ 929	$ 1,065	$ 1,468	$ 1,847	$ 2,317	$ 2,467	$ 2,230	$ 2,275	$ 1,912	$ 1,765	$ 1,598	$20,683
5	R-6	$ 2,217	$ 2,423	$ 2,940	$ 6,467	$ 12,295	$ 18,216	$ 21,453	$ 19,733	$ 18,485	$ 12,790	$ 9,602	$ 6,978	$133,601
6	R-7	$ 12	$ 11	$ 12	$ 34	$ 71	$ 87	$ 92	$ 85	$ 83	$ 61	$ 45	$ 32	$623
7	Total Residential	$1,779,637	$1,776,620	$1,870,821	$3,373,779	$4,725,378	$6,511,707	$7,447,358	$6,444,976	$5,738,043	$3,763,358	$2,633,799	$1,915,966	$47,981,441
8														
9	G-41	$ 601,473	$ 596,540	$ 613,959	$ 990,083	$ 1,429,969	$ 1,950,265	$ 2,241,341	$ 1,945,837	$ 1,754,238	$ 1,165,792	$ 823,595	$ 623,015	$14,736,107
10	G-42	$ 425,030	$ 424,612	$ 482,313	$ 961,323	$ 1,421,063	$ 1,947,404	$ 2,224,022	$ 1,933,452	$ 1,744,838	$ 1,145,744	$ 725,427	$ 463,614	$13,898,841
11	G-43	$ 69,771	$ 74,567	$ 79,945	$ 138,861	$ 339,363	$ 441,423	$ 522,880	$ 444,120	$ 405,183	$ 275,366	$ 112,182	$ 81,876	$2,985,536
12	G-44	$ -	$ -	$ 104	$ 131	$ 263	$ 318	$ 470	$ 476	$ 410	$ 280	$ 217	$ 178	$2,848
13	G-45	$ 613	$ 1,390	$ 2,180	$ 3,630	$ 5,325	$ 7,232	$ 7,779	$ 6,881	$ 5,923	$ 3,756	$ 3,076	$ 1,384	$49,169
14	G-46	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
15	G-51	$ 118,420	$ 123,850	$ 121,036	$ 139,021	$ 143,450	$ 162,200	$ 175,049	$ 154,286	$ 159,111	$ 140,239	$ 135,136	$ 123,502	$1,695,302
16	G-52	$ 144,739	$ 148,051	$ 144,196	$ 170,226	$ 226,775	$ 256,647	$ 278,792	$ 242,553	$ 248,864	$ 214,572	$ 155,371	$ 142,461	$2,373,246
17	G-53	$ 80,640	$ 84,996	$ 82,068	$ 101,124	$ 181,208	$ 201,594	$ 246,505	$ 202,413	$ 198,099	$ 163,565	$ 88,018	$ 78,337	$1,708,566
18	G-54	$ 76,468	$ 79,921	$ 78,553	$ 90,369	$ 127,537	$ 106,860	$ 104,615	$ 95,181	$ 96,045	$ 102,542	$ 76,583	$ 75,544	$1,110,218
19	G-55	$ 77	$ 141	$ 151	$ 158	$ 162	$ 373	$ 399	$ 364	$ 368	$ 299	$ 282	$ 239	$3,014
20	G-56	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
21	G-57	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
22	G-58	$ -	$ -	$ 1,524	$ 2,690	$ 4,402	$ 4,087	$ 4,106	$ 6,461	$ 6,166	$ 5,772	$ 2,902	$ 2,488	$40,599
23	Total C/I	$1,517,231	$1,534,068	$1,606,029	$2,597,616	$3,879,517	$5,078,404	$5,805,959	$5,032,023	$4,619,244	$3,217,926	$2,122,790	$1,592,639	$38,603,446
24														
25	Total	$3,296,868	$3,310,688	$3,476,850	$5,971,395	$8,604,895	$11,590,110	$13,253,317	$11,476,999	$10,357,287	$6,981,284	$4,756,589	$3,508,605	$86,584,887

	Calendar Month Weather Normal Base Rev Adj at EOY Rates	Calculated												
		Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
26	R-1	($632)	($641)	($678)	($1,060)	$0	$0	$0	$0	$0	$0	$0	$0	($3,011)
27	R-3	($12,798)	($12,781)	($15,670)	($47,906)	$0	$0	$0	$0	$0	$0	$0	$0	($89,156)
28	R-4	($410)	($403)	($461)	($1,382)	$0	$0	$0	$0	$0	$0	$0	$0	($2,657)
29	R-5	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
30	R-6	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	R-7	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	Total Residential	($13,840)	($13,826)	($16,809)	($50,349)	$0	$0	$0	$0	$0	$0	$0	$0	($94,825)
33														
34	G-41	($9,524)	($9,446)	($9,719)	($15,654)	$0	$0	$0	$0	$0	$0	$0	$0	($44,343)
35	G-42	($6,748)	($6,743)	($7,665)	($15,313)	$0	$0	$0	$0	$0	$0	$0	$0	($36,469)
36	G-43	($1,086)	($1,159)	($1,240)	($2,138)	$0	$0	$0	$0	$0	$0	$0	$0	($5,622)
37	G-44	$0	$0	($1)	($1)	$0	$0	$0	$0	$0	$0	$0	$0	($2)
38	G-45	($7)	($12)	($14)	($14)	$0	$0	$0	$0	$0	$0	$0	$0	($47)
39	G-46	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
40	G-51	($1,866)	($1,952)	($1,907)	($2,188)	$0	$0	$0	$0	$0	$0	$0	$0	($7,913)
41	G-52	($2,308)	($2,361)	($2,300)	($2,717)	$0	$0	$0	$0	$0	$0	$0	$0	($9,685)
42	G-53	($1,263)	($1,331)	($1,285)	($1,582)	$0	$0	$0	$0	$0	$0	$0	$0	($5,462)
43	G-54	($1,098)	($1,145)	($1,125)	($1,289)	$0	$0	$0	$0	$0	$0	$0	$0	($4,657)
44	G-55	($1)	($2)	($2)	($2)	$0	$0	$0	$0	$0	$0	$0	$0	($8)
45	G-56	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
46	G-57	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
47	G-58	$0	$0	($9)	($16)	$0	$0	$0	$0	$0	$0	$0	$0	($25)
48	Total C/I	($23,901)	($24,150)	($25,268)	($40,914)	$0	$0	$0	$0	$0	$0	$0	$0	($114,233)
49														
50	Total	($37,741)	($37,976)	($42,077)	($91,263)	$0	$0	$0	$0	$0	$0	$0	$0	($209,058)

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Test Year Ending June 30, 2019
Development of Calendar Month Weather Normalized Base Revenues

	Calendar Month Weather Normal Base Revenues at EOY Rates	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
		Calculated												
1	R-1	$ 65,146	$ 65,404	$ 64,552	$ 73,481	$ 76,019	$ 85,257	$ 89,513	$ 79,249	$ 83,618	$ 75,271	$ 72,229	$ 65,820	$895,559
2	R-3	$ 1,645,321	$1,642,647	$ 1,733,932	$ 3,149,759	$ 4,491,252	$ 6,206,870	$ 7,104,341	$ 6,146,950	$ 5,457,437	$ 3,558,796	$ 2,471,523	$ 1,784,449	$45,393,278
3	R-4	$ 52,291	$ 51,379	$ 51,511	$ 92,220	$ 143,895	$ 198,959	$ 229,491	$ 196,729	$ 176,145	$ 114,528	$ 78,635	$ 57,089	$1,442,873
4	R-5	$ 810	$ 929	$ 1,065	$ 1,468	$ 1,847	$ 2,317	$ 2,467	$ 2,230	$ 2,275	$ 1,912	$ 1,765	$ 1,598	$20,683
5	R-6	$ 2,217	$ 2,423	$ 2,940	$ 6,467	$ 12,295	$ 18,216	$ 21,453	$ 19,733	$ 18,485	$ 12,790	$ 9,602	$ 6,978	$133,601
6	R-7	$ 12	$ 11	$ 12	$ 34	$ 71	$ 87	$ 92	$ 85	$ 83	$ 61	$ 45	$ 32	$623
7	Total Residential	$1,765,797	$1,762,794	$1,854,011	$3,323,430	$4,725,378	$6,511,707	$7,447,358	$6,444,976	$5,738,043	$3,763,358	$2,633,799	$1,915,966	$47,886,617
8														
9	G-41	$ 591,949	$ 587,094	$ 604,240	$ 974,429	$ 1,429,969	$ 1,950,265	$ 2,241,341	$ 1,945,837	$ 1,754,238	$ 1,165,792	$ 823,595	$ 623,015	$14,691,765
10	G-42	$ 418,282	$ 417,869	$ 474,648	$ 946,010	$ 1,421,063	$ 1,947,404	$ 2,224,022	$ 1,933,452	$ 1,744,838	$ 1,145,744	$ 725,427	$ 463,614	$13,862,372
11	G-43	$ 68,685	$ 73,408	$ 78,705	$ 136,724	$ 339,363	$ 441,423	$ 522,880	$ 444,120	$ 405,183	$ 275,366	$ 112,182	$ 81,876	$2,979,914
12	G-44	$ -	$ -	$ 103	$ 130	$ 263	$ 318	$ 470	$ 476	$ 410	$ 280	$ 217	$ 178	$2,846
13	G-45	$ 606	$ 1,378	$ 2,166	$ 3,615	$ 5,325	$ 7,232	$ 7,779	$ 6,881	$ 5,923	$ 3,756	$ 3,076	$ 1,384	$49,122
14	G-46	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
15	G-51	$ 116,554	$ 121,898	$ 119,129	$ 136,833	$ 143,450	$ 162,200	$ 175,049	$ 154,286	$ 159,111	$ 140,239	$ 135,136	$ 123,502	$1,687,389
16	G-52	$ 142,431	$ 145,690	$ 141,896	$ 167,509	$ 226,775	$ 256,647	$ 278,792	$ 242,553	$ 248,864	$ 214,572	$ 155,371	$ 142,461	$2,363,561
17	G-53	$ 79,377	$ 83,665	$ 80,783	$ 99,541	$ 181,208	$ 201,594	$ 246,505	$ 202,413	$ 198,099	$ 163,565	$ 88,018	$ 78,337	$1,703,104
18	G-54	$ 75,370	$ 78,776	$ 77,428	$ 89,079	$ 127,537	$ 106,860	$ 104,615	$ 95,181	$ 96,045	$ 102,542	$ 76,583	$ 75,544	$1,105,561
19	G-55	$ 75	$ 139	$ 148	$ 156	$ 162	$ 373	$ 399	$ 364	$ 368	$ 299	$ 282	$ 239	$3,006
20	G-56	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
21	G-57	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
22	G-58	$ -	$ -	$ 1,515	$ 2,674	$ 4,402	$ 4,087	$ 4,106	$ 6,461	$ 6,166	$ 5,772	$ 2,902	$ 2,488	$40,574
23	Total C/I	$1,493,330	$1,509,918	$1,580,762	$2,556,702	$3,879,517	$5,078,404	$5,805,959	$5,032,023	$4,619,244	$3,217,926	$2,122,790	$1,592,639	$38,489,213
24														
25	Total	$3,259,127	$3,272,712	$3,434,773	$5,880,132	$8,604,895	$11,590,110	$13,253,317	$11,476,999	$10,357,287	$6,981,284	$4,756,589	$3,508,605	$86,375,829

	Calendar Month Weather Normal Low-Inc Discount at EOY Rates	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
		Calculated												
26	R-4 Cust	5,777	5,675	5,284	5,484	5,948	6,205	6,210	5,599	6,170	5,875	5,956	5,679	69,863
27	R-3 Cust Charge	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	
28	Customer Revenue at R-3 Rate	$86,773	$85,251	$79,369	$82,382	$89,344	$93,209	$93,275	$84,110	$92,684	$88,256	$89,469	$85,305	$1,049,427
29														
30	R-7 Cust	1	1	1	2	3	3	3	3	3	3	3	3	29
31	R-6 Cust Charge	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	
32	Customer Revenue at R-6 Rate	$20	$20	$20	$36	$59	$61	$61	$55	$61	$59	$61	$59	$568
33	Customer Revenue at R-3/6 Rate	$86,793	$85,271	$79,389	$82,418	$89,402	$93,269	$93,335	$84,165	$92,745	$88,314	$89,529	$85,364	$1,049,995
34														
35	R-4 Volume	79,972	78,596	89,880	269,414	491,607	734,802	873,420	741,189	632,088	360,141	194,840	104,494	4,650,441
36	R-3 Rate	$0.5502	$0.5502	$0.5502	$0.5502	$0.5502	$0.5502	$0.5502	$0.5502	$0.5502	$0.5502	$0.5502	$0.5502	
37	Dist Revenue at R-3 Rate	$43,998	$43,241	$49,450	$148,224	$270,469	$404,268	$480,532	$407,782	$347,757	$198,140	$107,195	$57,490	$2,558,545
38														
39	R-7 Volume	12	12	13	69	165	218	236	219	205	132	74	29	1,384
40	R-6 Rate	$0.7152	$0.7152	$0.7152	$0.7152	$0.7152	$0.7152	$0.7152	$0.7152	$0.7152	$0.7152	$0.7152	$0.7152	
41	Dist Revenue at R-6 Rate	$9	$8	$9	$49	$118	$156	$169	$157	$147	$94	$53	$20	$990
42	Dist Revenue at R-4/6 Rate	$44,007	$43,250	$49,459	$148,273	$270,587	$404,424	$480,701	$407,939	$347,904	$198,234	$107,248	$57,510	$2,559,535
43														
44	Base Revenue at R-3/6 Rate	$130,800	$128,520	$128,848	$230,691	$359,989	$497,693	$574,036	$492,104	$440,649	$286,549	$196,777	$142,874	$3,609,530
45	Base Revenue at R-4/7 Rate	$ 52,302	$ 51,390	$ 51,522	$ 92,254	$ 143,966	$ 199,046	$ 229,583	$ 196,813	$ 176,228	$ 114,590	$ 78,680	$ 57,120	$1,443,496
46	Low-Inc Base Rate Discount Rev	$78,498	$77,130	$77,325	$138,437	$216,024	$298,647	$344,453	$295,290	$264,420	$171,959	$118,097	$85,754	$2,166,034

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Test Year Ending June 30, 2019
Development of Calendar Month Allowed Base Revenues

	Calendar Month - Bills	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	12 Month Total
		Calculated												
1	R-1	3,537	3,542	3,440	3,550	3,437	3,544	3,545	3,197	3,541	3,422	3,535	3,411	3,475
2	R-3	73,274	73,142	71,034	73,957	71,602	74,303	74,485	67,420	74,747	72,239	74,437	71,832	72,706
3	R-4	5,776	5,674	5,283	5,483	5,945	6,202	6,206	5,597	6,167	5,872	5,953	5,676	5,819
4	R-5	37	43	47	53	55	63	66	60	67	67	70	70	58
5	R-6	86	94	100	125	146	180	191	178	202	212	233	237	165
6	R-7	1	1	1	2	3	3	3	3	3	3	3	3	2
7	Total Residential	82,711	82,498	79,905	83,170	81,187	84,295	84,496	76,455	84,727	81,814	84,231	81,229	82,226
8														
9	G-41	9,125	9,104	8,815	9,325	9,278	9,682	9,714	8,802	9,749	9,383	9,524	9,041	9,295
10	G-42	1,450	1,412	1,353	1,415	1,384	1,435	1,437	1,299	1,438	1,382	1,422	1,371	1,400
11	G-43	55	56	54	57	57	60	60	54	59	56	58	56	57
12	G-44	0	0	1	1	1	1	1	2	2	2	2	2	1
13	G-45	2	3	4	4	4	4	4	4	4	4	4	4	4
14	G-46	0	0	0	0	0	0	0	0	0	0	0	0	0
15	G-51	1,260	1,296	1,264	1,313	1,289	1,336	1,337	1,206	1,336	1,289	1,325	1,282	1,294
16	G-52	396	391	376	389	378	391	390	352	392	381	396	384	385
17	G-53	38	38	37	38	37	38	37	34	35	34	36	35	36
18	G-54	29	29	28	29	28	29	28	26	29	27	28	27	28
19	G-55	1	2	2	2	2	3	3	3	3	3	3	3	3
20	G-56	0	0	0	0	0	0	0	0	0	0	0	0	0
21	G-57	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G-58	0	0	1	1	1	1	1	1	1	1	1	1	1
23	Total C/I	12,357	12,331	11,935	12,575	12,458	12,980	13,013	11,783	13,048	12,563	12,799	12,206	12,504
24														
25	Total	95,068	94,828	91,839	95,745	93,645	97,275	97,509	88,238	97,776	94,377	97,030	93,435	94,731

	EOY Allowed Base Revenue Per Bill	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19
		Calculated											
26	R-1	$18.360	$18.299	$18.634	$20.496	$23.348	$25.283	$26.012	$25.753	$24.068	$21.406	$20.682	$19.317
27	R-3	$22.581	$22.699	$25.166	$35.926	$57.780	$77.468	$88.801	$83.856	$71.842	$45.379	$33.218	$25.573
28	R-4	$9.124	$9.235	$9.793	$13.883	$22.047	$29.563	$33.409	$31.062	$28.369	$19.541	$12.971	$10.385
29	R-5	$18.360	$18.299	$18.634	$20.496	$23.348	$25.283	$26.012	$25.753	$24.068	$21.406	$20.682	$19.317
30	R-6	$22.581	$22.699	$25.166	$35.926	$57.780	$77.468	$88.801	$83.856	$71.842	$45.379	$33.218	$25.573
31	R-7	$9.124	$9.235	$9.793	$13.883	$22.047	$29.563	$33.409	$31.062	$28.369	$19.541	$12.971	$10.385
32													
33													
34	G-41	$66.773	$66.399	$71.295	$90.889	$139.367	$185.085	$211.254	$201.863	$172.188	$118.730	$88.674	$72.229
35	G-42	$292.955	$286.476	$345.936	$529.773	$821.458	$1,125.575	$1,259.787	$1,167.405	$983.555	$684.624	$472.419	$349.595
36	G-43	$1,260.803	$1,295.165	$1,552.477	$1,509.403	$6,550.598	$7,502.097	$8,664.543	$7,626.280	$6,553.396	$4,286.167	$2,095.245	$1,460.169
37	G-44	$66.773	$66.399	$71.295	$90.889	$139.367	$185.085	$211.254	$201.863	$172.188	$118.730	$88.674	$72.229
38	G-45	$292.955	$286.476	$345.936	$529.773	$821.458	$1,125.575	$1,259.787	$1,167.405	$983.555	$684.624	$472.419	$349.595
39	G-46	$1,260.803	$1,295.165	$1,552.477	$1,509.403	$6,550.598	$7,502.097	$8,664.543	$7,626.280	$6,553.396	$4,286.167	$2,095.245	$1,460.169
40	G-51	$85.270	$86.057	$88.628	$100.228	$115.703	$127.293	$130.854	$125.983	$115.870	$99.796	$94.811	$85.816
41	G-52	$341.246	$352.587	$360.550	$432.103	$627.414	$664.356	$662.625	$649.692	$593.999	$514.744	$372.278	$338.050
42	G-53	$2,120.297	$2,316.294	$2,317.383	$2,847.641	$5,223.263	$6,402.732	$5,376.660	$5,441.929	$5,316.353	$4,644.882	$2,523.664	$2,138.370
43	G-54	$2,333.523	$2,644.963	$2,836.349	$3,324.122	$4,462.745	$4,980.221	$4,323.529	$3,728.568	$2,872.867	$3,248.080	$2,004.687	$2,363.392
44	G-55	$85.270	$86.057	$88.628	$100.228	$115.703	$127.293	$130.854	$125.983	$115.870	$99.796	$94.811	$85.816
45	G-56	$341.246	$352.587	$360.550	$432.103	$627.414	$664.356	$662.625	$649.692	$593.999	$514.744	$372.278	$338.050
46	G-57	$2,120.297	$2,316.294	$2,317.383	$2,847.641	$5,223.263	$6,402.732	$5,376.660	$5,441.929	$5,316.353	$4,644.882	$2,523.664	$2,138.370
47	G-58	$2,333.523	$2,644.963	$2,836.349	$3,324.122	$4,462.745	$4,980.221	$4,323.529	$3,728.568	$2,872.867	$3,248.080	$2,004.687	$2,363.392

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Test Year Ending June 30, 2019
Development of Calendar Month Allowed Base Revenues

		Calculated												
	Calendar Month Allowed Base Revenues	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
1	R-1	$ 64,938	$ 64,825	$ 64,096	$ 72,769	$ 80,244	$ 89,594	$ 92,201	$ 82,340	$ 85,229	$ 73,253	$ 73,111	$ 65,895	$908,495
2	R-3	$ 1,654,602	$1,660,273	$ 1,787,674	$ 2,657,013	$ 4,137,126	$ 5,756,110	$ 6,614,309	$ 5,653,596	$ 5,369,931	$ 3,278,121	$ 2,472,679	$ 1,836,946	$42,878,380
3	R-4	$ 52,697	$ 52,404	$ 51,736	$ 76,115	$ 131,067	$ 183,353	$ 207,350	$ 173,840	$ 174,954	$ 114,750	$ 77,220	$ 58,947	$1,354,435
4	R-5	$ 683	$ 790	$ 878	$ 1,091	$ 1,283	$ 1,604	$ 1,720	$ 1,551	$ 1,618	$ 1,426	$ 1,456	$ 1,351	$15,452
5	R-6	$ 1,943	$ 2,143	$ 2,519	$ 4,483	$ 8,421	$ 13,910	$ 16,990	$ 14,932	$ 14,517	$ 9,599	$ 7,728	$ 6,050	$103,233
6	R-7	$ 9	$ 10	$ 10	$ 25	$ 66	$ 92	$ 104	$ 87	$ 88	$ 59	$ 40	$ 31	$620
7	Total Residential	$1,774,873	$1,780,444	$1,906,914	$2,811,496	$4,358,207	$6,044,662	$6,932,675	$5,926,346	$5,646,337	$3,477,208	$2,632,234	$1,969,220	$45,260,616
8														
9	G-41	$ 609,322	$ 604,504	$ 628,433	$ 847,569	$ 1,293,088	$ 1,792,030	$ 2,052,126	$ 1,776,781	$ 1,678,615	$ 1,114,031	$ 844,488	$ 653,051	$13,894,037
10	G-42	$ 424,690	$ 404,361	$ 468,018	$ 749,601	$ 1,136,660	$ 1,615,173	$ 1,810,252	$ 1,516,763	$ 1,414,518	$ 945,847	$ 671,969	$ 479,360	$11,637,213
11	G-43	$ 69,386	$ 72,313	$ 84,403	$ 86,640	$ 370,546	$ 453,128	$ 519,296	$ 412,836	$ 387,525	$ 240,740	$ 121,245	$ 81,867	$2,899,924
12	G-44	$ -	$ -	$ 59	$ 94	$ 139	$ 191	$ 317	$ 377	$ 356	$ 237	$ 183	$ 144	$2,099
13	G-45	$ 605	$ 955	$ 1,384	$ 2,190	$ 3,286	$ 4,652	$ 5,207	$ 4,358	$ 4,065	$ 2,739	$ 1,953	$ 1,398	$32,792
14	G-46	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
15	G-51	$ 107,480	$ 111,527	$ 112,060	$ 131,619	$ 149,097	$ 170,060	$ 174,943	$ 151,984	$ 154,765	$ 128,641	$ 125,596	$ 109,999	$1,627,771
16	G-52	$ 135,286	$ 137,814	$ 135,567	$ 168,131	$ 236,995	$ 259,433	$ 258,532	$ 228,906	$ 232,868	$ 196,359	$ 147,437	$ 129,752	$2,267,079
17	G-53	$ 81,066	$ 88,560	$ 85,820	$ 108,875	$ 193,261	$ 240,528	$ 200,011	$ 182,849	$ 188,021	$ 160,248	$ 90,936	$ 74,629	$1,694,803
18	G-54	$ 67,517	$ 76,528	$ 79,418	$ 96,178	$ 124,957	$ 144,094	$ 122,740	$ 97,357	$ 83,121	$ 88,239	$ 55,931	$ 63,812	$1,099,890
19	G-55	$ 88	$ 161	$ 177	$ 207	$ 239	$ 395	$ 406	$ 353	$ 359	$ 299	$ 294	$ 257	$3,235
20	G-56	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
21	G-57	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
22	G-58	$ -	$ -	$ 1,702	$ 3,435	$ 4,463	$ 5,146	$ 4,468	$ 3,480	$ 2,969	$ 3,248	$ 2,072	$ 2,363	$33,345
23	Total C/I	$1,495,440	$1,496,721	$1,597,043	$2,194,538	$3,512,731	$4,684,830	$5,148,296	$4,376,043	$4,147,181	$2,880,627	$2,062,103	$1,596,633	$35,192,187
24														
25	Total	$3,270,313	$3,277,165	$3,503,957	$5,006,034	$7,870,938	$10,729,492	$12,080,971	$10,302,389	$9,793,519	$6,357,835	$4,694,336	$3,565,853	$80,452,803
26														
27	Low-Inc Base Rate Discount Rev (fr. RATES-3, P.4, L.46)	$78,498	$77,130	$77,325	$138,437	$216,024	$298,647	$344,453	$295,290	$264,420	$171,959	$118,097	$85,754	$2,166,034
28														
29	Calendar Month													
30	MEP Revenues	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Total
31														
32	R-5	$ 810	$ 929	$ 1,065	$ 1,468	$ 1,847	$ 2,317	$ 2,467	$ 2,230	$ 2,275	$ 1,912	$ 1,765	$ 1,598	$20,683
33	R-6	$ 2,217	$ 2,423	$ 2,940	$ 6,467	$ 12,295	$ 18,216	$ 21,453	$ 19,733	$ 18,485	$ 12,790	$ 9,602	$ 6,978	$133,601
34	R-7	$ 12	$ 11	$ 12	$ 34	$ 71	$ 87	$ 92	$ 85	$ 83	$ 61	$ 45	$ 32	$623
35	G-44	$ -	$ -	$ 103	$ 130	$ 263	$ 318	$ 470	$ 476	$ 410	$ 280	$ 217	$ 178	$2,846
36	G-45	$ 606	$ 1,378	$ 2,166	$ 3,615	$ 5,325	$ 7,232	$ 7,779	$ 6,881	$ 5,923	$ 3,756	$ 3,076	$ 1,384	$49,122
37	G-46	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
38	G-55	$ 75	$ 139	$ 148	$ 156	$ 162	$ 373	$ 399	$ 364	$ 368	$ 299	$ 282	$ 239	$3,006
39	G-56	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
40	G-57	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$0
41	G-58	$ -	$ -	$ 1,515	$ 2,674	$ 4,402	$ 4,087	$ 4,106	$ 6,461	$ 6,166	$ 5,772	$ 2,902	$ 2,488	$40,574
42	Total	$3,720	$4,881	$7,950	$14,546	$24,364	$32,631	$36,767	$36,230	$33,710	$24,869	$17,890	$12,898	$250,454
43	divided by: MEP Premium Mult	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
44	MEP Parent Class Revenue	$ 2,862	$ 3,755	$ 6,115	$ 11,189	$ 18,741	$ 25,100	$ 28,282	$ 27,869	$ 25,931	$ 19,130	$ 13,761	$ 9,922	$ 192,657
45														
46	MEP Premium (L.42-L.44)	$858	$1,126	$1,835	$3,357	$5,622	$7,530	$8,485	$8,361	$7,779	$5,739	$4,128	$2,977	$57,797
47														
48	Total Allowed Base Revenues (L.25+L.27+L.46)	$3,349,670	$3,355,421	$3,583,116	$5,147,828	$8,092,584	$11,035,669	$12,433,908	$10,606,040	$10,065,718	$6,535,533	$4,816,562	$3,654,584	$82,676,635

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Current Base Distribution Rates

Base Distribution Rates

Rate				Test Year Rates	Current Rates
R1	Customer Charge		CST	$ 15.02	$ 15.20
	Winter	Charge for 1st Therms	RATE1w	$ 0.3741	$ 0.3786
	LDAC Charge		LDACw	$ 0.0660	$ 0.0310
	Energy Charge	Charge for Therms over 1st	RATE2w	$ 0.3741	$ 0.3786
	Block Size	Cutoff for First Block	BLOCKw	-	-
	Cost of Gas	Cost of Gas Rate	COGw	$ 0.5825	$ 0.6203
	Summer	Charge for 1st Therms	RATE1s	$ 0.3741	$ 0.3786
	LDAC Charge		LDACs	$ 0.0660	$ 0.0310
	Energy Charge	Charge for Therms over 1st	RATE2s	$ 0.3741	$ 0.3786
	Block Size	Cutoff for First Block	BLOCKs	-	-
	Cost of Gas	Cost of Gas Rate	COGs	$ 0.5556	$ 0.4520
R3	Customer Charge		CST	$ 15.02	$ 15.20
	Winter	Charge for 1st Therms	RATE1w	$ 0.5502	$ 0.5569
	LDAC Charge		LDACw	$ 0.0660	$ 0.0310
	Energy Charge	Charge for Therms over 1st	RATE2w	$ 0.5502	$ 0.5569
	Block Size	Cutoff for First Block	BLOCKw	-	-
	Cost of Gas	Cost of Gas Rate	COGw	$ 0.5825	$ 0.6203
	Summer	Charge for 1st Therms	RATE1s	$ 0.5502	$ 0.5569
	LDAC Charge		LDACs	$ 0.0660	$ 0.0310
	Energy Charge	Charge for Therms over 1st	RATE2s	$ 0.5502	$ 0.5569
	Block Size	Cutoff for First Block	BLOCKs	-	-
	Cost of Gas	Cost of Gas Rate	COGs	$ 0.5556	$ 0.4520
R4	Customer Charge		CST	$ 6.01	$ 6.08
	Winter	Charge for 1st Therms	RATE1w	$ 0.2201	$ 0.2228
	LDAC Charge		LDACw	$ 0.0660	$ 0.0310
	Energy Charge	Charge for Therms over 1st	RATE2w	$ 0.2201	$ 0.2228
	Block Size	Cutoff for First Block	BLOCKw	-	-
	Cost of Gas	Cost of Gas Rate	COGw	$ 0.5825	$ 0.6203
	Summer	Charge for 1st Therms	RATE1s	$ 0.2201	$ 0.2228
	LDAC Charge		LDACs	$ 0.0660	$ 0.0310
	Energy Charge	Charge for Therms over 1st	RATE2s	$ 0.2201	$ 0.2228
	Block Size	Cutoff for First Block	BLOCKs	-	-
	Cost of Gas	Cost of Gas Rate	COGs	$ 0.5556	$ 0.4520
41	Customer Charge		CST	$ 55.68	$ 56.36
	Winter	Charge for 1st Therms	RATE1w	$ 0.4566	$ 0.4621
	LDAC Charge		LDACw	$ 0.0757	$ 0.0478
	Energy Charge	Charge for Therms over 1st	RATE2w	$ 0.3067	$ 0.3104
	Block Size	Cutoff for First Block	BLOCKw	100	100
	Cost of Gas	Cost of Gas Rate	COGw	$ 0.5817	$ 0.6190
	Summer	Charge for 1st Therms	RATE1s	$ 0.4566	$ 0.4621
	LDAC Charge		LDACs	$ 0.0757	$ 0.0478
	Energy Charge	Charge for Therms over 1st	RATE2s	$ 0.3067	$ 0.3104
	Block Size	Cutoff for First Block	BLOCKs	20	20
	Cost of Gas	Cost of Gas Rate	COGs	$ 0.5521	$ 0.4474
42	Customer Charge		CST	$ 167.06	$ 169.09
	Winter	Charge for 1st Therms	RATE1w	$ 0.4152	$ 0.4202
	LDAC Charge		LDACw	$ 0.0757	$ 0.0478
	Energy Charge	Charge for Therms over 1st	RATE2w	$ 0.2766	$ 0.2800
	Block Size	Cutoff for First Block	BLOCKw	1,000	1,000
	Cost of Gas	Cost of Gas Rate	COGw	$ 0.5817	$ 0.6190
	Summer	Charge for 1st Therms	RATE1s	$ 0.4152	$ 0.4202
	LDAC Charge		LDACs	$ 0.0757	$ 0.0478
	Energy Charge	Charge for Therms over 1st	RATE2s	$ 0.2766	$ 0.2800
	Block Size	Cutoff for First Block	BLOCKs	400	400
	Cost of Gas	Cost of Gas Rate	COGs	$ 0.5521	$ 0.4474

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Current Base Distribution Rates

43	Customer Charge		CST	$	716.95	$	725.66
	Winter	Charge for 1st Therms	RATE1w	$	0.2552	$	0.2583
	LDAC Charge		LDACw	$	0.0757	$	0.0478
	Energy Charge	Charge for Therms over 1st	RATE2w	$	0.2552	$	0.2583
	Block Size	Cutoff for First Block	BLOCKw		-		-
	Cost of Gas	Cost of Gas Rate	COGw	$	0.5817	$	0.6190
	Summer	Charge for 1st Therms	RATE1s	$	0.1167	$	0.1181
	LDAC Charge		LDACs	$	0.0757	$	0.0478
	Energy Charge	Charge for Therms over 1st	RATE2s	$	0.1167	$	0.1181
	Block Size	Cutoff for First Block	BLOCKs		-		-
	Cost of Gas	Cost of Gas Rate	COGs	$	0.5521	$	0.4474
51	Customer Charge		CST	$	55.68	$	56.36
	Winter	Charge for 1st Therms	RATE1w	$	0.2752	$	0.2785
	LDAC Charge		LDACw	$	0.0757	$	0.0478
	Energy Charge	Charge for Therms over 1st	RATE2w	$	0.1789	$	0.1811
	Block Size	Cutoff for First Block	BLOCKw		100		100
	Cost of Gas	Cost of Gas Rate	COGw	$	0.5870	$	0.6258
	Summer	Charge for 1st Therms	RATE1s	$	0.2752	$	0.2785
	LDAC Charge		LDACs	$	0.0757	$	0.0478
	Energy Charge	Charge for Therms over 1st	RATE2s	$	0.1789	$	0.1811
	Block Size	Cutoff for First Block	BLOCKs		100		100
	Cost of Gas	Cost of Gas Rate	COGs	$	0.5633	$	0.4591
52	Customer Charge		CST	$	167.06	$	169.09
	Winter	Charge for 1st Therms	RATE1w	$	0.2363	$	0.2392
	LDAC Charge		LDACw	$	0.0757	$	0.0478
	Energy Charge	Charge for Therms over 1st	RATE2w	$	0.1574	$	0.1593
	Block Size	Cutoff for First Block	BLOCKw		1,000		1,000
	Cost of Gas	Cost of Gas Rate	COGw	$	0.5870	$	0.6258
	Summer	Charge for 1st Therms	RATE1s	$	0.1712	$	0.1733
	LDAC Charge		LDACs	$	0.0757	$	0.0478
	Energy Charge	Charge for Therms over 1st	RATE2s	$	0.0973	$	0.0985
	Block Size	Cutoff for First Block	BLOCKs		1,000		1,000
	Cost of Gas	Cost of Gas Rate	COGs	$	0.5633	$	0.4591
53	Customer Charge		CST	$	737.84	$	746.81
	Winter	Charge for 1st Therms	RATE1w	$	0.1652	$	0.1672
	LDAC Charge		LDACw	$	0.0757	$	0.0478
	Energy Charge	Charge for Therms over 1st	RATE2w	$	0.1652	$	0.1672
	Block Size	Cutoff for First Block	BLOCKw		-		-
	Cost of Gas	Cost of Gas Rate	COGw	$	0.5870	$	0.6258
	Summer	Charge for 1st Therms	RATE1s	$	0.0792	$	0.0802
	LDAC Charge		LDACs	$	0.0757	$	0.0478
	Energy Charge	Charge for Therms over 1st	RATE2s	$	0.0792	$	0.0802
	Block Size	Cutoff for First Block	BLOCKs		-		-
	Cost of Gas	Cost of Gas Rate	COGs	$	0.5633	$	0.4591
54	Customer Charge		CST	$	737.84	$	746.81
	Winter	Charge for 1st Therms	RATE1w	$	0.0630	$	0.0638
	LDAC Charge		LDACw	$	0.0757	$	0.0478
	Energy Charge	Charge for Therms over 1st	RATE2w	$	0.0630	$	0.0638
	Block Size	Cutoff for First Block	BLOCKw		-		-
	Cost of Gas	Cost of Gas Rate	COGw	$	0.5870	$	0.6258
	Summer	Charge for 1st Therms	RATE1s	$	0.0342	$	0.0346
	LDAC Charge		LDACs	$	0.0757	$	0.0478
	Energy Charge	Charge for Therms over 1st	RATE2s	$	0.0342	$	0.0346
	Block Size	Cutoff for First Block	BLOCKs		-		-
	Cost of Gas	Cost of Gas Rate	COGs	$	0.5633	$	0.4591

Line		Residential							Commercial and Industrial: Low Load Factor						Commercial and Industrial: High Load Factor									
		Non Heat R-1	MEP Non Heat R-5	Heat R-3	Low Income Heat R-4	MEP Low Income Heat R-7	Combined, R-3, R-4, R-7 Combined	MEP Heat R-6	Low Annual G-41	MEP Low Annual G-44	Medium Annual G-42	MEP Medium Annual G-45	High Annual G-43	MEP High Annual G-46	Low Annual G-51	MEP Low Annual G-55	Medium Annual G-52	MEP Medium Annual G-56	High Annual G-53	MEP High Annual G-57	High Annual G-54	MEP High Annual G-58	Company Total	Explanation
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)	(T)	(U)	(V)	(W)	(N)
1	**A. Proforma Normalized Calendar Month Revenues at Current Rates**																							
2	Company Total Pro Forma Base Revenues (R-4 at R-3 rates)																							
3	Company Total Base Revenues (R-4 at R-3 rates)																							
4	Winter Customer Revenues	$310,723	$7,395	$6,531,147	$216,170	$141	$6,747,458	$21,645	$3,152,138	$685	$1,399,070	$5,241	$248,304	$0	$433,920	$1,243	$381,606	$0	$158,807	$0	$123,612	$5,787	$12,997,632	Company Records
5	Winter Volumetric Revenues	$178,203	$5,653	$26,434,500	$843,579	$336	$27,278,416	$81,328	$7,335,304	$1,531	$9,017,453	$31,654	$2,180,030	$0	$500,416	$722	$1,086,670	$0	$1,034,577	$0	$509,168	$25,207	$49,266,333	Company Records
6	Total Winter Base Revenues	$488,926	$13,048	$32,965,647	$1,059,748	$478	$34,025,873	$102,972	$10,487,442	$2,217	$10,416,523	$36,896	$2,428,334	$0	$934,336	$1,965	$1,468,276	$0	$1,193,384	$0	$632,780	$30,995	$62,263,966	Company Records
7	Summer Customer Revenues	$315,683	$6,271	$6,574,439	$203,285	$86	$6,777,811	$17,079	$3,058,927	$430	$1,407,088	$4,706	$241,301	$0	$431,019	$946	$389,631	$0	$164,292	$0	$125,211	$3,517	$12,943,910	Company Records
8	Summer Volumetric Revenues	$90,950	$1,365	$5,853,191	$179,839	$60	$6,033,090	$13,550	$1,145,396	$200	$2,038,762	$7,521	$310,278	$0	$322,034	$95	$505,702	$0	$345,428	$0	$347,570	$6,062	$11,168,002	Company Records
9	Total Summer Base Revenues	$406,633	$7,635	$12,427,630	$383,125	$146	$12,810,901	$30,629	$4,204,323	$629	$3,445,850	$12,226	$551,580	$0	$753,053	$1,041	$895,333	$0	$509,720	$0	$472,781	$9,579	$24,111,912	Company Records
10	Company Total Base Revenues	$895,559	$20,683	$45,393,278	$1,442,873	$623	$46,836,774	$133,601	$14,691,765	$2,846	$13,862,372	$49,122	$2,979,914	$0	$1,687,389	$3,006	$2,363,609	$0	$1,703,104	$0	$1,105,561	$40,574	$86,375,878	Line 9+ Line 6
11	Revenue Shortfall R-4 revenues at R-4, R-3 rates				$2,164,470	$935																	$2,165,405	
12	R-4 Shortfall Recovery Rate																						$0.0121	
13	Recovery of R-4 Revenue Shortfall	$8,739	$175	$712,859	$56,488	$17	$769,347	$1,611	$304,347	$47	$423,620	$1,139	$136,061	$0	$49,135	$37	$115,141	$0	$129,041	$0	$221,553	$5,393	$2,934,752	
14	**B. Billing Determinants**																							
15	Customer Bill Count																							
16	Winter Customers	20,686	379	434,795	35,989	18	470,802	1,108	56,608	9	8,375	24	346	0	7,793	17	2,284	0	215	0	168	6	568,820	Company Records
17	Summer Customers	21,016	321	437,677	33,844	11	471,532	875	54,934	6	8,423	22	337	0	7,741	13	2,332	0	223	0	170	4	567,946	Company Records
18	Total Customers	41,701	700	872,471	69,834	29	942,334	1,983	111,542	15	16,797	46	683	0	15,533	30	4,617	0	438	0	337	10	1,136,766	Line 17+ Line 16
19	Delivery Quantities (Weather Normalized Calendarized)																							
20	Total Winter Quantities	476,330	11,622	48,047,649	3,833,246	1,176	51,882,071	113,713	21,653,240	3,449	28,672,924	76,515	8,542,460	0	2,505,093	2,789	5,799,827	0	6,264,368	0	8,083,034	307,784	134,395,219	Company Records
21	Head Block Winter Quantities	476,330	11,622	48,047,649	3,833,246	1,176	51,882,071	113,713	4,633,567	803	7,838,976	22,972	8,542,460	0	543,065	590	2,201,892	0	6,264,368	0	8,083,034	307,784	90,923,246	Company Records
22	Tail Block Winter Quantities	0	0	0	0	0	0	0	17,019,673	2,646	20,833,948	53,543	0	0	1,962,028	2,200	3,597,935	0	0	0	0	0	43,471,973	Company Records
23	Total Summer Quantities	243,105	2,806	10,638,827	817,195	209	11,456,230	18,945	3,402,310	447	6,201,840	17,273	2,658,833	0	1,539,988	290	3,679,214	0	4,358,990	0	10,156,398	136,226	43,872,896	Company Records
24	Head Block Summer Quantities	243,105	2,806	10,638,827	817,195	209	11,456,230	18,945	680,170	110	2,332,772	7,265	2,658,833	0	483,445	217	1,998,586	0	4,358,990	0	10,156,398	136,226	34,534,099	Company Records
25	Tail Block Summer Quantities	0	0	0	0	0	0	0	2,722,140	337	3,869,068	10,009	0	0	1,056,543	73	1,680,627	0	0	0	0	0	9,338,798	Company Records
26	Total Quantities	719,435	14,428	58,686,476	4,650,441	1,384	63,338,301	132,658	25,055,550	3,896	34,874,764	93,788	11,201,294	0	4,045,082	3,080	9,479,040	0	10,623,358	0	18,239,432	444,010	178,268,115	Line 23+ Line 20
27	**C. CLASS REVENUE TARGETS**																							
28	Cost Study Results																							
29	Total Delivery Service Marginal Costs																							
30	Total Customer-related Marginal Costs	$2,182,788					$53,434,457		$6,735,272		$1,741,292		$147,660		$2,402,406		$481,082		$202,286		$81,721		$67,408,964	Marginal Annual Revenues from MCS
31	Total Capacity-related Marginal Costs	$121,122					$15,107,204		$6,600,491		$7,857,533		$2,404,312		$495,595		$1,084,820		$1,194,980		$827,387		$35,693,444	Marginal Annual Revenues from MCS
32	Total Class Marginal Costs	$2,303,911					$68,541,661		$13,335,763		$9,598,824		$2,551,972		$2,898,001		$1,565,902		$1,397,266		$909,108		**$103,102,407**	Line 30 + Line 31
33																								
34	Delivery Service Unit Costs - Marginal Unit Costs	3.202					1.082		0.532		0.275		0.228		0.716		0.165		0.132		0.050			Line 32/ Line 26
35	Customer Costs	$57.66					$56.7806		$59.90		$103.94		$222.69		$169.15		$106.24		$450.16		$238.51			Marginal Unit Costs from MCS
36	Capacity-Related Costs	$0.1700					$0.2377		$0.2555		$0.2331		$0.2135		$0.1268		$0.1162		$0.1111		$0.0451			Marginal Unit Costs from MCS
37																								
38	Delivery Revenue Requirement																						95,466,930	Functional Cost of Service Study
39	Other Revenue																						1,157,325	Revenue Requirement
40																								
41	Base Rate Revenue Requirement																						94,309,605	Line 38 - Line 39 - Line 40
42	Current Revenue RLIAP shortfall																						2,165,405	Line 11
43	Base Rate Revenue Requirement Plus Current RLIAP																						96,475,009	Line 41 + Line 42
44	Step Adjustment																						3,030,911	Revenue Requirement
45	Total Base Rate Revenue Requirement Plus RLIAP and Step Adj.																						99,505,920	Line 43 + Line 44
46	Difference: Revenue Requirement - Total Marginal Costs																						(3,596,487)	Line 45 - Line 32
47	Equi-proportional Adjustment Factor																						**-3.49%**	Line 46 / Line 32
48	Equi-proportional Adjustment Customer	($76,141)					($1,863,937)		($234,944)		($60,741)		($5,151)		($83,802)		($16,781)		($7,056)		($2,851)		($2,351,405)	Line 30 * Line 47
49	Equi-proportional Adjustment Capacity-Related	($4,225)					($526,980)		($230,243)		($274,092)		($83,869)		($17,288)		($37,841)		($41,684)		($28,861)		($1,245,083)	Line 31 * Line 47
50	Marginal Cost Constrained to Allowed Revenues	($80,367)					($2,390,916)		($465,187)		($334,833)		($89,020)		($101,090)		($54,623)		($48,740)		($31,712)		($3,596,487)	Line 49 + Line 48
51																								
52	Delivery Service Revenue - Equi-Proportional Revenue Requirement																							
53	Total Customer Marginal Costs	$2,106,647					$51,570,520		$6,500,328		$1,680,551		$142,509		$2,318,604		$464,301		$195,230		$78,870		$65,057,559	Line 30 + Line 48
54	Total Capacity-Related Marginal Costs	$116,897					$14,580,224		$6,370,248		$7,583,441		$2,320,443		$478,307		$1,046,979		$1,153,296		$798,525		$34,448,361	Line 31 + Line 49
55	Total	$2,223,544					$66,150,745		$12,870,576		$9,263,992		$2,462,952		$2,796,911		$1,511,279		$1,348,525		$877,396		**$99,505,920**	Line 53 + Line 54
56																								
57	Delivery Service Unit Costs - Equi-Proportional Revenue Requirement																							
58	Customer Costs	$55.65					$54.80		$57.81		$100.31		$214.92		$163.25		$102.53		$434.45		$230.19			Line 35 * Line 47
59	Distribution Volumetric Costs	$0.1641					$0.2294		$0.247		$0.225		$0.206		$0.122		$0.112		$0.107		$0.044			Line 36 * Line 47
60	Development of Class Revenue Target																							
61	Proforma Total Revenues (Base Revenues at Current Rates)																							
62	Base Proforma Revenues																							
63	Winter Base Revenues	$488,926	$13,048				$34,025,873	$102,972	$10,487,442	$2,217	$10,416,523	$36,896	$2,428,334	$0	$934,336	$1,965	$1,468,276	$0	$1,193,384	$0	$632,780	$30,995	$62,263,966	Line 6
64	Summer Base Revenues	$406,633	$7,635				$12,810,901	$30,629	$4,204,323	$629	$3,445,850	$12,226	$551,580	$0	$753,053	$1,041	$895,333	$0	$509,720	$0	$472,781	$9,579	$24,111,912	Line 9
65	Total Proforma Revenues	$895,559	$20,683				$46,836,774	$133,601	$14,691,765	$2,846	$13,862,372	$49,122	$2,979,914	$0	$1,687,389	$3,006	$2,363,609	$0	$1,703,104	$0	$1,105,561	$40,574	$86,375,878	Line 64 + Line 63
66	Proforma Revenues - Base plus MEP	$916,241					$46,970,375		$14,694,610		$13,911,494		$2,979,914		$1,690,395		$2,363,609		$1,703,104		$1,146,135			
67	Proforma base Revenues																							
68	Total Potential increase (decrease) in Base	$1,307,303					$19,180,370		($1,824,034)		($4,647,502)		($516,962)		$1,106,516		($852,330)		($354,579)		($268,739)		$13,130,043	Line 55 - Line 65
69	Total Potential Increase (Line 68) as a % of (Current Base Revenues)	145.98%					40.84%		-12.41%		-33.53%		-17.35%		65.58%		-36.06%		-20.82%		-24.31%		15.20%	Line 68 / Line 65
70																								
71	System Average Rate Increase	15.20%					15.20%		15.20%		15.20%		15.20%		15.20%		15.20%		15.20%		15.20%			Line 69, Column (M)
72	BASE REVENUE TARGET	$1,055,520					$54,110,367		$16,928,346		$16,026,188		$3,432,892		$1,947,352		$2,722,902		$1,961,994		$1,320,359		$99,505,920	
73																								

Line		Residential							Commercial and Industrial: Low Load Factor					
	(A)	Non Heat R-1 (B)	MEP Non Heat R-5 (C)	Heat R-3 (D)	Low Income Heat R-4 (E)	MEP Low Income Heat R-7 (F)	Combined, R-3, R-4, R-7 Combined (G)	MEP Heat R-6 (H)	Low Annual G-41 (I)	MEP Low Annual G-44 (J)	Medium Annual G-42 (K)	MEP Medium Annual G-45 (L)	High Annual G-43 (M)	MEP High Annual G-46 (N)
74	**D. RATE DESIGN**													
75	Test Year Customer Charge	$15.02	$19.53				$15.02	$19.53	$55.68	$72.39	$167.06	$217.18	$716.95	$932.04
76	Proposed % increase - equal to system average i	15.20%	15.20%				15.20%	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%
77	Proposed Customer Charge	**$17.30**	**$22.50**				**$17.30**	**$22.50**	**$64.15**	**$83.39**	**$192.46**	**$250.19**	**$825.93**	**$1,073.72**
78														
79	Customer Charge Revenue, Proposed Customer Charge													
80	Winter Period Customer Revenues	$357,956	$8,519				$7,772,742	$24,935	$3,631,296	$789	$1,611,743	$6,038	$286,049	$0
81	Summer Period Customer Revenues	$363,670	$7,224				$7,807,642	$19,675	$3,523,916	$495	$1,620,980	$5,421	$277,982	$0
82	Base Rate Total Customer Charge revenue	$721,626	$15,742				$15,580,384	$44,610	$7,155,212	$1,284	$3,232,724	$11,459	$564,031	$0
83	Total Customer Charge revenue (including MEP)	$737,368					$15,624,994		$7,156,496		$3,244,182		$564,031	
84	Remaining Revenues	$318,152					$38,485,372		$9,771,850		$12,782,005		$2,868,862	
85	Total Volumetric Revenue Requirement	$318,152					$38,485,372		$9,771,850		$12,782,005		$2,868,862	
86	Current Volumetric Rates as Filed													
87	Winter Period Variable Rates													
88	Head Block	$0.3741	$0.4864	$0.5502	$0.22	$0.2861		$0.7152	$0.4566	$0.5936	$0.4152	$0.5398	$0.2552	$0.3318
89	Tail Block	$0.3741	$0.4864	$0.5502	$0.2201	$0.2861		$0.7152	$0.3067	$0.3987	$0.2766	$0.3596	$0.2552	$0.3318
90	Summer Period Variable Rates													
91	Head Block	$0.3741	$0.4864	$0.5502	$0.2201	$0.2861		$0.7152	$0.4566	$0.5936	$0.4152	$0.5398	$0.1167	$0.1517
92	Tail Block	$0.3741	$0.4864	$0.5502	$0.2201	$0.2861		$0.7152	$0.3067	$0.3987	$0.2766	$0.3596	$0.1167	$0.1517
93														
94	Target Percent Increase for Volumetric Rates	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%
95														
96	Unadjusted heating rate (R-3)						$0.6338							
97	Ratio of Head Block to Average Annual Rate						100%							
98	Ratio of Tail Block to Average Annual Rate						100%							
99														
100	Base Rates as adjusted													
101	Monthly Customer Charge	$17.30	$22.50	$17.30	$6.92	$9.00		$22.50	$64.15	$83.39	$192.46	$250.19	$825.93	$1,073.72
102	Winter Period Variable Rates													
103	Head Block	$0.4310	$0.5603	$0.6338	$0.25	$0.33		$0.8240	$0.5260	$0.6838	$0.4783	$0.6219	$0.2940	$0.3822
104	Tail Block	$0.4310	$0.5603	$0.6338	$0.25	$0.33		$0.8240	$0.3533	$0.4593	$0.3186	$0.4143	$0.2940	$0.3822
105	Summer Period Variable Rates													
106	Head Block	$0.4310	$0.5603	$0.6338	$0.2535	$0.33		$0.8240	$0.5260	$0.6838	$0.4783	$0.6219	$0.1344	$0.1748
107	Tail Block	$0.4310	$0.5603	$0.6338	$0.2535	$0.3296		$0.8240	$0.3533	$0.4593	$0.3186	$0.4143	$0.1344	$0.1748
108	Low Income Discount and RLIAP Calculation													
109	Base Revenues before Low Income Discount													
110	Customer Revenue				$1,208,349	$504								
111	Winter Period Variable Rates													
112	Head Block				$2,429,599	$745								
113	Tail Block				$0	$0								
114	Summer Period Variable Rates													
115	Head Block				$517,957	$132								
116	Tail Block				$0	$0								
117	Total Base Revenue before Low Income Discount				$4,155,904	$1,381								
118														
119	Low Income Discount % of Distribution Rates				**60.00%**	**48.00%**								
120	Total Low Income Revenue Shortfall				$2,493,542	$663								
121	Low Income RLIAP ($/therm)													
122	RLIAP Revenues	$10,066	$202	$821,101	$65,066	$19		$1,856	$350,560	$55	$487,944	$1,312	$156,721	$0
123	Increase in RLIAP Rate													
124	Base Rates Revenue Proof													
125														
126	Customer Charge Revenues													
127	Winter	$357,956	$8,519	$7,523,336	$249,093	$163		$24,935	$3,631,296	$789	$1,611,743	$6,038	$286,049	$0
128	Summer	$363,670	$7,224	$7,573,205	$234,246	$99		$19,675	$3,523,916	$495	$1,620,980	$5,421	$277,982	$0
129	Volumetric Revenues													
130	Winter	$205,292	$6,512	$30,453,694	$971,840	$387		$93,700	$8,450,347	$1,764	$10,388,200	$36,466	$2,511,418	$0
131	Summer	$104,775	$1,572	$6,743,131	$207,183	$69		$15,611	$1,319,508	$230	$2,348,675	$8,664	$357,444	$0
132														
133	Total Base Revenues	$1,031,693	$23,827	$52,293,366	$1,662,362	$718		$153,921	$16,925,067	$3,278	$15,969,599	$56,589	$3,432,892	$0
134	Total Base plus RLIAP Revenues	$1,041,759	$24,029	$53,114,467	$1,727,427	$737		$155,777	$17,275,628	$3,333	$16,457,543	$57,901	$3,589,613	$0
135														
136														
137	Check													
138	Calculated Proposed Rate Revenue	$1,055,520					$54,110,366		$16,928,346		$16,026,188		$3,432,892	
139	Check	$0					$0		$0		$0		$0	

Line		Commercial and Industrial: High Load Factor									
	(A)	Low Annual G-51 (O)	MEP Low Annual G-55 (P)	Medium Annual G-52 (Q)	MEP Medium Annual G-56 (R)	High Annual G-53 (S)	MEP High Annual G-57 (T)	High Annual G-54 (U)	MEP High Annual G-58 (V)	Company Total (W)	Explanation (N)
74	**D. RATE DESIGN**										
75	Test Year Customer Charge	$55.68	$72.39	$167.06	$217.18	$737.84	$959.19	$737.84	$959.19		Company tariffs
76	Proposed % increase - equal to system average i	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%		Line 71
77	Proposed Customer Charge	**$64.15**	**$83.39**	**$192.46**	**$250.19**	**$850.00**	**$1,104.99**	**$850.00**	**$1,105.00**		(Line 75) x (1 + Line 76)
78											
79	Customer Charge Revenue, Proposed Customer Charge										
80	Winter Period Customer Revenues	$499,880	$1,432	$439,614	$0	$182,947	$0	$142,402	$6,667	$7,160,146	Line 77 * Line 16
81	Summer Period Customer Revenues	$496,538	$1,090	$448,859	$0	$189,266	$0	$144,244	$4,052	$7,072,461	Line 77 * Line 17
82	Base Rate Total Customer Charge revenue	$996,419	$2,521	$888,473	$0	$372,213	$0	$286,646	$10,718	$14,232,607	Line 80 + Line 81
83	Total Customer Charge revenue (including MEP)	$998,940		$888,473		$372,213		$297,365			
84	Remaining Revenues	$948,412		$1,834,430		$1,589,781		$1,022,994		$69,621,858	Line 72 - Line 82
85	Total Volumetric Revenue Requirement	$948,412		$1,834,430		$1,589,781		$1,022,994			Line 84
86	Current Volumetric Rates as Filed										
87	Winter Period Variable Rates										
88	Head Block	$0.2752	$0.3577	$0.2363	$0.3072	$0.1652	$0.2147	$0.0630	$0.0819		
89	Tail Block	$0.1789	$0.2325	$0.1574	$0.2046	$0.1652	$0.2147	$0.0630	$0.0819		
90	Summer Period Variable Rates										
91	Head Block	$0.2752	$0.3577	$0.1712	$0.2226	$0.0792	$0.1030	$0.0342	$0.0445		Company tariffs
92	Tail Block	$0.1789	$0.2325	$0.0973	$0.1265	$0.0792	$0.1030	$0.0342	$0.0445		Company tariffs
93											
94	Target Percent Increase for Volumetric Rates	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%	15.20%		Line 72
95											
96	Unadjusted heating rate (R-3)										Goal seek
97	Ratio of Head Block to Average Annual Rate										Line 96
98	Ratio of Tail Block to Average Annual Rate										Line 97
99											
100	Base Rates as adjusted										
101	Monthly Customer Charge	$64.15	$83.39	$192.46	$250.19	$850.00	$1,104.99	$850.00	$1,105.00		Line 77
102	Winter Period Variable Rates										
103	Head Block	$0.3170	$0.4121	$0.2722	$0.3539	$0.1903	$0.2473	$0.0726	$0.0943		Line 97 or Line 88 x (1 + Line 94)
104	Tail Block	$0.2061	$0.2678	$0.1813	$0.2357	$0.1903	$0.2473	$0.0726	$0.0943		Line 98 or Line 89 x (1 + Line 94)
105	Summer Period Variable Rates										
106	Head Block	$0.3170	$0.4121	$0.1972	$0.2564	$0.0913	$0.1187	$0.0394	$0.0513		Line 97 or Line 91 x (1 + Line 94)
107	Tail Block	$0.2061	$0.2678	$0.1121	$0.1457	$0.0913	$0.1187	$0.0394	$0.0513		Line 98 or Line 92 x (1 + Line 94)
108	Low Income Discount and RLIAP Calculation										
109	Base Revenues before Low Income Discount										
110	Customer Revenue										Line 101 * Line 18
111	Winter Period Variable Rates										
112	Head Block										Line 103 * Line 21
113	Tail Block										Line 104 * Line 22
114	Summer Period Variable Rates										
115	Head Block										Line 106 * Line 24
116	Tail Block										Line 107 * Line 25
117	Total Base Revenue before Low Income Discount									$4,157,285	∑ Line 110 to Line 116
118											
119	Low Income Discount % of Distribution Rates										RLIAP Discount
120	Total Low Income Revenue Shortfall									**$2,494,205**	Line 119 x Line 117
121	Low Income RLIAP ($/therm)									**$0.0140**	Line 120 / Line 26
122	RLIAP Revenues	$56,596	$43	$132,624	$0	$148,635	$0	$255,194	$6,212	$2,494,205	Line 26 * Line 121 Col (W)
123	Increase in RLIAP Rate									**$0.0018**	Line 121 - Line 12
124	Base Rates Revenue Proof										
125											
126	Customer Charge Revenues										
127	Winter	$499,880	$1,432	$439,614	$0	$182,947	$0	$142,402	$6,667	$14,972,858	Line 16 * Line 101
128	Summer	$496,538	$1,090	$448,859	$0	$189,266	$0	$144,244	$4,052	$14,910,962	Line 17 * Line 101
129	Volumetric Revenues										
130	Winter	$576,484	$832	$1,251,855	$0	$1,191,844	$0	$586,567	$29,039	$56,756,244	Line 103 x Line 21 + Line 22 x Line 104
131	Summer	$370,987	$109	$582,574	$0	$397,937	$0	$400,404	$6,984	$12,865,856	Line 106 x Line 24 + Line 25 x Line 107
132											
133	Total Base Revenues	$1,943,890	$3,462	$2,722,902	$0	$1,961,994	$0	$1,273,618	$46,741	$99,505,920	∑ Line 127 to Line 131
134	Total Base plus RLIAP Revenues	$2,000,486	$3,506	$2,855,527	$0	$2,110,629	$0	$1,528,811	$52,954	$102,000,125	Line 122 + Line 133
135											
136											
137	Check										
138	Calculated Proposed Rate Revenue	$1,947,352		$2,722,902		$1,961,994		$1,320,359		$99,505,920	
139	Check	$0		$0		$0		$0		$0	

		R4	R7
1	Winter Customers	35,989	18
2	Summer Customers	33,844	11
3	Undiscounted Customer Charge	$15.02	$19.53
4	Undiscounted Customer Revenue	$1,048,904	$568
5	Discount	60%	60%
6	Total Customer Charge Discount	$629,342	$341
7	Total Therms	4,650,441	1,384
8	Undiscounted Rate	$0.5502	$0.7152
9	Undiscounted Volume Revenue	$2,558,545	$990
10	Discount	60%	60%
11	Total Volume Discount	$1,535,127	$594
12	**Total Discount Value**	**$2,164,470**	**$935**

SALES AND TRANSPORT DATA

CUSTOMER COMPONENT

EnergyNorth Natural Gas Inc

2018-19 Customers (Equivalent Bills)

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19	S&T Total	S&T Summer	S&T Winter
R-1	3,537	3,542	3,440	3,550	3,437	3,544	3,545	3,197	3,541	3,422	3,535	3,411	41,701	21,016	20,686
R-3	73,274	73,142	71,034	73,957	71,602	74,303	74,485	67,420	74,747	72,239	74,437	71,832	872,471	437,677	434,795
R-4	5,776	5,674	5,283	5,483	5,945	6,202	6,206	5,597	6,167	5,872	5,953	5,676	69,834	33,844	35,989
R-5	37	43	47	53	55	63	66	60	67	67	70	70	700	321	379
R-6	86	94	100	125	146	180	191	178	202	212	233	237	1,983	875	1,108
R-7	1	1	1	2	3	3	3	3	3	3	3	3	29	11	18
Total Resid.	**82,711**	**82,498**	**79,905**	**83,170**	**81,187**	**84,295**	**84,496**	**76,455**	**84,727**	**81,814**	**84,231**	**81,229**	**986,718**	**493,743**	**492,975**
G-41	9,125	9,104	8,815	9,325	9,278	9,682	9,714	8,802	9,749	9,383	9,524	9,041	111,542	54,934	56,608
G-42	1,450	1,412	1,353	1,415	1,384	1,435	1,437	1,299	1,438	1,382	1,422	1,371	16,797	8,423	8,375
G-43	55	56	54	57	57	60	60	54	59	56	58	56	683	337	346
G-44	-	-	1	1	1	1	1	2	2	2	2	2	15	6	9
G-45	2	3	4	4	4	4	4	4	4	4	4	4	46	22	24
G-46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G-51	1,260	1,296	1,264	1,313	1,289	1,336	1,337	1,206	1,336	1,289	1,325	1,282	15,533	7,741	7,793
G-52	396	391	376	389	378	391	390	352	392	381	396	384	4,617	2,332	2,284
G-53	38	38	37	38	37	38	37	34	35	34	36	35	438	223	215
G-54	29	29	28	29	28	29	28	26	29	27	28	27	337	170	168
G-55	1	2	2	2	2	3	3	3	3	3	3	3	30	13	17
G-56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G-57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G-58	-	-	1	1	1	1	1	1	1	1	1	1	10	4	6
G-63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total C/I	**12,357**	**12,331**	**11,935**	**12,575**	**12,458**	**12,980**	**13,013**	**11,783**	**13,048**	**12,563**	**12,799**	**12,206**	**150,048**	**74,203**	**75,845**
Total All	**95,068**	**94,828**	**91,839**	**95,745**	**93,645**	**97,275**	**97,509**	**88,238**	**97,776**	**94,377**	**97,030**	**93,435**	**1,136,766**	**567,946**	**568,820**

11/1/2018 Base Rate Customer Charge

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19
R-1	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02
R-3	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02	$ 15.02
R-4	$ 6.01	$ 6.01	$ 6.01	$ 6.01	$ 6.01	$ 6.01	$ 6.01	$ 6.01	$ 6.01	$ 6.01	$ 6.01	$ 6.01
R-5	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53
R-6	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53	$ 19.53
R-7	$ 7.81	$ 7.81	$ 7.81	$ 7.81	$ 7.81	$ 7.81	$ 7.81	$ 7.81	$ 7.81	$ 7.81	$ 7.81	$ 7.81
G-41	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68
G-42	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06
G-43	$ 716.95	$ 716.95	$ 716.95	$ 716.95	$ 716.95	$ 716.95	$ 716.95	$ 716.95	$ 716.95	$ 716.95	$ 716.95	$ 716.95
G-44	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39
G-45	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18
G-46	$ 932.04	$ 932.04	$ 932.04	$ 932.04	$ 932.04	$ 932.04	$ 932.04	$ 932.04	$ 932.04	$ 932.04	$ 932.04	$ 932.04
G-51	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68	$ 55.68
G-52	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06	$ 167.06
G-53	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84
G-54	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84	$ 737.84
G-55	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39	$ 72.39
G-56	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18	$ 217.18
G-57	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19
G-58	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19	$ 959.19
G-63	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

2018-19 Customer Revenue Adjusted

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19	S&T Total	S&T Summer	S&T Winter
R-1	$ 53,130	$ 53,212	$ 51,668	$ 53,332	$ 51,626	$ 53,230	$ 53,244	$ 48,027	$ 53,192	$ 51,403	$ 53,100	$ 51,240	$ 626,406	$ 315,683	$ 310,723
R-3	$ 1,100,666	$ 1,098,688	$ 1,067,018	$ 1,110,926	$ 1,075,544	$ 1,116,120	$ 1,118,849	$ 1,012,733	$ 1,122,785	$ 1,085,115	$ 1,118,134	$ 1,079,008	$ 13,105,586	$ 6,574,439	$ 6,531,147
R-4	$ 34,691	$ 34,083	$ 31,731	$ 32,931	$ 35,707	$ 37,252	$ 37,279	$ 33,616	$ 37,043	$ 35,272	$ 35,757	$ 34,093	$ 419,455	$ 203,285	$ 216,170
R-5	$ 727	$ 843	$ 921	$ 1,040	$ 1,074	$ 1,239	$ 1,291	$ 1,176	$ 1,313	$ 1,301	$ 1,375	$ 1,366	$ 13,665	$ 6,271	$ 7,395
R-6	$ 1,680	$ 1,844	$ 1,955	$ 2,437	$ 2,846	$ 3,507	$ 3,737	$ 3,478	$ 3,946	$ 4,131	$ 4,543	$ 4,620	$ 38,724	$ 17,079	$ 21,645
R-7	$ 8	$ 8	$ 8	$ 14	$ 23	$ 24	$ 24	$ 22	$ 24	$ 23	$ 24	$ 23	$ 227	$ 86	$ 141
Total Resid.	**$ 1,190,902**	**$ 1,188,677**	**$ 1,153,300**	**$ 1,200,680**	**$ 1,166,820**	**$ 1,211,373**	**$ 1,214,424**	**$ 1,099,053**	**$ 1,218,304**	**$ 1,177,247**	**$ 1,212,933**	**$ 1,170,350**	**$ 14,204,063**	**$ 7,116,843**	**$ 7,087,220**
G-41	$ 508,130	$ 506,946	$ 490,827	$ 519,264	$ 516,648	$ 539,139	$ 540,912	$ 490,121	$ 542,845	$ 522,473	$ 530,303	$ 503,457	$ 6,211,065	$ 3,058,927	$ 3,152,138
G-42	$ 242,184	$ 235,807	$ 226,017	$ 236,382	$ 231,164	$ 239,728	$ 240,058	$ 217,055	$ 240,261	$ 230,804	$ 237,627	$ 229,071	$ 2,806,158	$ 1,407,088	$ 1,399,070
G-43	$ 39,456	$ 40,030	$ 38,978	$ 41,153	$ 40,556	$ 43,304	$ 42,969	$ 38,811	$ 42,396	$ 40,269	$ 41,488	$ 40,197	$ 489,606	$ 241,301	$ 248,304
G-44	$ -	$ -	$ 60	$ 75	$ 72	$ 75	$ 109	$ 135	$ 150	$ 145	$ 150	$ 145	$ 1,115	$ 430	$ 685
G-45	$ 449	$ 724	$ 869	$ 898	$ 869	$ 898	$ 898	$ 811	$ 898	$ 869	$ 898	$ 869	$ 9,947	$ 4,706	$ 5,241
G-46	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-51	$ 70,187	$ 72,163	$ 70,406	$ 73,123	$ 71,755	$ 74,391	$ 74,445	$ 67,175	$ 74,375	$ 71,778	$ 73,764	$ 71,375	$ 864,939	$ 431,019	$ 433,920
G-52	$ 66,230	$ 65,298	$ 62,815	$ 65,003	$ 63,104	$ 65,238	$ 65,181	$ 58,861	$ 65,493	$ 63,728	$ 66,163	$ 64,122	$ 771,237	$ 389,631	$ 381,606
G-53	$ 28,210	$ 28,210	$ 27,325	$ 28,210	$ 27,300	$ 27,718	$ 27,447	$ 24,791	$ 26,095	$ 25,455	$ 26,587	$ 25,751	$ 323,098	$ 164,292	$ 158,807
G-54	$ 21,348	$ 21,348	$ 20,659	$ 21,348	$ 20,659	$ 21,348	$ 20,946	$ 19,266	$ 21,348	$ 20,044	$ 20,586	$ 19,922	$ 248,823	$ 125,211	$ 123,612
G-55	$ 75	$ 135	$ 145	$ 150	$ 150	$ 224	$ 224	$ 203	$ 224	$ 217	$ 224	$ 217	$ 2,189	$ 946	$ 1,243
G-56	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-57	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-58	$ -	$ -	$ 576	$ 991	$ 959	$ 991	$ 991	$ 895	$ 991	$ 959	$ 991	$ 959	$ 9,304	$ 3,517	$ 5,787
G-63	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total C/I	**$ 976,269**	**$ 970,660**	**$ 938,677**	**$ 986,597**	**$ 973,236**	**$ 1,013,055**	**$ 1,014,181**	**$ 918,124**	**$ 1,015,076**	**$ 976,741**	**$ 998,780**	**$ 956,084**	**$ 11,737,479**	**$ 5,827,067**	**$ 5,910,412**
Total All	**$ 2,167,171**	**$ 2,159,338**	**$ 2,091,977**	**$ 2,187,277**	**$ 2,140,056**	**$ 2,224,427**	**$ 2,228,605**	**$ 2,017,176**	**$ 2,233,379**	**$ 2,153,988**	**$ 2,211,713**	**$ 2,126,434**	**$ 25,941,543**	**$ 12,943,910**	**$ 12,997,632**

ENERGY COMPONENT

HEADBLOCK

2018-19 Calendar BF Volume Headblock Normal

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19	S&T Total	S&T Summer	S&T Winter
R-1	32,119	32,588	34,436	53,859	65,202	85,605	96,945	83,454	81,327	63,796	51,130	38,972	719,435	243,105	476,330
R-3	989,971	988,707	1,212,191	3,705,805	6,208,430	9,253,006	10,879,299	9,332,011	7,878,713	4,496,190	2,459,935	1,282,217	58,686,476	10,638,827	48,047,649
R-4	79,972	78,596	89,880	269,414	491,607	734,802	873,420	741,189	632,088	360,141	194,840	104,494	4,650,441	817,195	3,833,246
R-5	171	177	297	881	1,589	2,217	2,418	2,166	1,977	1,255	802	477	14,428	2,806	11,622
R-6	751	811	1,378	5,636	13,212	20,567	24,771	22,729	20,328	12,107	7,073	3,298	132,658	18,945	113,713
R-7	12	12	13	69	165	218	236	219	205	132	74	29	1,384	209	1,176
Total Resid.	**1,102,997**	**1,100,890**	**1,338,195**	**4,035,663**	**6,780,206**	**10,096,414**	**11,877,089**	**10,181,768**	**8,614,637**	**4,933,621**	**2,713,854**	**1,429,487**	**64,204,822**	**11,721,086**	**52,483,736**
G-41	57,111	57,590	73,262	224,560	698,404	844,805	925,870	786,391	812,547	565,549	193,347	74,299	5,313,737	680,170	4,633,567
G-42	258,878	257,268	309,544	627,905	1,237,508	1,388,319	1,476,151	1,256,811	1,371,086	1,109,100	570,877	308,299	10,171,748	2,332,772	7,838,976
G-43	250,469	286,023	340,424	818,963	1,170,879	1,560,031	1,880,532	1,588,205	1,421,586	921,228	605,797	357,158	11,201,294	2,658,833	8,542,460
G-44	0	0	17	34	87	103	145	172	169	126	34	25	913	110	803
G-45	282	891	1,379	1,991	3,514	4,133	4,133	3,733	4,086	3,372	1,827	895	30,236	7,265	22,972
G-46	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
G-51	74,696	80,156	77,250	88,467	89,129	92,174	99,169	84,620	92,110	85,864	84,409	78,467	1,026,511	483,445	543,065
G-52	318,801	332,043	316,481	370,610	367,555	376,179	397,277	337,304	372,033	351,543	342,439	318,213	4,200,478	1,998,586	2,201,892
G-53	645,678	699,787	674,593	900,134	931,915	1,052,819	1,326,395	1,075,500	1,041,483	836,257	775,207	663,591	10,623,358	4,358,990	6,264,368
G-54	1,578,597	1,678,114	1,658,858	1,979,190	1,696,683	1,357,506	1,328,245	1,205,146	1,185,808	1,309,647	1,636,297	1,625,342	18,239,432	10,156,398	8,083,034
G-55	2	11	10	18	16	113	122	108	113	118	114	62	806	217	590
G-56	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
G-57	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
G-58	0	0	21,102	37,826	42,041	37,802	38,031	67,959	63,191	58,759	42,933	34,365	444,010	136,226	307,784
G-63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total C/I	**3,184,514**	**3,391,883**	**3,472,920**	**5,049,697**	**6,237,730**	**6,713,985**	**7,476,072**	**6,405,948**	**6,364,211**	**5,241,563**	**4,253,283**	**3,460,715**	**61,252,522**	**22,813,013**	**38,439,510**
Total All	**4,287,510**	**4,492,773**	**4,811,115**	**9,085,361**	**13,017,936**	**16,810,400**	**19,353,161**	**16,587,717**	**14,978,848**	**10,175,185**	**6,967,137**	**4,890,202**	**125,457,345**	**34,534,099**	**90,923,246**

11/1/2018 Base Rate Headblock Charge

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19
R-1	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741
R-3	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502
R-4	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201
R-5	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864
R-6	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152
R-7	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861
G-41	$ 0.4566	$ 0.4566	$ 0.4566	$ 0.4566	$ 0.4566	$ 0.4566	$ 0.4566	$ 0.4566	$ 0.4566	$ 0.4566	$ 0.4566	$ 0.4566
G-42	$ 0.4152	$ 0.4152	$ 0.4152	$ 0.4152	$ 0.4152	$ 0.4152	$ 0.4152	$ 0.4152	$ 0.4152	$ 0.4152	$ 0.4152	$ 0.4152
G-43	$ 0.1167	$ 0.1167	$ 0.1167	$ 0.1167	$ 0.2552	$ 0.2552	$ 0.2552	$ 0.2552	$ 0.2552	$ 0.2552	$ 0.1167	$ 0.1167
G-44	$ 0.5936	$ 0.5936	$ 0.5936	$ 0.5936	$ 0.5936	$ 0.5936	$ 0.5936	$ 0.5936	$ 0.5936	$ 0.5936	$ 0.5936	$ 0.5936
G-45	$ 0.5398	$ 0.5398	$ 0.5398	$ 0.5398	$ 0.5398	$ 0.5398	$ 0.5398	$ 0.5398	$ 0.5398	$ 0.5398	$ 0.5398	$ 0.5398
G-46	$ 0.1517	$ 0.1517	$ 0.1517	$ 0.1517	$ 0.3318	$ 0.3318	$ 0.3318	$ 0.3318	$ 0.3318	$ 0.3318	$ 0.1517	$ 0.1517
G-51	$ 0.2752	$ 0.2752	$ 0.2752	$ 0.2752	$ 0.2752	$ 0.2752	$ 0.2752	$ 0.2752	$ 0.2752	$ 0.2752	$ 0.2752	$ 0.2752
G-52	$ 0.1712	$ 0.1712	$ 0.1712	$ 0.1712	$ 0.2363	$ 0.2363	$ 0.2363	$ 0.2363	$ 0.2363	$ 0.2363	$ 0.1712	$ 0.1712
G-53	$ 0.0792	$ 0.0792	$ 0.0792	$ 0.0792	$ 0.1652	$ 0.1652	$ 0.1652	$ 0.1652	$ 0.1652	$ 0.1652	$ 0.0792	$ 0.0792
G-54	$ 0.0342	$ 0.0342	$ 0.0342	$ 0.0342	$ 0.0630	$ 0.0630	$ 0.0630	$ 0.0630	$ 0.0630	$ 0.0630	$ 0.0342	$ 0.0342
G-55	$ 0.3577	$ 0.3577	$ 0.3577	$ 0.3577	$ 0.3577	$ 0.3577	$ 0.3577	$ 0.3577	$ 0.3577	$ 0.3577	$ 0.3577	$ 0.3577
G-56	$ 0.2226	$ 0.2226	$ 0.2226	$ 0.2226	$ 0.3072	$ 0.3072	$ 0.3072	$ 0.3072	$ 0.3072	$ 0.3072	$ 0.2226	$ 0.2226
G-57	$ 0.1030	$ 0.1030	$ 0.1030	$ 0.1030	$ 0.2147	$ 0.2147	$ 0.2147	$ 0.2147	$ 0.2147	$ 0.2147	$ 0.1030	$ 0.1030
G-58	$ 0.0445	$ 0.0445	$ 0.0445	$ 0.0445	$ 0.0819	$ 0.0819	$ 0.0819	$ 0.0819	$ 0.0819	$ 0.0819	$ 0.0445	$ 0.0445
G-63	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

2018-19 Calendar BF Volume Headblock Normal Revenue Adjusted

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19	S&T Total	S&T Summer	S&T Winter
R-1	$ 12,016	$ 12,192	$ 12,883	$ 20,149	$ 24,393	$ 32,026	$ 36,269	$ 31,222	$ 30,426	$ 23,867	$ 19,129	$ 14,580	$ 269,153	$ 90,950	$ 178,203
R-3	$ 544,655	$ 543,960	$ 666,914	$ 2,038,832	$ 3,415,708	$ 5,090,750	$ 5,985,492	$ 5,134,217	$ 4,334,652	$ 2,473,681	$ 1,353,389	$ 705,441	$ 32,287,691	$ 5,853,191	$ 26,434,500
R-4	$ 17,599	$ 17,296	$ 19,780	$ 59,290	$ 108,188	$ 161,707	$ 192,213	$ 163,113	$ 139,103	$ 79,256	$ 42,878	$ 22,996	$ 1,023,418	$ 179,839	$ 843,579
R-5	$ 83	$ 86	$ 144	$ 429	$ 773	$ 1,078	$ 1,176	$ 1,054	$ 961	$ 611	$ 390	$ 232	$ 7,018	$ 1,365	$ 5,653
R-6	$ 537	$ 580	$ 986	$ 4,031	$ 9,449	$ 14,710	$ 17,717	$ 16,256	$ 14,538	$ 8,659	$ 5,059	$ 2,358	$ 94,877	$ 13,550	$ 81,328
R-7	$ 4	$ 3	$ 4	$ 20	$ 47	$ 62	$ 68	$ 63	$ 59	$ 38	$ 21	$ 8	$ 396	$ 60	$ 336
Total Resid.	**$ 574,894**	**$ 574,117**	**$ 700,711**	**$ 2,122,750**	**$ 3,558,558**	**$ 5,300,334**	**$ 6,232,934**	**$ 5,345,923**	**$ 4,519,739**	**$ 2,586,111**	**$ 1,420,866**	**$ 745,616**	**$ 33,682,553**	**$ 6,138,954**	**$ 27,543,599**
G-41	$ 26,077	$ 26,295	$ 33,451	$ 102,533	$ 318,886	$ 385,732	$ 422,746	$ 359,060	$ 371,003	$ 258,226	$ 88,281	$ 33,924	$ 2,426,214	$ 310,561	$ 2,115,653
G-42	$ 107,487	$ 106,819	$ 128,524	$ 260,708	$ 513,818	$ 576,435	$ 612,903	$ 521,832	$ 569,280	$ 460,502	$ 237,030	$ 128,007	$ 4,223,347	$ 968,576	$ 3,254,771
G-43	$ 29,229	$ 33,378	$ 39,726	$ 95,571	$ 298,807	$ 398,119	$ 479,911	$ 405,309	$ 362,788	$ 235,097	$ 70,695	$ 41,679	$ 2,490,308	$ 310,278	$ 2,180,030
G-44	$ -	$ -	$ 10	$ 20	$ 52	$ 61	$ 86	$ 102	$ 100	$ 75	$ 20	$ 15	$ 542	$ 65	$ 477
G-45	$ 152	$ 481	$ 744	$ 1,074	$ 1,897	$ 2,231	$ 2,231	$ 2,015	$ 2,205	$ 1,820	$ 986	$ 483	$ 16,322	$ 3,921	$ 12,400
G-46	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-51	$ 20,555	$ 22,058	$ 21,258	$ 24,345	$ 24,527	$ 25,365	$ 27,290	$ 23,286	$ 25,347	$ 23,629	$ 23,228	$ 21,593	$ 282,483	$ 133,038	$ 149,445
G-52	$ 54,582	$ 56,849	$ 54,185	$ 63,452	$ 86,861	$ 88,899	$ 93,885	$ 79,712	$ 87,920	$ 83,077	$ 58,629	$ 54,481	$ 862,532	$ 342,177	$ 520,355
G-53	$ 51,167	$ 55,455	$ 53,458	$ 71,331	$ 153,908	$ 173,876	$ 219,058	$ 177,622	$ 172,004	$ 138,110	$ 61,431	$ 52,586	$ 1,380,006	$ 345,428	$ 1,034,577
G-54	$ 54,022	$ 57,428	$ 56,769	$ 67,731	$ 106,878	$ 85,512	$ 83,669	$ 75,915	$ 74,697	$ 82,498	$ 55,997	$ 55,622	$ 856,738	$ 347,570	$ 509,168
G-55	$ 1	$ 4	$ 4	$ 6	$ 6	$ 40	$ 44	$ 39	$ 40	$ 42	$ 41	$ 22	$ 288	$ 78	$ 211
G-56	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-57	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-58	$ -	$ -	$ 939	$ 1,683	$ 3,443	$ 3,096	$ 3,115	$ 5,566	$ 5,175	$ 4,812	$ 1,911	$ 1,529	$ 31,270	$ 6,062	$ 25,207
G-63	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total C/I	**$ 343,272**	**$ 358,767**	**$ 389,068**	**$ 688,455**	**$ 1,509,084**	**$ 1,739,368**	**$ 1,944,938**	**$ 1,650,459**	**$ 1,670,560**	**$ 1,287,888**	**$ 598,249**	**$ 389,942**	**$ 12,570,050**	**$ 2,767,754**	**$ 9,802,295**
Total All	**$ 918,166**	**$ 932,884**	**$ 1,089,779**	**$ 2,811,206**	**$ 5,067,642**	**$ 7,039,702**	**$ 8,177,871**	**$ 6,996,382**	**$ 6,190,299**	**$ 3,873,999**	**$ 2,019,115**	**$ 1,135,558**	**$ 46,252,603**	**$ 8,906,708**	**$ 37,345,895**

TAILBLOCK

2018-19 Calendar BF Volume Tailblock Normal	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19	S&T Total	S&T Summer	S&T Winter
R-1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
R-3	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
R-4	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
R-5	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
R-6	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
R-7	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
Total Resid.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G-41	188,281	175,600	260,729	1,149,826	1,938,267	3,343,494	4,166,132	3,575,858	2,740,252	1,255,670	668,478	279,226	19,741,813	2,722,140	17,019,673
G-42	248,051	272,031	434,224	1,622,989	2,444,253	4,089,799	4,956,826	4,318,734	3,381,398	1,642,939	906,613	385,160	24,703,016	3,869,068	20,833,948
G-43	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
G-44	0	0	83	89	348	456	690	599	402	151	119	47	2,983	337	2,646
G-45	13	481	1,539	4,569	7,116	11,411	12,933	11,275	7,842	2,966	3,316	91	63,552	10,009	53,543
G-46	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
G-51	144,292	154,724	153,537	220,059	263,682	349,075	409,846	356,796	332,000	250,629	213,237	170,693	3,018,571	1,056,543	1,962,028
G-52	222,157	241,924	255,837	401,318	488,052	651,357	760,745	660,694	606,499	430,589	314,228	245,164	5,278,562	1,680,627	3,597,935
G-53	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
G-54	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
G-55	0	0	0	0	29	465	562	528	444	172	73	0	2,273	73	2,200
G-56	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
G-57	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
G-58	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-
G-63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total C/I	**802,794**	**844,759**	**1,105,949**	**3,398,850**	**5,141,746**	**8,446,056**	**10,307,734**	**8,924,483**	**7,068,836**	**3,583,117**	**2,106,064**	**1,080,380**	**52,810,770**	**9,338,798**	**43,471,973**
Total All	**802,794**	**844,759**	**1,105,949**	**3,398,850**	**5,141,746**	**8,446,056**	**10,307,734**	**8,924,483**	**7,068,836**	**3,583,117**	**2,106,064**	**1,080,380**	**52,810,770**	**9,338,798**	**43,471,973**

11/1/2018 Base Rate Tailblock Charge	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19
R-1	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741	$ 0.3741
R-3	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502	$ 0.5502
R-4	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201	$ 0.2201
R-5	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864	$ 0.4864
R-6	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152	$ 0.7152
R-7	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861	$ 0.2861
		$ -	$ -	$ -								
		$ -	$ -	$ -								
G-41	$ 0.3067	$ 0.3067	$ 0.3067	$ 0.3067	$ 0.3067	$ 0.3067	$ 0.3067	$ 0.3067	$ 0.3067	$ 0.3067	$ 0.3067	$ 0.3067
G-42	$ 0.2766	$ 0.2766	$ 0.2766	$ 0.2766	$ 0.2766	$ 0.2766	$ 0.2766	$ 0.2766	$ 0.2766	$ 0.2766	$ 0.2766	$ 0.2766
G-43	$ 0.1167	$ 0.1167	$ 0.1167	$ 0.1167	$ 0.2552	$ 0.2552	$ 0.2552	$ 0.2552	$ 0.2552	$ 0.2552	$ 0.1167	$ 0.1167
G-44	$ 0.3987	$ 0.3987	$ 0.3987	$ 0.3987	$ 0.3987	$ 0.3987	$ 0.3987	$ 0.3987	$ 0.3987	$ 0.3987	$ 0.3987	$ 0.3987
G-45	$ 0.3596	$ 0.3596	$ 0.3596	$ 0.3596	$ 0.3596	$ 0.3596	$ 0.3596	$ 0.3596	$ 0.3596	$ 0.3596	$ 0.3596	$ 0.3596
G-46	$ 0.1517	$ 0.1517	$ 0.1517	$ 0.1517	$ 0.3318	$ 0.3318	$ 0.3318	$ 0.3318	$ 0.3318	$ 0.3318	$ 0.1517	$ 0.1517
G-51	$ 0.1789	$ 0.1789	$ 0.1789	$ 0.1789	$ 0.1789	$ 0.1789	$ 0.1789	$ 0.1789	$ 0.1789	$ 0.1789	$ 0.1789	$ 0.1789
G-52	$ 0.0973	$ 0.0973	$ 0.0973	$ 0.0973	$ 0.1574	$ 0.1574	$ 0.1574	$ 0.1574	$ 0.1574	$ 0.1574	$ 0.0973	$ 0.0973
G-53	$ 0.0792	$ 0.0792	$ 0.0792	$ 0.0792	$ 0.1652	$ 0.1652	$ 0.1652	$ 0.1652	$ 0.1652	$ 0.1652	$ 0.0792	$ 0.0792
G-54	$ 0.0342	$ 0.0342	$ 0.0342	$ 0.0342	$ 0.0630	$ 0.0630	$ 0.0630	$ 0.0630	$ 0.0630	$ 0.0630	$ 0.0342	$ 0.0342
G-55	$ 0.2325	$ 0.2325	$ 0.2325	$ 0.2325	$ 0.2325	$ 0.2325	$ 0.2325	$ 0.2325	$ 0.2325	$ 0.2325	$ 0.2325	$ 0.2325
G-56	$ 0.1265	$ 0.1265	$ 0.1265	$ 0.1265	$ 0.2046	$ 0.2046	$ 0.2046	$ 0.2046	$ 0.2046	$ 0.2046	$ 0.1265	$ 0.1265
G-57	$ 0.1030	$ 0.1030	$ 0.1030	$ 0.1030	$ 0.2147	$ 0.2147	$ 0.2147	$ 0.2147	$ 0.2147	$ 0.2147	$ 0.1030	$ 0.1030
G-58	$ 0.0445	$ 0.0445	$ 0.0445	$ 0.0445	$ 0.0819	$ 0.0819	$ 0.0819	$ 0.0819	$ 0.0819	$ 0.0819	$ 0.0445	$ 0.0445
G-63	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

2018-19 Calendar BF Volume Tailblock Normal Revenue Adjusted	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19	S&T Total	S&T Summer	S&T Winter
R-1	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
R-3	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
R-4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
R-5	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
R-6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
R-7	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Resid.	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	**$ -**
G-41	$ 57,743	$ 53,853	$ 79,961	$ 352,632	$ 594,434	$ 1,025,394	$ 1,277,683	$ 1,096,656	$ 840,390	$ 385,093	$ 205,011	$ 85,634	$ 6,054,486	$ 834,835	$ 5,219,651
G-42	$ 68,611	$ 75,244	$ 120,107	$ 448,920	$ 676,082	$ 1,131,241	$ 1,371,061	$ 1,194,564	$ 935,296	$ 454,438	$ 250,770	$ 106,535	$ 6,832,868	$ 1,070,186	$ 5,762,681
G-43	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-44	$ -	$ -	$ 33	$ 35	$ 139	$ 182	$ 275	$ 239	$ 160	$ 60	$ 47	$ 19	$ 1,189	$ 135	$ 1,055
G-45	$ 5	$ 173	$ 553	$ 1,643	$ 2,559	$ 4,103	$ 4,651	$ 4,055	$ 2,820	$ 1,067	$ 1,192	$ 33	$ 22,853	$ 3,599	$ 19,254
G-46	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-51	$ 25,811	$ 27,677	$ 27,465	$ 39,365	$ 47,168	$ 62,443	$ 73,314	$ 63,824	$ 59,389	$ 44,833	$ 38,144	$ 30,534	$ 539,967	$ 188,996	$ 350,971
G-52	$ 21,616	$ 23,539	$ 24,893	$ 39,048	$ 76,819	$ 102,524	$ 119,741	$ 103,993	$ 95,463	$ 67,775	$ 30,574	$ 23,854	$ 729,840	$ 163,525	$ 566,315
G-53	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-54	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-55	$ -	$ -	$ -	$ -	$ 7	$ 108	$ 131	$ 123	$ 103	$ 40	$ 17	$ -	$ 529	$ 17	$ 511
G-56	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-57	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-58	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-63	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total C/I	**$ 173,786**	**$ 180,487**	**$ 253,012**	**$ 881,643**	**$ 1,397,207**	**$ 2,325,995**	**$ 2,846,856**	**$ 2,463,454**	**$ 1,933,621**	**$ 953,306**	**$ 525,756**	**$ 246,609**	**$ 14,181,732**	**$ 2,261,293**	**$ 11,920,438**
Total All	**$ 173,786**	**$ 180,487**	**$ 253,012**	**$ 881,643**	**$ 1,397,207**	**$ 2,325,995**	**$ 2,846,856**	**$ 2,463,454**	**$ 1,933,621**	**$ 953,306**	**$ 525,756**	**$ 246,609**	**$ 14,181,732**	**$ 2,261,293**	**$ 11,920,438**

HEADBLOCK + TAILBLOCK

2018-19 Calendar BF Volume Headblock + Tailblock Normal

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19	S&T Total	S&T Summer	S&T Winter
R-1	32,119	32,588	34,436	53,859	65,202	85,605	96,945	83,454	81,327	63,796	51,130	38,972	719,435	243,105	476,330
R-3	989,971	988,707	1,212,191	3,705,805	6,208,430	9,253,006	10,879,299	9,332,011	7,878,713	4,496,190	2,459,935	1,282,217	58,686,476	10,638,827	48,047,649
R-4	79,972	78,596	89,880	269,414	491,607	734,802	873,420	741,189	632,088	360,141	194,840	104,494	4,650,441	817,195	3,833,246
R-5	171	177	297	881	1,589	2,217	2,418	2,166	1,977	1,255	802	477	14,428	2,806	11,622
R-6	751	811	1,378	5,636	13,212	20,567	24,771	22,729	20,328	12,107	7,073	3,298	132,658	18,945	113,713
R-7	12	12	13	69	165	218	236	219	205	132	74	29	1,384	209	1,176
Total Resid.	**1,102,997**	**1,100,890**	**1,338,195**	**4,035,663**	**6,780,206**	**10,096,414**	**11,877,089**	**10,181,768**	**8,614,637**	**4,933,621**	**2,713,854**	**1,429,487**	**64,204,822**	**11,721,086**	**52,483,736**
G-41	245,393	233,190	333,991	1,374,386	2,636,671	4,188,299	5,092,002	4,362,249	3,552,799	1,821,219	861,825	353,525	25,055,550	3,402,310	21,653,240
G-42	506,929	529,299	743,768	2,250,894	3,681,761	5,478,118	6,432,978	5,575,544	4,752,483	2,752,039	1,477,491	693,459	34,874,764	6,201,840	28,672,924
G-43	250,469	286,023	340,424	818,963	1,170,879	1,560,031	1,880,532	1,588,205	1,421,586	921,228	605,797	357,158	11,201,294	2,658,833	8,542,460
G-44	-	-	100	122	435	560	835	771	571	277	153	72	3,896	447	3,449
G-45	295	1,372	2,918	6,560	10,630	15,544	17,066	15,009	11,928	6,338	5,143	985	93,788	17,273	76,515
G-46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G-51	218,989	234,880	230,787	308,527	352,810	441,249	509,015	441,417	424,109	336,493	297,646	249,160	4,045,082	1,539,988	2,505,093
G-52	540,958	573,966	572,318	771,928	855,608	1,027,535	1,158,022	997,997	978,532	782,132	656,667	563,376	9,479,040	3,679,214	5,799,827
G-53	645,678	699,787	674,593	900,134	931,915	1,052,819	1,326,395	1,075,500	1,041,483	836,257	775,207	663,591	10,623,358	4,358,990	6,264,368
G-54	1,578,597	1,678,114	1,658,858	1,979,190	1,696,683	1,357,506	1,328,245	1,205,146	1,185,808	1,309,647	1,636,297	1,625,342	18,239,432	10,156,398	8,083,034
G-55	2	11	10	18	45	578	685	636	557	290	187	62	3,080	290	2,789
G-56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G-57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G-58	-	-	21,102	37,826	42,041	37,802	38,031	67,959	63,191	58,759	42,933	34,365	444,010	136,226	307,784
G-63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total C/I	**3,987,308**	**4,236,643**	**4,578,869**	**8,448,547**	**11,379,477**	**15,160,041**	**17,783,806**	**15,330,432**	**13,433,046**	**8,824,681**	**6,359,347**	**4,541,096**	**114,063,293**	**32,151,810**	**81,911,483**
Total All	**5,090,305**	**5,337,533**	**5,917,064**	**12,484,210**	**18,159,682**	**25,256,456**	**29,660,895**	**25,512,200**	**22,047,684**	**13,758,302**	**9,073,201**	**5,970,583**	**178,268,115**	**43,872,896**	**134,395,219**

2018-19 Calendar BF Volume Headblock + Tailblock Normal Revenue Adjusted

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19	S&T Total	S&T Summer	S&T Winter
R-1	$ 12,016	$ 12,192	$ 12,883	$ 20,149	$ 24,393	$ 32,026	$ 36,269	$ 31,222	$ 30,426	$ 23,867	$ 19,129	$ 14,580	$ 269,153	$ 90,950	$ 178,203
R-3	$ 544,655	$ 543,960	$ 666,914	$ 2,038,832	$ 3,415,708	$ 5,090,750	$ 5,985,492	$ 5,134,217	$ 4,334,652	$ 2,473,681	$ 1,353,389	$ 705,441	$ 32,287,691	$ 5,853,191	$ 26,434,500
R-4	$ 17,599	$ 17,296	$ 19,780	$ 59,290	$ 108,188	$ 161,707	$ 192,213	$ 163,113	$ 139,103	$ 79,256	$ 42,878	$ 22,996	$ 1,023,418	$ 179,839	$ 843,579
R-5	$ 83	$ 86	$ 144	$ 429	$ 773	$ 1,078	$ 1,176	$ 1,054	$ 961	$ 611	$ 390	$ 232	$ 7,018	$ 1,365	$ 5,653
R-6	$ 537	$ 580	$ 986	$ 4,031	$ 9,449	$ 14,710	$ 17,717	$ 16,256	$ 14,538	$ 8,659	$ 5,059	$ 2,358	$ 94,877	$ 13,550	$ 81,328
R-7	$ 4	$ 3	$ 4	$ 20	$ 47	$ 62	$ 68	$ 63	$ 59	$ 38	$ 21	$ 8	$ 396	$ 60	$ 336
Total Resid.	**$ 574,894**	**$ 574,117**	**$ 700,711**	**$ 2,122,750**	**$ 3,558,558**	**$ 5,300,334**	**$ 6,232,934**	**$ 5,345,923**	**$ 4,519,739**	**$ 2,586,111**	**$ 1,420,866**	**$ 745,616**	**$ 33,682,553**	**$ 6,138,954**	**$ 27,543,599**
G-41	$ 83,819	$ 80,149	$ 113,412	$ 455,165	$ 913,321	$ 1,411,126	$ 1,700,429	$ 1,455,717	$ 1,211,393	$ 643,319	$ 293,292	$ 119,558	$ 8,480,700	$ 1,145,396	$ 7,335,304
G-42	$ 176,098	$ 182,063	$ 248,631	$ 709,628	$ 1,189,900	$ 1,707,676	$ 1,983,964	$ 1,716,397	$ 1,504,576	$ 914,940	$ 487,800	$ 234,542	$ 11,056,214	$ 2,038,762	$ 9,017,453
G-43	$ 29,229	$ 33,378	$ 39,726	$ 95,571	$ 298,807	$ 398,119	$ 479,911	$ 405,309	$ 362,788	$ 235,097	$ 70,695	$ 41,679	$ 2,490,308	$ 310,278	$ 2,180,030
G-44	$ -	$ -	$ 43	$ 55	$ 190	$ 243	$ 361	$ 341	$ 261	$ 135	$ 68	$ 34	$ 1,731	$ 200	$ 1,531
G-45	$ 157	$ 654	$ 1,298	$ 2,718	$ 4,456	$ 6,335	$ 6,882	$ 6,070	$ 5,025	$ 2,887	$ 2,179	$ 515	$ 39,175	$ 7,521	$ 31,654
G-46	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-51	$ 46,367	$ 49,735	$ 48,723	$ 63,710	$ 71,695	$ 87,808	$ 100,604	$ 87,111	$ 84,736	$ 68,462	$ 61,373	$ 52,127	$ 822,450	$ 322,034	$ 500,416
G-52	$ 76,198	$ 80,388	$ 79,077	$ 102,500	$ 163,681	$ 191,423	$ 213,627	$ 183,705	$ 183,383	$ 150,852	$ 89,203	$ 78,336	$ 1,592,372	$ 505,702	$ 1,086,670
G-53	$ 51,167	$ 55,455	$ 53,458	$ 71,331	$ 153,908	$ 173,876	$ 219,058	$ 177,622	$ 172,004	$ 138,110	$ 61,431	$ 52,586	$ 1,380,006	$ 345,428	$ 1,034,577
G-54	$ 54,022	$ 57,428	$ 56,769	$ 67,731	$ 106,878	$ 85,512	$ 83,669	$ 75,915	$ 74,697	$ 82,498	$ 55,997	$ 55,622	$ 856,738	$ 347,570	$ 509,168
G-55	$ 1	$ 4	$ 4	$ 6	$ 12	$ 148	$ 175	$ 161	$ 144	$ 82	$ 58	$ 22	$ 817	$ 95	$ 722
G-56	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-57	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-58	$ -	$ -	$ 939	$ 1,683	$ 3,443	$ 3,096	$ 3,115	$ 5,566	$ 5,175	$ 4,812	$ 1,911	$ 1,529	$ 31,270	$ 6,062	$ 25,207
G-63	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total C/I	**$ 517,058**	**$ 539,254**	**$ 642,081**	**$ 1,570,099**	**$ 2,906,291**	**$ 4,065,362**	**$ 4,791,794**	**$ 4,113,913**	**$ 3,604,181**	**$ 2,241,194**	**$ 1,124,006**	**$ 636,551**	**$ 26,751,782**	**$ 5,029,048**	**$ 21,722,734**
Total All	**$ 1,091,952**	**$ 1,113,371**	**$ 1,342,792**	**$ 3,692,849**	**$ 6,464,849**	**$ 9,365,696**	**$ 11,024,727**	**$ 9,459,836**	**$ 8,123,920**	**$ 4,827,305**	**$ 2,544,871**	**$ 1,382,167**	**$ 60,434,335**	**$ 11,168,002**	**$ 49,266,333**

TOTAL REVENUE

2018-19 Calendar BF Base Normal Revenue Adjusted

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19	S&T Total	S&T Summer	S&T Winter
R-1	$ 65,146	$ 65,404	$ 64,552	$ 73,481	$ 76,019	$ 85,257	$ 89,513	$ 79,249	$ 83,618	$ 75,271	$ 72,229	$ 65,820	$ 895,559	$ 406,633	$ 488,926
R-3	$ 1,645,321	$ 1,642,647	$ 1,733,932	$ 3,149,759	$ 4,491,252	$ 6,206,870	$ 7,104,341	$ 6,146,950	$ 5,457,437	$ 3,558,796	$ 2,471,523	$ 1,784,449	$ 45,393,278	$ 12,427,630	$ 32,965,647
R-4	$ 52,291	$ 51,379	$ 51,511	$ 92,220	$ 143,895	$ 198,959	$ 229,491	$ 196,729	$ 176,145	$ 114,528	$ 78,635	$ 57,089	$ 1,442,873	$ 383,125	$ 1,059,748
R-5	$ 810	$ 929	$ 1,065	$ 1,468	$ 1,847	$ 2,317	$ 2,467	$ 2,230	$ 2,275	$ 1,912	$ 1,765	$ 1,598	$ 20,683	$ 7,635	$ 13,048
R-6	$ 2,217	$ 2,423	$ 2,940	$ 6,467	$ 12,295	$ 18,216	$ 21,453	$ 19,733	$ 18,485	$ 12,790	$ 9,602	$ 6,978	$ 133,601	$ 30,629	$ 102,972
R-7	$ 12	$ 11	$ 12	$ 34	$ 71	$ 87	$ 92	$ 85	$ 83	$ 61	$ 45	$ 32	$ 623	$ 146	$ 478
Total Resid.	**$ 1,765,797**	**$ 1,762,794**	**$ 1,854,011**	**$ 3,323,430**	**$ 4,725,378**	**$ 6,511,707**	**$ 7,447,358**	**$ 6,444,976**	**$ 5,738,043**	**$ 3,763,358**	**$ 2,633,799**	**$ 1,915,966**	**$ 47,886,617**	**$ 13,255,797**	**$ 34,630,819**
G-41	$ 591,949	$ 587,094	$ 604,240	$ 974,429	$ 1,429,969	$ 1,950,265	$ 2,241,341	$ 1,945,837	$ 1,754,238	$ 1,165,792	$ 823,595	$ 623,015	$ 14,691,765	$ 4,204,323	$ 10,487,442
G-42	$ 418,282	$ 417,869	$ 474,648	$ 946,010	$ 1,421,063	$ 1,947,404	$ 2,224,022	$ 1,933,452	$ 1,744,838	$ 1,145,744	$ 725,427	$ 463,614	$ 13,862,372	$ 3,445,850	$ 10,416,523
G-43	$ 68,685	$ 73,408	$ 78,705	$ 136,724	$ 339,363	$ 441,423	$ 522,880	$ 444,120	$ 405,183	$ 275,366	$ 112,182	$ 81,876	$ 2,979,914	$ 551,580	$ 2,428,334
G-44	$ -	$ -	$ 103	$ 130	$ 263	$ 318	$ 470	$ 476	$ 410	$ 280	$ 217	$ 178	$ 2,846	$ 629	$ 2,217
G-45	$ 606	$ 1,378	$ 2,166	$ 3,615	$ 5,325	$ 7,232	$ 7,779	$ 6,881	$ 5,923	$ 3,756	$ 3,076	$ 1,384	$ 49,122	$ 12,226	$ 36,896
G-46	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-51	$ 116,554	$ 121,898	$ 119,129	$ 136,833	$ 143,450	$ 162,200	$ 175,049	$ 154,286	$ 159,111	$ 140,239	$ 135,136	$ 123,502	$ 1,687,389	$ 753,053	$ 934,336
G-52	$ 142,428	$ 145,686	$ 141,892	$ 167,503	$ 226,785	$ 256,661	$ 278,807	$ 242,566	$ 248,876	$ 214,581	$ 155,366	$ 142,457	$ 2,363,609	$ 895,333	$ 1,468,276
G-53	$ 79,377	$ 83,665	$ 80,783	$ 99,541	$ 181,208	$ 201,594	$ 246,505	$ 202,413	$ 198,099	$ 163,565	$ 88,018	$ 78,337	$ 1,703,104	$ 509,720	$ 1,193,384
G-54	$ 75,370	$ 78,776	$ 77,428	$ 89,079	$ 127,537	$ 106,860	$ 104,615	$ 95,181	$ 96,045	$ 102,542	$ 76,583	$ 75,544	$ 1,105,561	$ 472,781	$ 632,780
G-55	$ 75	$ 139	$ 148	$ 156	$ 162	$ 373	$ 399	$ 364	$ 368	$ 299	$ 282	$ 239	$ 3,006	$ 1,041	$ 1,965
G-56	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-57	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
G-58	$ -	$ -	$ 1,515	$ 2,674	$ 4,402	$ 4,087	$ 4,106	$ 6,461	$ 6,166	$ 5,772	$ 2,902	$ 2,488	$ 40,574	$ 9,579	$ 30,995
G-63	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total C/I	**$ 1,493,327**	**$ 1,509,914**	**$ 1,580,758**	**$ 2,556,696**	**$ 3,879,527**	**$ 5,078,417**	**$ 5,805,975**	**$ 5,032,036**	**$ 4,619,256**	**$ 3,217,935**	**$ 2,122,785**	**$ 1,592,636**	**$ 38,489,261**	**$ 10,856,115**	**$ 27,633,146**
Total All	**$ 3,259,123**	**$ 3,272,708**	**$ 3,434,769**	**$ 5,880,126**	**$ 8,604,905**	**$ 11,590,123**	**$ 13,253,333**	**$ 11,477,012**	**$ 10,357,300**	**$ 6,981,293**	**$ 4,756,584**	**$ 3,508,601**	**$ 86,375,878**	**$ 24,111,912**	**$ 62,263,966**
Total Vol	5,090,305	5,337,533	5,917,064	12,484,210	18,159,682	25,256,456	29,660,895	25,512,200	22,047,684	13,758,302	9,073,201	5,970,583	178,268,115	43,872,896	134,395,219
Unit Rate	$ 0.0113	$ 0.0113	$ 0.0113	$ 0.0113	$ 0.0113	$ 0.0113	$ 0.0113	$ 0.0113	$ 0.0113	$ 0.0113	$ 0.0113	$ 0.0113	$ 0.0113	$ 0.0113	$ 0.0113
R-4 @ R-3	**$ 57,368**	**$ 60,154**	**$ 66,685**	**$ 140,697**	**$ 204,659**	**$ 284,640**	**$ 334,277**	**$ 287,522**	**$ 248,477**	**$ 155,056**	**$ 102,255**	**$ 67,288**	**$ 2,009,076**	**$ 494,446**	**$ 1,514,630**
Grand TTL	**$ 3,316,491**	**$ 3,332,862**	**$ 3,501,454**	**$ 6,020,823**	**$ 8,809,564**	**$ 11,874,763**	**$ 13,587,610**	**$ 11,764,534**	**$ 10,605,776**	**$ 7,136,348**	**$ 4,858,839**	**$ 3,575,890**	**$ 88,384,954**	**$ 24,606,358**	**$ 63,778,596**

Base Revenue Per Customer

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19
R-1	$ 18.419	$ 18.463	$ 18.767	$ 20.696	$ 22.119	$ 24.059	$ 25.253	$ 24.786	$ 23.613	$ 21.996	$ 20.432	$ 19.295
R-3	$ 22.454	$ 22.458	$ 24.410	$ 42.589	$ 62.726	$ 83.535	$ 95.380	$ 91.174	$ 73.013	$ 49.264	$ 33.203	$ 24.842
R-4	$ 9.054	$ 9.055	$ 9.751	$ 16.821	$ 24.205	$ 32.080	$ 36.976	$ 35.151	$ 28.562	$ 19.503	$ 13.209	$ 10.058
Total Resid.	**$ 21.349**	**$ 21.368**	**$ 23.203**	**$ 39.960**	**$ 58.204**	**$ 77.249**	**$ 88.138**	**$ 84.297**	**$ 67.724**	**$ 45.999**	**$ 31.269**	**$ 23.587**
G-41	$ 64.869	$ 64.487	$ 68.550	$ 104.493	$ 154.120	$ 201.428	$ 230.732	$ 221.070	$ 179.945	$ 124.246	$ 86.480	$ 68.907
G-42	$ 288.535	$ 296.046	$ 350.836	$ 668.582	$ 1,026.995	$ 1,357.099	$ 1,547.737	$ 1,488.117	$ 1,213.236	$ 829.314	$ 510.002	$ 338.112
G-43	$ 1,248.066	$ 1,314.768	$ 1,447.664	$ 2,381.949	$ 5,999.339	$ 7,308.303	$ 8,724.344	$ 8,204.189	$ 6,852.019	$ 4,902.642	$ 1,938.635	$ 1,460.339
G-51	$ 92.469	$ 94.061	$ 94.218	$ 104.199	$ 111.320	$ 121.410	$ 130.933	$ 127.892	$ 119.124	$ 108.794	$ 102.013	$ 96.351
G-52	$ 359.263	$ 372.728	$ 377.373	$ 430.491	$ 600.384	$ 657.255	$ 714.592	$ 688.461	$ 634.832	$ 562.511	$ 392.299	$ 371.153
G-53	$ 2,076.113	$ 2,188.261	$ 2,181.351	$ 2,603.516	$ 4,897.521	$ 5,366.321	$ 6,626.519	$ 6,024.205	$ 5,601.304	$ 4,741.047	$ 2,442.685	$ 2,244.605
G-54	$ 2,604.966	$ 2,722.674	$ 2,765.303	$ 3,078.781	$ 4,554.904	$ 3,693.349	$ 3,685.101	$ 3,645.216	$ 3,319.534	$ 3,774.574	$ 2,744.896	$ 2,797.912
G-63	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total C/I	**$ 120.847**	**$ 122.453**	**$ 132.450**	**$ 203.310**	**$ 311.409**	**$ 391.254**	**$ 446.154**	**$ 427.057**	**$ 354.010**	**$ 256.148**	**$ 165.858**	**$ 130.478**
Total All	**$ 34.282**	**$ 34.512**	**$ 37.400**	**$ 61.414**	**$ 91.889**	**$ 119.149**	**$ 135.918**	**$ 130.068**	**$ 105.929**	**$ 73.972**	**$ 49.022**	**$ 37.551**

Base Fixed Revenue Per Customer

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19
R-1	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021
R-3	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021	$ 15.021
R-4	$ 6.006	$ 6.006	$ 6.006	$ 6.006	$ 6.006	$ 6.006	$ 6.006	$ 6.006	$ 6.006	$ 6.006	$ 6.006	$ 6.006
Total Resid.	**$ 14.398**	**$ 14.409**	**$ 14.433**	**$ 14.436**	**$ 14.372**	**$ 14.371**	**$ 14.373**	**$ 14.375**	**$ 14.379**	**$ 14.389**	**$ 14.400**	**$ 14.408**
G-41	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684
G-42	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061
G-43	$ 716.951	$ 716.951	$ 716.951	$ 716.951	$ 716.951	$ 716.951	$ 716.951	$ 716.951	$ 716.951	$ 716.951	$ 716.951	$ 716.951
G-51	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684	$ 55.684
G-52	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061	$ 167.061
G-53	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837
G-54	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837	$ 737.837
G-63	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total C/I	**$ 79.004**	**$ 78.720**	**$ 78.651**	**$ 78.455**	**$ 78.121**	**$ 78.048**	**$ 77.934**	**$ 77.919**	**$ 77.793**	**$ 77.749**	**$ 78.037**	**$ 78.328**
Total All	**$ 22.796**	**$ 22.771**	**$ 22.779**	**$ 22.845**	**$ 22.853**	**$ 22.868**	**$ 22.855**	**$ 22.861**	**$ 22.842**	**$ 22.823**	**$ 22.794**	**$ 22.758**

Base Variable Revenue Per Customer

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19
R-1	$ 3.397	$ 3.442	$ 3.745	$ 5.675	$ 7.098	$ 9.038	$ 10.232	$ 9.765	$ 8.592	$ 6.975	$ 5.411	$ 4.274
R-3	$ 7.433	$ 7.437	$ 9.389	$ 27.568	$ 47.704	$ 68.514	$ 80.359	$ 76.153	$ 57.991	$ 34.243	$ 18.182	$ 9.821
R-4	$ 3.047	$ 3.048	$ 3.744	$ 10.814	$ 18.199	$ 26.073	$ 30.970	$ 29.145	$ 22.556	$ 13.496	$ 7.203	$ 4.051
Total Resid.	**$ 6.951**	**$ 6.959**	**$ 8.769**	**$ 25.523**	**$ 43.832**	**$ 62.879**	**$ 73.766**	**$ 69.922**	**$ 53.345**	**$ 31.609**	**$ 16.869**	**$ 9.179**
G-41	$ 9.185	$ 8.804	$ 12.866	$ 48.810	$ 98.436	$ 145.744	$ 175.048	$ 165.387	$ 124.261	$ 68.563	$ 30.797	$ 13.223
G-42	$ 121.474	$ 128.985	$ 183.775	$ 501.522	$ 859.934	$ 1,190.038	$ 1,380.676	$ 1,321.057	$ 1,046.175	$ 662.253	$ 342.942	$ 171.051
G-43	$ 531.115	$ 597.817	$ 730.713	$ 1,664.998	$ 5,282.389	$ 6,591.352	$ 8,007.394	$ 7,487.238	$ 6,135.068	$ 4,185.691	$ 1,221.684	$ 743.388
G-51	$ 36.785	$ 38.377	$ 38.535	$ 48.515	$ 55.637	$ 65.726	$ 75.250	$ 72.208	$ 63.441	$ 53.111	$ 46.329	$ 40.667
G-52	$ 192.202	$ 205.668	$ 210.312	$ 263.431	$ 433.324	$ 490.195	$ 547.532	$ 521.400	$ 467.772	$ 395.451	$ 225.238	$ 204.092
G-53	$ 1,338.276	$ 1,450.424	$ 1,443.514	$ 1,865.679	$ 4,159.684	$ 4,628.484	$ 5,888.682	$ 5,286.368	$ 4,863.467	$ 4,003.210	$ 1,704.848	$ 1,506.768
G-54	$ 1,867.129	$ 1,984.837	$ 2,027.466	$ 2,340.944	$ 3,817.067	$ 2,955.512	$ 2,947.264	$ 2,907.379	$ 2,581.697	$ 3,036.737	$ 2,007.059	$ 2,060.075
G-63	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total C/I	**$ 41.843**	**$ 43.733**	**$ 53.799**	**$ 124.855**	**$ 233.287**	**$ 313.206**	**$ 368.221**	**$ 349.138**	**$ 276.217**	**$ 178.399**	**$ 87.821**	**$ 52.150**
Total All	**$ 11.486**	**$ 11.741**	**$ 14.621**	**$ 38.570**	**$ 69.036**	**$ 96.281**	**$ 113.063**	**$ 107.208**	**$ 83.087**	**$ 51.149**	**$ 26.228**	**$ 14.793**

Base Variable Revenue Per Therm

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19
R-1	$ 0.37412	$ 0.37412	$ 0.37412	$ 0.37412	$ 0.37412	$ 0.37412	$ 0.37412	$ 0.37412	$ 0.37412	$ 0.37412	$ 0.37412	$ 0.37412
R-3	$ 0.55017	$ 0.55017	$ 0.55017	$ 0.55017	$ 0.55017	$ 0.55017	$ 0.55017	$ 0.55017	$ 0.55017	$ 0.55017	$ 0.55017	$ 0.55017
R-4	$ 0.22007	$ 0.22007	$ 0.22007	$ 0.22007	$ 0.22007	$ 0.22007	$ 0.22007	$ 0.22007	$ 0.22007	$ 0.22007	$ 0.22007	$ 0.22007
Total Resid.	**$ 0.52121**	**$ 0.52150**	**$ 0.52362**	**$ 0.52600**	**$ 0.52485**	**$ 0.52497**	**$ 0.52479**	**$ 0.52505**	**$ 0.52466**	**$ 0.52418**	**$ 0.52356**	**$ 0.52160**
G-41	$ 0.34157	$ 0.34371	$ 0.33957	$ 0.33118	$ 0.34639	$ 0.33692	$ 0.33394	$ 0.33371	$ 0.34097	$ 0.35324	$ 0.34031	$ 0.33819
G-42	$ 0.34738	$ 0.34397	$ 0.33428	$ 0.31526	$ 0.32319	$ 0.31173	$ 0.30841	$ 0.30784	$ 0.31659	$ 0.33246	$ 0.33015	$ 0.33822
G-43	$ 0.11670	$ 0.11670	$ 0.11670	$ 0.11670	$ 0.25520	$ 0.25520	$ 0.25520	$ 0.25520	$ 0.25520	$ 0.25520	$ 0.11670	$ 0.11670
G-51	$ 0.21173	$ 0.21175	$ 0.21112	$ 0.20650	$ 0.20321	$ 0.19900	$ 0.19764	$ 0.19734	$ 0.19980	$ 0.20346	$ 0.20619	$ 0.20921
G-52	$ 0.14086	$ 0.14006	$ 0.13817	$ 0.13278	$ 0.19130	$ 0.18629	$ 0.18448	$ 0.18407	$ 0.18741	$ 0.19287	$ 0.13584	$ 0.13905
G-53	$ 0.07925	$ 0.07925	$ 0.07925	$ 0.07925	$ 0.16515	$ 0.16515	$ 0.16515	$ 0.16515	$ 0.16515	$ 0.16515	$ 0.07925	$ 0.07925
G-54	$ 0.03422	$ 0.03422	$ 0.03422	$ 0.03422	$ 0.06299	$ 0.06299	$ 0.06299	$ 0.06299	$ 0.06299	$ 0.06299	$ 0.03422	$ 0.03422
G-63	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total C/I	**$ 0.12968**	**$ 0.12728**	**$ 0.14023**	**$ 0.18584**	**$ 0.25540**	**$ 0.26816**	**$ 0.26945**	**$ 0.26835**	**$ 0.26831**	**$ 0.25397**	**$ 0.17675**	**$ 0.14018**
Total All	**$ 0.21452**	**$ 0.20859**	**$ 0.22694**	**$ 0.29580**	**$ 0.35600**	**$ 0.37082**	**$ 0.37169**	**$ 0.37080**	**$ 0.36847**	**$ 0.35086**	**$ 0.28048**	**$ 0.23150**

Use Per Customer

	S&T Jul-18	S&T Aug-18	S&T Sep-18	S&T Oct-18	S&T Nov-18	S&T Dec-18	S&T Jan-19	S&T Feb-19	S&T Mar-19	S&T Apr-19	S&T May-19	S&T Jun-19
R-1	9.1	9.2	10.0	15.2	19.0	24.2	27.4	26.1	23.0	18.6	14.5	11.4
R-3	13.5	13.5	17.1	50.1	86.7	124.5	146.1	138.4	105.4	62.2	33.0	17.9
R-4	13.8	13.9	17.0	49.1	82.7	118.5	140.7	132.4	102.5	61.3	32.7	18.4
Total Resid.	**13.3**	**13.3**	**16.7**	**48.5**	**83.5**	**119.8**	**140.6**	**133.2**	**101.7**	**60.3**	**32.2**	**17.6**
G-41	26.9	25.6	37.9	147.4	284.2	432.6	524.2	495.6	364.4	194.1	90.5	39.1
G-42	349.7	375.0	549.8	1,590.8	2,660.8	3,817.6	4,476.8	4,291.3	3,304.5	1,992.0	1,038.7	505.7
G-43	4,551.2	5,122.8	6,261.6	14,267.7	20,699.1	25,828.3	31,377.0	29,338.8	24,040.3	16,401.7	10,468.8	6,370.2
G-51	173.7	181.2	182.5	234.9	273.8	330.3	380.7	365.9	317.5	261.0	224.7	194.4
G-52	1,364.5	1,468.5	1,522.1	1,983.9	2,265.1	2,631.3	2,968.0	2,832.6	2,496.0	2,050.3	1,658.1	1,467.8
G-53	16,887.8	18,303.0	18,215.8	23,543.2	25,186.9	28,025.5	35,656.0	32,009.0	29,448.3	24,239.4	21,513.6	19,014.0
G-54	54,559.7	57,999.3	59,245.0	68,405.2	60,595.8	46,918.7	46,787.7	46,154.6	40,984.4	48,208.1	58,648.6	60,197.8
G-63	-	-	-	-	-	-	-	-	-	-	-	-
Total C/I	**322.7**	**343.6**	**383.7**	**671.8**	**913.4**	**1,168.0**	**1,366.6**	**1,301.1**	**1,029.5**	**702.4**	**496.9**	**372.0**
Total All	**53.5**	**56.3**	**64.4**	**130.4**	**193.9**	**259.6**	**304.2**	**289.1**	**225.5**	**145.8**	**93.5**	**63.9**
Check	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

Line	Description	Residential Non Heat R-1 (A)	Residential Heat R-3 (B)	Residential Low Income Heat R-4 (C)	C&I Low Load Factor Low Annual G-41 (D)	C&I Low Load Factor Medium Annual G-42 (E)	C&I Low Load Factor High Annual G-43 (F)	C&I High Load Factor Low Annual G-51 (G)	C&I High Load Factor Medium Annual G-52 (H)	C&I High Load Factor High Annual G-53 (I)	C&I High Load Factor High Annual G-54 (J)	Company Total (K)	Explanation (L)
1	LP and LNG Costs											$ 1,647,823	FCOS
2	Winter Sales Volumes	733,863	57,685,477	4,912,604	17,629,958	14,491,830	522,044	2,620,597	2,907,142	630,495	1,110,631	103,244,640	Company Records
3	Unit Cost in COGC											$ 0.01600	Line 1 / Line 2
4	Class Revenues	$ 11,742	$ 922,968	$ 78,602	$ 282,079	$ 231,869	$ 8,353	$ 41,930	$ 46,514	$ 10,088	$ 17,770	$ 1,651,914	Line 2 x Line 3
5													
6	Bad Debt Costs											$ 4,776	FCOS
7	Annual Sales Volumes	733,863	57,685,477	4,912,604	17,629,958	14,491,830	522,044	2,620,597	2,907,142	630,495	1,110,631	103,244,640	Company Records
8	Unit Cost in COGC											$ 0.00005	Line 6 / Line 7
9	Class Revenues	$ 34	$ 2,654	$ 226	$ 811	$ 667	$ 24	$ 121	$ 134	$ 29	$ 51	$ 4,749	Line 7 x Line 8
10													
11	Gas Working Capital											$ -	FCOS
12	Annual Sales Volumes	733,863	57,685,477	4,912,604	17,629,958	14,491,830	522,044	2,620,597	2,907,142	630,495	1,110,631	103,244,640	Company Records
13	Unit Cost in COGC											$ -	Line 11 / Line 12
14	Class Revenues	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	Line 12 x Line 13
15													
16	Other A&G and Misc.											$ 267,012	FCOS
17	Annual Sales Volumes	733,863	57,685,477	4,912,604	17,629,958	14,491,830	522,044	2,620,597	2,907,142	630,495	1,110,631	103,244,640	Company Records
18	Unit Cost in COGC											$ 0.00259	Line 16 / Line 17
19	Class Revenues	$ 1,898	$ 149,175	$ 12,704	$ 45,591	$ 37,476	$ 1,350	$ 6,777	$ 7,518	$ 1,630	$ 2,872	$ 266,991	Line 17 x Line 18
20													
21	Total Indirect Costs	$ 13,673	$ 1,074,796	$ 91,532	$ 328,481	$ 270,012	$ 9,727	$ 48,827	$ 54,166	$ 11,747	$ 20,693	$ 1,923,654	∑ Cols A-J
22													
23	Total from FCOS											$ 1,919,611	∑ Lines 1, 6, 11, 16
24	Variance												
25	$s											$ 4,043	Line 21 - Line 23
26	%											0.21%	Line 25 / Line 23
27													
28													

Line		Currently effective			Rate case			COG Adder for Rate Case	
30		2020 Summer COG Filing	2019-2020 Winter COG Filing		Summer	Winter		Summer	Winter
31	LP and LNG Costs	$ -	$ 1,980,428			$ 1,647,823			
32	Bad Debt Costs	-	495	495	-	4,776	$ 4,776		
33	Gas Working Capital								
34	Other A&G and Misc.	-	13,170	13,170	-	267,012	$ 267,012		
35	Total Indirect Costs	$ -	$ 1,994,093		$ -	$ 1,919,611			
36									
37	Volumes	0	103,244,640	103,244,640	-	103,244,640	103,244,640		
38	Indirect Gas Rate	$ -	$ 0.0193		$ -	$ 0.0186		$ -	$ (0.0007)

Liberty Utilities (EnergyNorth Natural Gas) Corp.

COMPARATIVE MONTHLY BILLING UNDER PRESENT AND PROPOSED RATES
RATE R-1 : RESIDENTIAL NON-HEATING

Line	**Present Rates**	Winter	Summer	**Proposed Rates**	Winter	Summer
1						
2	Cost of Gas	$0.6203	$0.4520	Cost of Gas	$0.6196	$0.4520
3	LDAC	$0.0310	$0.0310	LDAC	$0.0328	$0.0328
4						
5	Customer charge	$15.20		Customer charge	$17.30	
6	Sales rate			Sales rate		
7	First Block Size	0	0	First Block Size	0	0
8	Block 1	$0.3786	$0.3786	Block 1	$0.4310	$0.4310
9	Block 2	$0.3786	$0.3786	Block 2	$0.4310	$0.4310

Line		Use per Month (therms)	Monthly Bills at Present Rates - Winter - Base Rates	COG / LDAC	TOTAL	Monthly Bills at Present Rates - Summer - Base Rates	COG / LDAC	TOTAL	Monthly Bills at Proposed Rates - Winter - Base Rates	COG / LDAC	TOTAL	Monthly Bills at Proposed Rates - Summer - Base Rates	COG / LDAC	TOTAL	Change in Monthly Bill - Winter - $	%	Change in Monthly Bill - Summer - $	%	Unit Costs - Current - Winter	Summer	Unit Costs - Proposed - Winter	Summer
11																						
12																						
13																						
14																						
15																						
16		0	$15.20	$0.00	$15.20	$15.20	$0.00	$15.20	$17.30	$0.00	$17.30	$17.30	$0.00	$17.30	$2.10	13.8%	$2.10	13.8%	$0.0000	$0.0000	$0.0000	$0.0000
17		2	$15.96	$1.30	$17.26	$15.96	$0.97	$16.92	$18.17	$1.30	$19.47	$18.17	$0.97	$19.14	$2.21	12.8%	$2.21	13.1%	$8.6299	$8.4616	$9.7357	$9.5681
18		4	$16.71	$2.61	$19.32	$16.71	$1.93	$18.65	$19.03	$2.61	$21.64	$19.03	$1.94	$20.97	$2.32	12.0%	$2.32	12.5%	$4.8299	$4.6616	$5.4096	$5.2420
19		6	$17.47	$3.91	$21.38	$17.47	$2.90	$20.37	$19.89	$3.91	$23.81	$19.89	$2.91	$22.80	$2.43	11.3%	$2.43	11.9%	$3.5632	$3.3949	$3.9675	$3.7999
20		8	$18.23	$5.21	$23.44	$18.23	$3.86	$22.09	$20.75	$5.22	$25.97	$20.75	$3.88	$24.63	$2.53	10.8%	$2.54	11.5%	$2.9299	$2.7616	$3.2465	$3.0789
21		10	$18.99	$6.51	$25.50	$18.99	$4.83	$23.82	$21.61	$6.52	$28.14	$21.61	$4.85	$26.46	$2.64	10.4%	$2.65	11.1%	$2.5499	$2.3816	$2.8139	$2.6463
22		15	$20.88	$9.77	$30.65	$20.88	$7.25	$28.12	$23.77	$9.79	$33.56	$23.77	$7.27	$31.04	$2.91	9.5%	$2.92	10.4%	$2.0432	$1.8749	$2.2371	$2.0695
23		20	$22.77	$13.03	$35.80	$22.77	$9.66	$32.43	$25.92	$13.05	$38.97	$25.92	$9.70	$35.62	$3.18	8.9%	$3.19	9.8%	$1.7899	$1.6216	$1.9487	$1.7811
24		25	$24.67	$16.28	$40.95	$24.67	$12.08	$36.74	$28.08	$16.31	$44.39	$28.08	$12.12	$40.20	$3.44	8.4%	$3.46	9.4%	$1.6379	$1.4696	$1.7756	$1.6080
25		30	$26.56	$19.54	$46.10	$26.56	$14.49	$41.05	$30.23	$19.57	$49.81	$30.23	$14.55	$44.78	$3.71	8.0%	$3.73	9.1%	$1.5366	$1.3683	$1.6603	$1.4927
26		35	$28.45	$22.80	$51.25	$28.45	$16.91	$45.36	$32.39	$22.84	$55.22	$32.39	$16.97	$49.36	$3.98	7.8%	$4.00	8.8%	$1.4642	$1.2959	$1.5778	$1.4102
27		40	$30.34	$26.05	$56.40	$30.34	$19.32	$49.66	$34.54	$26.10	$60.64	$34.54	$19.39	$53.94	$4.25	7.5%	$4.27	8.6%	$1.4099	$1.2416	$1.5160	$1.3484
28		45	$32.24	$29.31	$61.55	$32.24	$21.74	$53.97	$36.70	$29.36	$66.06	$36.70	$21.82	$58.52	$4.51	7.3%	$4.55	8.4%	$1.3677	$1.1994	$1.4680	$1.3004
29		50	$34.13	$32.57	$66.70	$34.13	$24.15	$58.28	$38.85	$32.62	$71.48	$38.85	$24.24	$63.10	$4.78	7.2%	$4.82	8.3%	$1.3339	$1.1656	$1.4295	$1.2619
30		60	$37.92	$39.08	$76.99	$37.92	$28.98	$66.90	$43.16	$39.15	$82.31	$43.16	$29.09	$72.25	$5.32	6.9%	$5.36	8.0%	$1.2832	$1.1149	$1.3718	$1.2042
31		70	$41.70	$45.59	$87.29	$41.70	$33.81	$75.51	$47.47	$45.67	$93.14	$47.47	$33.94	$81.41	$5.85	6.7%	$5.90	7.8%	$1.2470	$1.0787	$1.3306	$1.1630
32		80	$45.49	$52.10	$97.59	$45.49	$38.64	$84.13	$51.78	$52.20	$103.98	$51.78	$38.79	$90.57	$6.39	6.5%	$6.44	7.7%	$1.2199	$1.0516	$1.2997	$1.1321
33		90	$49.27	$58.62	$107.89	$49.27	$43.47	$92.74	$56.09	$58.72	$114.81	$56.09	$43.64	$99.73	$6.92	6.4%	$6.99	7.5%	$1.1988	$1.0305	$1.2757	$1.1081
34		100	$53.06	$65.13	$118.19	$53.06	$48.30	$101.36	$60.40	$65.24	$125.65	$60.40	$48.48	$108.89	$7.46	6.3%	$7.53	7.4%	$1.1819	$1.0136	$1.2565	$1.0889
35		200	$90.92	$130.26	$221.18	$90.92	$96.60	$187.52	$103.50	$130.49	$233.99	$103.50	$96.97	$200.47	$12.81	5.8%	$12.95	6.9%	$1.1059	$0.9376	$1.1700	$1.0024
36																						
37	**Estimated Bill Percentiles**																					
38	Winter - 25%	8	$18.23	$5.21	$23.44				$20.75	$5.22	$25.97				$2.53	10.8%			$2.9299		$3.2465	
39	Winter - 50%	20	$22.77	$13.03	$35.80				$25.92	$13.05	$38.97				$3.18	8.9%			$1.7899		$1.9487	
40	Winter - 75%	30	$26.56	$19.54	$46.10				$30.23	$19.57	$49.81				$3.71	8.0%			$1.5366		$1.6603	
41	Summer - 25%	5				$17.09	$2.42	$19.51				$19.46	$2.42	$21.88			$2.38	12.2%		$3.9016		$4.3768
42	Summer - 50%	11				$19.36	$5.31	$24.68				$22.05	$5.33	$27.38			$2.70	10.9%		$2.2434		$2.4890
43	Summer - 75%	20				$22.77	$9.66	$32.43				$25.92	$9.70	$35.62			$3.19	9.8%		$1.6216		$1.7811

Liberty Utilities (EnergyNorth Natural Gas) Corp.

COMPARATIVE MONTHLY BILLING UNDER PRESENT AND PROPOSED RATES
RATE R-3 : RESIDENTIAL HEATING

Line	**Present Rates**	Winter	Summer	**Proposed Rates**	Winter	Summer
1	**Present Rates**	Winter	Summer	**Proposed Rates**	Winter	Summer
2	Cost of Gas	$0.6203	$0.4520	Cost of Gas	$0.6196	$0.4520
3	LDAC	$0.0310	$0.0310	LDAC	$0.0328	$0.0328
4						
5	Customer charge	$15.20		Customer charge	$17.30	
6	Sales rate			Sales rate		
7	First Block Size	0	0	First Block Size	0	0
8	Block 1	$0.5569	$0.5569	Block 1	$0.6338	$0.6338
9	Block 2	$0.5569	$0.5569	Block 2	$0.6338	$0.6338
10						
11						

Line		Use per Month (therms)	Monthly Bills at Present Rates						Monthly Bills at Proposed Rates						Change in Monthly Bill				Unit Costs			
13			Winter			Summer			Winter			Summer			Winter		Summer		Current		Proposed	
14			Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	$	%	$	%	Winter	Summer	Winter	Summer
15																						
16		0	$15.20	$0.00	$15.20	$15.20	$0.00	$15.20	$17.30	$0.00	$17.30	$17.30	$0.00	$17.30	$2.10	13.8%	$2.10	13.8%	$0.0000	$0.0000	$0.0000	$0.0000
17		10	$20.77	$6.51	$27.28	$20.77	$4.83	$25.60	$23.64	$6.52	$30.17	$23.64	$4.85	$28.49	$2.88	10.6%	$2.89	11.3%	$2.7282	$2.5599	$3.0166	$2.8490
18		25	$29.12	$16.28	$45.41	$29.12	$12.08	$41.20	$33.15	$16.31	$49.46	$33.15	$12.12	$45.27	$4.05	8.9%	$4.07	9.9%	$1.8162	$1.6479	$1.9784	$1.8108
19		50	$43.05	$32.57	$75.61	$43.05	$24.15	$67.20	$48.99	$32.62	$81.62	$48.99	$24.24	$73.24	$6.01	7.9%	$6.04	9.0%	$1.5122	$1.3439	$1.6323	$1.4647
20		75	$56.97	$48.85	$105.82	$56.97	$36.23	$93.19	$64.84	$48.93	$113.77	$64.84	$36.36	$101.20	$7.96	7.5%	$8.01	8.6%	$1.4109	$1.2426	$1.5170	$1.3494
21		100	$70.89	$65.13	$136.02	$70.89	$48.30	$119.19	$80.69	$65.24	$145.93	$80.69	$48.48	$129.17	$9.91	7.3%	$9.98	8.4%	$1.3602	$1.1919	$1.4593	$1.2917
22		125	$84.81	$81.41	$166.23	$84.81	$60.38	$145.19	$96.53	$81.56	$178.09	$96.53	$60.61	$157.14	$11.86	7.1%	$11.95	8.2%	$1.3298	$1.1615	$1.4247	$1.2571
23		150	$98.74	$97.70	$196.43	$98.74	$72.45	$171.19	$112.38	$97.87	$210.24	$112.38	$72.73	$185.10	$13.81	7.0%	$13.92	8.1%	$1.3095	$1.1412	$1.4016	$1.2340
24		175	$112.66	$113.98	$226.64	$112.66	$84.53	$197.18	$128.22	$114.18	$242.40	$128.22	$84.85	$213.07	$15.76	7.0%	$15.89	8.1%	$1.2951	$1.1268	$1.3851	$1.2175
25		200	$126.58	$130.26	$256.84	$126.58	$96.60	$223.18	$144.07	$130.49	$274.56	$144.07	$96.97	$241.04	$17.72	6.9%	$17.86	8.0%	$1.2842	$1.1159	$1.3728	$1.2052
26		225	$140.50	$146.54	$287.05	$140.50	$108.68	$249.18	$159.91	$146.80	$306.71	$159.91	$109.09	$269.00	$19.67	6.9%	$19.83	8.0%	$1.2758	$1.1075	$1.3632	$1.1956
27		250	$154.43	$162.83	$317.25	$154.43	$120.75	$275.18	$175.76	$163.11	$338.87	$175.76	$121.21	$296.97	$21.62	6.8%	$21.79	7.9%	$1.2690	$1.1007	$1.3555	$1.1879
28		275	$168.35	$179.11	$347.46	$168.35	$132.83	$301.17	$191.60	$179.42	$371.03	$191.60	$133.33	$324.94	$23.57	6.8%	$23.76	7.9%	$1.2635	$1.0952	$1.3492	$1.1816
29		300	$182.27	$195.39	$377.66	$182.27	$144.90	$327.17	$207.45	$195.73	$403.18	$207.45	$145.45	$352.90	$25.52	6.8%	$25.73	7.9%	$1.2589	$1.0906	$1.3439	$1.1763
30		350	$210.12	$227.96	$438.07	$210.12	$169.05	$379.17	$239.14	$228.36	$467.50	$239.14	$169.70	$408.84	$29.43	6.7%	$29.67	7.8%	$1.2516	$1.0833	$1.3357	$1.1681
31		400	$237.96	$260.52	$498.48	$237.96	$193.20	$431.16	$270.83	$260.98	$531.81	$270.83	$193.94	$464.77	$33.33	6.7%	$33.61	7.8%	$1.2462	$1.0779	$1.3295	$1.1619
32		450	$265.81	$293.09	$558.89	$265.81	$217.35	$483.16	$302.52	$293.60	$596.12	$302.52	$218.18	$520.70	$37.23	6.7%	$37.55	7.8%	$1.2420	$1.0737	$1.3247	$1.1571
33		500	$293.65	$325.65	$619.30	$293.65	$241.50	$535.15	$334.21	$326.22	$660.44	$334.21	$242.42	$576.64	$41.14	6.6%	$41.49	7.8%	$1.2386	$1.0703	$1.3209	$1.1533
34		750	$432.88	$488.48	$921.35	$432.88	$362.25	$795.13	$492.67	$489.33	$982.00	$492.67	$363.63	$856.30	$60.65	6.6%	$61.18	7.7%	$1.2285	$1.0602	$1.3093	$1.1417
35		1,000	$572.10	$651.30	$1,223.40	$572.10	$483.00	$1,055.10	$651.13	$652.44	$1,303.57	$651.13	$484.84	$1,135.97	$80.17	6.6%	$80.87	7.7%	$1.2234	$1.0551	$1.3036	$1.1360
36																						
37	**Estimated Bill Percentiles**																					
38	Winter - 25%	60	$48.61	$39.08	$87.69				$55.33	$39.15	$94.48				$6.79	7.7%			$1.4615		$1.5747	
39	Winter - 50%	100	$70.89	$65.13	$136.02				$80.69	$65.24	$145.93				$9.91	7.3%			$1.3602		$1.4593	
40	Winter - 75%	175	$112.66	$113.98	$226.64				$128.22	$114.18	$242.40				$15.76	7.0%			$1.2951		$1.3851	
41	Summer - 25%	12				$21.88	$5.80	$27.68				$24.91	$5.82	$30.73			$3.05	11.0%		$2.3066		$2.5606
42	Summer - 50%	20				$26.34	$9.66	$36.00				$29.98	$9.70	$39.68			$3.68	10.2%		$1.7999		$1.9838
43	Summer - 75%	30				$31.91	$14.49	$46.40				$36.32	$14.55	$50.86			$4.47	9.6%		$1.5466		$1.6954

Liberty Utilities (EnergyNorth Natural Gas) Corp.

COMPARATIVE MONTHLY BILLING UNDER PRESENT AND PROPOSED RATES
RATE R-4 : LOW INCOME RESIDENTIAL HEATING

Line	Present Rates	Winter	Summer	Proposed Rates	Winter	Summer
1	**Present Rates**	Winter	Summer	**Proposed Rates**	Winter	Summer
2	Cost of Gas	$0.6203	$0.4520	Cost of Gas	$0.6196	$0.4520
3	LDAC	$0.0310	$0.0310	LDAC	$0.0328	$0.0328
4						
5	Customer charge	$6.08		Customer charge	$6.92	
6	Sales rate			Sales rate		
7	First Block Size	0	0	First Block Size	0	0
8	Block 1	$0.2228	$0.2228	Block 1	$0.2535	$0.2535
9	Block 2	$0.2228	$0.2228	Block 2	$0.2535	$0.2535

Line		Use per Month (therms)	Monthly Bills at Present Rates						Monthly Bills at Proposed Rates						Change in Monthly Bill				Unit Costs			
13			Winter			Summer			Winter			Summer			Winter		Summer		Current		Proposed	
14			Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	$	%	$	%	Winter	Summer	Winter	Summer
15																						
16		0	$6.08	$0.00	$6.08	$6.08	$0.00	$6.08	$6.92	$0.00	$6.92	$6.92	$0.00	$6.92	$0.84	13.8%	$0.84	13.8%	$0.0000	$0.0000	$0.0000	$0.0000
17		10	$8.31	$6.51	$14.82	$8.31	$4.83	$13.14	$9.46	$6.52	$15.98	$9.46	$4.85	$14.31	$1.16	7.8%	$1.17	8.9%	$1.4821	$1.3138	$1.5981	$1.4305
18		25	$11.65	$16.28	$27.93	$11.65	$12.08	$23.73	$13.26	$16.31	$29.57	$13.26	$12.12	$25.38	$1.64	5.9%	$1.66	7.0%	$1.1173	$0.9490	$1.1828	$1.0152
19		50	$17.22	$32.57	$49.79	$17.22	$24.15	$41.37	$19.60	$32.62	$52.22	$19.60	$24.24	$43.84	$2.43	4.9%	$2.47	6.0%	$0.9957	$0.8274	$1.0444	$0.8768
20		75	$22.79	$48.85	$71.64	$22.79	$36.23	$59.02	$25.94	$48.93	$74.87	$25.94	$36.36	$62.30	$3.23	4.5%	$3.28	5.6%	$0.9552	$0.7869	$0.9983	$0.8307
21		100	$28.36	$65.13	$93.49	$28.36	$48.30	$76.66	$32.27	$65.24	$97.52	$32.27	$48.48	$80.76	$4.03	4.3%	$4.10	5.3%	$0.9349	$0.7666	$0.9752	$0.8076
22		125	$33.93	$81.41	$115.34	$33.93	$60.38	$94.31	$38.61	$81.56	$120.17	$38.61	$60.61	$99.22	$4.83	4.2%	$4.91	5.2%	$0.9227	$0.7544	$0.9613	$0.7937
23		150	$39.50	$97.70	$137.20	$39.50	$72.45	$111.95	$44.95	$97.87	$142.82	$44.95	$72.73	$117.68	$5.62	4.1%	$5.73	5.1%	$0.9146	$0.7463	$0.9521	$0.7845
24		175	$45.07	$113.98	$159.05	$45.07	$84.53	$129.60	$51.29	$114.18	$165.47	$51.29	$84.85	$136.14	$6.42	4.0%	$6.54	5.0%	$0.9088	$0.7405	$0.9455	$0.7779
25		200	$50.64	$130.26	$180.90	$50.64	$96.60	$147.24	$57.63	$130.49	$188.12	$57.63	$96.97	$154.60	$7.22	4.0%	$7.36	5.0%	$0.9045	$0.7362	$0.9406	$0.7730
26		225	$56.21	$146.54	$202.75	$56.21	$108.68	$164.89	$63.97	$146.80	$210.77	$63.97	$109.09	$173.06	$8.01	4.0%	$8.17	5.0%	$0.9011	$0.7328	$0.9367	$0.7691
27		250	$61.78	$162.83	$224.61	$61.78	$120.75	$182.53	$70.30	$163.11	$233.41	$70.30	$121.21	$191.51	$8.81	3.9%	$8.98	4.9%	$0.8984	$0.7301	$0.9337	$0.7661
28		275	$67.35	$179.11	$246.46	$67.35	$132.83	$200.18	$76.64	$179.42	$256.06	$76.64	$133.33	$209.97	$9.61	3.9%	$9.80	4.9%	$0.8962	$0.7279	$0.9311	$0.7635
29		300	$72.92	$195.39	$268.31	$72.92	$144.90	$217.82	$82.98	$195.73	$278.71	$82.98	$145.45	$228.43	$10.40	3.9%	$10.61	4.9%	$0.8944	$0.7261	$0.9290	$0.7614
30		350	$84.06	$227.96	$312.02	$84.06	$169.05	$253.11	$95.66	$228.36	$324.01	$95.66	$169.70	$265.35	$12.00	3.8%	$12.24	4.8%	$0.8915	$0.7232	$0.9257	$0.7581
31		400	$95.20	$260.52	$355.72	$95.20	$193.20	$288.40	$108.33	$260.98	$369.31	$108.33	$193.94	$302.27	$13.59	3.8%	$13.87	4.8%	$0.8893	$0.7210	$0.9233	$0.7557
32		450	$106.34	$293.09	$399.43	$106.34	$217.35	$323.69	$121.01	$293.60	$414.61	$121.01	$218.18	$339.19	$15.18	3.8%	$15.50	4.8%	$0.8876	$0.7193	$0.9214	$0.7538
33		500	$117.48	$325.65	$443.13	$117.48	$241.50	$358.98	$133.69	$326.22	$459.91	$133.69	$242.42	$376.11	$16.78	3.8%	$17.13	4.8%	$0.8863	$0.7180	$0.9198	$0.7522
34		750	$173.18	$488.48	$661.66	$173.18	$362.25	$535.43	$197.07	$489.33	$686.40	$197.07	$363.63	$560.70	$24.75	3.7%	$25.27	4.7%	$0.8822	$0.7139	$0.9152	$0.7476
35		1,000	$228.88	$651.30	$880.18	$228.88	$483.00	$711.88	$260.45	$652.44	$912.89	$260.45	$484.84	$745.29	$32.71	3.7%	$33.41	4.7%	$0.8802	$0.7119	$0.9129	$0.7453
36																						
37	**Estimated Bill Percentiles**																					
38	Winter - 25%	70	$21.68	$45.59	$67.27				$24.67	$45.67	$70.34				$3.07	4.6%			$0.9610		$1.0048	
39	Winter - 50%	100	$28.36	$65.13	$93.49				$32.27	$65.24	$97.52				$4.03	4.3%			$0.9349		$0.9752	
40	Winter - 75%	150	$39.50	$97.70	$137.20				$44.95	$97.87	$142.82				$5.62	4.1%			$0.9146		$0.9521	
41	Summer - 25%	14				$9.20	$6.76	$15.96				$10.47	$6.79	$17.26			$1.30	8.1%		$1.1401		$1.2328
42	Summer - 50%	25				$11.65	$12.08	$23.73				$13.26	$12.12	$25.38			$1.66	7.0%		$0.9490		$1.0152
43	Summer - 75%	40				$14.99	$19.32	$34.31				$17.06	$19.39	$36.46			$2.14	6.2%		$0.8578		$0.9114

Liberty Utilities (EnergyNorth Natural Gas) Corp.

COMPARATIVE MONTHLY BILLING UNDER PRESENT AND PROPOSED RATES
RATE G-41 : COMMERCIAL/INDUSTRIAL - LOW ANNUAL USE, HIGH WINTER USE

Line	**Present Rates**	Winter	Summer	**Proposed Rates**	Winter	Summer
1	**Present Rates**	Winter	Summer	**Proposed Rates**	Winter	Summer
2	Cost of Gas	$0.6190	$0.4474	Cost of Gas	$0.6183	$0.4474
3	LDAC	$0.0478	$0.0478	LDAC	$0.0496	$0.0496
4						
5	Customer charge	$56.36		Customer charge	$64.15	
6	Sales rate			Sales rate		
7	First Block Size	100	20	First Block Size	100	20
8	Block 1	$0.4621	$0.4621	Block 1	$0.5260	$0.5260
9	Block 2	$0.3104	$0.3104	Block 2	$0.3533	$0.3533
10						
11						

Line		Use per Month (therms)	Monthly Bills at Present Rates						Monthly Bills at Proposed Rates						Change in Monthly Bill				Unit Costs			
12			Monthly Bills at Present Rates						Monthly Bills at Proposed Rates						Change in Monthly Bill				Unit Costs			
13		Use per	Winter			Summer			Winter			Summer			Winter		Summer		Current		Proposed	
14		Month (therms)	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	$	%	$	%	Winter	Summer	Winter	Summer
15																						
16		0	$56	$0	$56	$56	$0	$56	$64	$0	$64	$64	$0	$64	$7.79	13.8%	$7.79	13.8%	$0.0000	$0.0000	$0.0000	$0.0000
17		10	$61	$7	$68	$61	$5	$66	$69	$7	$76	$69	$5	$74	$8.44	12.5%	$8.45	12.8%	$6.7649	$6.5933	$7.6087	$7.4378
18		25	$68	$17	$85	$67	$12	$80	$77	$17	$94	$76	$12	$89	$9.41	11.1%	$9.33	11.7%	$3.3833	$3.1814	$3.7599	$3.5544
19		50	$79	$33	$113	$75	$25	$100	$90	$33	$124	$85	$25	$110	$11.04	9.8%	$10.45	10.5%	$2.2561	$1.9935	$2.4769	$2.2024
20		75	$91	$50	$141	$83	$37	$120	$104	$50	$154	$94	$37	$131	$12.67	9.0%	$11.56	9.7%	$1.8804	$1.5975	$2.0493	$1.7517
21		100	$103	$67	$169	$90	$50	$140	$117	$67	$184	$103	$50	$153	$14.29	8.4%	$12.68	9.1%	$1.6925	$1.3995	$1.8354	$1.5264
22		150	$118	$100	$218	$106	$74	$180	$134	$100	$235	$121	$75	$195	$16.49	7.6%	$14.92	8.3%	$1.4541	$1.2016	$1.5640	$1.3010
23		200	$134	$133	$267	$121	$99	$221	$152	$134	$286	$138	$99	$238	$18.70	7.0%	$17.16	7.8%	$1.3349	$1.1026	$1.4283	$1.1884
24		250	$149	$167	$316	$137	$124	$261	$170	$167	$337	$156	$124	$280	$20.90	6.6%	$19.39	7.4%	$1.2633	$1.0432	$1.3469	$1.1208
25		300	$165	$200	$365	$153	$149	$301	$187	$200	$388	$174	$149	$323	$23.10	6.3%	$21.63	7.2%	$1.2156	$1.0036	$1.2926	$1.0757
26		350	$180	$233	$414	$168	$173	$341	$205	$234	$439	$191	$174	$365	$25.30	6.1%	$23.87	7.0%	$1.1816	$0.9753	$1.2539	$1.0435
27		400	$196	$267	$462	$184	$198	$382	$223	$267	$490	$209	$199	$408	$27.51	5.9%	$26.11	6.8%	$1.1560	$0.9541	$1.2248	$1.0194
28		500	$227	$333	$560	$215	$248	$462	$258	$334	$592	$244	$249	$493	$31.91	5.7%	$30.58	6.6%	$1.1203	$0.9244	$1.1841	$0.9856
29		600	$258	$400	$658	$246	$297	$543	$293	$401	$694	$280	$298	$578	$36.32	5.5%	$35.06	6.5%	$1.0964	$0.9046	$1.1569	$0.9630
30		700	$289	$467	$756	$277	$347	$623	$329	$468	$796	$315	$348	$663	$40.72	5.4%	$39.53	6.3%	$1.0794	$0.8904	$1.1376	$0.9469
31		800	$320	$533	$853	$308	$396	$704	$364	$534	$898	$350	$398	$748	$45.13	5.3%	$44.01	6.3%	$1.0666	$0.8798	$1.1230	$0.9348
32		900	$351	$600	$951	$339	$446	$784	$399	$601	$1,001	$386	$447	$833	$49.53	5.2%	$48.48	6.2%	$1.0567	$0.8716	$1.1117	$0.9255
33		1,000	$382	$667	$1,049	$370	$495	$865	$435	$668	$1,103	$421	$497	$918	$53.93	5.1%	$52.95	6.1%	$1.0487	$0.8650	$1.1027	$0.9179
34		1,250	$460	$834	$1,293	$447	$619	$1,066	$523	$835	$1,358	$509	$621	$1,131	$64.95	5.0%	$64.14	6.0%	$1.0344	$0.8531	$1.0864	$0.9044
35		1,500	$537	$1,000	$1,537	$525	$743	$1,268	$611	$1,002	$1,613	$598	$746	$1,343	$75.96	4.9%	$75.33	5.9%	$1.0249	$0.8452	$1.0755	$0.8954
36																						
37	**Estimated Bill Percentiles**																					
38	Winter - 25%	70	$89	$47	$135				$101	$47	$148				$12.34	9.1%			$1.9340		$2.1103	
39	Winter - 50%	200	$134	$133	$267				$152	$134	$286				$18.70	7.0%			$1.3349		$1.4283	
40	Winter - 75%	500	$227	$333	$560				$258	$334	$592				$31.91	5.7%			$1.1203		$1.1841	
41	Summer - 25%	0				$56	$0	$56				$64	$0	$64			$7.79	13.8%		$0.0000		$0.0000
42	Summer - 50%	8				$60	$4	$64				$68	$4	$72			$8.31	13.0%		$8.0023		$9.0415
43	Summer - 75%	45				$73	$22	$96				$84	$22	$106			$10.22	10.7%		$2.1255		$2.3526

COMPARATIVE MONTHLY BILLING UNDER PRESENT AND PROPOSED RATES
RATE G-42 : COMMERCIAL/INDUSTRIAL - MEDIUM ANNUAL USE, HIGH WINTER USE

Line	Present Rates	Winter	Summer	Proposed Rates	Winter	Summer
1	**Present Rates**	Winter	Summer	**Proposed Rates**	Winter	Summer
2	Cost of Gas	$0.6190	$0.4474	Cost of Gas	$0.6183	$0.4474
3	LDAC	$0.0478	$0.0478	LDAC	$0.0496	$0.0496
4						
5	Customer charge	$169.09		Customer charge	$192.46	
6	Sales rate			Sales rate		
7	First Block Size	1000	400	First Block Size	1000	400
8	Block 1	$0.4202	$0.4202	Block 1	$0.4783	$0.4783
9	Block 2	$0.2800	$0.2800	Block 2	$0.3186	$0.3186

Line		Use per Month (therms)	Monthly Bills at Present Rates						Monthly Bills at Proposed Rates						Change in Monthly Bill				Unit Costs			
11																						
13			Winter			Summer			Winter			Summer			Winter		Summer		Current		Proposed	
14			Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	$	%	$	%	Winter	Summer	Winter	Summer
15																						
16		0	$169	$0	$169	$169	$0	$169	$192	$0	$192	$192	$0	$192	$23.37	13.8%	$23.37	13.8%	$0.0000	$0.0000	$0.0000	$0.0000
17		10	$173	$7	$180	$173	$5	$178	$197	$7	$204	$197	$5	$202	$23.96	13.3%	$23.97	13.4%	$17.9960	$17.8244	$20.3918	$20.2209
18		25	$180	$17	$196	$180	$12	$192	$204	$17	$221	$204	$12	$217	$24.85	12.7%	$24.86	13.0%	$7.8506	$7.6790	$8.8445	$8.6736
19		50	$190	$33	$223	$190	$25	$215	$216	$33	$250	$216	$25	$241	$26.33	11.8%	$26.36	12.3%	$4.4688	$4.2972	$4.9954	$4.8245
20		75	$201	$50	$251	$201	$37	$238	$228	$50	$278	$228	$37	$266	$27.81	11.1%	$27.86	11.7%	$3.3415	$3.1699	$3.7123	$3.5414
21		100	$211	$67	$278	$211	$50	$261	$240	$67	$307	$240	$50	$290	$29.29	10.5%	$29.36	11.3%	$2.7779	$2.6063	$3.0708	$2.8999
22		150	$232	$100	$332	$232	$74	$306	$264	$100	$364	$264	$75	$339	$32.26	9.7%	$32.36	10.6%	$2.2143	$2.0427	$2.4293	$2.2584
23		200	$253	$133	$386	$253	$99	$352	$288	$134	$422	$288	$99	$388	$35.22	9.1%	$35.36	10.0%	$1.9325	$1.7609	$2.1085	$1.9376
24		250	$274	$167	$441	$274	$124	$398	$312	$167	$479	$312	$124	$436	$38.18	8.7%	$38.36	9.6%	$1.7634	$1.5918	$1.9161	$1.7452
25		300	$295	$200	$495	$295	$149	$444	$336	$200	$536	$336	$149	$485	$41.14	8.3%	$41.35	9.3%	$1.6506	$1.4790	$1.7878	$1.6169
26		350	$316	$233	$550	$316	$173	$489	$360	$234	$594	$360	$174	$534	$44.11	8.0%	$44.35	9.1%	$1.5701	$1.3985	$1.6961	$1.5252
27		400	$337	$267	$604	$337	$198	$535	$384	$267	$651	$384	$199	$583	$47.07	7.8%	$47.35	8.8%	$1.5097	$1.3381	$1.6274	$1.4565
28		500	$379	$333	$713	$365	$248	$613	$432	$334	$766	$416	$249	$664	$53.00	7.4%	$51.40	8.4%	$1.4252	$1.2255	$1.5312	$1.3283
29		750	$484	$500	$984	$435	$371	$807	$551	$501	$1,052	$495	$373	$868	$67.81	6.9%	$61.52	7.6%	$1.3125	$1.0754	$1.4029	$1.1575
30		1,000	$589	$667	$1,256	$505	$495	$1,000	$671	$668	$1,339	$575	$497	$1,072	$82.63	6.6%	$71.65	7.2%	$1.2561	$1.0004	$1.3387	$1.0720
31		1,500	$729	$1,000	$1,729	$645	$743	$1,388	$830	$1,002	$1,832	$734	$746	$1,480	$102.52	5.9%	$91.89	6.6%	$1.1530	$0.9253	$1.2213	$0.9866
32		2,000	$869	$1,334	$2,203	$785	$990	$1,776	$989	$1,336	$2,325	$894	$994	$1,888	$122.42	5.6%	$112.14	6.3%	$1.1014	$0.8878	$1.1627	$0.9439
33		3,000	$1,149	$2,000	$3,150	$1,065	$1,486	$2,551	$1,308	$2,004	$3,312	$1,212	$1,491	$2,703	$162.21	5.2%	$152.63	6.0%	$1.0499	$0.8503	$1.1040	$0.9011
34		4,000	$1,429	$2,667	$4,096	$1,345	$1,981	$3,326	$1,627	$2,672	$4,298	$1,531	$1,988	$3,519	$202.00	4.9%	$193.12	5.8%	$1.0241	$0.8315	$1.0746	$0.8798
35		5,000	$1,709	$3,334	$5,043	$1,625	$2,476	$4,101	$1,945	$3,340	$5,285	$1,850	$2,485	$4,335	$241.79	4.8%	$233.61	5.7%	$1.0087	$0.8202	$1.0570	$0.8670
36																						
37	**Estimated Bill Percentiles**																					
38	Winter - 25%	1,300	$673	$867	$1,540				$766	$868	$1,635				$94.57	6.1%			$1.1847		$1.2575	
39	Winter - 50%	2,000	$869	$1,334	$2,203				$989	$1,336	$2,325				$122.42	5.6%			$1.1014		$1.1627	
40	Winter - 75%	3,500	$1,289	$2,334	$3,623				$1,467	$2,338	$3,805				$182.11	5.0%			$1.0352		$1.0872	
41	Summer - 25%	45				$188	$22	$210				$214	$22	$236			$26.06	12.4%		$4.6730		$5.2522
42	Summer - 50%	350				$316	$173	$489				$360	$174	$534			$44.35	9.1%		$1.3985		$1.5252
43	Summer - 75%	750				$435	$371	$807				$495	$373	$868			$61.52	7.6%		$1.0754		$1.1575

Liberty Utilities (EnergyNorth Natural Gas) Corp.

COMPARATIVE MONTHLY BILLING UNDER PRESENT AND PROPOSED RATES
RATE G-43 : COMMERCIAL/INDUSTRIAL - HIGH ANNUAL USE, HIGH WINTER USE

Line	Present Rates	Winter	Summer	Proposed Rates	Winter	Summer
1	**Present Rates**	Winter	Summer	**Proposed Rates**	Winter	Summer
2	Cost of Gas	$0.6190	$0.4474	Cost of Gas	$0.6183	$0.4474
3	LDAC	$0.0478	$0.0478	LDAC	$0.0496	$0.0496
4						
5	Customer charge	$725.66		Customer charge	$825.93	
6	Sales rate			Sales rate		
7	First Block Size	0	0	First Block Size	0	0
8	Block 1	$0.2583	$0.1181	Block 1	$0.2940	$0.1344
9	Block 2	$0.2583	$0.1181	Block 2	$0.2940	$0.1344
10						
11						

Line		Monthly Bills at Present Rates						Monthly Bills at Proposed Rates						Change in Monthly Bill				Unit Costs			
13	Use per	Winter			Summer			Winter			Summer			Winter		Summer		Current		Proposed	
14	Month (therms)	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	$	%	$	%	Winter	Summer	Winter	Summer
15																					
16	200	$777	$133	$911	$749	$99	$848	$885	$134	$1,018	$853	$99	$952	$107.64	11.8%	$103.91	12.2%	$4.5534	$4.2416	$5.0916	$4.7612
17	500	$855	$333	$1,188	$785	$248	$1,032	$973	$334	$1,307	$893	$249	$1,142	$118.69	10.0%	$109.37	10.6%	$2.3764	$2.0646	$2.6138	$2.2834
18	1,000	$984	$667	$1,651	$844	$495	$1,339	$1,120	$668	$1,788	$960	$497	$1,457	$137.11	8.3%	$118.46	8.8%	$1.6508	$1.3390	$1.7879	$1.4574
19	1,250	$1,049	$834	$1,882	$873	$619	$1,492	$1,193	$835	$2,028	$994	$621	$1,615	$146.32	7.8%	$123.00	8.2%	$1.5056	$1.1938	$1.6227	$1.2922
20	1,500	$1,113	$1,000	$2,113	$903	$743	$1,646	$1,267	$1,002	$2,269	$1,028	$746	$1,773	$155.53	7.4%	$127.55	7.8%	$1.4089	$1.0971	$1.5126	$1.1821
21	1,750	$1,178	$1,167	$2,345	$932	$867	$1,799	$1,340	$1,169	$2,509	$1,061	$870	$1,931	$164.74	7.0%	$132.09	7.3%	$1.3398	$1.0280	$1.4339	$1.1034
22	2,000	$1,242	$1,334	$2,576	$962	$990	$1,952	$1,414	$1,336	$2,750	$1,095	$994	$2,089	$173.95	6.8%	$136.64	7.0%	$1.2879	$0.9761	$1.3749	$1.0444
23	2,500	$1,371	$1,667	$3,038	$1,021	$1,238	$2,259	$1,561	$1,670	$3,231	$1,162	$1,243	$2,405	$192.37	6.3%	$145.73	6.5%	$1.2154	$0.9036	$1.2923	$0.9619
24	3,000	$1,501	$2,000	$3,501	$1,080	$1,486	$2,566	$1,708	$2,004	$3,712	$1,229	$1,491	$2,720	$210.78	6.0%	$154.82	6.0%	$1.1670	$0.8552	$1.2372	$0.9068
25	3,500	$1,630	$2,334	$3,964	$1,139	$1,733	$2,872	$1,855	$2,338	$4,193	$1,296	$1,740	$3,036	$229.20	5.8%	$163.91	5.7%	$1.1324	$0.8206	$1.1979	$0.8675
26	4,000	$1,759	$2,667	$4,426	$1,198	$1,981	$3,179	$2,002	$2,672	$4,674	$1,364	$1,988	$3,352	$247.62	5.6%	$173.00	5.4%	$1.1065	$0.7947	$1.1684	$0.8380
27	4,500	$1,888	$3,001	$4,889	$1,257	$2,228	$3,486	$2,149	$3,006	$5,155	$1,431	$2,237	$3,668	$266.04	5.4%	$182.09	5.2%	$1.0864	$0.7746	$1.1455	$0.8150
28	5,000	$2,017	$3,334	$5,351	$1,316	$2,476	$3,792	$2,296	$3,340	$5,636	$1,498	$2,485	$3,983	$284.46	5.3%	$191.18	5.0%	$1.0702	$0.7584	$1.1271	$0.7967
29	6,000	$2,275	$4,001	$6,276	$1,434	$2,971	$4,405	$2,590	$4,008	$6,598	$1,633	$2,982	$4,615	$321.30	5.1%	$209.36	4.8%	$1.0460	$0.7342	$1.0996	$0.7691
30	7,000	$2,534	$4,668	$7,201	$1,552	$3,466	$5,019	$2,884	$4,676	$7,559	$1,767	$3,479	$5,246	$358.13	5.0%	$227.54	4.5%	$1.0288	$0.7170	$1.0799	$0.7495
31	8,000	$2,792	$5,334	$8,126	$1,670	$3,962	$5,632	$3,178	$5,344	$8,521	$1,901	$3,976	$5,878	$394.97	4.9%	$245.72	4.4%	$1.0158	$0.7040	$1.0652	$0.7347
32	9,000	$3,050	$6,001	$9,052	$1,789	$4,457	$6,245	$3,472	$6,011	$9,483	$2,036	$4,473	$6,509	$431.81	4.8%	$263.90	4.2%	$1.0057	$0.6939	$1.0537	$0.7233
33	10,000	$3,309	$6,668	$9,977	$1,907	$4,952	$6,859	$3,766	$6,679	$10,445	$2,170	$4,970	$7,141	$468.64	4.7%	$282.08	4.1%	$0.9977	$0.6859	$1.0445	$0.7141
34	15,000	$4,600	$10,002	$14,602	$2,497	$7,428	$9,925	$5,236	$10,019	$15,255	$2,842	$7,456	$10,298	$652.83	4.5%	$372.99	3.8%	$0.9735	$0.6617	$1.0170	$0.6865
35	20,000	$5,892	$13,336	$19,228	$3,088	$9,904	$12,992	$6,706	$13,359	$20,065	$3,515	$9,941	$13,456	$837.01	4.4%	$463.89	3.6%	$0.9614	$0.6496	$1.0032	$0.6728
36																					
37	**Estimated Bill Percentiles**																				
38	Winter - 25% 9,000	$3,050	$6,001	$9,052				$3,472	$6,011	$9,483				$431.81	4.8%			$1.0057		$1.0537	
39	Winter - 50% 15,000	$4,600	$10,002	$14,602				$5,236	$10,019	$15,255				$652.83	4.5%			$0.9735		$1.0170	
40	Winter - 75% 25,000	$7,183	$16,670	$23,853				$8,176	$16,699	$24,874				$1,021.19	4.3%			$0.9541		$0.9950	
41	Summer - 25% 450				$779	$223	$1,002				$886	$224	$1,110			$108.46	10.8%		$2.2259		$2.4669
42	Summer - 50% 3,500				$1,139	$1,733	$2,872				$1,296	$1,740	$3,036			$163.91	5.7%		$0.8206		$0.8675
43	Summer - 75% 10,000				$1,907	$4,952	$6,859				$2,170	$4,970	$7,141			$282.08	4.1%		$0.6859		$0.7141

Liberty Utilities (EnergyNorth Natural Gas) Corp.

COMPARATIVE MONTHLY BILLING UNDER PRESENT AND PROPOSED RATES
RATE G-51 : COMMERCIAL/INDUSTRIAL - LOW ANNUAL USE, LOW WINTER USE

Present Rates	Winter	Summer
Cost of Gas	$0.6258	$0.4591
LDAC	$0.0478	$0.0478
Customer charge	$56.36	
Sales rate		
First Block Size	100	100
Block 1	$0.2785	$0.2785
Block 2	$0.1811	$0.1811

Proposed Rates	Winter	Summer
Cost of Gas	$0.6251	$0.4591
LDAC	$0.0496	$0.0496
Customer charge	$64.15	
Sales rate		
First Block Size	100	100
Block 1	$0.3170	$0.3170
Block 2	$0.2061	$0.2061

		Monthly Bills at Present Rates						Monthly Bills at Proposed Rates						Change in Monthly Bill				Unit Costs			
	Use per	Winter			Summer			Winter			Summer			Winter		Summer		Current		Proposed	
	Month (therms)	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	$	%	$	%	Winter	Summer	Winter	Summer
	0	$56	$0	$56	$56	$0	$56	$64	$0	$64	$64	$0	$64	$7.79	13.8%	$7.79	13.8%	$0.0000	$0.0000	$0.0000	$0.0000
	10	$59	$7	$66	$59	$5	$64	$67	$7	$74	$67	$5	$72	$8.18	12.4%	$8.19	12.8%	$6.5881	$6.4214	$7.4066	$7.2406
	25	$63	$17	$80	$63	$13	$76	$72	$17	$89	$72	$13	$85	$8.78	11.0%	$8.80	11.6%	$3.2065	$3.0398	$3.5577	$3.3917
	50	$70	$34	$104	$70	$25	$96	$80	$34	$114	$80	$25	$105	$9.77	9.4%	$9.81	10.3%	$2.0793	$1.9126	$2.2747	$2.1087
	75	$77	$51	$128	$77	$38	$115	$88	$51	$139	$88	$38	$126	$10.76	8.4%	$10.82	9.4%	$1.7036	$1.5369	$1.8471	$1.6811
	100	$84	$67	$152	$84	$51	$135	$96	$67	$163	$96	$51	$147	$11.75	7.8%	$11.82	8.8%	$1.5157	$1.3490	$1.6332	$1.4672
	150	$93	$101	$194	$93	$76	$169	$106	$101	$207	$106	$76	$182	$13.06	6.7%	$13.17	7.8%	$1.2954	$1.1287	$1.3824	$1.2164
	200	$102	$135	$237	$102	$101	$204	$116	$135	$251	$116	$102	$218	$14.37	6.1%	$14.51	7.1%	$1.1852	$1.0185	$1.2570	$1.0910
	250	$111	$168	$280	$111	$127	$238	$127	$169	$295	$127	$127	$254	$15.67	5.6%	$15.85	6.7%	$1.1191	$0.9524	$1.1818	$1.0158
	300	$120	$202	$323	$120	$152	$273	$137	$202	$339	$137	$153	$290	$16.98	5.3%	$17.19	6.3%	$1.0750	$0.9083	$1.1316	$0.9656
	350	$129	$236	$365	$129	$177	$307	$147	$236	$384	$147	$178	$325	$18.28	5.0%	$18.53	6.0%	$1.0436	$0.8769	$1.0958	$0.9298
	400	$139	$269	$408	$139	$203	$341	$158	$270	$428	$158	$203	$361	$19.59	4.8%	$19.87	5.8%	$1.0200	$0.8533	$1.0689	$0.9029
	500	$157	$337	$493	$157	$253	$410	$178	$337	$516	$178	$254	$433	$22.20	4.5%	$22.55	5.5%	$0.9869	$0.8202	$1.0313	$0.8653
	600	$175	$404	$579	$175	$304	$479	$199	$405	$604	$199	$305	$504	$24.81	4.3%	$25.23	5.3%	$0.9649	$0.7982	$1.0062	$0.8402
	700	$193	$472	$664	$193	$355	$548	$219	$472	$692	$219	$356	$576	$27.43	4.1%	$27.92	5.1%	$0.9491	$0.7824	$0.9883	$0.8223
	800	$211	$539	$750	$211	$406	$617	$240	$540	$780	$240	$407	$647	$30.04	4.0%	$30.60	5.0%	$0.9373	$0.7706	$0.9749	$0.8089
	900	$229	$606	$835	$229	$456	$685	$261	$607	$868	$261	$458	$719	$32.65	3.9%	$33.28	4.9%	$0.9281	$0.7614	$0.9644	$0.7984
	1,000	$247	$674	$921	$247	$507	$754	$281	$675	$956	$281	$509	$790	$35.26	3.8%	$35.96	4.8%	$0.9208	$0.7541	$0.9561	$0.7901
	1,250	$292	$842	$1,134	$292	$634	$926	$333	$843	$1,176	$333	$636	$969	$41.79	3.7%	$42.67	4.6%	$0.9076	$0.7409	$0.9410	$0.7750
	1,500	$338	$1,010	$1,348	$338	$760	$1,098	$384	$1,012	$1,396	$384	$763	$1,147	$48.32	3.6%	$49.37	4.5%	$0.8988	$0.7321	$0.9310	$0.7650
Estimated Bill Percentiles																					
Winter - 25%	45	$69	$30	$99				$78	$30	$109				$9.57	9.6%			$2.2045		$2.4173	
Winter - 50%	175	$98	$118	$216				$111	$118	$229				$13.71	6.4%			$1.2324		$1.3108	
Winter - 75%	450	$148	$303	$451				$168	$304	$472				$20.90	4.6%			$1.0016		$1.0480	
Summer - 25%	6				$58	$3	$61				$66	$3	$69			$8.03	13.1%		$10.1787		$11.5171
Summer - 50%	60				$73	$30	$103				$83	$31	$114			$10.21	9.9%		$1.7247		$1.8949
Summer - 75%	250				$111	$127	$238				$127	$127	$254			$15.85	6.7%		$0.9524		$1.0158

Liberty Utilities (EnergyNorth Natural Gas) Corp.

COMPARATIVE MONTHLY BILLING UNDER PRESENT AND PROPOSED RATES
RATE G-52 : COMMERCIAL/INDUSTRIAL - MEDIUM ANNUAL USE, LOW WINTER USE

Line	Present Rates	Winter	Summer	Proposed Rates	Winter	Summer
1						
2	Cost of Gas	$0.6258	$0.4591	Cost of Gas	$0.6251	$0.4591
3	LDAC	$0.0478	$0.0478	LDAC	$0.0496	$0.0496
4						
5	Customer charge	$169.09		Customer charge	$192.46	
6	Sales rate			Sales rate		
7	First Block Size	1000	1000	First Block Size	1000	1000
8	Block 1	$0.2392	$0.1733	Block 1	$0.2722	$0.1972
9	Block 2	$0.1593	$0.0985	Block 2	$0.1813	$0.1121
10						
11						

Line			Monthly Bills at Present Rates						Monthly Bills at Proposed Rates						Change in Monthly Bill				Unit Costs			
12			Winter			Summer			Winter			Summer			Winter		Summer		Current		Proposed	
13		Use per Month (therms)	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	$	%	$	%	Winter	Summer	Winter	Summer
14																						
15																						
16		200	$217	$135	$352	$204	$101	$305	$247	$135	$382	$232	$102	$334	$30.20	8.6%	$28.52	9.3%	$1.7583	$1.5257	$1.9093	$1.6683
17		300	$241	$202	$443	$221	$152	$373	$274	$202	$477	$252	$153	$404	$33.62	7.6%	$31.10	8.3%	$1.4764	$1.2438	$1.5885	$1.3475
18		400	$265	$269	$534	$238	$203	$441	$301	$270	$571	$271	$203	$475	$37.04	6.9%	$33.68	7.6%	$1.3355	$1.1029	$1.4281	$1.1871
19		500	$289	$337	$625	$256	$253	$509	$329	$337	$666	$291	$254	$545	$40.46	6.5%	$36.26	7.1%	$1.2510	$1.0184	$1.3319	$1.0909
20		600	$313	$404	$717	$273	$304	$577	$356	$405	$761	$311	$305	$616	$43.88	6.1%	$38.83	6.7%	$1.1946	$0.9620	$1.2677	$1.0267
21		700	$337	$472	$808	$290	$355	$645	$383	$472	$855	$331	$356	$687	$47.30	5.9%	$41.41	6.4%	$1.1544	$0.9218	$1.2219	$0.9809
22		800	$360	$539	$899	$308	$406	$713	$410	$540	$950	$350	$407	$757	$50.72	5.6%	$43.99	6.2%	$1.1242	$0.8916	$1.1876	$0.9465
23		900	$384	$606	$991	$325	$456	$781	$437	$607	$1,045	$370	$458	$828	$54.14	5.5%	$46.57	6.0%	$1.1007	$0.8681	$1.1608	$0.9198
24		1,000	$408	$674	$1,082	$342	$507	$849	$465	$675	$1,139	$390	$509	$898	$57.56	5.3%	$49.15	5.8%	$1.0819	$0.8493	$1.1394	$0.8984
25		1,100	$424	$741	$1,165	$352	$558	$910	$483	$742	$1,225	$401	$560	$961	$59.87	5.1%	$50.69	5.6%	$1.0593	$0.8271	$1.1137	$0.8732
26		1,200	$440	$808	$1,248	$362	$608	$970	$501	$810	$1,311	$412	$610	$1,023	$62.19	5.0%	$52.23	5.4%	$1.0404	$0.8086	$1.0922	$0.8522
27		1,300	$456	$876	$1,332	$372	$659	$1,031	$519	$877	$1,396	$423	$661	$1,085	$64.51	4.8%	$53.78	5.2%	$1.0244	$0.7930	$1.0741	$0.8344
28		1,400	$472	$943	$1,415	$382	$710	$1,091	$537	$945	$1,482	$435	$712	$1,147	$66.82	4.7%	$55.32	5.1%	$1.0108	$0.7796	$1.0585	$0.8191
29		1,500	$488	$1,010	$1,498	$392	$760	$1,152	$555	$1,012	$1,567	$446	$763	$1,209	$69.14	4.6%	$56.86	4.9%	$0.9989	$0.7680	$1.0450	$0.8059
30		1,750	$528	$1,179	$1,707	$416	$887	$1,303	$601	$1,181	$1,781	$474	$890	$1,364	$74.93	4.4%	$60.72	4.7%	$0.9752	$0.7448	$1.0180	$0.7795
31		2,000	$568	$1,347	$1,915	$441	$1,014	$1,455	$646	$1,349	$1,996	$502	$1,017	$1,519	$80.73	4.2%	$64.58	4.4%	$0.9574	$0.7273	$0.9978	$0.7596
32		2,500	$647	$1,684	$2,331	$490	$1,267	$1,757	$737	$1,687	$2,424	$558	$1,272	$1,830	$92.31	4.0%	$72.30	4.1%	$0.9325	$0.7030	$0.9694	$0.7319
33		3,000	$727	$2,021	$2,748	$539	$1,521	$2,060	$827	$2,024	$2,852	$614	$1,526	$2,140	$103.90	3.8%	$80.02	3.9%	$0.9159	$0.6867	$0.9505	$0.7134
34		4,000	$886	$2,694	$3,581	$638	$2,028	$2,665	$1,009	$2,699	$3,708	$726	$2,035	$2,761	$127.07	3.5%	$95.45	3.6%	$0.8951	$0.6664	$0.9269	$0.6902
35		5,000	$1,045	$3,368	$4,413	$736	$2,535	$3,271	$1,190	$3,374	$4,564	$838	$2,544	$3,382	$150.24	3.4%	$110.89	3.4%	$0.8827	$0.6542	$0.9127	$0.6764
36																						
37	**Estimated Bill Percentiles**																					
38	Winter - 25%	1,040	$415	$701	$1,115				$472	$702	$1,174				$58.48	5.2%			$1.0723		$1.1285	
39	Winter - 50%	2,000	$568	$1,347	$1,915				$646	$1,349	$1,996				$80.73	4.2%			$0.9574		$0.9978	
40	Winter - 75%	3,500	$807	$2,358	$3,164				$918	$2,362	$3,280				$115.48	3.6%			$0.9040		$0.9370	
41	Summer - 25%	700				$290	$355	$645				$331	$356	$687			$41.41	6.4%		$0.9218		$0.9809
42	Summer - 50%	1,040				$346	$527	$874				$394	$529	$923			$49.76	5.7%		$0.8399		$0.8878
43	Summer - 75%	2,000				$441	$1,014	$1,455				$502	$1,017	$1,519			$64.58	4.4%		$0.7273		$0.7596

Liberty Utilities (EnergyNorth Natural Gas) Corp.

COMPARATIVE MONTHLY BILLING UNDER PRESENT AND PROPOSED RATES
RATE G-53 : COMMERCIAL/INDUSTRIAL - HIGH ANNUAL USE, LOAD FACTOR LESS THAN 90%

Line	Present Rates	Winter	Summer	Proposed Rates	Winter	Summer
2	Cost of Gas	$0.6258	$0.4591	Cost of Gas	$0.6251	$0.4591
3	LDAC	$0.0478	$0.0478	LDAC	$0.0496	$0.0496
4						
5	Customer charge	$746.81		Customer charge	$850.00	
6	Sales rate			Sales rate		
7	First Block Size	0	0	First Block Size	0	0
8	Block 1	$0.1672	$0.0802	Block 1	$0.1903	$0.0913
9	Block 2	$0.1672	$0.0802	Block 2	$0.1903	$0.0913

Line		Use per Month (therms)	Monthly Bills at Present Rates						Monthly Bills at Proposed Rates						Change in Monthly Bill				Unit Costs			
13			Winter			Summer			Winter			Summer			Winter		Summer		Current		Proposed	
14			Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	$	%	$	%	Winter	Summer	Winter	Summer
15																						
16		1,000	$914	$674	$1,588	$827	$507	$1,334	$1,040	$675	$1,715	$941	$509	$1,450	$127.39	8.0%	$116.12	8.7%	$1.5876	$1.3339	$1.7150	$1.4500
17		2,500	$1,165	$1,684	$2,849	$947	$1,267	$2,215	$1,326	$1,687	$3,013	$1,078	$1,272	$2,350	$163.69	5.7%	$135.52	6.1%	$1.1395	$0.8858	$1.2050	$0.9400
18		5,000	$1,583	$3,368	$4,951	$1,148	$2,535	$3,682	$1,801	$3,374	$5,175	$1,306	$2,544	$3,850	$224.20	4.5%	$167.86	4.6%	$0.9902	$0.7365	$1.0350	$0.7700
19		7,500	$2,001	$5,052	$7,053	$1,348	$3,802	$5,150	$2,277	$5,061	$7,338	$1,535	$3,816	$5,350	$284.70	4.0%	$200.20	3.9%	$0.9404	$0.6867	$0.9783	$0.7134
20		10,000	$2,419	$6,736	$9,155	$1,549	$5,069	$6,618	$2,753	$6,747	$9,500	$1,763	$5,087	$6,850	$345.21	3.8%	$232.54	3.5%	$5.0000	$0.6618	$0.9500	$0.6850
21		12,500	$2,837	$8,420	$11,257	$1,749	$6,336	$8,086	$3,228	$8,434	$11,663	$1,991	$6,359	$8,350	$405.71	3.6%	$264.88	3.3%	$0.9005	$0.6468	$0.9330	$0.6680
22		15,000	$3,255	$10,104	$13,359	$1,950	$7,604	$9,553	$3,704	$10,121	$13,825	$2,219	$7,631	$9,851	$466.22	3.5%	$297.22	3.1%	$0.8906	$0.6369	$0.9217	$0.6567
23		20,000	$4,091	$13,472	$17,563	$2,351	$10,138	$12,489	$4,655	$13,495	$18,150	$2,676	$10,175	$12,851	$587.23	3.3%	$361.90	2.9%	$0.8781	$0.6244	$0.9075	$0.6425
24		25,000	$4,927	$16,840	$21,767	$2,752	$12,673	$15,424	$5,606	$16,869	$22,475	$3,132	$12,719	$15,851	$708.24	3.3%	$426.57	2.8%	$0.8707	$5.0000	$0.8990	$0.6340
25		30,000	$5,763	$20,208	$25,971	$3,153	$15,207	$18,360	$6,558	$20,242	$26,800	$3,589	$15,262	$18,851	$829.25	3.2%	$491.25	2.7%	$0.8657	$0.6120	$0.8933	$0.6284
26		35,000	$6,599	$23,576	$30,175	$3,554	$17,742	$21,295	$7,509	$23,616	$31,125	$4,045	$17,806	$21,851	$950.26	3.1%	$555.93	2.6%	$0.8621	$0.6084	$0.8893	$0.6243
27		40,000	$7,435	$26,944	$34,379	$3,955	$20,276	$24,231	$8,460	$26,990	$35,450	$4,502	$20,350	$24,851	$1,071.27	3.1%	$620.61	2.6%	$0.8595	$0.6058	$0.8863	$0.6213
28		45,000	$8,271	$30,312	$38,583	$4,356	$22,811	$27,166	$9,412	$30,363	$39,775	$4,958	$22,893	$27,852	$1,192.28	3.1%	$685.29	2.5%	$0.8574	$0.6037	$0.8839	$0.6189
29		50,000	$9,107	$33,680	$42,787	$4,757	$25,345	$30,102	$10,363	$33,737	$44,100	$5,415	$25,437	$30,852	$1,313.29	3.1%	$749.96	2.5%	$0.8557	$0.6020	$0.8820	$0.6170
30		55,000	$9,943	$37,048	$46,991	$5,158	$27,880	$33,037	$11,314	$37,111	$48,425	$5,871	$27,981	$33,852	$1,434.30	3.1%	$814.64	2.5%	$0.8544	$0.6007	$0.8805	$0.6155
31		60,000	$10,779	$40,416	$51,195	$5,559	$30,414	$35,973	$12,265	$40,485	$52,750	$6,327	$30,525	$36,852	$1,555.31	3.0%	$879.32	2.4%	$0.8532	$0.5995	$0.8792	$0.6142
32		75,000	$13,287	$50,520	$63,807	$6,762	$38,018	$44,779	$15,119	$50,606	$65,725	$7,697	$38,156	$45,853	$1,918.34	3.0%	$1,073.35	2.4%	$0.8508	$0.5971	$0.8763	$0.6114
33		100,000	$17,467	$67,360	$84,827	$8,767	$50,690	$59,457	$19,876	$67,474	$87,350	$9,979	$50,874	$60,854	$2,523.40	3.0%	$1,396.74	2.3%	$0.8483	$0.5946	$0.8735	$0.6085
34		150,000	$25,827	$101,040	$126,867	$12,777	$76,035	$88,812	$29,389	$101,212	$130,600	$14,544	$76,312	$90,855	$3,733.50	2.9%	$2,043.52	2.3%	$0.8458	$0.5921	$0.8707	$0.6057
35		200,000	$34,187	$134,720	$168,907	$16,787	$101,380	$118,167	$38,902	$134,949	$173,850	$19,108	$101,749	$120,857	$4,943.61	2.9%	$2,690.29	2.3%	$0.8445	$0.5908	$0.8693	$0.6043
36																						
37	**Estimated Bill Percentiles**																					
38	Winter - 25%	10,000	$2,419	$6,736	$9,155				$2,753	$6,747	$9,500				$345.21	3.8%			$0.9155		$0.9500	
39	Winter - 50%	15,000	$3,255	$10,104	$13,359				$3,704	$10,121	$13,825				$466.22	3.5%			$0.8906		$0.9217	
40	Winter - 75%	30,000	$5,763	$20,208	$25,971				$6,558	$20,242	$26,800				$829.25	3.2%			$0.8657		$0.8933	
41	Summer - 25%	5,000				$1,148	$2,535	$3,682				$1,306	$2,544	$3,850			$167.86	4.6%		$0.7365		$0.7700
42	Summer - 50%	15,000				$1,950	$7,604	$9,553				$2,219	$7,631	$9,851			$297.22	3.1%		$0.6369		$0.6567
43	Summer - 75%	20,000				$2,351	$10,138	$12,489				$2,676	$10,175	$12,851			$361.90	2.9%		$0.6244		$0.6425

Liberty Utilities (EnergyNorth Natural Gas) Corp.

COMPARATIVE MONTHLY BILLING UNDER PRESENT AND PROPOSED RATES
RATE G-54 : COMMERCIAL/INDUSTRIAL - HIGH ANNUAL USE, LOAD FACTOR GREATER THAN 90%

Line	Present Rates	Winter	Summer	Proposed Rates	Winter	Summer
1	**Present Rates**	Winter	Summer	**Proposed Rates**	Winter	Summer
2	Cost of Gas	$0.6258	$0.4591	Cost of Gas	$0.6251	$0.4591
3	LDAC	$0.0478	$0.0478	LDAC	$0.0496	$0.0496
4						
5	Customer charge	$746.81		Customer charge	$850.00	
6	Sales rate			Sales rate		
7	First Block Size	0	0	First Block Size	0	0
8	Block 1	$0.0638	$0.0346	Block 1	$0.0726	$0.0394
9	Block 2	$0.0630	$0.0346	Block 2	$0.0726	$0.0394
10						
11						

Line		Use per Month (therms)	Monthly Bills at Present Rates						Monthly Bills at Proposed Rates						Change in Monthly Bill				Unit Costs			
12			Winter			Summer			Winter			Summer			Winter		Summer		Current		Proposed	
13			Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	Base Rates	COG / LDAC	TOTAL	$	%	$	%	Winter	Summer	Winter	Summer
15																						
16		1,000	$810	$674	$1,483	$781	$507	$1,288	$923	$675	$1,597	$889	$509	$1,398	$113.91	7.7%	$109.85	8.5%	$1.4834	$1.2883	$1.5973	$1.3982
17		2,500	$904	$1,684	$2,588	$833	$1,267	$2,101	$1,031	$1,687	$2,718	$949	$1,272	$2,220	$129.99	5.0%	$119.86	5.7%	$1.0353	$0.8402	$1.0873	$0.8882
18		5,000	$1,062	$3,368	$4,430	$920	$2,535	$3,454	$1,213	$3,374	$4,587	$1,047	$2,544	$3,591	$156.79	3.5%	$136.53	4.0%	$0.8860	$0.6909	$0.9173	$0.7182
19		7,500	$1,219	$5,052	$6,271	$1,006	$3,802	$4,808	$1,394	$5,061	$6,455	$1,146	$3,816	$4,961	$183.59	2.9%	$153.20	3.2%	$0.8362	$0.6411	$0.8606	$0.6615
20		10,000	$1,377	$6,736	$8,113	$1,093	$5,069	$6,162	$1,576	$6,747	$8,323	$1,244	$5,087	$6,332	$210.38	2.6%	$169.87	2.8%	$0.8113	$0.6162	$0.8323	$0.6332
21		12,500	$1,534	$8,420	$9,954	$1,179	$6,336	$7,516	$1,757	$8,434	$10,191	$1,343	$6,359	$7,702	$237.18	2.4%	$186.54	2.5%	$0.7963	$0.6012	$0.8153	$0.6162
22		15,000	$1,692	$10,104	$11,796	$1,266	$7,604	$8,869	$1,939	$10,121	$12,060	$1,441	$7,631	$9,073	$263.98	2.2%	$203.21	2.3%	$0.7864	$0.5913	$0.8040	$0.6048
23		20,000	$2,007	$13,472	$15,479	$1,439	$10,138	$11,577	$2,301	$13,495	$15,796	$1,638	$10,175	$11,813	$317.58	2.1%	$236.55	2.0%	$0.7739	$0.5788	$0.7898	$0.5907
24		25,000	$2,322	$16,840	$19,162	$1,612	$12,673	$14,284	$2,664	$16,869	$19,533	$1,836	$12,719	$14,554	$371.18	1.9%	$269.89	1.9%	$0.7665	$0.5714	$0.7813	$0.5822
25		30,000	$2,637	$20,208	$22,845	$1,785	$15,207	$16,992	$3,027	$20,242	$23,269	$2,033	$15,262	$17,295	$424.78	1.9%	$303.23	1.8%	$0.7615	$0.5664	$0.7756	$0.5765
26		35,000	$2,952	$23,576	$26,528	$1,958	$17,742	$19,699	$3,390	$23,616	$27,006	$2,230	$17,806	$20,036	$478.38	1.8%	$336.57	1.7%	$0.7579	$0.5628	$0.7716	$0.5725
27		40,000	$3,266	$26,944	$30,210	$2,131	$20,276	$22,407	$3,753	$26,990	$30,742	$2,427	$20,350	$22,777	$531.98	1.8%	$369.92	1.7%	$0.7553	$0.5602	$0.7686	$0.5694
28		45,000	$3,581	$30,312	$33,893	$2,304	$22,811	$25,114	$4,116	$30,363	$34,479	$2,624	$22,893	$25,518	$585.58	1.7%	$403.26	1.6%	$0.7532	$0.5581	$0.7662	$0.5671
29		50,000	$3,896	$33,680	$37,576	$2,477	$25,345	$27,822	$4,478	$33,737	$38,216	$2,821	$25,437	$28,258	$639.18	1.7%	$436.60	1.6%	$0.7515	$0.5564	$0.7643	$0.5652
30		55,000	$4,211	$37,048	$41,259	$2,650	$27,880	$30,529	$4,841	$37,111	$41,952	$3,018	$27,981	$30,999	$692.78	1.7%	$469.94	1.5%	$0.7502	$0.5551	$0.7628	$0.5636
31		60,000	$4,526	$40,416	$44,942	$2,823	$30,414	$33,237	$5,204	$40,485	$45,689	$3,215	$30,525	$33,740	$746.38	1.7%	$503.28	1.5%	$0.7490	$0.5539	$0.7615	$0.5623
32		75,000	$5,471	$50,520	$55,991	$3,342	$38,018	$41,359	$6,293	$50,606	$56,898	$3,807	$38,156	$41,963	$907.18	1.6%	$603.30	1.5%	$0.7465	$0.5515	$0.7586	$0.5595
33		100,000	$7,046	$67,360	$74,406	$4,207	$50,690	$54,897	$8,107	$67,474	$75,581	$4,792	$50,874	$55,667	$1,175.18	1.6%	$770.01	1.4%	$0.7441	$0.5490	$0.7558	$0.5567
34		150,000	$10,196	$101,040	$111,236	$5,937	$76,035	$81,972	$11,735	$101,212	$112,947	$6,764	$76,312	$83,075	$1,711.17	1.5%	$1,103.42	1.3%	$0.7416	$0.5465	$0.7530	$0.5538
35		200,000	$13,345	$134,720	$148,065	$7,667	$101,380	$109,047	$15,364	$134,949	$150,312	$8,735	$101,749	$110,484	$2,247.17	1.5%	$1,436.83	1.3%	$0.7403	$0.5452	$0.7516	$0.5524
36																						
37	**Estimated Bill Percentiles**																					
38	Winter - 25%	4,000	$999	$2,694	$3,693				$1,140	$2,699	$3,839				$146.07	4.0%			$0.9233		$0.9598	
39	Winter - 50%	30,000	$2,637	$20,208	$22,845				$3,027	$20,242	$23,269				$424.78	1.9%			$0.7615		$0.7756	
40	Winter - 75%	100,000	$7,046	$67,360	$74,406				$8,107	$67,474	$75,581				$1,175.18	1.6%			$0.7441		$0.7558	
41	Summer - 25%	15,000				$1,266	$7,604	$8,869				$1,441	$7,631	$9,073			$203.21	2.3%		$0.5913		$0.6048
42	Summer - 50%	50,000				$2,477	$25,345	$27,822				$2,821	$25,437	$28,258			$436.60	1.6%		$0.5564		$0.5652
43	Summer - 75%	80,000				$3,515	$40,552	$44,067				$4,004	$40,700	$44,703			$636.64	1.4%		$0.5508		$0.5588

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

Winter Season (Jan. - Apr., Nov. - Dec.) / **Summer Season (May - Oct.)**
Residential Non-Heating (R1)

PROPOSED			Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
average Usage (Therms)			17	24	27	32	31	23	154	19	14	11	9	9	11	73	227
Winter:																	
Cust. Chg		$17.30	$17.30	$17.30	$17.30	$17.30	$17.30	$17.30	$103.83								
Headblock		$0.4310	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
Tailblock		$0.4310	$7.33	$10.34	$11.64	$13.79	$13.36	$9.91	$66.37								
HB Threshold		-															
Summer:																	
Cust. Chg		$17.30								$17.30	$17.30	$17.30	$17.30	$17.30	$17.30	$103.83	$207.66
Headblock		$0.4310								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tailblock		$0.4310								$8.19	$6.03	$4.74	$3.88	$3.88	$4.74	$31.46	$97.83
HB Threshold		-															
Total Base Rate Amount			$24.63	$27.65	$28.94	$31.10	$30.67	$27.22	$170.20	$25.49	$23.34	$22.05	$21.18	$21.18	$22.05	$135.29	$305.49
COG Rate - (Winter)			$0.6196	$0.6196	$0.6196	$0.6196	$0.6196	$0.6196	$0.6196								
COG amount - Winter			$10.53	$14.87	$16.73	$19.83	$19.21	$14.25	$95.42								
COG Rate - (Summer)										$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.5657
COG amount - Summer										$8.59	$6.33	$4.97	$4.07	$4.07	$4.97	$33.00	$128.41
LDAC		$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328
LDAC amount			$0.56	$0.79	$0.89	$1.05	$1.02	$0.76	$5.06	$0.62	$0.46	$0.36	$0.30	$0.30	$0.36	$2.40	$7.46
Total Bill			**$35.72**	**$43.31**	**$46.56**	**$51.97**	**$50.89**	**$42.22**	**$270.68**	**$34.71**	**$30.13**	**$27.38**	**$25.55**	**$25.55**	**$27.38**	**$170.68**	**$441.36**

Winter Season (Jan. - Apr., Nov. - Dec.) / **Summer Season (May - Oct.)**
Residential Non-Heating (R1)

CURRENT			Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
average Usage (Therms)			17	24	27	32	31	23	154	19	14	11	9	9	11	73	227
Winter:																	
Cust. Chg	$15.02	$15.20	$15.20	$15.02	$15.02	$15.02	$15.02	$15.02	$90.31								
Headblock	$ 0.3741	$0.3786	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
Tailblock	$ 0.3741	$0.3786	$6.44	$8.98	$10.10	$11.97	$11.60	$8.60	$57.69								
HB Threshold		-															
Summer:																	
Cust. Chg	$15.02	$15.20								$15.02	$15.02	$15.20	$15.20	$15.20	$15.20	$90.84	$181.15
Headblock	$ 0.3741	$0.3786								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tailblock	$ 0.3741	$0.3786								$7.11	$5.24	$4.16	$3.41	$3.41	$4.16	$27.49	$85.18
HB Threshold		-															
Total Base Rate Amount			$21.64	$24.00	$25.12	$26.99	$26.62	$23.63	$147.99	$22.13	$20.26	$19.36	$18.61	$18.61	$19.36	$118.33	$266.33
COG Rate - (Winter)			$0.6203	$0.7411	$0.7504	$0.6715	$0.5212	$0.5825	$0.6470								
COG amount - Winter			$10.55	$17.79	$20.26	$21.49	$16.16	$13.40	$99.64								
COG Rate - (Summer)										$0.4445	$0.4445	$0.5556	$0.5556	$0.5556	$0.5556	$0.5054	$0.6014
COG amount - Summer										$8.45	$6.22	$6.11	$5.00	$5.00	$6.11	$36.89	$136.53
LDAC			$0.0310	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0621	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0634
LDAC amount			$0.53	$1.58	$1.78	$2.11	$2.05	$1.52	$9.57	$1.25	$0.92	$0.73	$0.59	$0.59	$0.73	$4.82	$14.39
Total Bill			**$32.71**	**$43.37**	**$47.16**	**$50.59**	**$44.82**	**$38.54**	**$257.20**	**$31.83**	**$27.41**	**$26.20**	**$24.20**	**$24.20**	**$26.20**	**$160.04**	**$417.24**

DIFFERENCE:

	Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
Total Bill	**$3.01**	**($0.06)**	**($0.61)**	**$1.38**	**$6.07**	**$3.68**	**$13.48**	**$2.88**	**$2.72**	**$1.18**	**$1.35**	**$1.35**	**$1.18**	**$10.64**	**$24.12**
% Change	**9.22%**	**-0.15%**	**-1.29%**	**2.73%**	**13.54%**	**9.55%**	**5.24%**	**9.04%**	**9.93%**	**4.49%**	**5.56%**	**5.56%**	**4.49%**	**6.65%**	**5.78%**
Base Rate	$3.00	$3.65	$3.82	$4.10	$4.05	$3.59	$22.21	$3.36	$3.08	$2.68	$2.58	$2.58	$2.68	$16.96	$39.16
% Change	13.84%	15.20%	15.20%	15.20%	15.20%	15.20%	15.00%	15.20%	15.20%	13.84%	13.84%	13.84%	13.84%	14.33%	14.71%
COG & LDAC	$0.02	($3.71)	($4.43)	($2.72)	$2.02	$0.09	($8.73)	($0.49)	($0.36)	($1.50)	($1.23)	($1.23)	($1.50)	($6.32)	($15.04)
% Change	0.18%	-19.16%	-20.08%	-11.53%	11.11%	0.61%	-7.99%	-5.03%	-5.03%	-22.00%	-22.00%	-22.00%	-22.00%	-15.14%	-9.97%

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

Line No																		
72	Winter Season (Jan. - Apr., Nov. - Dec.)										Summer Season (May - Oct.)							
73	**Residential Heating (R3)**																	
74	**PROPOSED**																	**Total**
75				**Nov-19**	**Dec-18**	**Jan-19**	**Feb-19**	**Mar-19**	**Apr-19**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Nov-Oct**
76	**average Usage (Therms)**			62	110	123	148	132	92	667	51	28	16	14	14	21	144	811
77																		
78	**Winter:**																	
79	Cust. Chg		$17.30	$17.30	$17.30	$17.30	$17.30	$17.30	$17.30	$103.82								
80	Headblock		$0.6338	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
81	Tailblock		$0.6338	$39.30	$69.72	$77.96	$93.81	$83.66	$58.31	$422.76								
82	HB Threshold		-															
83																		
84	**Summer:**																	
85	Cust. Chg		$17.30								$17.30	$17.30	$17.30	$17.30	$17.30	$17.30	$103.82	$207.64
86	Headblock		$0.6338								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
87	Tailblock		$0.6338								$32.32	$17.75	$10.14	$8.87	$8.87	$13.31	$91.27	$514.03
88	HB Threshold		-															
89																		
90	Total Base Rate Amount			$56.60	$87.02	$95.26	$111.11	$100.97	$75.61	$526.58	$49.63	$35.05	$27.44	$26.18	$26.18	$30.61	$195.09	$721.67
91																		
92	COG Rate - (Winter)			$0.6196	$0.6196	$0.6196	$0.6196	$0.6196	$0.6196	$0.6196								
93	COG amount - Winter			$38.42	$68.16	$76.21	$91.70	$81.79	$57.00	$413.27								
94																		
95	COG Rate - (Summer)										$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.5898
96	COG amount - Summer										$23.05	$12.66	$7.23	$6.33	$6.33	$9.49	$65.09	$478.36
97																		
98	LDAC		$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328
99	LDAC amount			$2.04	$3.61	$4.04	$4.86	$4.34	$3.02	$21.91	$1.68	$0.92	$0.53	$0.46	$0.46	$0.69	$4.73	$26.64
100																		
101	**Total Bill**			**$97.05**	**$158.79**	**$175.51**	**$207.67**	**$187.09**	**$135.64**	**$961.76**	**$74.36**	**$48.63**	**$35.20**	**$32.96**	**$32.96**	**$40.80**	**$264.91**	**$1,226.67**
102																		
103	Winter Season (Jan. - Apr., Nov. - Dec.)										Summer Season (May - Oct.)							
104	**Residential Heating (R3)**																	
105	**CURRENT**																	**Total**
106				**Nov-19**	**Dec-18**	**Jan-19**	**Feb-19**	**Mar-19**	**Apr-19**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Nov-Oct**
107	**average Usage (Therms)**			62	110	123	148	132	92	667	51	28	16	14	14	21	144	811
108																		
109	**Winter:**																	
110	Cust. Chg	$15.02	$15.20	$15.20	$15.02	$15.02	$15.02	$15.02	$15.02	$90.30								
111	Headblock	$ 0.5502	$0.5569	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
112	Tailblock	$ 0.5502	$0.5569	$34.53	$60.52	$67.67	$81.43	$72.63	$50.62	$367.40								
113	HB Threshold		-															
114																		
115	**Summer:**																	
116	Cust. Chg	$15.02	$15.20								$15.02	$15.02	$15.20	$15.20	$15.20	$15.20	$90.84	$181.15
117	Headblock	$ 0.5502	$0.5569								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
118	Tailblock	$ 0.5502	$0.5569								$28.06	$15.41	$8.91	$7.80	$7.80	$11.69	$79.66	$447.06
119	HB Threshold		-															
120																		
121	Total Base Rate Amount			$49.73	$75.54	$82.70	$96.45	$87.65	$65.64	$457.70	$43.08	$30.43	$24.11	$23.00	$23.00	$26.89	$170.51	$628.21
122																		
123	COG Rate - (Winter)			$0.6203	$0.7411	$0.7504	$0.6715	$0.5212	$0.5825	$0.6507								
124	COG amount - Winter			$38.46	$81.52	$92.30	$99.38	$68.80	$53.59	$434.05								
125																		
126	COG Rate - (Summer)										$0.4445	$0.4445	$0.5556	$0.5556	$0.5556	$0.5556	$0.4946	$0.6230
127	COG amount - Summer										$22.67	$12.45	$8.89	$7.78	$7.78	$11.67	$71.23	$505.28
128																		
129	LDAC			$0.0310	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0627	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0633
130	LDAC amount			$1.92	$7.26	$8.12	$9.77	$8.71	$6.07	$41.85	$3.37	$1.85	$1.06	$0.92	$0.92	$1.39	$9.50	$51.36
131																		
132	**Total Bill**			**$90.11**	**$164.32**	**$183.11**	**$205.60**	**$165.16**	**$125.30**	**$933.60**	**$69.12**	**$44.72**	**$34.06**	**$31.70**	**$31.70**	**$39.95**	**$251.24**	**$1,184.84**
133																		
134	**DIFFERENCE:**																	
135	**Total Bill**			**$6.94**	**($5.53)**	**($7.60)**	**$2.07**	**$21.93**	**$10.34**	**$28.16**	**$5.24**	**$3.91**	**$1.15**	**$1.27**	**$1.27**	**$0.85**	**$13.67**	**$41.82**
136	% Change			**7.71%**	**-3.37%**	**-4.15%**	**1.01%**	**13.28%**	**8.25%**	**3.02%**	**7.58%**	**8.73%**	**3.36%**	**3.99%**	**3.99%**	**2.12%**	**5.44%**	**3.53%**
137																		
138	**Base Rate**			$6.87	$11.48	$12.57	$14.66	$13.32	$9.98	$68.88	$6.55	$4.62	$3.33	$3.18	$3.18	$3.72	$24.58	$93.46
139	% Change			13.82%	15.20%	15.20%	15.20%	15.20%	15.20%	15.05%	15.20%	15.20%	13.83%	13.83%	13.83%	13.83%	14.42%	14.88%
140																		
141	**COG & LDAC**			$0.07	($17.01)	($20.17)	($12.59)	$8.61	$0.36	($40.72)	($1.31)	($0.72)	($2.19)	($1.91)	($1.91)	($2.87)	($10.92)	($51.64)
142	% Change			0.18%	-19.16%	-20.08%	-11.53%	11.11%	0.61%	-8.56%	-5.03%	-5.03%	-22.00%	-22.00%	-22.00%	-22.00%	-13.52%	-9.28%

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

Line No			Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
143	**Winter Season (Jan. - Apr., Nov. - Dec.)**									**Summer Season (May - Oct.)**							
144	**Low Income Residential Heating (R4)**																
145	**PROPOSED**																
146																	
147	**average Usage (Therms)**		46	81	105	127	122	87	568	58	27	17	14	14	20	150	718
148																	
149	**Winter:**																
150	Cust. Chg	$6.92	$6.92	$6.92	$6.92	$6.92	$6.92	$6.92	$41.53								
151	Headblock	$0.2535	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
152	Tailblock	$0.2535	$11.66	$20.54	$26.62	$32.20	$30.93	$22.06	$144.00								
153	HB Threshold	-															
154																	
155	**Summer:**																
156	Cust. Chg	$6.92								$6.92	$6.92	$6.92	$6.92	$6.92	$6.92	$41.53	$83.06
157	Headblock	$0.2535								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
158	Tailblock	$0.2535								$14.70	$6.85	$4.31	$3.55	$3.55	$5.07	$38.03	$182.03
159	HB Threshold	-															
160																	
161	Total Base Rate Amount		$18.58	$27.46	$33.54	$39.12	$37.85	$28.98	$185.53	$21.63	$13.77	$11.23	$10.47	$10.47	$11.99	$79.56	$265.09
162																	
163	COG Rate - (Winter)		$0.6196	$0.6196	$0.6196	$0.6196	$0.6196	$0.6196	$0.6196								
164	COG amount - Winter		$28.50	$50.19	$65.06	$78.69	$75.59	$53.91	$351.93								
165																	
166	COG Rate - (Summer)									$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.5846
167	COG amount - Summer									$26.22	$12.20	$7.68	$6.33	$6.33	$9.04	$67.80	$419.73
168																	
169	LDAC	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328
170	LDAC amount		$1.51	$2.66	$3.45	$4.17	$4.01	$2.86	$18.66	$1.90	$0.89	$0.56	$0.46	$0.46	$0.66	$4.93	$23.58
171																	
172	**Total Bill**		**$48.60**	**$80.31**	**$102.05**	**$121.98**	**$117.45**	**$85.74**	**$556.12**	**$49.75**	**$26.86**	**$19.47**	**$17.26**	**$17.26**	**$21.69**	**$152.28**	**$708.40**
173																	

Line No				Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
174	**Winter Season (Jan. - Apr., Nov. - Dec.)**										**Summer Season (May - Oct.)**							
175	**Low Income Residential Heating (R4)**																	
176	**CURRENT**																	
177																		
178	**average Usage (Therms)**			46	81	105	127	122	87	568	58	27	17	14	14	20	150	718
179																		
180	**Winter:**																	
181	Cust. Chg	$ 6.01	$6.08	$6.08	$6.01	$6.01	$6.01	$6.01	$6.01	$36.13								
182	Headblock	$ 0.2201	$0.2228	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
183	Tailblock	$ 0.2201	$0.2228	$10.25	$17.83	$23.11	$27.95	$26.85	$19.15	$125.14								
184	HB Threshold		-															
185																		
186	**Summer:**																	
187	Cust. Chg	$ 6.01	$6.08								$6.01	$6.01	$6.08	$6.08	$6.08	$6.08	$36.34	$72.47
188	Headblock	$ 0.2201	$0.2228								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
189	Tailblock	$ 0.2201	$0.2228								$12.77	$5.94	$3.79	$3.12	$3.12	$4.46	$33.19	$158.33
190	HB Threshold		-															
191																		
192	Total Base Rate Amount			$16.33	$23.84	$29.12	$33.96	$32.86	$25.16	$161.27	$18.78	$11.95	$9.87	$9.20	$9.20	$10.54	$69.53	$230.80
193																		
194	COG Rate - (Winter)			$0.6203	$0.7411	$0.7504	$0.6715	$0.5212	$0.5825	$0.6459								
195	COG amount - Winter			$28.53	$60.03	$78.79	$85.28	$63.59	$50.68	$366.90								
196																		
197	COG Rate - (Summer)										$0.4445	$0.4445	$0.5556	$0.5556	$0.5556	$0.5556	$0.4926	$0.6139
198	COG amount - Summer										$25.78	$12.00	$9.45	$7.78	$7.78	$11.11	$73.90	$440.80
199																		
200	LDAC			$0.0310	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	0.0632	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0638
201	LDAC amount			$1.43	$5.35	$6.93	$8.38	$8.05	$5.74	$35.88	$3.83	$1.78	$1.12	$0.92	$0.92	$1.32	$9.90	$45.78
202																		
203	**Total Bill**			**$46.29**	**$89.21**	**$114.84**	**$127.63**	**$104.50**	**$81.58**	**$564.05**	**$48.38**	**$25.74**	**$20.43**	**$17.90**	**$17.90**	**$22.97**	**$153.33**	**$717.38**
204																		
205	**DIFFERENCE:**																	
206	**Total Bill**			**$2.31**	**($8.91)**	**($12.79)**	**($5.65)**	**$12.95**	**$4.16**	**($7.93)**	**$1.36**	**$1.12**	**($0.96)**	**($0.64)**	**($0.64)**	**($1.28)**	**($1.04)**	**($8.97)**
207	% Change			**4.98%**	**-9.99%**	**-11.14%**	**-4.42%**	**12.39%**	**5.10%**	**-1.41%**	**2.82%**	**4.36%**	**-4.70%**	**-3.59%**	**-3.59%**	**-5.57%**	**-0.68%**	**-1.25%**
208																		
209	**Base Rate**			$2.25	$3.62	$4.42	$5.16	$4.99	$3.82	$24.26	$2.85	$1.81	$1.36	$1.27	$1.27	$1.46	$10.03	$34.29
210	% Change			13.81%	15.18%	15.18%	15.18%	15.18%	15.18%	15.04%	15.18%	15.18%	13.82%	13.82%	13.82%	13.82%	14.42%	14.86%
211																		
212	**COG & LDAC**			$0.05	($12.53)	($17.22)	($10.80)	$7.96	$0.34	($32.19)	($1.49)	($0.69)	($2.32)	($1.91)	($1.91)	($2.74)	($11.07)	($43.26)
213	% Change			0.18%	-19.16%	-20.08%	-11.53%	11.11%	0.61%	-7.99%	-5.03%	-5.03%	-22.00%	-22.00%	-22.00%	-22.00%	-13.21%	-8.89%

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

Winter Season (Jan. - Apr., Nov. - Dec.) | **Summer Season (May - Oct.)**

Commercial/Industrial - Low Annual Use, High Winter Use (G-41)

PROPOSED		**Nov-19**	**Dec-18**	**Jan-19**	**Feb-19**	**Mar-19**	**Apr-19**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Total Nov-Oct**
average Usage (Therms)		89	277	504	457	331	297	1,955	153	39	26	34	25	29	306	2,261
Winter:																
Cust. Chg	$64.15	$64.15	$64.15	$64.15	$64.15	$64.15	$64.15	$384.89								
Headblock	$0.5260	$46.81	$52.60	$52.60	$52.60	$52.60	$52.60	$309.81								
Tailblock	$0.3533	$0.00	$62.53	$142.73	$126.13	$81.61	$69.60	$482.61								
HB Threshold	100															
Summer:																
Cust. Chg	$64.15								$64.15	$64.15	$64.15	$64.15	$64.15	$64.15	$384.89	$769.78
Headblock	$0.5260								$10.52	$10.52	$10.52	$10.52	$10.52	$10.52	$63.12	$372.93
Tailblock	$0.3533								$46.99	$6.71	$2.12	$4.95	$1.77	$3.18	$65.71	$548.33
HB Threshold	20															
Total Base Rate Amount		$110.96	$179.28	$259.48	$242.88	$198.36	$186.35	$1,177.31	$121.66	$81.38	$76.79	$79.61	$76.43	$77.85	$513.72	$1,691.04
COG Rate - (Winter)		$0.6183	$0.6183	$0.6183	$0.6183	$0.6183	$0.6183	$0.6183								
COG amount - Winter		$55.03	$171.27	$311.62	$282.56	$204.66	$183.64	$1,208.78								
COG Rate - (Summer)									$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.5952
COG amount - Summer									$68.45	$17.45	$11.63	$15.21	$11.19	$12.97	$136.90	$1,345.68
LDAC	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496
LDAC amount		$4.42	$13.75	$25.02	$22.69	$16.43	$14.74	$97.05	$7.60	$1.94	$1.29	$1.69	$1.24	$1.44	$15.19	$112.25
Total Bill		**$170.41**	**$364.30**	**$596.13**	**$548.13**	**$419.45**	**$384.73**	**$2,483.14**	**$197.71**	**$100.77**	**$89.71**	**$96.51**	**$88.86**	**$92.26**	**$665.82**	**$3,148.96**

Winter Season (Jan. - Apr., Nov. - Dec.) | **Summer Season (May - Oct.)**

Commercial/Industrial - Low Annual Use, High Winter Use (G-41)

CURRENT			**Nov-19**	**Dec-18**	**Jan-19**	**Feb-19**	**Mar-19**	**Apr-19**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Total Nov-Oct**
average Usage (Therms)			89	277	504	457	331	297	1,955	153	39	26	34	25	29	306	2,261
Winter:																	
Cust. Chg	$55.68	$56.36	$56.36	$55.68	$55.68	$55.68	$55.68	$55.68	$334.76								
Headblock	$ 0.4566	$0.4621	$41.13	$45.66	$45.66	$45.66	$45.66	$45.66	$269.43								
Tailblock	$ 0.3067	$0.3104	$0.00	$54.29	$123.91	$109.49	$70.85	$60.42	$418.95								
HB Threshold		100															
Summer:																	
Cust. Chg	$55.68	$56.36								$55.68	$55.68	$56.36	$56.36	$56.36	$56.36	$336.80	$671.56
Headblock	$ 0.4566	$0.4621								$9.13	$9.13	$9.24	$9.24	$9.24	$9.24	$55.23	$324.66
Tailblock	$ 0.3067	$0.3104								$40.79	$5.83	$1.86	$4.35	$1.55	$2.79	$57.17	$476.12
HB Threshold		20															
Total Base Rate Amount			$97.49	$155.63	$225.25	$210.83	$172.19	$161.76	$1,023.14	$105.60	$70.64	$67.46	$69.95	$67.15	$68.40	$449.20	$1,472.34
COG Rate - (Winter)			$0.6190	$0.7403	$0.7496	$0.6707	$0.5204	$0.5817	$0.6596								
COG amount - Winter			$55.09	$205.06	$377.80	$306.51	$172.25	$172.76	$1,289.48								
COG Rate - (Summer)										$0.4417	$0.4417	$0.5521	$0.5521	$0.5521	$0.5521	$0.4828	$0.6357
COG amount - Summer										$67.58	$17.23	$14.35	$18.77	$13.80	$16.01	$147.75	$1,437.23
LDAC			$0.0478	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0744	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0746
LDAC amount			$4.25	$20.97	$38.15	$34.59	$25.06	$22.48	$145.51	$11.58	$2.95	$1.97	$2.57	$1.89	$2.20	$23.16	$168.67
Total Bill			**$156.83**	**$381.66**	**$641.20**	**$551.94**	**$369.50**	**$357.01**	**$2,458.13**	**$184.77**	**$90.82**	**$83.79**	**$91.29**	**$82.85**	**$86.60**	**$620.11**	**$3,078.24**

DIFFERENCE:

	Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
Total Bill	**$13.58**	**($17.35)**	**($45.07)**	**($3.81)**	**$49.95**	**$27.72**	**$25.02**	**$12.94**	**$9.95**	**$5.92**	**$5.22**	**$6.01**	**$5.66**	**$45.70**	**$70.72**
% Change	**8.66%**	**-4.55%**	**-7.03%**	**-0.69%**	**13.52%**	**7.76%**	**1.02%**	**7.00%**	**10.95%**	**7.07%**	**5.72%**	**7.26%**	**6.54%**	**7.37%**	**2.30%**
Base Rate	$13.48	$23.66	$34.24	$32.05	$26.17	$24.59	$154.17	$16.05	$10.74	$9.32	$9.67	$9.28	$9.45	$64.52	$218.69
% Change	13.82%	15.20%	15.20%	15.20%	15.20%	15.20%	15.07%	15.20%	15.21%	13.82%	13.82%	13.82%	13.82%	14.36%	14.85%
COG & LDAC	$0.10	($41.01)	($79.31)	($35.85)	$23.78	$3.13	($129.16)	($3.11)	($0.79)	($3.40)	($4.45)	($3.27)	($3.79)	($18.81)	($147.97)
% Change	0.17%	-18.14%	-19.07%	-10.51%	12.05%	1.60%	-9.00%	-3.93%	-3.93%	-20.83%	-20.83%	-20.83%	-20.83%	-11.01%	-9.21%

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

Winter Season (Jan. - Apr., Nov. - Dec.) | **Summer Season (May - Oct.)**

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

PROPOSED		**Nov-19**	**Dec-18**	**Jan-19**	**Feb-19**	**Mar-19**	**Apr-19**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Total Nov-Oct**
average Usage (Therms)		830	2,189	3,708	3,406	2,603	2,395	15,131	1,319	484	285	247	269	340	2,944	18,075
Winter:																
Cust. Chg	$192.46	$192.46	$192.46	$192.46	$192.46	$192.46	$192.46	$1,154.73								
Headblock	$0.4783	$397.00	$478.32	$478.32	$478.32	$478.32	$478.32	$2,788.60								
Tailblock	$0.3186	$0.00	$378.87	$862.90	$766.66	$510.79	$444.51	$2,963.73								
HB Threshold	1,000															
Summer:																
Cust. Chg	$192.46								$192.46	$192.46	$192.46	$192.46	$192.46	$192.46	$1,154.73	$2,309.47
Headblock	$0.4783								$191.33	$191.33	$136.32	$118.14	$128.67	$162.63	$928.42	$3,717.02
Tailblock	$0.3186								$292.84	$26.77	$0.00	$0.00	$0.00	$0.00	$319.60	$3,283.34
HB Threshold	400															
Total Base Rate Amount		$589.46	$1,049.65	$1,533.67	$1,437.44	$1,181.57	$1,115.29	$6,907.07	$676.62	$410.55	$328.78	$310.60	$321.12	$355.08	$2,402.75	$9,309.82
COG Rate - (Winter)		$0.6183	$0.6183	$0.6183	$0.6183	$0.6183	$0.6183	$0.6183								
COG amount - Winter		$513.19	$1,353.46	$2,292.66	$2,105.93	$1,609.43	$1,480.83	$9,355.50								
COG Rate - (Summer)									$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.5905
COG amount - Summer									$590.12	$216.54	$127.51	$110.51	$120.35	$152.12	$1,317.15	$10,672.64
LDAC	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496
LDAC amount		$41.20	$108.67	$184.08	$169.09	$129.22	$118.90	$751.17	$65.48	$24.03	$14.15	$12.26	$13.35	$16.88	$146.15	$897.32
Total Bill		**$1,143.85**	**$2,511.78**	**$4,010.41**	**$3,712.46**	**$2,920.22**	**$2,715.01**	**$17,013.73**	**$1,332.22**	**$651.12**	**$470.43**	**$433.37**	**$454.83**	**$524.08**	**$3,866.05**	**$20,879.79**

Winter Season (Jan. - Apr., Nov. - Dec.) | **Summer Season (May - Oct.)**

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

CURRENT			**Nov-19**	**Dec-18**	**Jan-19**	**Feb-19**	**Mar-19**	**Apr-19**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Total Nov-Oct**
average Usage (Therms)			830	2,189	3,708	3,406	2,603	2,395	15,131	1,319	484	285	247	269	340	2,944	18,075
Winter:																	
Cust. Chg	$167.06	$169.09	$169.09	$167.06	$167.06	$167.06	$167.06	$167.06	$1,004.39								
Headblock	$ 0.4152	$0.4202	$348.77	$415.20	$415.20	$415.20	$415.20	$415.20	$2,424.77								
Tailblock	$ 0.2766	$0.2800	$0.00	$328.88	$749.03	$665.50	$443.39	$385.86	$2,572.66								
HB Threshold		1,000															
Summer:																	
Cust. Chg	$167.06	$169.09								$167.06	$167.06	$169.09	$169.09	$169.09	$169.09	$1,010.48	$2,014.87
Headblock	$ 0.4152	$0.4202								$166.08	$166.08	$119.76	$103.79	$113.03	$142.87	$811.61	$3,236.37
Tailblock	$ 0.2766	$0.2800								$254.20	$23.23	$0.00	$0.00	$0.00	$0.00	$277.43	$2,850.09
HB Threshold		400															
Total Base Rate Amount			$517.86	$911.14	$1,331.29	$1,247.76	$1,025.65	$968.12	$6,001.81	$587.34	$356.37	$288.85	$272.88	$282.12	$311.96	$2,099.52	$8,101.33
COG Rate - (Winter)			$0.6190	$0.7403	$0.7496	$0.6707	$0.5204	$0.5817	$0.6573								
COG amount - Winter			$513.77	$1,620.52	$2,779.52	$2,284.40	$1,354.60	$1,393.17	$9,945.98								
COG Rate - (Summer)										$0.4417	$0.4417	$0.5521	$0.5521	$0.5521	$0.5521	$0.5521	$0.6292
COG amount - Summer										$582.60	$213.78	$157.35	$136.37	$148.51	$187.71	$1,426.33	$11,372.31
LDAC			$0.0478	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0742	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0744
LDAC amount			$39.67	$165.71	$280.70	$257.83	$197.05	$181.30	$1,122.26	$99.85	$36.64	$21.57	$18.70	$20.36	$25.74	$222.86	$1,345.12
																	$0.5521
Total Bill			**$1,071.30**	**$2,697.36**	**$4,391.51**	**$3,790.00**	**$2,577.30**	**$2,542.59**	**$17,070.05**	**$1,269.79**	**$606.80**	**$467.77**	**$427.95**	**$451.00**	**$525.41**	**$3,748.71**	**$20,818.76**

DIFFERENCE:

	Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
Total Bill	**$72.55**	**($185.59)**	**($381.10)**	**($77.54)**	**$342.93**	**$172.42**	**($56.32)**	**$62.44**	**$44.32**	**$2.66**	**$5.42**	**$3.83**	**($1.33)**	**$117.34**	**$61.02**
% Change	**6.77%**	**-6.88%**	**-8.68%**	**-2.05%**	**13.31%**	**6.78%**	**-0.33%**	**4.92%**	**7.30%**	**0.57%**	**1.27%**	**0.85%**	**-0.25%**	**3.13%**	**0.29%**
Base Rate	$71.60	$138.51	$202.38	$189.68	$155.92	$147.17	$905.25	$89.28	$54.18	$39.93	$37.72	$39.00	$43.13	$303.24	$1,208.49
% Change	13.83%	15.20%	15.20%	15.20%	15.20%	15.20%	15.08%	15.20%	15.20%	13.82%	13.82%	13.82%	13.82%	14.44%	14.92%
COG & LDAC	$0.95	($324.09)	($583.47)	($267.22)	$187.01	$25.25	($961.57)	($26.85)	($9.85)	($37.27)	($32.30)	($35.17)	($44.46)	($185.89)	($1,147.47)
% Change	0.17%	-18.14%	-19.07%	-10.51%	12.05%	1.60%	-8.69%	-3.93%	-3.93%	-20.83%	-20.83%	-20.83%	-20.83%	-11.27%	-9.02%

Liberty Utilities (EnergyNorth Natural Gas) Corp.

Bill Impact Analysis - Cost of Gas Filing Methodology

Winter Season (Jan. - Apr., Nov. - Dec.) — Summer Season (May - Oct.)

Commercial/Industrial - High Annual Use, High Winter Use (G-43)

PROPOSED			Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
average Usage (Therms)			6,416	10,639	17,250	12,674	15,438	8,821	71,238	6,834	2,784	1,051	2,379	1,365	1,683	16,096	87,334
Winter:																	
Cust. Chg		$825.93	$825.93	$825.93	$825.93	$825.93	$825.93	$825.93	$4,955.61								
Headblock		$0.2940	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
Tailblock		$0.2940	$1,886.25	$3,127.78	$5,071.37	$3,726.06	$4,538.65	$2,593.31	$20,943.42								
HB Threshold		-															
Summer:																	
Cust. Chg		$825.93								$825.93	$825.93	$825.93	$825.93	$825.93	$825.93	$4,955.61	$9,911.22
Headblock		$0.1344								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tailblock		$0.1344								$918.74	$374.27	$141.29	$319.82	$183.51	$226.26	$2,163.89	$23,107.31
HB Threshold		-															
Total Base Rate Amount			$2,712.19	$3,953.72	$5,897.30	$4,551.99	$5,364.59	$3,419.24	$25,899.03	$1,744.67	$1,200.21	$967.23	$1,145.76	$1,009.44	$1,052.19	$7,119.50	$33,018.53
COG Rate - (Winter)			$0.6183	$0.6183	$0.6183	$0.6183	$0.6183	$0.6183	$0.6183								
COG amount - Winter			$3,967.01	$6,578.09	$10,665.68	$7,836.33	$9,545.32	$5,454.02	$44,046.46								
COG Rate - (Summer)										$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.5868
COG amount - Summer										$3,057.53	$1,245.56	$470.22	$1,064.36	$610.70	$752.97	$7,201.35	$51,247.81
LDAC		$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496
LDAC amount			$318.52	$528.17	$856.37	$629.19	$766.41	$437.91	$3,536.57	$339.27	$138.21	$52.18	$118.10	$67.76	$83.55	$799.08	$4,335.65
Total Bill			**$6,997.72**	**$11,059.98**	**$17,419.34**	**$13,017.52**	**$15,676.31**	**$9,311.18**	**$73,482.06**	**$5,141.47**	**$2,583.98**	**$1,489.62**	**$2,328.23**	**$1,687.91**	**$1,888.72**	**$15,119.92**	**$88,601.98**

Winter Season (Jan. - Apr., Nov. - Dec.) — Summer Season (May - Oct.)

Commercial/Industrial - High Annual Use, High Winter Use (G-43)

CURRENT			Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
average Usage (Therms)			6,416	10,639	17,250	12,674	15,438	8,821	71,238	6,834	2,784	1,051	2,379	1,365	1,683	16,096	87,334
Winter:																	
Cust. Chg	$716.95	$725.66	$725.66	$716.95	$716.95	$716.95	$716.95	$716.95	$4,310.41								
Headblock	$ 0.2552	$0.2583	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
Tailblock	$ 0.2552	$0.2583	$1,657.25	$ 2,715.07	$ 4,455.68	$ 3,234.40	$ 3,939.78	$ 2,251.12	$18,253.30								
HB Threshold		-															
Summer:																	
Cust. Chg	$716.95	$725.66								$716.95	$716.95	$725.66	$0.00	$0.00	$0.00	$2,159.56	$6,469.97
Headblock	$ 0.1167	$0.1181								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tailblock	$ 0.1167	$0.1181								$797.53	$324.89	$124.12	$280.96	$161.21	$198.76	$1,887.47	$20,140.77
HB Threshold		-															
Total Base Rate Amount			$2,382.91	$3,432.02	$5,172.63	$3,951.35	$4,656.73	$2,968.07	$22,563.71	$1,514.48	$1,041.84	$849.78	$280.96	$161.21	$198.76	$4,047.03	$26,610.74
COG Rate - (Winter)			$0.6190	$0.6183	$0.6183	$0.6183	$0.6183	$0.5817	$0.6138								
COG amount - Winter			$3,971.50	$6,578.09	$10,665.68	$7,836.33	$9,545.32	$5,131.18	$43,728.10								
COG Rate - (Summer)										$0.4417	$0.4474	$0.5521	$0.5521	$0.5521	$0.5521	$0.4871	$0.5905
COG amount - Summer										$3,018.58	$1,245.56	$580.26	$1,313.45	$753.62	$929.18	$7,840.64	$51,568.74
LDAC		$0.0478	$0.0478	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0732	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0737
LDAC amount			$306.68	$805.37	$1,305.83	$959.42	$1,168.66	$667.75	$5,213.71	$517.33	$210.75	$79.56	$180.09	$103.33	$127.40	$1,218.47	$6,432.18
Total Bill			**$6,661.10**	**$10,815.49**	**$17,144.13**	**$12,747.11**	**$15,370.70**	**$8,766.99**	**$71,505.52**	**$5,050.39**	**$2,498.15**	**$1,509.60**	**$1,774.50**	**$1,018.15**	**$1,255.35**	**$13,106.14**	**$84,611.66**

DIFFERENCE:

	Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
Total Bill	**$336.62**	**$244.49**	**$275.22**	**$270.41**	**$305.61**	**$544.18**	**$1,976.54**	**$91.08**	**$85.82**	**($19.98)**	**$553.73**	**$669.75**	**$633.37**	**$2,013.78**	**$3,990.32**
% Change	**5.05%**	**2.26%**	**1.61%**	**2.12%**	**1.99%**	**6.21%**	**2.76%**	**1.80%**	**3.44%**	**-1.32%**	**31.20%**	**65.78%**	**50.45%**	**15.37%**	**4.72%**
Base Rate	$329.28	$521.70	$724.68	$600.64	$707.86	$451.17	$3,335.32	$230.19	$158.36	$117.44	$864.80	$848.23	$853.43	$3,072.46	$6,407.78
% Change	13.82%	15.20%	14.01%	15.20%	15.20%	15.20%	14.78%	15.20%	15.20%	13.82%	307.80%	526.18%	429.37%	75.92%	24.08%
COG & LDAC	$7.34	($277.21)	($449.46)	($330.23)	($402.25)	$93.01	($1,358.78)	($139.11)	($72.54)	($137.42)	($311.07)	($178.48)	($220.06)	($1,058.68)	($2,417.47)
% Change	0.17%	-3.75%	-3.75%	-3.75%	-3.75%	1.60%	-2.78%	-3.93%	-4.98%	-20.83%	-20.83%	-20.83%	-20.83%	-11.69%	-4.17%

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

Winter Season (Jan. - Apr., Nov. - Dec.) / **Summer Season (May - Oct.)**

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

PROPOSED		Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
average Usage (Therms)		174	237	290	343	331	246	1,621	186	151	125	119	119	134	834	2,455
Winter:																
Cust. Chg	$64.15	$64.15	$64.15	$64.15	$64.15	$64.15	$64.15	$384.89								
Headblock	$0.3170	$31.70	$31.70	$31.70	$31.70	$31.70	$31.70	$190.21								
Tailblock	$0.2061	$15.25	$28.23	$39.15	$50.08	$47.60	$30.09	$210.40								
HB Threshold	100															
Summer:																
Cust. Chg	$64.15								$64.15	$64.15	$64.15	$64.15	$64.15	$64.15	$384.89	$769.78
Headblock	$0.3170								$31.70	$31.70	$31.70	$31.70	$31.70	$31.70	$190.21	$380.42
Tailblock	$0.2061								$17.72	$10.51	$5.15	$3.92	$3.92	$7.01	$48.22	$258.62
HB Threshold	100															
Total Base Rate Amount		$111.10	$124.08	$135.00	$145.93	$143.45	$125.94	$785.50	$113.57	$106.36	$101.00	$99.77	$99.77	$102.86	$623.32	$1,408.82
COG Rate - (Winter)		$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251								
COG amount - Winter		$108.77	$148.15	$181.28	$214.41	$206.91	$153.77	$1,013.29								
COG Rate - (Summer)									$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.5687
COG amount - Summer									$85.39	$69.32	$57.39	$54.63	$54.63	$61.52	$382.89	$1,396.18
LDAC	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496
LDAC amount		$8.64	$11.77	$14.40	$17.03	$16.43	$12.21	$80.47	$9.23	$7.50	$6.21	$5.91	$5.91	$6.65	$41.40	$121.88
Total Bill		**$228.50**	**$284.00**	**$330.68**	**$377.36**	**$366.79**	**$291.92**	**$1,879.26**	**$208.20**	**$183.18**	**$164.59**	**$160.31**	**$160.31**	**$171.03**	**$1,047.61**	**$2,926.87**

Winter Season (Jan. - Apr., Nov. - Dec.) / **Summer Season (May - Oct.)**

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

CURRENT			Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
average Usage (Therms)			174	237	290	343	331	246	1,621	186	151	125	119	119	134	834	2,455
Winter:																	
Cust. Chg	$55.68	$56.36	$56.36	$55.68	$55.68	$55.68	$55.68	$55.68	$334.76								
Headblock	$ 0.2752	$0.2785	$27.85	$27.52	$27.52	$27.52	$27.52	$27.52	$165.45								
Tailblock	$ 0.1789	$0.1811	$13.40	$24.51	$33.99	$43.47	$41.33	$26.12	$182.82								
HB Threshold		100															
Summer:																	
Cust. Chg	$55.68	$56.36								$55.68	$55.68	$56.36	$56.36	$56.36	$56.36	$336.80	$671.56
Headblock	$ 0.2752	$0.2785								$27.52	$27.52	$27.85	$27.85	$27.85	$27.85	$166.44	$331.89
Tailblock	$ 0.1789	$0.1811								$15.39	$9.12	$4.53	$3.44	$3.44	$6.16	$42.08	$224.90
HB Threshold		100															
Total Base Rate Amount			$97.61	$107.71	$117.19	$126.67	$124.53	$109.32	$683.03	$98.59	$92.32	$88.74	$87.65	$87.65	$90.37	$545.32	$1,228.35
COG Rate - (Winter)			$0.6258	$0.7456	$0.7549	$0.6760	$0.5257	$0.5870	$0.6507								
COG amount - Winter			$108.89	$176.71	$218.92	$231.87	$174.01	$144.40	$1,054.79								
COG Rate - (Summer)										$0.4506	$0.4506	$0.5633	$0.5633	$0.5633	$0.5633	$0.5178	$0.6055
COG amount - Summer										$83.81	$68.04	$70.41	$67.03	$67.03	$75.48	$431.81	$1,486.61
LDAC		$0.0478	$0.0478	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0727	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0737
LDAC amount			$8.32	$17.94	$21.95	$25.97	$25.06	$18.62	$117.86	$14.08	$11.43	$9.46	$9.01	$9.01	$10.14	$63.13	$180.99
Total Bill			**$214.82**	**$302.36**	**$358.07**	**$384.51**	**$323.59**	**$272.34**	**$1,855.68**	**$196.48**	**$171.80**	**$168.61**	**$163.69**	**$163.69**	**$175.99**	**$1,040.26**	**$2,895.94**

DIFFERENCE:

	Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
Total Bill	**$13.69**	**($18.36)**	**($27.39)**	**($7.14)**	**$43.20**	**$19.58**	**$23.58**	**$11.72**	**$11.38**	**($4.02)**	**($3.39)**	**($3.39)**	**($4.97)**	**$7.35**	**$30.93**
% Change	**6.37%**	**-6.07%**	**-7.65%**	**-1.86%**	**13.35%**	**7.19%**	**1.27%**	**5.97%**	**6.63%**	**-2.38%**	**-2.07%**	**-2.07%**	**-2.82%**	**0.71%**	**1.07%**
Base Rate	$13.49	$16.37	$17.81	$19.25	$18.93	$16.62	$102.47	$14.99	$14.04	$12.26	$12.11	$12.11	$12.49	$78.00	$180.48
% Change	13.82%	15.20%	15.20%	15.20%	15.20%	15.20%	15.00%	15.20%	15.20%	13.82%	13.82%	13.82%	13.82%	14.30%	14.69%
COG & LDAC	$0.20	($34.73)	($45.20)	($26.40)	$24.28	$2.96	($78.89)	($3.27)	($2.65)	($16.28)	($15.50)	($15.50)	($17.45)	($70.65)	($149.54)
% Change	0.17%	-17.84%	-18.76%	-10.24%	12.20%	1.82%	-6.73%	-3.34%	-3.34%	-20.38%	-20.38%	-20.38%	-20.38%	-14.27%	-8.97%

Line No

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

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

Line				Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
500	**PROPOSED**																	
501																		
502	**average Usage (Therms)**			1,352	1,866	2,284	2,160	1,886	1,760	11,308	1,497	1,128	1,032	1,025	1,050	897	6,629	17,937
503																		
504	**Winter:**																	
505	Cust. Chg		$192.46	$192.46	$192.46	$192.46	$192.46	$192.46	$192.46	$1,154.73								
506	Headblock		$0.2722	$272.25	$272.25	$272.25	$272.25	$272.25	$272.25	$1,633.47								
507	Tailblock		$0.1813	$63.83	$157.03	$232.82	$210.34	$160.66	$137.81	$962.48								
508	HB Threshold		1,000															
509																		
510	**Summer:**																	
511	Cust. Chg		$192.46								$192.46	$192.46	$192.46	$192.46	$192.46	$192.46	$1,154.73	$2,309.47
512	Headblock		$0.1972								$197.24	$197.24	$197.24	$197.24	$197.24	$176.92	$1,163.10	$2,796.57
513	Tailblock		$0.1121								$55.71	$14.35	$3.59	$2.80	$5.60	$0.00	$82.05	$1,044.53
514	HB Threshold		1,000															
515																		
516	Total Base Rate Amount			$528.53	$621.73	$697.52	$675.04	$625.36	$602.51	$3,750.69	$445.40	$404.04	$393.28	$392.49	$395.30	$369.38	$2,399.88	$6,150.57
517																		
518	COG Rate - (Winter)			$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251								
519	COG amount - Winter			$845.14	$1,166.44	$1,427.73	$1,350.22	$1,178.94	$1,100.18	$7,068.63								
520																		
521	COG Rate - (Summer)										$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.5638
522	COG amount - Summer										$687.27	$517.86	$473.79	$470.58	$482.06	$411.81	$3,043.37	$10,112.00
523																		
524	LDAC		$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496
525	LDAC amount			$67.12	$92.64	$113.39	$107.23	$93.63	$87.37	$561.38	$74.32	$56.00	$51.23	$50.89	$52.13	$44.53	$329.09	$890.47
526																		
527	**Total Bill**			**$1,440.78**	**$1,880.80**	**$2,238.64**	**$2,132.49**	**$1,897.92**	**$1,790.06**	**$11,380.70**	**$1,206.99**	**$977.90**	**$918.30**	**$913.96**	**$929.48**	**$825.72**	**$5,772.35**	**$17,153.04**

528

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

Line				Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
531	**CURRENT**																	
532																		
533	**average Usage (Therms)**			1,352	1,866	2,284	2,160	1,886	1,760	11,308	1,497	1,128	1,032	1,025	1,050	897	6,629	17,937
534																		
535	**Winter:**																	
536	Cust. Chg	$167.06	$169.09	$169.09	$167.06	$167.06	$167.06	$167.06	$167.06	$1,004.39								
537	Headblock	$ 0.2363	$0.2393	$239.30	$236.30	$236.30	$236.30	$236.30	$236.30	$1,420.80								
538	Tailblock	$ 0.1574	$0.1593	$56.07	$136.31	$202.10	$182.58	$139.46	$119.62	$836.15								
539	HB Threshold		1,000															
540																		
541	**Summer:**																	
542	Cust. Chg	$167.06	$169.09								$167.06	$167.06	$169.09	$169.09	$169.09	$169.09	$1,010.48	$2,014.87
543	Headblock	$ 0.1712	$0.1733								$171.20	$171.20	$173.30	$173.30	$173.30	$155.45	$1,017.75	$2,438.55
544	Tailblock	$ 0.0973	$0.0985								$48.36	$12.45	$3.15	$2.46	$4.93	$0.00	$71.35	$907.50
545	HB Threshold		1,000															
546																		
547	Total Base Rate Amount			$464.46	$539.67	$605.46	$585.94	$542.82	$522.98	$3,261.34	$386.62	$350.71	$345.54	$344.85	$347.32	$324.54	$2,099.58	$5,360.92
548																		
549	COG Rate - (Winter)			$0.6258	$0.7456	$0.7549	$0.6760	$0.5257	$0.5870	$0.6585								
550	COG amount - Winter			$846.08	$1,391.29	$1,724.19	$1,460.16	$991.47	$1,033.12	$7,446.31								
551																		
552	COG Rate - (Summer)										$0.4506	$0.4506	$0.5633	$0.5633	$0.5633	$0.5633	$0.5633	$0.6068
553	COG amount - Summer										$674.55	$508.28	$581.33	$577.38	$591.47	$505.28	$3,438.28	$10,884.59
554																		
555	LDAC		$0.0478	$0.0478	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0724	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0736
556	LDAC amount			$64.63	$141.26	$172.90	$163.51	$142.77	$133.23	$818.29	$113.32	$85.39	$78.12	$77.59	$79.49	$67.90	$501.82	$1,320.11
557																		
558	**Total Bill**			**$1,375.17**	**$2,072.21**	**$2,502.55**	**$2,209.62**	**$1,677.06**	**$1,689.34**	**$11,525.95**	**$1,174.49**	**$944.38**	**$1,004.99**	**$999.83**	**$1,018.27**	**$897.72**	**$6,039.68**	**$17,565.62**
559																	$0.5633	

Line		Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
560	**DIFFERENCE:**														$0.5633	
561	**Total Bill**	**$65.61**	**($191.41)**	**($263.91)**	**($77.13)**	**$220.87**	**$100.72**	**($145.25)**	**$32.50**	**$33.52**	**($86.69)**	**($85.87)**	**($88.79)**	**($72.00)**	**($267.33)**	**($412.58)**
562	% Change	**4.77%**	**-9.24%**	**-10.55%**	**-3.49%**	**13.17%**	**5.96%**	**-1.26%**	**2.77%**	**3.55%**	**-8.63%**	**-8.59%**	**-8.72%**	**-8.02%**	**-4.43%**	**-2.35%**
563																
564	**Base Rate**	$64.06	$82.06	$92.06	$89.10	$82.54	$79.53	$489.35	$58.78	$53.32	$47.74	$47.64	$47.98	$44.84	$300.30	$789.65
565	% Change	13.79%	15.21%	15.21%	15.21%	15.21%	15.21%	15.00%	15.20%	15.20%	13.81%	13.81%	13.81%	13.82%	14.30%	14.73%
566																
567	**COG & LDAC**	$1.55	($273.47)	($355.97)	($166.22)	$138.33	$21.20	($634.60)	($26.28)	($19.80)	($134.42)	($133.51)	($136.77)	($116.84)	($567.63)	($1,202.22)
568	% Change	0.17%	-17.84%	-18.76%	-10.24%	12.20%	1.82%	-7.68%	-3.34%	-3.34%	-20.38%	-20.38%	-20.38%	-20.38%	-14.41%	-9.85%

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

Line No																		
569	**Winter Season (Jan. - Apr., Nov. - Dec.)**										**Summer Season (May - Oct.)**							
570	**Commercial/Industrial - High Annual Use, Load Factor Less Than 90% (G-53)**																	
571	**PROPOSED**																	**Total**
572				**Nov-19**	**Dec-18**	**Jan-19**	**Feb-19**	**Mar-19**	**Apr-19**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Nov-Oct**
573	**average Usage (Therms)**			6,008	7,795	10,754	11,944	8,606	19,165	64,272	6,115	4,271	3,375	2,386	3,068	3,979	23,194	87,466
574																		
575	**Winter:**																	
576	Cust. Chg		$850.00	$850.00	$850.00	$850.00	$850.00	$850.00	$850.00	$5,099.98								
577	Headblock		$0.1903	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
578	Tailblock		$0.1903	$1,143.07	$1,483.06	$2,046.03	$2,272.44	$1,637.36	$3,646.29	$12,228.24								
579	HB Threshold		-															
580																		
581	**Summer:**																	
582	Cust. Chg		$850.00								$850.00	$850.00	$850.00	$850.00	$850.00	$850.00	$5,099.98	$10,199.95
583	Headblock		$0.0913								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
584	Tailblock		$0.0913								$558.25	$389.90	$308.11	$217.82	$280.08	$363.25	$2,117.41	$14,345.65
585	HB Threshold		-															
586																		
587	Total Base Rate Amount			$1,993.06	$2,333.05	$2,896.03	$3,122.43	$2,487.35	$4,496.28	$17,328.22	$1,408.24	$1,239.90	$1,158.10	$1,067.82	$1,130.08	$1,213.24	$7,217.38	$24,545.60
588																		
589	COG Rate - (Winter)			$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251								
590	COG amount - Winter			$3,755.60	$4,872.65	$6,722.33	$7,466.19	$5,379.61	$11,980.04	$40,176.43								
591																		
592	COG Rate - (Summer)										$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.5811
593	COG amount - Summer										$2,807.40	$1,960.82	$1,549.46	$1,095.41	$1,408.52	$1,826.76	$10,648.37	$50,824.79
594																		
595	LDAC		$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496
596	LDAC amount			$298.26	$386.98	$533.88	$592.95	$427.24	$951.44	$3,190.75	$303.58	$212.03	$167.55	$118.45	$152.31	$197.54	$1,151.45	$4,342.20
597																		
598	**Total Bill**			**$6,046.93**	**$7,592.69**	**$10,152.23**	**$11,181.58**	**$8,294.20**	**$17,427.76**	**$60,695.39**	**$4,519.21**	**$3,412.75**	**$2,875.12**	**$2,281.68**	**$2,690.91**	**$3,237.54**	**$19,017.20**	**$79,712.59**
599																		
600	**Winter Season (Jan. - Apr., Nov. - Dec.)**										**Summer Season (May - Oct.)**							
601	**Commercial/Industrial - High Annual Use, Load Factor Less Than 90% (G-53)**																	
602	**CURRENT**																	**Total**
603				**Nov-19**	**Dec-18**	**Jan-19**	**Feb-19**	**Mar-19**	**Apr-19**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Nov-Oct**
604	**average Usage (Therms)**			6,008	7,795	10,754	11,944	8,606	19,165	64,272	6,115	4,271	3,375	2,386	3,068	3,979	23,194	87,466
605																		
606	**Winter:**																	
607	Cust. Chg	$737.84	$746.81	$746.81	$737.84	$737.84	$737.84	$737.84	$737.84	$4,436.01								
608	Headblock	$ 0.1652	$0.1672	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
609	Tailblock	$ 0.1652	$0.1672	$1,004.54	$1,287.73	$1,776.56	$1,973.15	$1,421.71	$3,166.06	$10,629.75								
610	HB Threshold		-															
611																		
612	**Summer:**																	
613	Cust. Chg	$737.84	$746.81								$737.84	$737.84	$746.81	$746.81	$746.81	$746.81	$4,462.92	$8,898.93
614	Headblock	$ 0.0792	$0.0802								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
615	Tailblock	$ 0.0792	$0.0802								$484.31	$338.26	$270.68	$191.36	$246.05	$319.12	$1,849.77	$12,479.52
616	HB Threshold		-															
617																		
618	Total Base Rate Amount			$1,751.35	$2,025.57	$2,514.40	$2,710.99	$2,159.55	$3,903.90	$15,065.76	$1,222.15	$1,076.10	$1,017.49	$938.17	$992.86	$1,065.93	$6,312.69	$21,378.45
619																		
620	COG Rate - (Winter)			$0.6258	$0.7456	$0.7549	$0.6760	$0.5257	$0.5870	$0.6463								
621	COG amount - Winter			$3,759.81	$5,811.95	$8,118.19	$8,074.14	$4,524.17	$11,249.86	$41,538.13								
622																		
623	COG Rate - (Summer)										$0.4506	$0.4506	$0.5633	$0.5633	$0.5633	$0.5633	$0.5128	$0.6109
624	COG amount - Summer										$2,755.42	$1,924.51	$1,901.14	$1,344.03	$1,728.20	$2,241.37	$11,894.68	$53,432.80
625																		
626	LDAC		$0.0478	$0.0478	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0731	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0738
627	LDAC amount			$287.18	$590.08	$814.08	$904.16	$651.47	$1,450.79	$4,697.77	$462.91	$323.31	$255.49	$180.62	$232.25	$301.21	$1,755.79	$6,453.55
628																		
629	**Total Bill**			**$5,798.34**	**$8,427.61**	**$11,446.67**	**$11,689.29**	**$7,335.20**	**$16,604.54**	**$61,301.65**	**$4,440.47**	**$3,323.93**	**$3,174.11**	**$2,462.82**	**$2,953.32**	**$3,608.51**	**$19,963.16**	**$81,264.81**
630																		
631	**DIFFERENCE:**																	
632	**Total Bill**			**$248.59**	**($834.92)**	**($1,294.44)**	**($507.71)**	**$959.00**	**$823.22**	**($606.26)**	**$78.74**	**$88.82**	**($298.99)**	**($181.14)**	**($262.41)**	**($370.97)**	**($945.96)**	**($1,552.22)**
633	% Change			**4.29%**	**-9.91%**	**-11.31%**	**-4.34%**	**13.07%**	**4.96%**	**-0.99%**	**1.77%**	**2.67%**	**-9.42%**	**-7.35%**	**-8.89%**	**-10.28%**	**-4.74%**	**-1.91%**
634																		
635	**Base Rate**			$241.72	$307.48	$381.63	$411.44	$327.80	$592.39	$2,262.46	$186.09	$163.80	$140.62	$129.65	$137.21	$147.32	$904.69	$3,167.15
636	% Change			13.80%	15.18%	15.18%	15.18%	15.18%	15.17%	15.02%	15.23%	15.22%	13.82%	13.82%	13.82%	13.82%	14.33%	14.81%
637																		
638	**COG & LDAC**			$6.88	($1,142.40)	($1,676.07)	($919.16)	$631.20	$230.83	($2,868.72)	($107.35)	($74.98)	($439.61)	($310.79)	($399.62)	($518.29)	($1,850.65)	($4,719.37)
639	% Change			0.17%	-17.84%	-18.76%	-10.24%	12.20%	1.82%	-6.20%	-3.34%	-3.34%	-20.38%	-20.38%	-20.38%	-20.38%	-13.56%	-7.88%

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

Winter Season (Jan. - Apr., Nov. - Dec.) — **Summer Season (May - Oct.)**

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

PROPOSED

		Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
average Usage (Therms)		11,937	12,313	28,452	31,015	31,889	33,999	149,605	23,395	12,360	7,196	9,964	10,085	14,348	77,348	226,953
Winter:																
Cust. Chg	$850.00	$850.00	$850.00	$850.00	$850.00	$850.00	$850.00	$5,099.98								
Headblock	$0.0726	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
Tailblock	$0.0726	$866.24	$893.53	$2,064.70	$2,250.69	$2,314.11	$2,467.23	$10,856.49								
HB Threshold	-															
Summer:																
Cust. Chg	$850.00								$850.00	$850.00	$850.00	$850.00	$850.00	$850.00	$5,099.98	$10,199.95
Headblock	$0.0394								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tailblock	$0.0394								$922.32	$487.28	$283.69	$392.82	$397.59	$565.65	$3,049.35	$13,905.85
HB Threshold	-															
Total Base Rate Amount		$1,716.24	$1,743.52	$2,914.69	$3,100.68	$3,164.11	$3,317.23	$15,956.47	$1,772.32	$1,337.27	$1,133.69	$1,242.81	$1,247.59	$1,415.65	$8,149.33	$24,105.80
COG Rate - (Winter)		$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251								
COG amount - Winter		$7,461.82	$7,696.86	$17,785.35	$19,387.48	$19,933.81	$21,252.77	$93,518.09								
COG Rate - (Summer)									$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.5685
COG amount - Summer									$10,740.64	$5,674.48	$3,303.68	$4,574.47	$4,630.02	$6,587.17	$35,510.47	$129,028.55
LDAC	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496
LDAC amount		$592.61	$611.27	$1,412.48	$1,539.72	$1,583.11	$1,687.86	$7,427.05	$1,161.43	$613.60	$357.24	$494.66	$500.66	$712.30	$3,839.90	$11,266.95
Total Bill		**$9,770.66**	**$10,051.65**	**$22,112.52**	**$24,027.88**	**$24,681.03**	**$26,257.86**	**$116,901.61**	**$13,674.39**	**$7,625.36**	**$4,794.61**	**$6,311.94**	**$6,378.27**	**$8,715.11**	**$47,499.69**	**$164,401.30**

Winter Season (Jan. - Apr., Nov. - Dec.) — **Summer Season (May - Oct.)**

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

CURRENT

			Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
average Usage (Therms)			11,937	12,313	28,452	31,015	31,889	33,999	149,605	23,395	12,360	7,196	9,964	10,085	14,348	77,348	226,953
Winter:																	
Cust. Chg	$737.84	$746.81	$746.81	$737.84	$737.84	$737.84	$737.84	$737.84	$4,436.01								
Headblock	$ 0.0630	$0.0638	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
Tailblock	$ 0.0630	$0.0638	$761.58	$775.72	$1,792.48	$1,953.95	$2,009.01	$2,141.94	$9,434.66								
HB Threshold		-															
Summer:																	
Cust. Chg	$737.84	$746.81								$737.84	$737.84	$746.81	$746.81	$746.81	$746.81	$4,462.92	$8,898.93
Headblock	$ 0.0342	$0.0346								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Tailblock	$ 0.0342	$0.0346								$800.11	$422.71	$248.98	$344.75	$348.94	$496.44	$2,661.94	$12,096.60
HB Threshold		-															
Total Base Rate Amount			$1,508.39	$1,513.56	$2,530.32	$2,691.79	$2,746.85	$2,879.78	$13,870.67	$1,537.95	$1,160.55	$995.79	$1,091.56	$1,095.75	$1,243.25	$7,124.86	$20,995.53
COG Rate - (Winter)			$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251								
COG amount - Winter			$7,461.82	$7,696.86	$17,785.35	$19,387.48	$19,933.81	$21,252.77	$93,518.09								
COG Rate - (Summer)										$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.5685
COG amount - Summer										$10,740.64	$5,674.48	$3,303.68	$4,574.47	$4,630.02	$6,587.17	$35,510.47	$129,028.55
LDAC		$0.0478	$0.0478	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0735	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0742
LDAC amount			$570.59	$932.09	$2,153.82	$2,347.84	$2,414.00	$2,573.72	$10,992.06	$1,771.00	$935.65	$544.74	$754.27	$763.43	$1,086.14	$5,855.24	$16,847.30
Total Bill			**$9,540.80**	**$10,142.51**	**$22,469.48**	**$24,427.10**	**$25,094.66**	**$26,706.28**	**$118,380.82**	**$14,049.60**	**$7,770.68**	**$4,844.21**	**$6,420.31**	**$6,489.21**	**$8,916.56**	**$48,490.57**	**$166,871.39**

DIFFERENCE:

	Nov-19	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
Total Bill	**$229.86**	**($90.86)**	**($356.96)**	**($399.22)**	**($413.63)**	**($448.41)**	**($1,479.21)**	**($375.20)**	**($145.32)**	**($49.60)**	**($108.37)**	**($110.94)**	**($201.45)**	**($990.88)**	**($2,470.09)**
% Change	**2.41%**	**-0.90%**	**-1.59%**	**-1.63%**	**-1.65%**	**-1.68%**	**-1.25%**	**-2.67%**	**-1.87%**	**-1.02%**	**-1.69%**	**-1.71%**	**-2.26%**	**-2.04%**	**-1.48%**
Base Rate	$207.85	$229.96	$384.38	$408.90	$417.26	$437.45	$2,085.80	$234.37	$176.72	$137.90	$151.25	$151.83	$172.40	$1,024.47	$3,110.27
% Change	13.78%	15.19%	15.19%	15.19%	15.19%	15.19%	15.04%	15.24%	15.23%	13.85%	13.86%	13.86%	13.87%	14.38%	14.81%
COG & LDAC	$22.02	($320.82)	($741.33)	($808.11)	($830.89)	($885.86)	($3,565.00)	($609.57)	($322.05)	($187.50)	($259.62)	($262.77)	($373.85)	($2,015.35)	($5,580.35)
% Change	0.27%	-3.72%	-3.72%	-3.72%	-3.72%	-3.72%	-3.41%	-4.87%	-4.87%	-4.87%	-4.87%	-4.87%	-4.87%	-4.87%	-3.83%

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

Line No										
711	Winter Season (Jan. - Apr., Nov. - Dec.)									
712	**Keene Residential to EnergyNorth Residential Non-Heating (R1)**									
713	**PROPOSED**									
714				**Nov-19**	**Dec-19**	**Jan-20**	**Feb-20**	**Mar-20**	**Apr-20**	**Winter**
715	**average Usage (Therms)**			14	18	18	20	21	16	107
716										
717	**Winter:**									
718	Cust. Chg		$17.30	$17.30	$17.30	$17.30	$17.30	$17.30	$17.30	$103.83
719	Headblock		$0.4310	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
720	Tailblock		$0.4310	$6.03	$7.76	$7.76	$8.62	$9.05	$6.90	$46.12
721	HB Threshold		-							
722										
723	**Summer:**									
724	Cust. Chg		$17.30							
725	Headblock		$0.4310							
726	Tailblock		$0.4310							
727	HB Threshold		-							
728										
729	Total Base Rate Amount			$23.34	$25.06	$25.06	$25.92	$26.36	$24.20	$149.94
730										
731	COG Rate - (Winter)			$0.6196	$0.6196	$0.6196	$0.6196	$0.6196	$0.6196	$0.6196
732	COG amount - Winter			$8.67	$11.15	$11.15	$12.39	$13.01	$9.91	$66.30
733										
734	COG Rate - (Summer)									
735	COG amount - Summer									
736										
737	LDAC		$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328
738	LDAC amount			$0.46	$0.59	$0.59	$0.66	$0.69	$0.53	$3.51
739										
740	**Total Bill**			**$32.47**	**$36.81**	**$36.81**	**$38.97**	**$40.06**	**$34.64**	**$219.75**
741										
742	Winter Season (Jan. - Apr., Nov. - Dec.)									
743	**Keene Residential to EnergyNorth Residential Non-Heating (R1)**									
744	**CURRENT**									
745				**Nov-19**	**Dec-19**	**Jan-20**	**Feb-20**	**Mar-20**	**Apr-20**	**Winter**
746	**average Usage (Therms)**			14	18	18	20	21	16	107
747										
748	**Winter:**									
749	Cust. Chg	$15.02	$15.20	$15.20	$15.02	$15.02	$15.02	$15.02	$15.02	$90.30
750	Headblock	$ 0.3741	$0.3786	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
751	Tailblock	$ 0.3741	$0.3786	$5.30	$6.73	$6.73	$7.48	$7.86	$5.99	$40.09
752	HB Threshold		-							
753										
754	**Summer:**									
755	Cust. Chg	$15.02	$15.20							
756	Headblock	$ 0.3741	$0.3786							
757	Tailblock	$ 0.3741	$0.3768							
758	HB Threshold		-							
759										
760	Total Base Rate Amount			$20.50	$21.75	$21.75	$22.50	$22.88	$21.01	$130.39
761										
762	COG Rate - (Winter)			$0.9492	$1.4734	$1.5311	$1.5011	$1.3135	$1.2651	$1.3572
763	COG amount - Winter			$13.29	$26.52	$27.56	$30.02	$27.58	$20.24	$145.22
764										
765	COG Rate - (Summer)									
766	COG amount - Summer									
767										
768	LDAC			$0.0310	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0614
769	LDAC amount			$0.43	$1.19	$1.19	$1.32	$1.39	$1.06	$6.57
770										
771	**Total Bill**			**$34.22**	**$49.46**	**$50.50**	**$53.84**	**$51.85**	**$42.30**	**$282.18**
772										
773	**DIFFERENCE:**									
774	**Total Bill**			**($1.75)**	**($12.66)**	**($13.70)**	**($14.87)**	**($11.79)**	**($7.66)**	**($62.43)**
775	% Change			**-5.12%**	**-25.59%**	**-27.12%**	**-27.62%**	**-22.74%**	**-18.12%**	**-22.12%**
776										
777	**Base Rate**			$2.84	$3.31	$3.31	$3.42	$3.48	$3.19	$19.55
778	% Change			13.84%	15.21%	15.21%	15.21%	15.21%	15.21%	14.99%
779										
780	**COG & LDAC**			($4.59)	($15.97)	($17.00)	($18.29)	($15.27)	($10.86)	($81.98)
781	% Change			-33.44%	-57.62%	-59.15%	-58.37%	-52.70%	-50.98%	-54.01%

Line No									
711	Summer Season (May - Oct.)								
713									**Total**
714		**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Nov-Oct**
715	**average Usage (Therms)**	15	11	9	8	7	10	60	167
724	Cust. Chg	$17.30	$17.30	$17.30	$17.30	$17.30	$17.30	$103.83	$207.66
725	Headblock	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
726	Tailblock	$6.46	$4.74	$3.88	$3.45	$3.02	$4.31	$25.86	$71.97
729	Total Base Rate Amount	$23.77	$22.05	$21.18	$20.75	$20.32	$21.61	$129.69	$279.63
734	COG Rate - (Summer)	$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.5594
735	COG amount - Summer	$6.78	$4.97	$4.07	$3.62	$3.16	$4.52	$27.12	$93.42
737	LDAC	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328
738	LDAC amount	$0.49	$0.36	$0.30	$0.26	$0.23	$0.33	$1.97	$5.49
740	**Total Bill**	**$31.04**	**$27.38**	**$25.55**	**$24.63**	**$23.72**	**$26.46**	**$158.78**	**$378.53**
742	Summer Season (May - Oct.)								
744									**Total**
745		**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Nov-Oct**
746	**average Usage (Therms)**	15	11	9	8	7	10	60	167
755	Cust. Chg	$15.02	$15.02	$15.20	$15.20	$15.20	$15.20	$90.84	$181.14
756	Headblock	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
757	Tailblock	$5.61	$4.12	$3.39	$3.01	$2.64	$3.77	$22.54	$62.63
760	Total Base Rate Amount	$20.63	$19.14	$18.59	$18.21	$17.84	$18.97	$113.38	$243.77
765	COG Rate - (Summer)	$1.1071	$1.0063	$0.8854	$0.7068	$0.4843	$0.4843	$0.8255	$1.1662
766	COG amount - Summer	$16.61	$11.07	$7.97	$5.65	$3.39	$4.84	$49.53	$194.75
768	LDAC	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0660	$0.0631
769	LDAC amount	$0.99	$0.73	$0.59	$0.53	$0.46	$0.66	$3.96	$10.53
771	**Total Bill**	**$38.23**	**$30.93**	**$27.15**	**$24.40**	**$21.69**	**$24.47**	**$166.87**	**$449.05**
774	**Total Bill**	**($7.19)**	**($3.55)**	**($1.61)**	**$0.23**	**$2.03**	**$1.99**	**($8.09)**	**($70.52)**
775	% Change	**-18.80%**	**-11.48%**	**-5.92%**	**0.96%**	**9.34%**	**8.14%**	**-4.85%**	**-15.70%**
777	**Base Rate**	$3.14	$2.91	$2.59	$2.54	$2.48	$2.65	$16.31	$35.86
778	% Change	15.21%	15.21%	13.94%	13.93%	13.93%	13.95%	14.38%	14.71%
780	**COG & LDAC**	($10.32)	($6.46)	($4.20)	($2.30)	($0.46)	($0.65)	($24.40)	($106.38)
781	% Change	-58.67%	-54.78%	-49.04%	-37.26%	-11.89%	-11.89%	-45.62%	-51.82%

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

782 **Winter Season (Jan. - Apr., Nov. - Dec.)** / **Summer Season (May - Oct.)**
783 **Keene Residential to EnergyNorth Residential Heating (R3)**

Line No				Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
784	**PROPOSED**																	
785																		
786	**average Usage (Therms)**			39	69	81	103	89	66	447	35	18	9	7	8	12	89	536
787																		
788	**Winter:**																	
789	Cust. Chg		$17.30	$17.30	$17.30	$17.30	$17.30	$17.30	$17.30	$103.82								
790	Headblock		$0.6338	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
791	Tailblock		$0.6338	$24.72	$43.73	$51.34	$65.28	$56.41	$41.83	$283.32								
792	HB Threshold		-															
793																		
794	**Summer:**																	
795	Cust. Chg		$17.30								$17.30	$17.30	$17.30	$17.30	$17.30	$17.30	$103.82	$207.64
796	Headblock		$0.6338								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
797	Tailblock		$0.6338								$22.18	$11.41	$5.70	$4.44	$5.07	$7.61	$56.41	$339.73
798	HB Threshold		-															
799																		
800	Total Base Rate Amount			$42.02	$61.04	$68.64	$82.59	$73.71	$59.14	$387.14	$39.49	$28.71	$23.01	$21.74	$22.37	$24.91	$160.23	$547.37
801																		
802	COG Rate - (Winter)			$0.6196	$0.6196	$0.6196	$0.6196	$0.6196	$0.6196	$0.6196								
803	COG amount - Winter			$24.16	$42.75	$50.19	$63.82	$55.14	$40.89	$276.96								
804																		
805	COG Rate - (Summer)										$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.4520	$0.5918
806	COG amount - Summer										$15.82	$8.14	$4.07	$3.16	$3.62	$5.42	$40.23	$317.19
807																		
808	LDAC		$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328	$0.0328
809	LDAC amount			$1.28	$2.27	$2.66	$3.38	$2.92	$2.17	$14.68	$1.15	$0.59	$0.30	$0.23	$0.26	$0.39	$2.92	$17.60
810																		
811	**Total Bill**			**$67.47**	**$106.06**	**$121.49**	**$149.79**	**$131.78**	**$102.20**	**$678.78**	**$56.46**	**$37.44**	**$27.37**	**$25.13**	**$26.25**	**$30.73**	**$203.38**	**$882.16**

812
813 **Winter Season (Jan. - Apr., Nov. - Dec.)** / **Summer Season (May - Oct.)**
814 **Keene Residential to EnergyNorth Residential Heating (R3)**

Line No				Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
815	**CURRENT**																	
816																		
817	**average Usage (Therms)**			39	69	81	103	89	66	447	35	18	9	7	8	12	89	536
818																		
819	**Winter:**																	
820	Cust. Chg	$15.02	$15.20	$15.20	$15.02	$15.02	$15.02	$15.02	$15.02	$90.30								
821	Headblock	$ 0.5502	$0.5569	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00								
822	Tailblock	$ 0.5502	$0.5569	$21.72	$37.96	$44.57	$56.67	$48.97	$36.31	$246.20								
823	HB Threshold		-															
824																		
825	**Summer:**																	
826	Cust. Chg	$15.02	$15.20								$15.02	$15.02	$15.20	$15.20	$15.20	$15.20	$90.84	$181.14
827	Headblock	$ 0.5502	$0.5569								$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
828	Tailblock	$ 0.5502	$0.5569								$19.26	$9.90	$5.01	$3.90	$4.46	$6.68	$49.21	$295.41
829	HB Threshold		-															
830																		
831	Total Base Rate Amount			$36.92	$52.98	$59.59	$71.69	$63.99	$51.33	$336.50	$34.28	$24.92	$20.21	$19.10	$19.66	$21.88	$140.05	$476.55
832																		
833	COG Rate - (Winter)			$0.9492	$1.4734	$1.5311	$1.5011	$1.3135	$1.2651	$1.3819								
834	COG amount - Winter			$37.02	$101.66	$124.02	$154.61	$116.90	$83.50	$617.71								
835																		
836	COG Rate - (Summer)										$1.1071	$1.0063	$0.8854	$0.7068	$0.4843	$0.4843	$0.8929	$1.3007
837	COG amount - Summer										$38.75	$18.11	$7.97	$4.95	$3.87	$5.81	$79.46	$697.18
838																		
839	LDAC		$0.0310	$0.0310	$0.0660	$0.0660	$0.0660	$0.0660	$0.0496	$0.0605	$0.0660	$0.0660	$0.0496	$0.0660	$0.0660	$0.0660	$0.0643	$0.0612
840	LDAC amount			$1.21	$4.55	$5.35	$6.80	$5.87	$3.28	$27.06	$2.31	$1.19	$0.45	$0.46	$0.53	$0.79	$5.73	$32.78
841																		
842	**Total Bill**			**$75.15**	**$159.20**	**$188.95**	**$233.10**	**$186.76**	**$138.11**	**$981.27**	**$75.34**	**$44.23**	**$28.63**	**$24.51**	**$24.06**	**$28.49**	**$225.24**	**$1,206.51**

843

Line No		Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
844	**DIFFERENCE:**															
845	**Total Bill**	**($7.68)**	**($53.15)**	**($67.46)**	**($83.31)**	**($54.98)**	**($35.91)**	**($302.49)**	**($18.88)**	**($6.79)**	**($1.26)**	**$0.63**	**$2.19**	**$2.24**	**($21.86)**	**($324.35)**
846	% Change	**-10.22%**	**-33.38%**	**-35.70%**	**-35.74%**	**-29.44%**	**-26.00%**	**-30.83%**	**-25.06%**	**-15.34%**	**-4.39%**	**2.55%**	**9.12%**	**7.87%**	**-9.70%**	**-26.88%**
847																
848	**Base Rate**	$5.10	$8.05	$9.06	$10.90	$9.73	$7.80	$50.64	$5.21	$3.79	$2.80	$2.64	$2.72	$3.03	$20.18	$70.82
849	% Change	13.82%	15.20%	15.20%	15.20%	15.20%	15.20%	15.05%	15.20%	15.20%	13.83%	13.83%	13.83%	13.83%	14.41%	14.86%
850																
851	**COG & LDAC**	($12.78)	($61.20)	($76.52)	($94.21)	($64.71)	($43.71)	($353.13)	($24.09)	($10.57)	($4.05)	($2.02)	($0.52)	($0.79)	($42.04)	($395.17)
852	% Change	-33.44%	-57.62%	-59.15%	-58.37%	-52.70%	-50.37%	-54.77%	-58.67%	-54.78%	-48.15%	-37.26%	-11.89%	-11.89%	-49.35%	-54.14%

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

Winter Season (Jan. - Apr., Nov. - Dec.) / **Summer Season (May - Oct.)**

Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Low Annual Use, High Winter Use (G-41)

PROPOSED			**Nov-19**	**Dec-19**	**Jan-20**	**Feb-20**	**Mar-20**	**Apr-20**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Total Nov-Oct**
average Usage (Therms)			133	249	307	403	367	262	1,721	128	56	22	16	18	26	266	1,987
Winter:																	
Cust. Chg		$64.15	$64.15	$64.15	$64.15	$64.15	$64.15	$64.15	$384.89								
Headblock		$0.5260	$52.60	$52.60	$52.60	$52.60	$52.60	$52.60	$315.60								
Tailblock		$0.3533	$11.66	$52.64	$73.13	$107.05	$94.33	$57.24	$396.05								
HB Threshold		100															
Summer:																	
Cust. Chg		$64.15								$64.15	$64.15	$64.15	$64.15	$64.15	$64.15	$384.89	$769.78
Headblock		$0.5260								$10.52	$10.52	$10.52	$8.42	$9.47	$10.52	$59.96	$375.56
Tailblock		$0.3533								$38.16	$12.72	$0.71	$0.00	$0.00	$2.12	$53.70	$449.75
HB Threshold		20															
Total Base Rate Amount			$128.41	$169.39	$189.88	$223.80	$211.08	$173.98	$1,096.54	$112.82	$87.39	$75.37	$72.56	$73.62	$76.79	$498.55	$1,595.09
COG Rate - (Winter)			$0.6183	$0.6183	$0.6183	$0.6183	$0.6183	$0.6183	$0.6183								
COG amount - Winter			$82.23	$153.96	$189.82	$249.17	$226.92	$161.99	$1,064.09								
COG Rate - (Summer)										$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.5954
COG amount - Summer										$57.27	$25.05	$9.84	$7.16	$8.05	$11.63	$119.01	$1,183.10
LDAC		$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496
LDAC amount			$6.60	$12.36	$15.24	$20.01	$18.22	$13.01	$85.44	$6.35	$2.78	$1.09	$0.79	$0.89	$1.29	$13.21	$98.64
Total Bill			**$217.24**	**$335.71**	**$394.94**	**$492.98**	**$456.22**	**$348.98**	**$2,246.07**	**$176.45**	**$115.22**	**$86.31**	**$80.52**	**$82.56**	**$89.71**	**$630.77**	**$2,876.84**

Winter Season (Jan. - Apr., Nov. - Dec.) / **Summer Season (May - Oct.)**

Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Low Annual Use, High Winter Use (G-41)

CURRENT			**Nov-19**	**Dec-19**	**Jan-20**	**Feb-20**	**Mar-20**	**Apr-20**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Total Nov-Oct**
average Usage (Therms)			133	249	307	403	367	262	1,721	128	56	22	16	18	26	266	1,987
Winter:																	
Cust. Chg	$55.68	$56.36	$56.36	$55.68	$55.68	$55.68	$55.68	$55.68	$334.76								
Headblock	$ 0.4566	$0.4621	$46.21	$45.66	$45.66	$45.66	$45.66	$45.66	$274.51								
Tailblock	$ 0.3067	$0.3104	$10.24	$45.70	$63.49	$92.93	$81.89	$49.69	$343.93								
HB Threshold		100															
Summer:																	
Cust. Chg	$55.68	$56.36								$55.68	$55.68	$56.36	$56.36	$56.36	$56.36	$336.80	$671.56
Headblock	$ 0.4566	$0.4621								$9.13	$9.13	$9.24	$7.39	$8.32	$9.24	$52.46	$326.97
Tailblock	$ 0.3067	$0.3104								$33.12	$11.04	$0.62	$0.00	$0.00	$1.86	$46.65	$390.58
HB Threshold		20															
Total Base Rate Amount			$112.81	$147.04	$164.83	$194.27	$183.23	$151.03	$953.20	$97.94	$75.85	$66.22	$63.75	$64.68	$67.46	$435.91	$1,389.11
COG Rate - (Winter)			$0.9492	$1.4734	$1.5311	$1.5011	$1.3135	$1.2651	$1.3839								
COG amount - Winter			$126.24	$366.88	$470.05	$604.94	$482.05	$331.46	$2,381.62								
COG Rate - (Summer)										$1.1071	$1.0063	$0.8854	$0.7068	$0.4843	$0.4843	$0.9404	$1.3245
COG amount - Summer										$141.71	$56.35	$19.48	$11.31	$8.72	$12.59	$250.16	$2,631.78
LDAC		$0.0478	$0.0478	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0735	$0.0496	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0632	$0.0722
LDAC amount			$6.36	$18.85	$23.24	$30.51	$27.78	$19.83	$126.57	$6.35	$4.24	$1.67	$1.21	$1.36	$1.97	$16.80	$143.37
Total Bill			**$245.41**	**$532.76**	**$658.11**	**$829.72**	**$693.07**	**$502.32**	**$3,461.39**	**$246.00**	**$136.45**	**$87.37**	**$76.27**	**$74.76**	**$82.02**	**$702.87**	**$4,164.26**

DIFFERENCE:

			Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
Total Bill			**($28.17)**	**($197.06)**	**($263.17)**	**($336.74)**	**($236.85)**	**($153.33)**	**($1,215.32)**	**($69.55)**	**($21.22)**	**($1.06)**	**$4.24**	**$7.81**	**$7.69**	**($72.10)**	**($1,287.42)**
% Change			**-11.48%**	**-36.99%**	**-39.99%**	**-40.58%**	**-34.17%**	**-30.52%**	**-35.11%**	**-28.27%**	**-15.55%**	**-1.21%**	**5.56%**	**10.44%**	**9.37%**	**-10.26%**	**-30.92%**
Base Rate			$15.59	$22.35	$25.05	$29.53	$27.85	$22.96	$143.34	$14.89	$11.53	$9.15	$8.81	$8.94	$9.32	$62.65	$205.98
% Change			13.82%	15.20%	15.20%	15.20%	15.20%	15.20%	15.04%	15.20%	15.21%	13.82%	13.82%	13.82%	13.82%	14.37%	14.83%
COG & LDAC			($43.76)	($219.41)	($288.23)	($366.27)	($264.70)	($176.29)	($1,358.66)	($84.44)	($32.76)	($10.21)	($4.57)	($1.13)	($1.64)	($134.75)	($1,493.40)
% Change			-33.00%	-56.88%	-58.43%	-57.64%	-51.92%	-50.18%	-54.17%	-57.03%	-54.06%	-48.28%	-36.48%	-11.24%	-11.24%	-50.47%	-53.81%

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

924 Winter Season (Jan. - Apr., Nov. - Dec.) — Summer Season (May - Oct.)

925 Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Medium Annual Use, High Winter Use (G-42

Line No	PROPOSED			Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
928	average Usage (Therms)			1,086	1,629	2,089	2,903	2,860	1,797	12,364	1,432	746	754	43	377	621	3,973	16,337
930	**Winter:**																	
931	Cust. Chg		$192.46	$192.46	$192.46	$192.46	$192.46	$192.46	$192.46	$1,154.73								
932	Headblock		$0.4783	$478.32	$478.32	$478.32	$478.32	$478.32	$478.32	$2,869.91								
933	Tailblock		$0.3186	$27.40	$200.43	$347.01	$606.38	$592.68	$253.96	$2,027.87								
934	HB Threshold		1,000															
936	**Summer:**																	
937	Cust. Chg		$192.46								$192.46	$192.46	$192.46	$192.46	$192.46	$192.46	$1,154.73	$2,309.47
938	Headblock		$0.4783								$191.33	$191.33	$191.33	$20.57	$180.33	$191.33	$966.20	$3,836.12
939	Tailblock		$0.3186								$328.84	$110.25	$112.80	$0.00	$0.00	$70.42	$622.32	$2,650.18
940	HB Threshold		400															
942	Total Base Rate Amount			$698.18	$871.20	$1,017.78	$1,277.16	$1,263.46	$924.74	$6,052.52	$712.63	$494.04	$496.58	$213.02	$372.78	$454.20	$2,743.26	$8,795.77
944	COG Rate - (Winter)			$0.6183	$0.6183	$0.6183	$0.6183	$0.6183	$0.6183	$0.6183								
945	COG amount - Winter			$671.47	$1,007.21	$1,291.63	$1,794.92	$1,768.34	$1,111.09	$7,644.66								
947	COG Rate - (Summer)										$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.4474	$0.5767
948	COG amount - Summer										$640.68	$333.76	$337.34	$19.24	$168.67	$277.84	$1,777.52	$9,422.18
950	LDAC		$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496
951	LDAC amount			$53.91	$80.87	$103.71	$144.12	$141.98	$89.21	$613.80	$71.09	$37.03	$37.43	$2.13	$18.72	$30.83	$197.24	$811.04
953	**Total Bill**			**$1,423.57**	**$1,959.28**	**$2,413.12**	**$3,216.20**	**$3,173.78**	**$2,125.03**	**$14,310.98**	**$1,424.39**	**$864.83**	**$871.36**	**$234.40**	**$560.17**	**$762.87**	**$4,718.01**	**$19,028.99**

955 Winter Season (Jan. - Apr., Nov. - Dec.) — Summer Season (May - Oct.)

956 Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Medium Annual Use, High Winter Use (G-42

Line No	CURRENT			Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
959	average Usage (Therms)			1,086	1,629	2,089	2,903	2,860	1,797	12,364	1,432	746	754	43	377	621	3,973	16,337
961	**Winter:**																	
962	Cust. Chg	$167.06	$169.09	$169.09	$167.06	$167.06	$167.06	$167.06	$167.06	$1,004.39								
963	Headblock	$ 0.4152	$0.4202	$420.20	$415.20	$415.20	$415.20	$415.20	$415.20	$2,496.20								
964	Tailblock	$ 0.2766	$0.2800	$24.08	$173.98	$301.22	$526.37	$514.48	$220.45	$1,760.57								
965	HB Threshold		1,000															
967	**Summer:**																	
968	Cust. Chg	$167.06	$169.09								$167.06	$167.06	$169.09	$169.09	$169.09	$169.09	$1,010.48	$2,014.87
969	Headblock	$ 0.4152	$0.4202								$166.08	$166.08	$168.08	$18.07	$158.42	$168.08	$844.80	$3,341.00
970	Tailblock	$ 0.2766	$0.2800								$285.45	$95.70	$99.12	$0.00	$0.00	$61.88	$542.15	$2,302.73
971	HB Threshold		400															
973	Total Base Rate Amount			$613.37	$756.24	$883.48	$1,108.63	$1,096.74	$802.71	$5,261.16	$618.59	$428.84	$436.29	$187.16	$327.51	$399.05	$2,397.44	$7,658.60
975	COG Rate - (Winter)			$0.9492	$1.4734	$1.5311	$1.5011	$1.3135	$1.2651	$1.3763								
976	COG amount - Winter			$1,030.83	$2,400.17	$3,198.47	$4,357.69	$3,756.61	$2,273.38	$17,017.16								
978	COG Rate - (Summer)										$1.1071	$1.0063	$0.8854	$0.7068	$0.4843	$0.4843	$0.8853	$1.2569
979	COG amount - Summer										$1,585.37	$750.70	$667.59	$30.39	$182.58	$300.75	$3,517.38	$20,534.54
981	LDAC		$0.0478	$0.0478	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0732	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0738
982	LDAC amount			$51.91	$123.32	$158.14	$219.76	$216.50	$136.03	$905.66	$108.40	$56.47	$57.08	$3.26	$28.54	$47.01	$300.76	$1,206.41
984	**Total Bill**			**$1,696.11**	**$3,279.73**	**$4,240.08**	**$5,686.08**	**$5,069.85**	**$3,212.13**	**$23,183.98**	**$2,312.36**	**$1,236.02**	**$1,160.96**	**$220.81**	**$538.63**	**$746.81**	**$6,215.58**	**$29,399.55**

Line No	DIFFERENCE:	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
987	**Total Bill**	**($272.55)**	**($1,320.44)**	**($1,826.97)**	**($2,469.88)**	**($1,896.07)**	**($1,087.10)**	**($8,873.00)**	**($887.97)**	**($371.19)**	**($289.60)**	**$13.59**	**$21.54**	**$16.06**	**($1,497.56)**	**($10,370.56)**
988	% Change	**-16.07%**	**-40.26%**	**-43.09%**	**-43.44%**	**-37.40%**	**-33.84%**	**-38.27%**	**-38.40%**	**-30.03%**	**-24.95%**	**6.15%**	**4.00%**	**2.15%**	**-24.09%**	**-35.27%**
990	**Base Rate**	$84.81	$114.96	$134.30	$168.53	$166.72	$122.03	$791.35	$94.04	$65.19	$60.29	$25.86	$45.28	$55.15	$345.82	$1,137.17
991	% Change	13.83%	15.20%	15.20%	15.20%	15.20%	15.20%	15.04%	15.20%	15.20%	13.82%	13.82%	13.82%	13.82%	14.42%	14.85%
993	**COG & LDAC**	($357.35)	($1,435.40)	($1,961.27)	($2,638.41)	($2,062.79)	($1,209.12)	($9,664.35)	($982.00)	($436.38)	($349.90)	($12.27)	($23.73)	($39.10)	($1,843.38)	($11,507.73)
994	% Change	-33.00%	-56.88%	-58.43%	-57.64%	-51.92%	-50.18%	-53.92%	-57.98%	-54.06%	-48.28%	-36.48%	-11.24%	-11.24%	-48.28%	-52.93%

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

Line No																		
995	Winter Season (Jan. - Apr., Nov. - Dec.)										Summer Season (May - Oct.)							
996	**Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Low Annual Use, Low Winter Use (G-51)**																	
997	**PROPOSED**																	**Total**
998				**Nov-19**	**Dec-19**	**Jan-20**	**Feb-20**	**Mar-20**	**Apr-20**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Nov-Oct**
999	**average Usage (Therms)**			143	101	140	178	179	138	879	137	109	97	98	90	105	636	1,515
1000																		
1001	**Winter:**																	
1002	Cust. Chg		$64.15	$64.15	$64.15	$64.15	$64.15	$64.15	$64.15	$384.89								
1003	Headblock		$0.3170	$31.70	$31.70	$31.70	$31.70	$31.70	$31.70	$190.21								
1004	Tailblock		$0.2061	$8.86	$0.21	$8.24	$16.07	$16.28	$7.83	$57.49								
1005	HB Threshold		100															
1006																		
1007	**Summer:**																	
1008	Cust. Chg		$64.15								$64.15	$64.15	$64.15	$64.15	$64.15	$64.15	$384.89	$769.78
1009	Headblock		$0.3170								$31.70	$31.70	$30.75	$31.07	$28.53	$31.70	$185.46	$375.67
1010	Tailblock		$0.2061								$7.62	$1.85	$0.00	$0.00	$0.00	$1.03	$10.51	$68.00
1011	HB Threshold		100															
1012																		
1013	Total Base Rate Amount			$104.71	$96.06	$104.09	$111.92	$112.13	$103.68	$632.59	$103.47	$97.70	$94.90	$95.22	$92.68	$96.88	$580.85	$1,213.45
1014																		
1015	COG Rate - (Winter)			$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251								
1016	COG amount - Winter			$89.39	$63.14	$87.51	$111.27	$111.89	$86.26	$549.46								
1017																		
1018	COG Rate - (Summer)										$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.5554
1019	COG amount - Summer										$62.90	$50.04	$44.53	$44.99	$41.32	$48.21	$291.99	$841.45
1020																		
1021	LDAC		$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496
1022	LDAC amount			$7.10	$5.01	$6.95	$8.84	$8.89	$6.85	$43.64	$6.80	$5.41	$4.82	$4.87	$4.47	$5.21	$31.57	$75.21
1023																		
1024	**Total Bill**			**$201.20**	**$164.21**	**$198.56**	**$232.03**	**$232.91**	**$196.80**	**$1,225.69**	**$173.17**	**$153.16**	**$144.25**	**$145.07**	**$138.47**	**$150.30**	**$904.42**	**$2,130.11**
1025																		
1026	Winter Season (Jan. - Apr., Nov. - Dec.)										Summer Season (May - Oct.)							
1027	**Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Low Annual Use, Low Winter Use (G-51)**																	
1028	**CURRENT**																	**Total**
1029				**Nov-19**	**Dec-19**	**Jan-20**	**Feb-20**	**Mar-20**	**Apr-20**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Nov-Oct**
1030	**average Usage (Therms)**			143	101	140	178	179	138	879	137	109	97	98	90	105	636	1,515
1031																		
1032	**Winter:**																	
1033	Cust. Chg	$ 55.68	$56.36	$56.36	$55.68	$55.68	$55.68	$55.68	$55.68	$334.76								
1034	Headblock	$ 0.2752	$0.2785	$27.85	$27.52	$27.52	$27.52	$27.52	$27.52	$165.45								
1035	Tailblock	$ 0.1789	$0.1811	$7.79	$0.18	$7.16	$13.95	$14.13	$6.80	$50.01								
1036	HB Threshold		100															
1037																		
1038	**Summer:**																	
1039	Cust. Chg	$ 55.68	$56.36								$55.68	$55.68	$56.36	$56.36	$56.36	$56.36	$336.80	$671.56
1040	Headblock	$ 0.2752	$0.2785								$27.52	$27.52	$27.01	$27.29	$25.07	$27.85	$162.26	$327.71
1041	Tailblock	$ 0.1789	$0.1811								$6.62	$1.61	$0.00	$0.00	$0.00	$0.91	$9.13	$59.14
1042	HB Threshold		100															
1043																		
1044	Total Base Rate Amount			$92.00	$83.38	$90.36	$97.15	$97.33	$90.00	$550.22	$89.82	$84.81	$83.37	$83.65	$81.43	$85.12	$508.20	$1,058.42
1045																		
1046	COG Rate - (Winter)			$0.9492	$1.4734	$1.5311	$1.5011	$1.3135	$1.2651	$1.3377								
1047	COG amount - Winter			$135.74	$148.81	$214.35	$267.20	$235.12	$174.58	$1,175.80								
1048																		
1049	COG Rate - (Summer)										$1.1071	$1.0063	$0.8854	$0.7068	$0.4843	$0.4843	$0.8034	$1.1134
1050	COG amount - Summer										$151.67	$109.69	$85.88	$69.27	$43.59	$50.85	$510.95	$1,686.75
1051																		
1052	LDAC		$0.0478	$0.0478	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0712	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0731
1053	LDAC amount			$6.84	$7.65	$10.60	$13.47	$13.55	$10.45	$62.55	$10.37	$8.25	$7.34	$7.42	$6.81	$7.95	$48.15	$110.70
1054																		
1055	**Total Bill**			**$234.57**	**$239.84**	**$315.31**	**$377.82**	**$346.00**	**$275.03**	**$1,788.57**	**$251.86**	**$202.75**	**$176.60**	**$160.34**	**$131.83**	**$143.92**	**$1,067.29**	**$2,855.86**
1056																		
1057	**DIFFERENCE:**																	
1058	**Total Bill**			**($33.37)**	**($75.63)**	**($116.75)**	**($145.80)**	**($113.09)**	**($78.23)**	**($562.87)**	**($78.69)**	**($49.59)**	**($32.35)**	**($15.27)**	**$6.64**	**$6.38**	**($162.88)**	**($725.75)**
1059	% Change			**-14.23%**	**-31.53%**	**-37.03%**	**-38.59%**	**-32.69%**	**-28.45%**	**-31.47%**	**-31.24%**	**-24.46%**	**-18.32%**	**-9.52%**	**5.04%**	**4.44%**	**-15.26%**	**-25.41%**
1060																		
1061	**Base Rate**			$12.71	$12.68	$13.74	$14.77	$14.80	$13.68	$82.38	$13.66	$12.89	$11.52	$11.56	$11.25	$11.76	$72.66	$155.03
1062	% Change			13.82%	15.20%	15.20%	15.20%	15.20%	15.20%	14.97%	15.20%	15.20%	13.82%	13.82%	13.82%	13.82%	14.30%	14.65%
1063																		
1064	**COG & LDAC**			($46.08)	($88.31)	($130.49)	($160.57)	($127.89)	($91.92)	($645.25)	($92.35)	($62.48)	($43.88)	($26.83)	($4.61)	($5.38)	($235.53)	($880.78)
1065	% Change			-32.32%	-56.44%	-58.01%	-57.21%	-51.43%	-49.68%	-52.11%	-56.99%	-52.98%	-47.07%	-34.98%	-9.15%	-9.15%	-42.13%	-49.00%

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

Line No				Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Winter	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Summer	Total Nov-Oct
1066	Winter Season (Jan. - Apr., Nov. - Dec.)										Summer Season (May - Oct.)							
1067	Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Medium Annual Use, Low Winter Use (G-52																	
1068	**PROPOSED**																	
1069				**Nov-19**	**Dec-19**	**Jan-20**	**Feb-20**	**Mar-20**	**Apr-20**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Total Nov-Oct**
1070	**average Usage (Therms)**			1,738	1,988	2,323	2,764	2,724	1,985	13,522	1,777	1,318	1,199	1,307	1,127	1,447	8,175	21,697
1071																		
1072	**Winter:**																	
1073	Cust. Chg		$192.46	$192.46	$192.46	$192.46	$192.46	$192.46	$192.46	$1,154.73								
1074	Headblock		$0.2722	$272.25	$272.25	$272.25	$272.25	$272.25	$272.25	$1,633.47								
1075	Tailblock		$0.1813	$133.82	$179.15	$239.89	$319.86	$312.61	$178.61	$1,363.94								
1076	HB Threshold		1,000															
1077																		
1078	**Summer:**																	
1079	Cust. Chg		$192.46								$192.46	$192.46	$192.46	$192.46	$192.46	$192.46	$1,154.73	$2,309.47
1080	Headblock		$0.1972								$197.24	$197.24	$197.24	$197.24	$197.24	$197.24	$1,183.41	$2,816.88
1081	Tailblock		$0.1121								$87.09	$35.64	$22.31	$34.41	$14.24	$50.10	$243.80	$1,607.73
1082	HB Threshold		1,000															
1083																		
1084	Total Base Rate Amount			$598.52	$643.85	$704.60	$784.56	$777.31	$643.31	$4,152.14	$476.79	$425.34	$412.00	$424.10	$403.93	$439.80	$2,581.94	$6,734.09
1085																		
1086	COG Rate - (Winter)			$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251	$0.6251								
1087	COG amount - Winter			$1,086.42	$1,242.70	$1,452.11	$1,727.78	$1,702.77	$1,240.82	$8,452.60								
1088																		
1089	COG Rate - (Summer)										$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.4591	$0.5626
1090	COG amount - Summer										$815.82	$605.09	$550.46	$600.04	$517.41	$664.32	$3,753.14	$12,205.74
1091																		
1092	LDAC		$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496	$0.0496
1093	LDAC amount			$86.28	$98.69	$115.32	$137.22	$135.23	$98.54	$671.29	$88.22	$65.43	$59.52	$64.89	$55.95	$71.84	$405.84	$1,077.13
1094																		
1095	**Total Bill**			**$1,771.23**	**$1,985.24**	**$2,272.03**	**$2,649.55**	**$2,615.31**	**$1,982.68**	**$13,276.04**	**$1,380.82**	**$1,095.86**	**$1,021.98**	**$1,089.03**	**$977.28**	**$1,175.95**	**$6,740.93**	**$20,016.97**
1096																		
1097	Winter Season (Jan. - Apr., Nov. - Dec.)										Summer Season (May - Oct.)							
1098	Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Medium Annual Use, Low Winter Use (G-52																	
1099	**CURRENT**																	
1100				**Nov-19**	**Dec-19**	**Jan-20**	**Feb-20**	**Mar-20**	**Apr-20**	**Winter**	**May-19**	**Jun-19**	**Jul-19**	**Aug-19**	**Sep-19**	**Oct-19**	**Summer**	**Total Nov-Oct**
1101	**average Usage (Therms)**			1,738	1,988	2,323	2,764	2,724	1,985	13,522	1,777	1,318	1,199	1,307	1,127	1,447	8,175	21,697
1102																		
1103	**Winter:**																	
1104	Cust. Chg	$167.06	$169.09	$169.09	$167.06	$167.06	$167.06	$167.06	$167.06	$1,004.39								
1105	Headblock	$ 0.2363	$0.2392	$239.20	$236.30	$236.30	$236.30	$236.30	$236.30	$1,420.70								
1106	Tailblock	$ 0.1574	$0.1593	$117.56	$155.51	$208.24	$277.65	$271.36	$155.04	$1,185.37								
1107	HB Threshold		1,000															
1108																		
1109	**Summer:**																	
1110	Cust. Chg	$167.06	$169.09								$167.06	$167.06	$169.09	$169.09	$169.09	$169.09	$1,010.48	$2,014.87
1111	Headblock	$ 0.1712	$0.1733								$171.20	$171.20	$173.30	$173.30	$173.30	$173.30	$1,035.60	$2,456.30
1112	Tailblock	$ 0.0973	$0.0985								$75.60	$30.94	$19.60	$30.24	$12.51	$44.03	$212.92	$1,398.29
1113	HB Threshold		1,000															
1114																		
1115	Total Base Rate Amount			$525.85	$558.87	$611.60	$681.01	$674.72	$558.40	$3,610.46	$413.86	$369.20	$361.99	$372.63	$354.90	$386.42	$2,259.00	$5,869.46
1116																		
1117	COG Rate - (Winter)			$0.9492	$1.4734	$1.5311	$1.5011	$1.3135	$1.2651	$1.3588								
1118	COG amount - Winter			$1,649.71	$2,929.12	$3,556.75	$4,149.04	$3,577.97	$2,511.22	$18,373.81								
1119																		
1120	COG Rate - (Summer)										$1.1071	$1.0063	$0.8854	$0.7068	$0.4843	$0.4843	$0.7982	$1.1476
1121	COG amount - Summer										$1,967.32	$1,326.30	$1,061.59	$923.79	$545.81	$700.78	$6,525.59	$24,899.40
1122																		
1123	LDAC		$0.0478	$0.0478	$0.0478	$0.0757	$0.0757	$0.0757	$0.0757	$0.0680	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0757	$0.0709
1124	LDAC amount			$83.08	$95.03	$175.85	$209.23	$206.21	$150.26	$919.66	$134.52	$99.77	$90.76	$98.94	$85.31	$109.54	$618.85	$1,538.51
1125																		
1126	**Total Bill**			**$2,258.64**	**$3,583.02**	**$4,344.20**	**$5,039.29**	**$4,458.90**	**$3,219.89**	**$22,903.93**	**$2,515.70**	**$1,795.28**	**$1,514.35**	**$1,395.36**	**$986.02**	**$1,196.74**	**$9,403.44**	**$32,307.37**
1127																		
1128	**DIFFERENCE:**																	
1129	**Total Bill**			**($487.41)**	**($1,597.77)**	**($2,072.17)**	**($2,389.73)**	**($1,843.59)**	**($1,237.21)**	**($9,627.89)**	**($1,134.87)**	**($699.42)**	**($492.37)**	**($306.33)**	**($8.74)**	**($20.79)**	**($2,662.51)**	**($12,290.40)**
1130	% Change			**-21.58%**	**-44.59%**	**-47.70%**	**-47.42%**	**-41.35%**	**-38.42%**	**-42.04%**	**-45.11%**	**-38.96%**	**-32.51%**	**-21.95%**	**-0.89%**	**-1.74%**	**-28.31%**	**-38.04%**
1131																		
1132	**Base Rate**			$72.67	$84.98	$93.00	$103.55	$102.59	$84.91	$541.69	$62.92	$56.13	$50.01	$51.47	$49.03	$53.38	$322.94	$864.63
1133	% Change			13.82%	15.21%	15.21%	15.20%	15.20%	15.21%	15.00%	15.20%	15.20%	13.81%	13.81%	13.81%	13.81%	14.30%	14.73%
1134																		
1135	**COG & LDAC**			($560.08)	($1,682.75)	($2,165.17)	($2,493.28)	($1,946.18)	($1,322.12)	($10,169.58)	($1,197.80)	($755.55)	($542.37)	($357.80)	($57.77)	($74.17)	($2,985.45)	($13,155.03)
1136	% Change			-32.32%	-55.64%	-58.01%	-57.21%	-51.43%	-49.68%	-52.71%	-56.99%	-52.98%	-47.07%	-34.98%	-9.15%	-9.15%	-41.79%	-49.76%

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