

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

Line No

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

	Jan-16	Feb-16	Mar-16	Apr-16	Nov-16	Dec-16	Winter
790 average Usage (Therms)	67	93	103	58	34	70	424
792 Winter:							
793 Cust. Chg	\$25.50	\$25.50	\$25.50	\$25.50	\$25.50	\$25.50	\$153.00
794 Headblock	\$0.5201	\$35.00	\$48.41	\$52.01	\$30.19	\$17.56	\$219.36
795 Tailblock	\$0.4176	\$0.00	\$0.00	\$1.07	\$0.00	\$0.00	\$1.07
796 HB Threshold	100						
798 Summer:							
799 Cust. Chg	\$25.50						
800 Headblock	\$0.5201						
801 Tailblock	\$0.4176						
802 HB Threshold	20						
804 Total Base Rate Amount	\$60.50	\$73.91	\$78.58	\$55.69	\$43.06	\$61.69	\$373.42
806 COG Rate - (Winter)	\$0.7051	\$0.7051	\$0.7051	\$0.7051	\$0.7051	\$0.7051	\$0.7051
807 COG amount - Winter	\$47.45	\$65.62	\$72.31	\$40.92	\$23.80	\$49.07	\$299.18
809 COG Rate - (Summer)	\$0.4404						
810 COG amount - Summer							
812 LDAC	\$0.0672	\$0.0672	\$0.0672	\$0.0672	\$0.0672	\$0.0672	\$0.0672
813 LDAC amount	\$4.52	\$6.26	\$6.90	\$3.90	\$2.27	\$4.68	\$28.53
815 Total Bill	\$112.48	\$145.78	\$157.79	\$100.51	\$69.13	\$115.44	\$701.13

Summer Season (May - Oct.)

	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Summer	Total 2016
38	14	9	8	7	12	87	511	
\$25.50	\$25.50	\$25.50	\$25.50	\$25.50	\$25.50	\$153.00	\$306.00	
\$10.40	\$7.33	\$4.63	\$3.98	\$3.43	\$6.15	\$35.92	\$255.28	
\$7.54	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$7.54	\$8.60	
\$43.44	\$32.83	\$30.13	\$29.48	\$28.93	\$31.65	\$196.46	\$569.88	
\$0.4404	\$0.4404	\$0.4404	\$0.4404	\$0.4404	\$0.4404	\$0.4404	\$0.6600	
\$16.75	\$6.21	\$3.92	\$3.37	\$2.90	\$5.20	\$38.37	\$337.55	
\$0.0672	\$0.0672	\$0.0672	\$0.0672	\$0.0672	\$0.0672	\$0.0672	\$0.0672	
\$2.56	\$0.95	\$0.60	\$0.51	\$0.44	\$0.79	\$5.86	\$34.38	
\$62.75	\$39.99	\$34.66	\$33.37	\$32.28	\$37.64	\$240.68	\$941.82	

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

	Jan-16	Feb-16	Mar-16	Apr-16	Nov-16	Dec-16	Winter
821 average Usage (Therms)	67	93	103	58	34	70	424
823 Winter:							
824 Cust. Chg	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00
825 Block 1	\$1.1522	\$77.54	\$92.18	\$92.18	\$66.87	\$38.89	\$447.84
826 Block 2	\$0.9442	\$0.00	\$12.34	\$21.30	\$0.00	\$0.00	\$33.64
827 Block 3	\$0.7946	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
828 BL1 Threshold	80						
829 BL2 Threshold	120						
831 Summer:							
832 Cust. Chg	\$9.00						
833 Block 1	\$1.1522						
834 Block 2	\$0.9442						
835 Block 3	\$0.7946						
836 BL1 Threshold	80						
837 BL2 Threshold	120						
839 Total Base Rate Amount	\$86.54	\$113.51	\$122.48	\$75.87	\$47.89	\$89.18	\$535.48
841 COG Rate - (Winter)	\$1.5352	\$1.5352	\$1.5352	\$1.5352	\$1.5352	\$1.5352	\$1.5352
842 COG amount - Winter	\$103.31	\$142.88	\$157.45	\$89.10	\$51.82	\$106.83	\$651.40
844 COG Rate - (Summer)	\$0.6281						
845 COG amount - Summer							
847 LDAC	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.0000
848 LDAC amount	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
850 Total Bill	\$189.85	\$256.39	\$279.93	\$164.98	\$99.72	\$196.02	\$1,186.88

Summer Season (May - Oct.)

	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Summer	Total 2016
38	14	9	8	7	12	87	511	
\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$9.00	\$54.00	\$108.00	
\$43.83	\$16.24	\$10.27	\$8.82	\$7.60	\$13.61	\$100.37	\$548.21	
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$33.64	
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
\$52.83	\$25.24	\$19.27	\$17.82	\$16.60	\$22.61	\$154.37	\$689.85	
\$0.6281	\$0.6281	\$0.6281	\$0.6281	\$0.6281	\$0.6281	\$0.6281	\$1.3807	
\$23.90	\$8.85	\$5.60	\$4.81	\$4.14	\$7.42	\$54.72	\$706.12	
\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
\$76.73	\$34.09	\$24.86	\$22.63	\$20.74	\$30.03	\$209.09	\$1,395.97	

800

852 DIFFERENCE:

	(\$77.37)	(\$110.61)	(\$122.14)	(\$64.46)	(\$30.59)	(\$80.58)	(\$485.75)
853 Total Bill							
854 % Change	-40.76%	-43.14%	-43.63%	-39.07%	-30.68%	-41.11%	-40.93%
855							
856 Base Rate	(\$26.04)	(\$39.61)	(\$43.90)	(\$20.19)	(\$4.84)	(\$27.49)	(\$162.06)
857 % Change	-30.09%	-34.89%	-35.84%	-26.61%	-10.10%	-30.82%	-30.26%
858							
859 COG & LDAC	(\$51.34)	(\$71.00)	(\$78.24)	(\$44.28)	(\$25.75)	(\$53.09)	(\$323.69)
860 % Change	-49.69%	-49.69%	-49.69%	-49.69%	-49.69%	-49.69%	-49.69%

(\$13.98)	\$5.89	\$9.79	\$10.74	\$11.54	\$7.61	\$31.59	(\$454.16)
-18.22%	17.28%	39.40%	47.44%	55.63%	25.33%	15.11%	-32.53%
(\$9.40)	\$7.59	\$10.87	\$11.66	\$12.33	\$9.03	\$42.09	(\$119.97)
-17.78%	30.07%	56.41%	65.42%	74.30%	39.94%	27.26%	-17.39%
(\$4.58)	(\$1.70)	(\$1.07)	(\$0.92)	(\$0.79)	(\$1.42)	(\$10.49)	(\$334.19)
-19.18%	-19.18%	-19.18%	-19.18%	-19.18%	-19.18%	-19.18%	-47.33%

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

Line No

Winter Season (Jan. - Apr., Nov. - Dec.)							
Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Low Annual Use, High Winter Use (G-41)							
PROPOSED							
	Jan-16	Feb-16	Mar-16	Apr-16	Nov-16	Dec-16	Winter
average Usage (Therms)	158	251	245	132	64	120	970
<b>Winter:</b>							
Cust. Chg	\$55.61	\$55.61	\$55.61	\$55.61	\$55.61	\$55.61	\$333.68
Headblock	\$0.5689	\$56.89	\$56.89	\$56.89	\$56.89	\$36.21	\$320.65
Tailblock	\$0.3130	\$18.21	\$47.23	\$45.45	\$9.89	\$0.00	\$127.13
HB Threshold	100						
<b>Summer:</b>							
Cust. Chg	\$55.61						
Headblock	\$0.5689						
Tailblock	\$0.3130						
HB Threshold	20						
Total Base Rate Amount		\$130.71	\$159.74	\$157.95	\$122.39	\$91.82	\$781.46
COG Rate - (Winter)	\$0.7010	\$0.7010	\$0.7010	\$0.7010	\$0.7010	\$0.7010	\$0.7010
COG amount - Winter		\$110.88	\$175.88	\$171.88	\$92.25	\$44.62	\$679.83
COG Rate - (Summer)	\$0.4242						
COG amount - Summer							
LDAC	\$0.0482	\$0.0482	\$0.0482	\$0.0482	\$0.0482	\$0.0482	\$0.0482
LDAC amount		\$7.63	\$12.10	\$11.83	\$6.35	\$3.07	\$46.78
<b>Total Bill</b>	<b>\$249.21</b>	<b>\$347.72</b>	<b>\$341.66</b>	<b>\$220.98</b>	<b>\$139.52</b>	<b>\$208.97</b>	<b>\$1,508.07</b>

Summer Season (May - Oct.)							
May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Summer	Total 2016
91	28	14	10	9	20	173	1,143
\$55.61	\$55.61	\$55.61	\$55.61	\$55.61	\$55.61	\$333.68	\$667.37
\$11.38	\$11.38	\$8.19	\$5.71	\$5.21	\$11.38	\$53.24	\$373.89
\$22.12	\$2.60	\$0.00	\$0.00	\$0.00	\$0.08	\$24.80	\$151.93
\$89.11	\$69.59	\$63.80	\$61.33	\$60.83	\$67.07	\$411.73	\$1,193.19
\$0.4242	\$0.4242	\$0.4242	\$0.4242	\$0.4242	\$0.4242	\$0.4242	\$0.6591
\$38.46	\$12.00	\$6.10	\$4.26	\$3.89	\$8.60	\$73.31	\$753.15
\$0.0482	\$0.0482	\$0.0482	\$0.0482	\$0.0482	\$0.0482	\$0.0482	\$0.0482
\$4.37	\$1.36	\$0.69	\$0.48	\$0.44	\$0.98	\$8.34	\$55.11
<b>\$131.95</b>	<b>\$82.95</b>	<b>\$70.60</b>	<b>\$66.07</b>	<b>\$65.16</b>	<b>\$76.65</b>	<b>\$493.38</b>	<b>\$2,001.45</b>

Winter Season (Jan. - Apr., Nov. - Dec.)							
Keene Commercial/Industrial to EnergyNorth Commercial/Industrial - Low Annual Use, High Winter Use (G-41)							
CURRENT							
	Jan-16	Feb-16	Mar-16	Apr-16	Nov-16	Dec-16	Winter
average Usage (Therms)	158	251	245	132	64	120	970
<b>Winter:</b>							
Cust. Chg	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00
Block 1	\$1.1522	\$92.18	\$92.18	\$92.18	\$73.34	\$92.18	\$534.22
Block 2	\$0.9442	\$73.81	\$113.30	\$113.30	\$48.71	\$0.00	\$387.17
Block 3	\$0.7946	\$0.00	\$40.45	\$35.91	\$0.00	\$0.00	\$76.36
BL1 Threshold	80						
BL2 Threshold	120						
<b>Summer:</b>							
Cust. Chg	\$18.00						
Block 1	\$1.1522						
Block 2	\$0.9442						
Block 3	\$0.7946						
BL1 Threshold	80						
BL2 Threshold	120						
Total Base Rate Amount		\$183.98	\$263.93	\$259.39	\$158.89	\$91.34	\$1,105.75
COG Rate - (Winter)	\$1.5352	\$1.5352	\$1.5352	\$1.5352	\$1.5352	\$1.5352	\$1.5352
COG amount - Winter		\$242.82	\$385.19	\$376.43	\$202.02	\$97.72	\$1,488.84
COG Rate - (Summer)	\$0.6281						
COG amount - Summer							
LDAC	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	0.0000
LDAC amount		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total Bill</b>	<b>\$426.80</b>	<b>\$649.12</b>	<b>\$635.82</b>	<b>\$360.91</b>	<b>\$189.06</b>	<b>\$332.88</b>	<b>\$2,594.59</b>

Summer Season (May - Oct.)							
May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Summer	Total 2016
91	28	14	10	9	20	173	1,143
\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$18.00	\$108.00	\$216.00
\$92.18	\$32.60	\$16.58	\$11.57	\$10.56	\$23.35	\$186.84	\$721.06
\$10.08	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10.08	\$397.25
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$76.36
\$120.26	\$50.60	\$34.58	\$29.57	\$28.56	\$41.35	\$304.92	\$1,410.67
\$0.6281	\$0.6281	\$0.6281	\$0.6281	\$0.6281	\$0.6281	\$0.6281	\$1.3980
\$56.95	\$17.77	\$9.04	\$6.31	\$5.76	\$12.73	\$108.56	\$1,597.40
\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000
\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>\$177.21</b>	<b>\$68.37</b>	<b>\$43.62</b>	<b>\$35.88</b>	<b>\$34.32</b>	<b>\$54.08</b>	<b>\$413.47</b>	<b>\$3,008.06</b>

DIFFERENCE:							
Total Bill	(\$177.59)	(\$301.40)	(\$294.16)	(\$139.93)	(\$49.55)	(\$123.90)	(\$1,086.52)
% Change	-41.61%	-46.43%	-46.26%	-38.77%	-26.21%	-37.22%	-41.88%
<b>Base Rate</b>	(\$53.27)	(\$104.19)	(\$101.44)	(\$36.50)	\$0.48	(\$29.36)	(\$324.29)
% Change	-28.96%	-39.48%	-39.11%	-22.97%	0.53%	-19.81%	-29.33%
<b>COG &amp; LDAC</b>	(\$124.32)	(\$197.20)	(\$192.72)	(\$103.43)	(\$50.03)	(\$94.54)	(\$762.23)
% Change	-51.20%	-51.20%	-51.20%	-51.20%	-51.20%	-51.20%	-51.20%

(\$45.26)	\$14.58	\$26.98	\$30.19	\$30.84	\$22.57	\$79.91	(\$1,006.61)
-25.54%	21.33%	61.86%	84.16%	89.87%	41.74%	19.33%	-33.46%
(\$31.14)	\$18.99	\$29.22	\$31.76	\$32.27	\$25.73	\$106.81	(\$217.48)
-25.90%	37.52%	84.50%	107.40%	112.98%	62.21%	35.03%	-15.42%
(\$14.12)	(\$4.40)	(\$2.24)	(\$1.56)	(\$1.43)	(\$3.15)	(\$26.90)	(\$789.14)
-24.78%	-24.78%	-24.78%	-24.78%	-24.78%	-24.78%	-24.78%	-49.40%

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