

Liberty Utilities (EnergyNorth Natural Gas) Corp.  
Request for Approval of Special Contract and Lease Agreement with Innovative Natural Gas, LLC d/b/a iNATGAS  
Computation of Revenue Requirement

1		(a)	(b)	(c)	(d)	(e)	
2	Year	1	2	3	4	5	
3		2014	2015	2016	2017	2018	
4							
5	<b>Investment</b>						
6	Compressors	1,000,000	-	-	-	-	
7	Piping, meter set, survey, etc	865,000	-	-	-	-	
8	Land (pro-rated)	200,000	-	-	-	-	
9	Contingency	180,000	-	-	-	-	
10	Estimated annual operating costs	see real estate taxes below	-	-	-	-	
11	Total Amount	2,245,000	-	-	-	-	
12	Cumulative Program Spend	2,245,000	2,245,000	2,245,000	2,245,000	2,245,000	
13							
14	<b>Deferred Tax Calculation</b>						
15	Annual Tax Depreciation (no bonus in 2014)	MACRS 15 year	102,250	194,275	174,848	157,465	141,719
16	Cumulative Tax Depreciation		102,250	296,525	471,373	628,838	770,556
17							
18	Annual Book Depreciation (30-yr prop)	3.33%	68,167	68,167	68,167	68,167	68,167
19	Cumulative Book Depreciation		68,167	136,333	204,500	272,667	340,833
20							
21	Annual Book/Tax Timer		34,083	126,108	106,681	89,298	73,552
22	Cumulative Book/Tax Timer		34,083	160,192	266,872	356,171	429,723
23	Effective Tax Rate		39.61%	39.61%	39.61%	39.61%	39.61%
24							
25	Deferred Tax Reserve		13,451	63,452	105,708	141,079	170,213
26							
27	<b>Rate Base Calculation</b>						
28	Plant In Service		2,245,000	2,245,000	2,245,000	2,245,000	2,245,000
29	Accumulated Depreciation		(68,167)	(136,333)	(204,500)	(272,667)	(340,833)
30	Net Plant in Service		2,176,833	2,108,667	2,040,500	1,972,333	1,904,167
31	Deferred Tax Reserve		(13,451)	(63,452)	(105,708)	(141,079)	(170,213)
32	Year End Rate Base		2,163,382	2,045,215	1,934,792	1,831,254	1,733,954
33							
34	<b>Revenue Requirement Calculation</b>						
35	Year End Rate Base		2,163,382	2,045,215	1,934,792	1,831,254	1,733,954
36	Pre-Tax ROR		11.50%	11.50%	11.50%	11.50%	11.50%
37	Return and Income Taxes		248,789	235,200	222,501	210,594	199,405
38	Book Depreciation - annual		68,167	68,167	68,167	68,167	68,167
39	Property Taxes - annual (3% inflation adj)		49,196	49,132	48,972	48,717	48,556
40	<b>Annual Revenue Requirement</b>		366,152	352,499	339,640	327,477	316,128
41							
42	Prior Year Cumulative Revenue Requirement		-	366,152	718,651	1,058,290	1,385,768
43							
44	Cumulative Revenue Requirement		366,152	718,651	1,058,290	1,385,768	1,701,896
45							
46	<b>Minimum Take-or-Pay Assumption Level</b>						
47	Cumulative estimated revenue at minimum take-or-pay level		192,600	385,200	699,800	1,014,400	1,817,000
48	Cumulative revenue requirement (line 39)		366,152	718,651	1,058,290	1,385,768	1,701,896
49	Excess revenue (deficiency)		(173,552)	(333,451)	(358,490)	(371,368)	115,104
50							
51	<b>Baseline Assumption Level</b>						
52	Cumulative estimated revenue at baseline level		314,600	781,700	1,401,300	2,325,900	3,403,000
53	Cumulative revenue requirement (line 39)		366,152	718,651	1,058,290	1,385,768	1,701,896
54	Excess revenue (deficiency)		(51,552)	63,049	343,010	940,132	1,701,104
55							
56	<b>Accelerated Sales Assumption Level</b>						
57	Cumulative estimated revenue at accelerated sales level		467,100	1,025,700	1,828,300	3,057,900	4,287,500
58	Cumulative revenue requirement (line 39)		366,152	718,651	1,058,290	1,385,768	1,701,896
59	Excess revenue (deficiency)		100,948	307,049	770,010	1,672,132	2,585,604

**Imputed Capital Structure/ROR**

				(prior federal tax rate of 35% plus NH rate of 8.5%)	(current federal tax rate of 34% plus NH rate of 8.5%)
	Ratio	Rate	Weighted Rate	Pre Tax	Pre Tax
72	Long Term Debt	50.00%	6.99%	3.50%	3.50%
73	Short Term Debt	0.00%	0.00%	0.00%	0.00%
74	Common Equity	50.00%	9.67%	4.84%	8.01%
75					
76		100.00%	8.33%	11.63%	11.50%

this rate is for informational purposes only

Line / Column Notes:

39 Property tax rate reflects actual calendar year 2012 ratio of municipal tax expense to average net plant in service, with 3% inflation factor.

1			(f)	(g)	(h)	(i)	(j)
2	Year		6	7	8	9	10
3			2019	2020	2021	2022	2023
4							
5	<b>Investment</b>						
6	Compressors		-	-	-	-	-
7	Piping, meter set, survey, etc		-	-	-	-	-
8	Land (pro-rated)		-	-	-	-	-
9	Contingency		-	-	-	-	-
10	Estimated annual operating costs	see real estate taxes below	-	-	-	-	-
11	Total Amount		-	-	-	-	-
12	Cumulative Program Spend		2,245,000	2,245,000	2,245,000	2,245,000	2,245,000
13							
14	<b>Deferred Tax Calculation</b>						
15	Annual Tax Depreciation (no bonus in 2014)	MACRS 15 year	127,404	120,655	120,655	120,860	120,655
16	Cumulative Tax Depreciation		897,960	1,018,615	1,139,270	1,260,129	1,380,784
17							
18	Annual Book Depreciation (30-yr prop)	3.33%	68,167	68,167	68,167	68,167	68,167
19	Cumulative Book Depreciation		409,000	477,167	545,333	613,500	681,667
20							
21	Annual Book/Tax Timer		59,237	52,488	52,488	52,693	52,488
22	Cumulative Book/Tax Timer		488,959	541,448	593,936	646,629	699,117
23	Effective Tax Rate		39.61%	39.61%	39.61%	39.61%	39.61%
24							
25	Deferred Tax Reserve		193,677	214,467	235,258	256,130	276,920
26							
27	<b>Rate Base Calculation</b>						
28	Plant In Service		2,245,000	2,245,000	2,245,000	2,245,000	2,245,000
29	Accumulated Depreciation		(409,000)	(477,167)	(545,333)	(613,500)	(681,667)
30	Net Plant in Service		1,836,000	1,767,833	1,699,667	1,631,500	1,563,333
31	Deferred Tax Reserve		(193,677)	(214,467)	(235,258)	(256,130)	(276,920)
32	Year End Rate Base		1,642,323	1,553,366	1,464,409	1,375,370	1,286,413
33							
34	<b>Revenue Requirement Calculation</b>						
35	Year End Rate Base		1,642,323	1,553,366	1,464,409	1,375,370	1,286,413
36	Pre-Tax ROR		11.50%	11.50%	11.50%	11.50%	11.50%
37	Return and Income Taxes		188,867	178,637	168,407	158,168	147,937
38	Book Depreciation - annual		68,167	68,167	68,167	68,167	68,167
39	Property Taxes - annual (3% inflation adj)		48,103	47,732	47,251	46,824	46,118
40	<b>Annual Revenue Requirement</b>		305,137	294,535	283,824	273,159	262,222
41							
42	Prior Year Cumulative Revenue Requirement		1,701,896	2,007,032	2,301,568	2,585,392	2,858,551
43							
44	Cumulative Revenue Requirement		2,007,032	2,301,568	2,585,392	2,858,551	3,120,773
45							
46	<b>Minimum Take-or-Pay Assumption Level</b>						
47	Cumulative estimated revenue at minimum take-or-pay level		2,619,600	3,422,200	4,224,800	5,027,400	5,830,000
48	Cumulative revenue requirement (line 39)		2,007,032	2,301,568	2,585,392	2,858,551	3,120,773
49	Excess revenue (deficiency)		612,568	1,120,632	1,639,408	2,168,849	2,709,227
50							
51	<b>Baseline Assumption Level</b>						
52	Cumulative estimated revenue at baseline level		4,632,600	5,862,200	7,274,800	8,687,400	10,100,000
53	Cumulative revenue requirement (line 39)		2,007,032	2,301,568	2,585,392	2,858,551	3,120,773
54	Excess revenue (deficiency)		2,625,568	3,560,632	4,689,408	5,828,849	6,979,227
55							
56	<b>Accelerated Sales Assumption Level</b>						
57	Cumulative estimated revenue at accelerated sales level		5,700,100	7,112,700	8,525,300	9,937,900	11,350,500
58	Cumulative revenue requirement (line 39)		2,007,032	2,301,568	2,585,392	2,858,551	3,120,773
59	Excess revenue (deficiency)		3,693,068	4,811,132	5,939,908	7,079,349	8,229,727
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							
76							

1 2 Year	(k) 11	(l) 12	(m) 13	(n) 14	(o) 15
3	2024	2025	2026	2027	2028
<b>Investment</b>					
6 Compressors	-	-	-	-	-
7 Piping, meter set, survey, etc	-	-	-	-	-
8 Land (pro-rated)	-	-	-	-	-
9 Contingency	-	-	-	-	-
10 Estimated annual operating costs see real estate taxes below	-	-	-	-	-
11 Total Amount	-	-	-	-	-
12 Cumulative Program Spend	2,245,000	2,245,000	2,245,000	2,245,000	2,245,000
<b>Deferred Tax Calculation</b>					
15 Annual Tax Depreciation (no bonus in 2014) MACRS 15 year	120,860	120,655	120,860	120,655	120,860
16 Cumulative Tax Depreciation	1,501,644	1,622,299	1,743,158	1,863,813	1,984,673
18 Annual Book Depreciation (30-yr prop) 3.33%	68,167	68,167	68,167	68,167	68,167
19 Cumulative Book Depreciation	749,833	818,000	886,167	954,333	1,022,500
21 Annual Book/Tax Timer	52,693	52,488	52,693	52,488	52,693
22 Cumulative Book/Tax Timer	751,810	804,298	856,991	909,480	962,172
23 Effective Tax Rate	39.61%	39.61%	39.61%	39.61%	39.61%
25 Deferred Tax Reserve	297,792	318,583	339,454	360,245	381,117
<b>Rate Base Calculation</b>					
28 Plant In Service	2,245,000	2,245,000	2,245,000	2,245,000	2,245,000
29 Accumulated Depreciation (749,833)	(749,833)	(818,000)	(886,167)	(954,333)	(1,022,500)
30 Net Plant in Service	1,495,167	1,427,000	1,358,833	1,290,667	1,222,500
31 Deferred Tax Reserve (297,792)	(297,792)	(318,583)	(339,454)	(360,245)	(381,117)
32 Year End Rate Base	1,197,375	1,108,417	1,019,379	930,422	841,383
<b>Revenue Requirement Calculation</b>					
35 Year End Rate Base	1,197,375	1,108,417	1,019,379	930,422	841,383
36 Pre-Tax ROR	11.50%	11.50%	11.50%	11.50%	11.50%
37 Return and Income Taxes	137,698	127,468	117,229	106,999	96,759
38 Book Depreciation - annual	68,167	68,167	68,167	68,167	68,167
39 Property Taxes - annual (3% inflation adj)	45,453	44,665	43,890	42,850	41,810
40 Annual Revenue Requirement	251,318	240,300	229,286	218,016	206,735
42 Prior Year Cumulative Revenue Requirement	3,120,773	3,372,090	3,612,390	3,841,676	4,059,692
44 Cumulative Revenue Requirement	3,372,090	3,612,390	3,841,676	4,059,692	4,266,427
<b>Minimum Take-or-Pay Assumption Level</b>					
47 Cumulative estimated revenue at minimum take-or-pay level	6,632,600	7,435,200	8,237,800	9,040,400	9,843,000
48 Cumulative revenue requirement (line 39)	3,372,090	3,612,390	3,841,676	4,059,692	4,266,427
49 Excess revenue (deficiency)	3,260,510	3,822,810	4,396,124	4,980,708	5,576,573
<b>Baseline Assumption Level</b>					
52 Cumulative estimated revenue at baseline level	11,512,600	12,925,200	14,337,800	15,750,400	17,163,000
53 Cumulative revenue requirement (line 39)	3,372,090	3,612,390	3,841,676	4,059,692	4,266,427
54 Excess revenue (deficiency)	8,140,510	9,312,810	10,496,124	11,690,708	12,896,573
<b>Accelerated Sales Assumption Level</b>					
57 Cumulative estimated revenue at accelerated sales level	12,763,100	14,175,700	15,588,300	17,000,900	18,413,500
58 Cumulative revenue requirement (line 39)	3,372,090	3,612,390	3,841,676	4,059,692	4,266,427
59 Excess revenue (deficiency)	9,391,010	10,563,310	11,746,624	12,941,208	14,147,073