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**Daniel S. Dane, CPA**  
**Vice President**

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Daniel S. Dane has over 15 years of experience in the energy and financial services industries providing advisory services to power companies, natural gas pipelines, and local gas distribution companies in the areas of regulation and ratemaking, litigation support, generating asset divestitures, valuation, financial statement audits and analysis, and the examination of financial reporting systems and controls. Mr. Dane has also provided expert testimony on regulated ratemaking matters for investor- and provincially-owned utilities, including on the cost of capital, capital structure, lead-lag studies/cash working capital, and rate base development. Mr. Dane has an MBA from Boston College in Chestnut Hill, Massachusetts and a BA in Economics from Colgate University in Hamilton, New York. Mr. Dane is a certified public accountant, and is a licensed securities professional (Series 7, 28, 63, 79, and 99). Mr. Dane also serves as the Financial and Operations Principal of CE Capital Advisors, a FINRA-Member firm and a subsidiary of Concentric.

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**REPRESENTATIVE PROJECT EXPERIENCE****Ratemaking and Utility Regulation Assignments****Expert Testimony**

- Submitted expert testimony on behalf of electric utilities regarding the results of lead-lag studies prepared by Concentric that were used to develop cash working capital factors and ultimately to calculate cash working capital requirements:
  - On behalf of El Paso Electric Company in Public Utility Commission of Texas Docket No. 46831 (2017).
  - On behalf of the United Illuminating Company in Connecticut Public Utilities Regulatory Authority Docket No. 16-04-04 (2016).
- Co-authored and provided oral testimony regarding an independent expert report on behalf of Ontario Power Generation (“OPG”) as to whether the application of the cost of capital approved by the Ontario Energy Board in OPG’s prior rate case was an appropriate basis for setting OPG’s nuclear and hydroelectric payment amounts in OPG’s rate application in Docket EB-2016-0152 (2016-2017).
- Submitted expert direct testimony on behalf of Northern States Power, a wholly-owned subsidiary of Xcel Energy Inc., to present evidence and provide an opinion regarding the company’s proposed ROE in South Dakota Public Utilities Commission Docket No. EL11-019 (2011).
- Submitted expert direct and rebuttal testimony on behalf of Ameren’s Illinois utilities regarding ratemaking policy issues specifically related to regulated rate base (Illinois Commerce Commission Docket No. 09-0306 through 09-0311 (Cons.)) (2010).

**Regulatory Support**

- Provided financial modeling, development of expert reports, and preparation of multiple rounds of testimony on behalf of U.S. and Canadian investor-owned electric and natural gas utilities related to multiple aspects of the ratemaking process, including: cost of capital; ring



fencing; revenue requirements and lead-lag studies/cash working capital; decoupling; prudence and cost recovery; capital tracker tariff mechanisms; cost allocation and shared services; merger approval; and ratemaking policy.

- Consulting assignments have included utility clients across the U.S. and Canada.

### **Financial Advisory Assignments**

#### **Competitive Solicitations & Asset Divestitures**

- Sell-side support provided for approximately \$2 billion in generating asset transactions, including nuclear, natural gas, and coal generating facilities.
- Buy-side due diligence support for U.S. and international investors in electric and natural gas LDC utility operations, wind generation and natural gas pipeline facilities.

#### **Valuation Services**

- Developed Fairness Opinions issued by CE Capital Advisors, Inc. to Boards of Directors of companies entering into asset purchases and sales. Led valuation modeling on multiple energy-related valuation assignments using the Income Approach, Cost Approach, and Sales Comparison Approach.

### **Litigation Advisory Assignments**

Prepared economic and financial analyses and expert reports in proceedings related to contract disputes, takings claims, and bankruptcy proceedings. Clients include international diversified energy companies, regulated utilities, and bondholders.

### **Management and Operations Consulting Assignments**

Prudence reviews, including contracting strategy reviews and assessments of project controls and oversight for developers of nuclear generating capacity uprates and new nuclear facilities.

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## **PRESENTATIONS**

“Regulatory Treatment of Timing Differences Related to Pension and OPEB Costs.” Presented to the Ontario Energy Board, July 2016 (Docket No. EB-2015-0040).

“Increasing Shareholder Value through the Capital Markets.” University of Idaho Utility Executive Course, June 2015 and June 2016.

“A Comparative Analysis of Return on Equity of Natural Gas Utilities” (with Jim Coyne and Julie Lieberman), presented to the Ontario Energy Association, June, 2007.

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## **PROFESSIONAL HISTORY**

### **Concentric Energy Advisors, Inc. (2004 – Present)**

#### **CE Capital Advisors, Inc.**

Vice President (Concentric)

Assistant Vice President (Concentric)

Financial and Operations Principal (CE Capital)



**Ernst & Young (2000 – 2001, 2003 – 2004)**

Staff Auditor and Database Management Associate

**ZIA Information Analysis Group (1997 – 2000)**

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**EDUCATION AND CERTIFICATIONS**

M.B.A., Boston College, 2003

B.A., Economics, Colgate University, 1996

Licensed Securities Professional: NASD Series 7, 28, 63, 79 and 99 Licenses

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**DESIGNATIONS AND PROFESSIONAL AFFILIATIONS**

Certified Public Accountant, 2004

Massachusetts Society of Certified Public Accountants, 2004

American Institute of Certified Public Accountants, 2011



SPONSOR	DATE	CASE/APPLICANT	DOCKET /CASE NO.	SUBJECT
<b>Connecticut Public Utilities Regulatory Authority</b>				
The United Illuminating Company	07/16	The United Illuminating Company	Docket No. 16-06-04	Lead-lag Study Cash Working Capital
<b>Illinois Commerce Commission</b>				
The Ameren Illinois Utilities	07/10	Central Illinois Light Company; Central Illinois Public Service Company; Illinois Power Company	Docket Nos. 09-0306 thru 09-0311 (cons.)	Rate Base Adjustments Earnings Attrition
<b>Public Utility Commission of Texas</b>				
El Paso Electric Company	02/17	El Paso Electric Company	Docket No. 46831	Lead-lag Study Cash Working Capital
<b>South Dakota Public Service Commission</b>				
Northern States Power Company-MN	06/11	Northern States Power Company-MN	EL 11-019	Return on Equity
<b>Ontario Energy Board</b>				
Ontario Power Generation	05/16	Ontario Power Generation	EB 2016-0152	Capital Structure

**Liberty Utilities (EnergyNorth)**  
**Index to Revenue Requirement Schedules**  
**Test Year Ended December 31, 2016**

Line	Title	Reference
1	Summary Schedules	
2	Index to Revenue Requirement Schedules	<a href="#">Index</a>
3	Revenue Deficiency and Revenue Requirement	<a href="#">Schedule RR-1</a>
4	Operating Income Statement - EnergyNorth	<a href="#">Schedule RR-EN-2</a>
5	Operating Income Statement - Keene	<a href="#">Schedule RR-K-2</a>
6	Operating Income Statement - Detail - EnergyNorth	<a href="#">Schedule RR-EN-2-1</a>
7	Operating Income Statement - Detail- Keene	<a href="#">Schedule RR-K-2-1</a>
8	Summary of Adjustments	<a href="#">Schedule RR-EN-3</a>
9	Summary of Adjustments - Keene	<a href="#">Schedule RR-K-3</a>
10		
11	Adjustments - EnergyNorth	
12	Adjustment 1 - Revenue Adjustments	<a href="#">Schedule RR-EN-3-1</a>
13	Adjustment 2 - Salary and Wage Expense	<a href="#">Schedule RR-EN-3-2</a>
14	Adjustment 3 - Payroll Tax Expense	<a href="#">Schedule RR-EN-3-3</a>
15	Adjustment 4 - Pension and Benefits Expense	<a href="#">Schedule RR-EN-3-4</a>
16	Adjustment 5 - Depreciation Expense	<a href="#">Schedule RR-EN-3-5</a>
17	Adjustment 6 - Amortization Expense	<a href="#">Schedule RR-EN-3-6</a>
18	Adjustment 7 - Property Tax	<a href="#">Schedule RR-EN-3-7</a>
19	Adjustment 8 - Income Tax Expense - Historical Test Year	<a href="#">Schedule RR-EN-3-8</a>
20	Adjustment 9 - Income Tax Expense - Pro Forma Test Year at Current Rates	<a href="#">Schedule RR-EN-3-9</a>
21	Adjustment 10 - Other Adjustments	<a href="#">Schedule RR-EN-3-10</a>
22		
23	Adjustments - Keene	
24	Adjustment 1 - Salary and Wage	<a href="#">Schedule RR-K-3-1</a>
25	Adjustment 2 - Payroll Tax	<a href="#">Schedule RR-K-3-2</a>
26	Adjustment 3 - Benefits	<a href="#">Schedule RR-K-3-3</a>
27	Adjustment 4 - Depreciation	<a href="#">Schedule RR-K-3-4</a>
28	Adjustment 5 - Amortization	<a href="#">Schedule RR-K-3-5</a>
29	Adjustment 6 - Property Tax	<a href="#">Schedule RR-K-3-6</a>
30	Adjustment 7 - Uncollectible Accounts Expense	<a href="#">Schedule RR-K-3-7</a>
31	Adjustment 8 - Income Tax Expense - Historical Test Year	<a href="#">Schedule RR-K-3-8</a>
32	Adjustment 9 - Income Tax Expense- Pro Forma Test Year at Current Rates	<a href="#">Schedule RR-K-3-9</a>
33	Adjustment 10 - Other Adjustments	<a href="#">Schedule RR-K-3-10</a>
34		
35	Cost of Capital	
36	Weighted Average Cost of Capital	<a href="#">Schedule RR-4</a>
37		
38	Rate Base	
39	Rate Base - EnergyNorth	<a href="#">Schedule RR-EN-5</a>
40	Rate Base - Keene	<a href="#">Schedule RR-K-5</a>
41	Rate Base Quarterly Balances - EnergyNorth	<a href="#">Schedule RR-EN-5-1</a>
42	Rate Base Quarterly Balances - Keene	<a href="#">Schedule RR-K-5-1</a>
43	Cash Working Capital - EnergyNorth	<a href="#">Schedule RR-EN-5-2</a>
44	Cash Working Capital - Keene	<a href="#">Schedule RR-K-5-2</a>
45		

**Liberty Utilities (EnergyNorth)**  
**Index to Revenue Requirement Schedules**  
**Test Year Ended December 31, 2016**

<b>Line</b>	<b>Title</b>	<b>Reference</b>
46	Step Increase	
47	Step Increase - EnergyNorth	<a href="#">Schedule Step-EN</a>
48	Step Increase - Keene	<a href="#">Schedule Step-K</a>
49		
50	Rate Case Expense	
51	Rate Case Expense	<a href="#">Schedule RC</a>

**Liberty Utilities (EnergyNorth)**  
**Revenue Deficiency and Revenue Requirement**  
**Test Year With Known and Measurable Changes**

Line	Description	Reference	EnergyNorth	Keene	Total
1	Rate Base	RR-EN-5; RR-K-5	\$ 249,876,373	\$ 2,152,312	\$ 252,028,685
2					
3	Target Rate of Return on Rate Base	RR-4	7.36%	7.36%	7.36%
4					
5	Operating Income Requirement	Line 1 X Line 3	\$ 18,390,901	\$ 158,410	\$ 18,549,311
6					
7	Operating Income at Present Rates	RR-EN-2; RR-K-2	\$ 10,491,808	\$ (273,235)	\$ 10,218,573
8					
9	Operating Income Deficiency	Line 5 - Line 7	\$ 7,899,093	\$ 431,645	\$ 8,330,738
10					
11	Gross-up Factor for Additional Income Taxes	Line 19	1.6504	1.6504	1.6504
12					
13	Revenue Deficiency	Line 9 X Line 11	\$ 13,036,958	\$ 712,403	\$ 13,749,361
14					
15	<u>Gross-up Factor for Income Taxes</u>				
16	Federal Income Tax Rate		34.00%	34.00%	34.00%
17	New Hampshire State Income Tax Rate		8.20%	8.20%	8.20%
18	Combined Income Tax Rate	Line 16 + Line 17 - (Line 16 X Line 17)	39.41%	39.41%	39.41%
19	Gross-up Factor	1 / (1 - Line 18)	1.6504	1.6504	1.6504
20					
21	Additional Income Tax Required	Line 13 - Line 9	\$ 5,137,865	\$ 280,758	\$ 5,418,623
22					
23	Distribution Revenue at Present Rates	RR-EN-2; RR-K-2	\$ 70,218,715	\$ 1,343,810	\$ 71,562,525
24					
25	% Increase Needed	Line 13 / Line 23	18.57%	53.01%	19.21%
26					
27	Revenue with Increase	RR-EN-2; RR-K-2	\$ 83,255,673	\$ 2,056,213	\$ 85,311,886
28					
29	% Increase Needed - Total Revenue		10.86%	49.66%	11.21%

**Liberty Utilities (EnergyNorth)**  
**Operating Income Statement - EnergyNorth**  
**Test Year With Known and Measurable Changes**

<i>Source</i>		<i>RR-EN-3</i>				<i>RR-1</i>		
Line Account	Test Year Ended December 31, 2016	Cost of Gas & LDAC	Distribution Operating Income	Known and Measurable Adjustments	Test Year at Current Rates	Proposed Increase	Distribution Operating Income with Proposed Increase	
1 <b>Revenue</b>								
2 Operating Revenue	\$ 119,202,714	\$ (50,212,647)	\$ 68,990,067	\$ 359,364	\$ 69,349,431	\$ 13,036,958	\$ 82,386,389	
3 Other Revenue	850,935	-	850,935	18,348	869,284		869,284	
4	<b>\$ 120,053,649</b>	<b>\$ (50,212,647)</b>	<b>\$ 69,841,002</b>	<b>\$ 377,713</b>	<b>\$ 70,218,715</b>	<b>\$ 13,036,958</b>	<b>\$ 83,255,673</b>	
5								
6 <b>Operating Expenses</b>								
7 Operations and Maintenance - Gas	\$ 44,810,084	\$ (45,726,956)	\$ (916,872)	\$ 34,533	\$ (882,338)		\$ (882,338)	
8 Operations and Maintenance - Distribution	12,121,123	-	12,121,123	352,472	12,473,595		12,473,595	
9 Customer Accounting	4,475,212	1,323,925	5,799,138	158,215	5,957,352		5,957,352	
10 Sales and New Business	157,814	-	157,814	5,488	163,302		163,302	
11 Administrative & General	11,027,275	-	11,027,275	558,494	11,585,769		11,585,769	
12 Depreciation and Amortization	16,359,945	(2,217,552)	14,142,392	4,526,531	18,668,924		18,668,924	
13 Taxes other than Income Taxes	10,060,520	-	10,060,520	658,300	10,718,820		10,718,820	
14 Income Taxes	6,359,035	-	6,359,035	(3,992,553)	2,366,482	5,137,865	7,504,347	
15 Ratemaking Adjustment per DG 11-040	-	-	-	(1,325,000)	(1,325,000)		(1,325,000)	
16	<b>\$ 105,371,008</b>	<b>\$ (46,620,583)</b>	<b>\$ 58,750,425</b>	<b>\$ 976,482</b>	<b>\$ 59,726,907</b>	<b>\$ 5,137,865</b>	<b>\$ 64,864,772</b>	
17								
18 <b>Utility Net Income</b>	<b>\$ 14,682,641</b>	<b>\$ (3,592,064)</b>	<b>\$ 11,090,577</b>	<b>\$ (598,769)</b>	<b>\$ 10,491,808</b>	<b>\$ 7,899,093</b>	<b>\$ 18,390,901</b>	
19								
20 Rate Base			<u>\$ 249,876,373</u>		<u>\$ 249,876,373</u>		<u>\$ 249,876,373</u>	
21								
22 Rate of Return on Rate Base			<b>4.44%</b>		<b>4.20%</b>		<b>7.36%</b>	



**Liberty Utilities (Keene)**  
**Operating Income Statement - Keene**  
**Test Year With Known and Measurable Changes**

<i>Source</i>		<i>RR-K-3</i>				<i>RR-I</i>		
Line	Account	Test Year Ended December 31, 2016	Cost of Gas	Distribution Operating Income	Known and Measurable Adjustments	Test Year at Current Rates	Proposed Increase	Distribution Operating Income with Proposed Increase
1	<b>Revenue</b>							
2	Operating Revenue	\$ 2,583,025	\$ (1,160,420)	\$ 1,422,605	\$ (90,771)	\$ 1,331,835	\$ 712,403	\$ 2,044,238
3	Other Revenue	11,975	-	11,975	-	11,975		11,975
4		<b>\$ 2,595,000</b>	<b>\$ (1,160,420)</b>	<b>\$ 1,434,580</b>	<b>\$ (90,771)</b>	<b>\$ 1,343,810</b>	<b>\$ 712,403</b>	<b>\$ 2,056,213</b>
5								
6	<b>Operating Expenses</b>							
7	Operations and Maintenance - Gas	\$ 1,146,416	\$ (1,167,036)	\$ (20,620)	\$ (3,081)	\$ (23,701)		\$ (23,701)
8	Operations and Maintenance - Distribution	236,876	-	236,876	56,968	293,844		293,844
9	Customer Accounting	(3,205)	-	(3,205)	41,312	38,107		38,107
10	Administrative & General	1,012,719	-	1,012,719	(41,367)	971,351		971,351
11	Depreciation Expense	213,455	-	213,455	156,513	369,969		369,969
12	Taxes other than Income Taxes	176,899	-	176,899	(711)	176,189		176,189
13	Income Taxes	7,390	-	7,390	(216,103)	(208,713)	280,758	72,045
14		<b>\$ 2,790,550</b>	<b>\$ (1,167,036)</b>	<b>\$ 1,623,514</b>	<b>\$ (6,469)</b>	<b>\$ 1,617,045</b>	<b>\$ 280,758</b>	<b>\$ 1,897,803</b>
15								
16	<b>Utility Net Income</b>	<b>\$ (195,550)</b>	<b>\$ 6,616</b>	<b>\$ (188,933)</b>	<b>\$ (84,302)</b>	<b>\$ (273,235)</b>	<b>\$ 431,645</b>	<b>\$ 158,410</b>
17								
18								
19	Rate Base			<u><b>\$ 2,152,312</b></u>		<u><b>\$ 2,152,312</b></u>		<u><b>\$ 2,152,312</b></u>
20								
21	Rate of Return on Rate Base			<b>(8.78%)</b>		<b>(12.69%)</b>		<b>7.36%</b>

**Liberty Utilities (EnergyNorth)**  
**Operating Income Statement- Detail - EnergyNorth**  
**Test Year With Known and Measurable Changes**

Source

RR-EN-3

RR-EN-3

Line	Account	Account Number	Test Year Ended December 31, 2016	Cost of Gas & LDAC	Distribution Operating Income	Known and Measurable Adjustments	Test Year At Current Rates	Labor	Labor Pro Forma
1	<b>OPERATION AND MAINTENANCE EXPENSES</b>								
2	<b>O&amp;M - Gas Production</b>								
3	Operation Supervision and Engineering	710	\$ 319,557		\$ 319,557	\$ 13,680	\$ 333,238	\$ 285,347	\$ 299,027
4	Liquefied Petroleum Gas Expenses	717	252,396		252,396	11,202	263,598	233,653	244,855
5	Liquefied Petroleum Gas	728	45,557		45,557	621	46,178	12,953	13,574
6	Miscellaneous Production Expenses	735	379,344		379,344	8,914	388,258	185,919	194,832
7	Maintenance of Production Equipment	742	72,133		72,133	-	72,133	-	-
8	Natural Gas City Gate Purchases	804	(16,299,847)	16,299,847	-	-	-	-	-
9	Other Gas Purchases	805	60,771,419	(60,771,419)	-	-	-	-	-
10	Gas Withdrawn from Storage	808	1,255,384	(1,255,384)	-	-	-	-	-
11	Operation Labor and Expenses	841	2,427		2,427	116	2,543	2,427	2,543
12	Other Expenses	846	(1,988,285)		(1,988,285)	-	(1,988,285)	-	-
13	<i>Total O&amp;M - Gas Production</i>		<b>\$ 44,810,084</b>	<b>\$ (45,726,956)</b>	<b>\$ (916,872)</b>	<b>\$ 34,533</b>	<b>\$ (882,338)</b>	<b>\$ 720,299</b>	<b>\$ 754,832</b>
14									
15	<b>O&amp;M - Distribution Expenses</b>								
16	Measuring and Regulating Station Expenses (Transmission)	857	\$ 30,299		\$ 30,299	\$ -	\$ 30,299	\$ -	\$ -
17	Maintenance of Mains (Transmission)	863	5,483		5,483	(125)	5,358	(2,603)	(2,728)
18	Operation Supervision and Engineering (Transmission)	870	1,686,434		1,686,434	38,773	1,725,207	808,733	847,506
19	Distribution Load Dispatching	871	242,795		242,795	9,853	252,649	205,519	215,372
20	Mains Services Expenses	874	4,691,554		4,691,554	148,095	4,839,649	3,088,970	3,237,065
21	Measuring and Regulating Station Expenses - General	875	123,901		123,901	5,940	129,841	123,901	129,841
22	Measuring and Regulating Station Expenses - Industrial	876	14,098		14,098	438	14,536	9,131	9,569
23	Meter and House Regulator Expenses	878	1,730,441		1,730,441	69,611	1,800,052	1,451,946	1,521,556
24	Customer Installations Expenses	879	2,331		2,331	112	2,443	2,331	2,443
25	Other Expenses	880	903,449		903,449	21,308	924,757	444,445	465,753
26	Rents	881	12,098		12,098	-	12,098	-	-
27	Maintenance Supervision and Engineering	885	-		-	-	-	-	-
28	Maintenance of Structures and Improvements	886	96,985		96,985	3,512	100,497	73,244	76,755
29	Maintenance of Mains	887	1,644,243		1,644,243	30,284	1,674,527	631,674	661,958
30	Maintenance of Measuring and Regulating Station Expenses	889	54,565		54,565	1,411	55,977	29,440	30,851
31	Maintenance of Services	892	640,956		640,956	16,204	657,159	337,981	354,185
32	Maintenance of Meters and House Regulators	893	235,276		235,276	6,926	242,202	144,457	151,383
33	Maintenance of Other Equipment	894	6,216		6,216	129	6,346	2,699	2,828
34	<i>Total O&amp;M - Distribution</i>		<b>\$ 12,121,123</b>	<b>\$ -</b>	<b>\$ 12,121,123</b>	<b>\$ 352,472</b>	<b>\$ 12,473,595</b>	<b>\$ 7,351,866</b>	<b>\$ 7,704,339</b>
35	<i>Total O&amp;M - Gas Production and Distribution</i>		<b>\$ 56,931,207</b>	<b>\$ (45,726,956)</b>	<b>\$ 11,204,252</b>	<b>\$ 387,006</b>	<b>\$ 11,591,257</b>	<b>\$ 8,072,165</b>	<b>\$ 8,459,171</b>
36									
37	<b>Customer Accounts Expenses</b>								
38	Supervision	901	\$ 190,994		\$ 190,994	\$ 8,468	\$ 199,462	\$ 176,623	\$ 185,091
39	Meter Reading Expenses	902	364,666		364,666	16,781	381,446	350,010	366,790
40	Customer Records and Collection Expenses	903	3,771,514		3,771,514	132,966	3,904,481	2,339,421	2,451,580
41	Uncollectible Accounts	904.0	1,491,362		1,491,362	-	1,491,362	-	-
42	Bad Debt Expense - Commodity	904.1	(1,323,925)	1,323,925	-	-	-	-	-
43	Miscellaneous Customer Accounts Expenses	905	(19,398)		(19,398)	-	(19,398)	-	-
44	<i>Total Customer Accounting</i>		<b>\$ 4,475,212</b>	<b>\$ 1,323,925</b>	<b>\$ 5,799,138</b>	<b>\$ 158,215</b>	<b>\$ 5,957,352</b>	<b>\$ 2,866,053</b>	<b>\$ 3,003,461</b>
45									
46	<b>Customer Service and Informational &amp; Sales Expenses</b>								
47	Cust Assistance	908	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -
48	Cust Service Misc	910	2,338		2,338	183	2,521	3,811	3,994
49	Sales & Advertising	912	155,476		155,476	5,306	160,782	110,663	115,969
50	<i>Total Customer Service and Informational &amp; Sales Expenses</i>		<b>\$ 157,814</b>	<b>\$ -</b>	<b>\$ 157,814</b>	<b>\$ 5,488</b>	<b>\$ 163,302</b>	<b>\$ 114,474</b>	<b>\$ 119,963</b>
51	<i>Total Customer Accounts, Customer Service and Informational</i>		<b>\$ 4,633,026</b>	<b>\$ 1,323,925</b>	<b>\$ 5,956,952</b>	<b>\$ 163,703</b>	<b>\$ 6,120,655</b>	<b>\$ 2,980,528</b>	<b>\$ 3,123,424</b>
52									
53	<b>Administrative and General Expenses</b>								
54	A&G Salaries	920.0	\$ 3,547,265		\$ 3,547,265	\$ 166,156	\$ 3,713,421	\$ 3,465,684	\$ 3,631,840
55	A&G Salaries - LU Head Office	920.1	1,475,737		1,475,737	-	1,475,737	Allocated costs	-
56	Office Supplies and Expenses	921	1,190,181		1,190,181	-	1,190,181	-	-
57	Administrative Expenses Transferred	922.0	(6,399,508)		(6,399,508)	(523,546)	(6,923,054)	Allocated costs	-
58	LU Labor Allocations Capitalized	922.1	(1,084,868)		(1,084,868)	-	(1,084,868)	-	-
59	Outside Services Employed	923.0	612,935		612,935	-	612,935	-	-
60	Allocated LU Head Office	923.1	3,748,438		3,748,438	-	3,748,438	-	-
61	Property Insurance	924	38,113		38,113	-	38,113	-	-
62	Injuries and Damages	925	877,844		877,844	-	877,844	-	-
63	Employee Pensions and Benefits	926	6,338,058		6,338,058	804,009	7,142,067	-	-
64	Regulatory Commission Expenses	928	634,272		634,272	59,068	693,340	-	-
65	Miscellaneous General Expenses	930	(129,230)		(129,230)	-	(129,230)	-	-
66	Rents	931	44,158		44,158	52,806	96,964	-	-
67	Maintenance of General Plant	932	133,881		133,881	-	133,881	-	-
68	<i>Total Administrative &amp; General</i>		<b>\$ 11,027,275</b>	<b>\$ -</b>	<b>\$ 11,027,275</b>	<b>\$ 558,494</b>	<b>\$ 11,585,769</b>	<b>\$ 3,465,684</b>	<b>\$ 3,631,840</b>
69	<b>Total Operation and Maintenance Expenses</b>		<b>\$ 72,591,509</b>	<b>\$ (44,403,031)</b>	<b>\$ 28,188,478</b>	<b>\$ 1,109,203</b>	<b>\$ 29,297,681</b>	<b>\$ 14,518,377</b>	<b>\$ 15,214,435</b>
70									

Liberty Utilities (EnergyNorth)  
Operating Income Statement- Detail - EnergyNorth  
Test Year With Known and Measurable Changes

		Source		RR-EN-3				RR-EN-3	
Line	Account	Account Number	Test Year Ended December 31, 2016	Cost of Gas & LDAC	Distribution Operating Income	Known and Measurable Adjustments	Test Year At Current Rates	Labor	Labor Pro Forma
71	DEPRECIATION AND AMORTIZATION EXPENSE								
72	Depreciation Expense	403	\$ 11,610,051		\$ 11,610,051	\$ 644,820	\$ 12,254,871		
73	Amortization - Intangibles	405	2,123,142		2,123,142	255,370	2,378,512		
74	Regulatory Debits	407.3	409,200		409,200	(227,873)	181,327		
75	Regulatory Credits - Amortization of Regulatory Assets	407.4	2,217,552	(2,217,552)	-	3,854,214	3,854,214		
76	Total Depreciation and Amortization Expense		\$ 16,359,945	\$ (2,217,552)	\$ 14,142,392	\$ 4,526,531	\$ 18,668,924		
77									
78	TAXES OTHER THAN INCOME TAXES								
79	Taxes other than Income Taxes - Payroll Taxes	408	\$ 1,594,187		\$ 1,594,187	\$ 76,430	\$ 1,670,618		
80	Taxes other than Income Taxes - Property Taxes	408	8,466,333		8,466,333	581,870	9,048,203		
81	Total Taxes other than Income Taxes		\$ 10,060,520	\$ -	\$ 10,060,520	\$ 658,300	\$ 10,718,820		
82									
83	FEDERAL / STATE INCOME TAXES								
84	Income Tax Expense	409-410	\$ 6,359,035	\$ -	\$ 6,359,035	\$ (3,992,553)	\$ 2,366,482		
85	Subtotal - Income Tax		\$ 6,359,035	\$ -	\$ 6,359,035	\$ (3,992,553)	\$ 2,366,482		
86									
87	RATEMAKING ADJUSTMENT PER DG 11-040					\$ (1,325,000)	\$ (1,325,000)		
88									
89	TOTAL EXPENSES		\$ 105,371,008	\$ (46,620,583)	\$ 58,750,425	\$ 976,482	\$ 59,726,907	\$ 14,518,377	\$ 15,214,435
90									
91	REVENUES								
92	Operating Revenue		\$ 119,202,714	\$ (50,212,647)	\$ 68,990,067	\$ 359,364	\$ 69,349,431		
93	Other Revenue		850,935		850,935	18,348	869,284		
94	Total Revenue		\$ 120,053,649	\$ (50,212,647)	\$ 69,841,002	\$ 377,713	\$ 70,218,715		
95									
96	UTILITY NET INCOME		\$ 14,682,641	\$ (3,592,064)	\$ 11,090,577	\$ (598,769)	\$ 10,491,808		
97									
98	TOTAL RATE BASE	RR-EN-5	\$ 249,876,373		\$ 249,876,373		\$ 249,876,373		
99									
100	Income Tax Rate		30.22%		36.44%		18.40%		
101									
102	Rate of Return		5.88%		4.44%		4.20%		

**Liberty Utilities (Keene)**  
**Operating Income Statement- Detail- Keene**  
**Test Year With Known and Measurable Changes**  
**Keene**

Line	Account	Account Number	RR-K-3				RR-K-3	
			Test Year Ended December 31, 2016	Cost of Gas	Distribution Operating Income	Known and Measurable Adjustments	Test Year At Current Rates	Labor Labor Adjustment
1	<b>OPERATING AND MAINTENANCE EXPENSES</b>							
2	<b>O&amp;M- Gas Production</b>							
3	Gas Mixing Expense	733	\$ (9,365)		\$ (9,365)	\$ (3,081)	\$ (12,446)	\$ (9,365) \$ (12,446)
4	Miscellaneous Production Expenses	735	(11,255)		(11,255)	0	(11,255)	0 0
5	Natural Gas City Gate Purchases	804	24,816	(24,816)	0	0	0	0 0
6	Other Gas Purchases	805	1,160,420	(1,160,420)	0	0	0	0 0
7	Gas Withdrawn from Storage	808	(18,200)	18,200	0	0	0	0 0
8			<u>\$ 1,146,416</u>	<u>\$ (1,167,036)</u>	<u>\$ (20,620)</u>	<u>\$ (3,081)</u>	<u>\$ (23,701)</u>	<u>\$ (9,365) \$ (12,446)</u>
9	<b>O&amp;M- Distribution</b>							
10	Mains Services Expenses	874	\$ 60,249		\$ 60,249	\$ -	\$ 60,249	\$ - \$ -
11	Customer Installations Expenses	879	21,368		21,368	35,082	56,450	15,447 20,528
12	Other Expenses	880	63,075		63,075	996	64,071	3,028 4,024
13	Maintenance of Structures and Improvements	886	20,634		20,634	2,125	22,760	6,460 8,586
14	Maintenance of Mains	887	(5,085)		(5,085)	(863)	(5,948)	(2,624) (3,487)
15	Maintenance of Services	892	16,421		16,421	4,433	20,855	13,476 17,909
16	Maintenance of Meters and House Regulators	893	53,267		53,267	14,800	68,068	44,989 59,790
17	Maintenance of Other Equipment	894	6,945		6,945	395	7,340	1,201 1,596
18			<u>\$ 236,876</u>	<u>\$ -</u>	<u>\$ 236,876</u>	<u>\$ 56,968</u>	<u>\$ 293,844</u>	<u>\$ 81,977 \$ 108,945</u>
19	<b>Customer Accounting</b>							
20	Meter Reading Expenses	902	\$ 20,052		20,052	6,544	26,596	19,891 26,435
21	Customer Records and Collection Expenses	903	(1,264)		(1,264)	(1,146)	(2,410)	(3,482) (4,628)
22	Uncollectible Accounts	904	(21,993)		(21,993)	35,914	13,920	0 0
23	Total Customer Accounting		<u>\$ (3,205)</u>	<u>\$ -</u>	<u>\$ (3,205)</u>	<u>\$ 41,312</u>	<u>\$ 38,107</u>	<u>\$ 16,409 \$ 21,808</u>
24								
25	<b>ADMINISTRATIVE AND GENERAL</b>							
26	A&G Salaries	920	\$ 248,926		248,926	81,890	330,816	248,926 330,816
27	Office Supplies and Expenses	921.0	98,677		98,677	0	98,677	0 0
28	Office Supplies and Expenses - Utilities	921.2	0		0	0	0	0 0
29	Outside Services Employed	923	357		357	0	357	0 0
30	Property Insurance	924	(2,183)		(2,183)	0	(2,183)	0 0
31	Injuries and Damages	925	197,006		197,006	0	197,006	0 0
32	Employee Pensions and Benefits	926	209,036		209,036	(123,522)	85,514	0 0
33	Regulatory Commission Expenses	928	11,812		11,812	264	12,076	0 0
34	Miscellaneous General Expenses	930	200,000		200,000	0	200,000	0 0
35	Rents	931	49,087		49,087	0	49,087	0 0
36	Total Administrative & General		<u>\$ 1,012,719</u>	<u>\$ -</u>	<u>\$ 1,012,719</u>	<u>\$ (41,367)</u>	<u>\$ 971,351</u>	<u>\$ 248,926 \$ 330,816</u>
37	<b>Total Operating Expenses</b>		<u>\$ 2,392,805</u>	<u>\$ (1,167,036)</u>	<u>\$ 1,225,769</u>	<u>\$ 53,832</u>	<u>\$ 1,279,600</u>	<u>\$ 337,947 \$ 449,122</u>
38								
39	<b>DEPRECIATION AND AMORTIZATION EXPENSE</b>							
40	Depreciation Expense	403	\$ 213,455		213,455	156,513	369,969	
41	Total Depreciation Expense		<u>\$ 213,455</u>	<u>\$ -</u>	<u>\$ 213,455</u>	<u>\$ 156,513</u>	<u>\$ 369,969</u>	
42								
43	<b>TAXES OTHER THAN INCOME TAXES</b>							
44	Taxes other than Income Taxes - Payroll Taxes	408	\$ 32,044		32,044	10,542	42,586	
45	Taxes other than Income Taxes - Property Taxes	408	144,855		144,855	(11,252)	133,603	
46	Subtotal - Taxes other than Income Taxes		<u>\$ 176,899</u>	<u>\$ -</u>	<u>\$ 176,899</u>	<u>\$ (711)</u>	<u>\$ 176,189</u>	
47								
48	<b>FEDERAL / STATE INCOME TAXES</b>							
49	Income Tax Expense	410	\$ 7,390		7,390	(216,103)	(208,713)	
50	Subtotal - Income Tax		<u>\$ 7,390</u>	<u>\$ -</u>	<u>\$ 7,390</u>	<u>\$ (216,103)</u>	<u>\$ (208,713)</u>	
51								
52	<b>Total Expenses</b>		<u>\$ 2,790,550</u>	<u>\$ (1,167,036)</u>	<u>\$ 1,623,514</u>	<u>\$ (6,469)</u>	<u>\$ 1,617,045</u>	<u>\$ 337,947 \$ 449,122</u>
53								
54	<b>Revenue</b>							
55	Metered sales to Residential Customers	480	631,251	(245,989)	385,263	(90,771)	294,492	
56	Metered sales to Commercial Customers	481	1,951,774	(914,431)	1,037,342	0	1,037,342	
57	Misc Service Revenues	488	11,975		11,975	0	11,975	
58	<b>Total Revenue</b>		<u>\$ 2,595,000</u>	<u>\$ (1,160,420)</u>	<u>\$ 1,434,580</u>	<u>\$ (90,771)</u>	<u>\$ 1,343,810</u>	
59								
60	<b>Utility Net Income</b>		<u>\$ (195,550)</u>	<u>\$ 6,616</u>	<u>\$ (188,933)</u>	<u>\$ (84,302)</u>	<u>\$ (273,235)</u>	
61								
62	<b>TOTAL RATE BASE</b>		<u>\$ 2,152,312</u>		<u>\$ 2,152,312</u>		<u>\$ 2,152,312</u>	
63								
64	Income Tax Tate		-3.78%		-3.91%		76.39%	
65								
66	Rate of Return		-9.09%		-8.78%		-12.69%	

Liberty Utilities (EnergyNorth)

Summary of Adjustments

Test Year Ended December 31, 2016

		<a href="#">Adjustment 1</a>	<a href="#">Adjustment 2</a>	<a href="#">Adjustment 3</a>	<a href="#">Adjustment 4</a>	<a href="#">Adjustment 5</a>	<a href="#">Adjustment 6</a>	<a href="#">Adjustment 7</a>	<a href="#">Adjustment 8</a>	<a href="#">Adjustment 9</a>	<a href="#">Adjustment 10</a>
	598,769	(377,713)	696,058	76,430	280,464	644,820	3,881,711	581,870	(1,660,930)	(2,331,623)	132,682

Line	Account	Account Number	Total	Revenue Adjustments	Salary and Wage Expense	Payroll Tax Expense	Pension and Benefits Expense	Depreciation Expense	Amortization Expense	Property Tax	Income Tax Expense - Historical Test Year	Income Tax Expense - Pro Forma Test Year at Current Rates	Other Adjustments	Historical Test Year Labor Expense	% Total Labor
1	OPERATION AND MAINTENANCE EXPENSES														
2	O&M - Gas Production														
3	Operation Supervision and Engineering	710	\$ 13,680		\$ 13,680									\$ 285,347	1.97%
4	Liquefied Petroleum Gas Expenses	717	11,202		11,202									233,653	1.61%
5	Liquefied Petroleum Gas	728	621		621									12,953	0.09%
6	Miscellaneous Production Expenses	735	8,914		8,914									185,919	1.28%
7	Maintenance of Production Equipment	742	0		0									0	0.00%
8	Natural Gas City Gate Purchases	804	0		0									0	0.00%
9	Other Gas Purchases	805	0		0									0	0.00%
10	Gas Withdrawn from Storage	808	0		0									0	0.00%
11	Operation Labor and Expenses	841	116		116									2,427	0.02%
12	Other Expenses	846	0		0									0	0.00%
13	Total O&M - Gas Production		\$ 34,533	\$ -	\$ 34,533	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 720,299	4.96%
14	O&M - Distribution Expenses														
15	Measuring and Regulating Station Expenses (Transmission)	857	\$ -		\$ -									\$ -	0.00%
16	Maintenance of Mains (Transmission)	863	(125)		(125)									(2,603)	-0.02%
17	Operation Supervision and Engineering (Transmission)	870	38,773		38,773									808,733	5.57%
18	Distribution Load Dispatching	871	9,853		9,853									205,519	1.42%
19	Mains Services Expenses	874	148,095		148,095									3,088,970	21.28%
20	Measuring and Regulating Station Expenses - General	875	5,940		5,940									123,901	0.85%
21	Measuring and Regulating Station Expenses - Industrial	876	438		438									9,131	0.06%
22	Meter and House Regulator Expenses	878	69,611		69,611									1,451,946	10.00%
23	Customer Installations Expenses	879	112		112									2,331	0.02%
24	Other Expenses	880	21,308		21,308									444,445	3.06%
25	Rents	881	0		0									0	0.00%
26	Maintenance Supervision and Engineering	885	0		0									0	0.00%
27	Maintenance of Structures and Improvements	886	3,512		3,512									73,244	0.50%
28	Maintenance of Mains	887	30,284		30,284									631,674	4.35%
29	Maintenance of Measuring and Regulating Station Expen	889	1,411		1,411									29,440	0.20%
30	Maintenance of Services	892	16,204		16,204									337,981	2.33%
31	Maintenance of Meters and House Regulators	893	6,926		6,926									144,457	0.99%
32	Maintenance of Other Equipment	894	129		129									2,699	0.02%
33	Total O&M - Distribution		352,472	0	352,472	0	0	0	0	0	0	0	0	7,351,866	50.64%
34	Total O&M - Gas Production and Distribution		\$ 387,006	\$ -	\$ 387,006	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,072,165	55.60%
35	Customer Accounts Expenses														
36	Supervision	901	\$ 8,468		\$ 8,468									\$ 176,623	1.22%
37	Meter Reading Expenses	902	16,781		16,781									350,010	2.41%
38	Customer Records and Collection Expenses	903	132,966		112,159								20,807	2,339,421	16.11%
39	Uncollectible Accounts	904.0	0		0									0	0.00%
40	Bad Debt Expense - Commodity	904.1	0		0									0	0.00%
41	Miscellaneous Customer Accounts Expenses	905	0		0									0	0.00%
42	Total Customer Accounting		\$ 158,215	\$ -	\$ 137,408	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,807	\$ 2,866,053	19.74%
43	Customer Service and Informational & Sales Expenses														
44	Cust Assistance	908	\$ -		\$ -									\$ -	0.00%
45	Cust Service Misc	910	183		183									3,811	0.03%
46	Sales & Advertising	912	5,306		5,306									110,663	0.76%
47	Total Customer Service and Informational & Sales Expenses		5,488	0	5,488	0	0	0	0	0	0	0	0	114,474	0.79%
48	Total Customer Accounts, Customer Service and Informational		\$ 163,703	\$ -	\$ 142,896	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,807	\$ 2,980,528	20.53%
49	Administrative and General Expenses														
50	A&G Salaries	920.0	\$ 166,156		\$ 166,156									\$ 3,465,684	23.87%
51	A&G Salaries - LU Head Office	920.1	0		0									Allocated costs	0.00%
52	Office Supplies and Expenses	921.0	0		0									0	0.00%
53	Administrative Expenses Transferred	922.0	(523,546)		0		(523,546)							Allocated costs	0.00%
54	LU Labor Allocations Capitalized	922.1	0		0									0	0.00%
55	Outside Services Employed	923.0	0		0									0	0.00%
56	Allocated LU Head Office	923.1	0		0									0	0.00%
57	Property Insurance	924	0		0									0	0.00%
58	Injuries and Damages	925	0		0									0	0.00%
59	Employee Pensions and Benefits	926	804,009		0		804,009							0	0.00%
60	Regulatory Commission Expenses	928	59,068		0								59,068	0	0.00%
61	Miscellaneous General Expenses	930	0		0									0	0.00%
62	Rents	931	52,806		0								52,806	0	0.00%
63	Maintenance of General Plant	932	0		0									0	0.00%
64	Total Administrative & General		558,494	0	166,156	0	280,464	0	0	0	0	0	111,875	3,465,684	23.87%
65	Total Operation and Maintenance Expenses		\$ 1,109,203	\$ -	\$ 696,058	\$ -	\$ 280,464	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 132,682	\$ 14,518,377	100.00%
66															
67															
68															
69															

Liberty Utilities (EnergyNorth) Summary of Adjustments Test Year Ended December 31, 2016			Adjustment 1	Adjustment 2	Adjustment 3	Adjustment 4	Adjustment 5	Adjustment 6	Adjustment 7	Adjustment 8	Adjustment 9	Adjustment 10	
			598,769	(377,713)	696,058	76,430	280,464	644,820	3,881,711	581,870	(1,660,930)	(2,331,623)	132,682
Line	Account	Account Number	Total	Revenue Adjustments	Salary and Wage Expense	Payroll Tax Expense	Pension and Benefits Expense	Depreciation Expense	Amortization Expense	Property Tax	Income Tax Expense - Historical Test Year	Income Tax Expense - Pro Forma Test Year at Current Rates	Other Adjustments
70	DEPRECIATION AND AMORTIZATION EXPENSE												
71	Depreciation Expense	403.0	\$ 644,820					\$ 644,820					
72	Amortization - Intangibles	405.0	255,370						255,370				
73	Regulatory Debits	407.3	(227,873)						(227,873)				
74	Regulatory Credits - Amortization of Regulatory Assets	407.4	3,854,214						3,854,214				
75	Total Depreciation and Amortization Expense		\$ 4,526,531	\$ -	\$ -	\$ -	\$ -	\$ 644,820	\$ 3,881,711	\$ -	\$ -	\$ -	\$ -
76													
77	TAXES OTHER THAN INCOME TAXES												
78	Taxes other than Income Taxes - Payroll Taxes	408	\$ 76,430			\$ 76,430							
79	Taxes other than Income Taxes - Property Taxes	408	581,870							581,870			
80	Total Taxes other than Income Taxes		\$ 658,300	\$ -	\$ -	\$ 76,430	\$ -	\$ -	\$ -	\$ 581,870	\$ -	\$ -	\$ -
81													
82	FEDERAL / STATE INCOME TAXES												
83	Income Tax Expense		\$ (3,992,553)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (1,660,930)	\$ (2,331,623)	\$ -
84													
85	RATEMAKING ADJUSTMENT PER DG 11-040		\$ (1,325,000)										
86													
87	TOTAL EXPENSES		\$ 976,482	\$ -	\$ 696,058	\$ 76,430	\$ 280,464	\$ 644,820	\$ 3,881,711	\$ 581,870	\$ (1,660,930)	\$ (2,331,623)	\$ 132,682
88													
89	REVENUES												
90	Operating Revenue		\$ 359,364	\$ 359,364									
91	Other Revenue		18,348	18,348									
92	Total Revenue		\$ 377,713	\$ 377,713	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
93													
94	UTILITY NET INCOME		\$ (598,769)	\$ 377,713	\$ (696,058)	\$ (76,430)	\$ (280,464)	\$ (644,820)	\$ (3,881,711)	\$ (581,870)	\$ 1,660,930	\$ 2,331,623	\$ (132,682)

**Liberty Utilities (EnergyNorth)**  
**Adjustments to Test Year**  
**Adjustment 1**  
**Revenue Adjustments**

Line	Description	Current Amounts (12/31/2016 Test Year)	Source/Notes
1	<b>Operating Revenue</b>	\$ 68,990,067	Trial Balance
2			
3	<u>Adjustments to Operating Revenue</u>		
4	Adjustment to Remove Actual Test Year Unbilled Revenue	\$ (2,269,372)	Input (Table 1 of Simek-Therrien Testimony)
5	Non-recurring Test Year Adjustments to Revenue	15,968	Input (Table 1 of Simek-Therrien Testimony)
6	Adjustment for Normal Unbilled Revenue	121,530	Input (Table 1 of Simek-Therrien Testimony)
7	Weather Normalization Adjustment	1,987,559	Input (Table 1 of Simek-Therrien Testimony)
8	Annualization Adjustment (CIBS)	98,531	Input (Table 1 of Simek-Therrien Testimony)
9	Removal of 2016 Concord Steam Revenue	(281,849)	Input (Table 2 of Simek-Therrien Testimony)
10	Anticipated new Concord Steam Annual Revenue	660,735	Input (Table 2 of Simek-Therrien Testimony)
11	iNATGAS Minimum Annual Transportation Quantity Adjustment	18,300	iNATGAS @MinTQ
12	Annualize Special Contract for October 1 Adjustment	7,963	Annualize special contract for GDP/IDP adjustment made October 1
13	Pro Forma Operating Revenue	\$ 69,349,431	
14			
15	<b>Total Adjustment to Operating Revenues</b>	<u>\$ 359,364</u>	
16			
17	<b>Other Revenue</b>		
18	Miscellaneous Service Revenue	\$ 847,735	Trial Balance
19	Rental Income	3,200	Trial Balance
20	Total Other Revenue	\$ 850,935	
21			
22	<u>Adjustments to Other Revenue</u>		
23	Annualize Rental Income	\$ 6,400	Line 19 x 2 to add the annualization of the 4 months of iNat Gas Rental Income
24	Test Year Miscellaneous Service Revenue	11,948	Correcting Entries to Test Year Miscellaneous Service Revenue
25	Total	\$ 18,348	
26			
27	Pro Forma Other Revenue	\$ 869,284	
28			
29	<b>Total Adjustment to Other Revenues</b>	<u>\$ 18,348</u>	

**Liberty Utilities (EnergyNorth)**  
**Adjustments to Test Year**  
**Adjustment 2**  
**Salary and Wage Expense**

Line	Department	Empl- oyees	Regular Salary	Incentive	Overtime and Premiums	Total Salary	To EN	To EN OpEx	% To EN	% To EN OpEx
1	Sales & Marketing	11	\$ 825,658	\$ 5,593	\$ 2,513	\$ 833,764	\$ 631,395	\$ 132,702	75.7%	21.0%
2	Operations-Engineering	19	1,846,130	101,310	49,618	1,997,057	995,908	260,490	49.9%	26.2%
3	Human Resources	4	436,387	22,771	1,861	461,020	276,547	225,698	60.0%	81.6%
4	Customer Care	4	356,351	1,958	6,205	364,515	255,160	239,200	70.0%	93.7%
5	Environmental, Health & Safety	4	492,826	55,549	65,469	613,844	429,691	303,913	70.0%	70.7%
6	Operations-Gas-Production	13	1,070,395	21,429	266,361	1,358,185	1,358,185	1,230,259	100.0%	90.6%
7	Business Development	2	292,310	53,859	0	346,169	140,938	14,094	40.7%	10.0%
8	Operations-Compliance & Emergency Planning	1	140,196	21,029	0	161,225	112,858	95,929	70.0%	85.0%
9	Operations-Gas-Construction	4	355,605	2,361	61,431	419,396	345,291	90,325	82.3%	26.2%
10	Procurement	3	290,320	22,159	435	312,914	180,038	60,093	57.5%	33.4%
11	Operations-Production/Dispatch/Control	1	158,430	39,608	0	198,038	138,627	138,627	70.0%	100.0%
12	Operations-Gas-CMS	46	3,266,010	80,973	667,490	4,014,473	4,014,473	2,891,395	100.0%	72.0%
13	Operations-Gas	1	158,563	39,641	0	198,203	198,203	73,335	100.0%	37.0%
14	Operations-Gas-Field Operations	48	3,815,604	72,045	1,301,649	5,189,298	5,189,298	3,543,625	100.0%	68.3%
15	Executive	7	1,166,138	234,565	62,861	1,463,565	82,885	41,442	5.7%	50.0%
16	Operations-Gas Control	5	426,759	0	9,580	436,339	436,339	331,618	100.0%	76.0%
17	Billing/Collections	25	1,164,404	51,213	160,831	1,376,449	963,514	963,514	70.0%	100.0%
18	Customer Service	30	1,288,882	45,433	122,193	1,456,508	994,178	994,178	68.3%	100.0%
19	Operations-Dispatch	13	864,806	8,858	69,883	943,547	612,326	612,326	64.9%	100.0%
20	Regulatory	5	564,773	53,593	0	618,366	397,205	297,904	64.2%	75.0%
21	Meter Data Services	3	237,988	3,069	27,124	268,180	187,726	187,726	70.0%	100.0%
22	Energy Procurement	6	494,236	0	0	494,236	465,736	465,736	94.2%	100.0%
23	General Accounting	8	637,811	8,691	0	646,501	436,105	301,657	67.5%	69.2%
24	Legal	2	208,662	14,350	60,900	283,912	198,738	178,865	70.0%	90.0%
25	Finance	6	544,416	2,350	6,675	553,441	347,760	202,536	62.8%	58.2%
26	Operations	1	214,200	0	60,900	275,100	192,570	96,285	70.0%	50.0%
27	Vacancies	33	2,237,005	0	0	2,237,005	1,697,372	1,240,964	75.9%	73.1%
28										
29	<b>Totals</b>	<b>305</b>	<b>\$ 23,554,863</b>	<b>\$ 962,406</b>	<b>\$ 3,003,981</b>	<b>\$ 27,521,250</b>	<b>\$ 21,279,065</b>	<b>\$ 15,214,435</b>	<b>77.3%</b>	<b>71.5%</b>
30										
31									Capitalized	28.5%
32	Pro Forma Expense									
33	Test Year 12/31/2016							\$ 14,518,377		
34	<b>Adjustment to Rate Year Expense</b>							<b>\$ 696,058</b>		
35	Change %								4.8%	
36										
37	This adjustment changes salary, incentive, and overtime expenses based on the 2017 budget.									



**Liberty Utilities (EnergyNorth)**  
**Adjustments to Test Year**  
**Adjustment 3**  
**Payroll Tax Expense**

Line	Department	Reference	Expense (\$)
1	Unadjusted Test Year Labor Expense	RR-EN-2-1	\$ 14,518,377
2	Unadjusted Test Year Payroll Tax Expense	RR-EN-2-1	\$ 1,594,187
3	Payroll Tax Rate (%)		10.98%
4			
5	<b>Department</b>	<b>Total Salary</b>	<b>Payroll Tax</b>
6	Sales & Marketing	\$ 833,764	\$ 91,551
7	Operations-Engineering	1,997,057	219,286
8	Human Resources	461,020	50,622
9	Customer Care	364,515	40,025
10	Environmental, Health & Safety	613,844	67,403
11	Operations-Gas-Production	1,358,185	149,135
12	Business Development	346,169	38,011
13	Operations-Compliance & Emergency Planning	161,225	17,703
14	Operations-Gas-Construction	419,396	46,052
15	Procurement	312,914	34,359
16	Operations-Production/Dispatch/Control	198,038	21,746
17	Operations-Gas-CMS	4,014,473	440,808
18	Operations-Gas	198,203	21,764
19	Operations-Gas-Field Operations	5,189,298	569,810
20	Executive	1,463,565	160,706
21	Operations-Gas Control	436,339	47,912
22	Billing/Collections	1,376,449	151,141
23	Customer Service	1,456,508	159,932
24	Operations-Dispatch	943,547	103,606
25	Regulatory	618,366	67,900
26	Meter Data Services	268,180	29,447
27	Energy Procurement	494,236	54,269
28	General Accounting	646,501	70,989
29	Legal	283,912	31,175
30	Finance	553,441	60,771
31	Operations	275,100	30,207
32	Vacancies	2,237,005	245,634
33	<b>Totals</b>	<b>\$ 27,521,250</b>	<b>\$ 3,021,965</b>
34			
35	Test Year 12/31/2016		\$ 1,594,187
36	<b>Adjustment to Rate Year Expense</b>		<b>\$ 76,430</b>
37	Change %		4.8%
38			
39	This adjustment applies the 2016 payroll tax rate to 2017 salary information.		

**Liberty Utilities (EnergyNorth)**  
**Adjustments to Test Year**  
**Adjustment 4**  
**Pension and Benefits Expense**

Line	Department	Total Salary	Health Care / Other	401K @ 4% Matching	Total Health Care / 401K	To EnergyNorth	To EN OpEx	
1	Sales & Marketing	\$ 833,764	\$ 146,104	\$ 33,351	\$ 179,454	\$ 124,711	\$ 26,086	
2	Operations-Engineering	1,997,057	305,898	79,882	385,781	182,500	50,779	
3	Human Resources	461,020	72,082	18,441	90,523	59,874	48,697	
4	Customer Care	364,515	65,851	14,581	80,432	56,302	51,546	
5	Environmental, Health & Safety	613,844	62,019	24,554	86,573	60,601	41,260	
6	Operations-Gas-Production	1,358,185	232,815	54,327	287,142	287,142	259,549	
7	Business Development	346,169	7,913	13,847	21,760	9,630	963	
8	Operations-Compliance & Emergency Planning	161,225	24,630	6,449	31,079	21,756	18,492	
9	Operations-Gas-Construction	419,396	60,140	16,776	76,916	64,339	15,191	
10	Procurement	312,914	54,644	12,517	67,161	34,159	11,451	
11	Operations-Production/Dispatch/Control	198,038	18,298	7,922	26,219	18,353	18,353	
12	Operations-Gas-CMS	4,014,473	931,021	160,579	1,091,600	1,091,600	800,198	
13	Operations-Gas	198,203	18,261	7,928	26,189	26,189	9,690	
14	Operations-Gas-Field Operations	5,189,298	874,627	207,572	1,082,199	1,082,199	732,909	
15	Executive	1,463,565	78,041	58,543	136,584	5,936	2,968	
16	Operations-Gas Control	436,339	71,556	17,454	89,009	89,009	67,647	
17	Billing/Collections	1,376,449	332,063	55,058	387,121	269,844	269,844	
18	Customer Service	1,456,508	421,596	58,260	479,856	328,970	328,970	
19	Operations-Dispatch	943,547	162,536	37,742	200,278	132,070	132,070	
20	Regulatory	618,366	110,942	24,735	135,677	89,833	67,375	
21	Meter Data Services	268,180	51,097	10,727	61,824	43,277	43,277	
22	Energy Procurement	494,236	136,721	19,769	156,490	148,130	148,130	
23	General Accounting	646,501	138,933	25,860	164,793	110,415	83,995	
24	Legal	283,912	39,789	11,356	51,146	35,802	32,222	
25	Finance	553,441	52,648	22,138	74,786	36,680	18,312	
26	Operations	275,100	22,212	11,004	33,216	23,251	11,625	
27	Vacancies	2,237,005	33,528	89,480	123,008	93,888	69,265	
28	Totals	\$ 27,521,250	\$ 4,525,967	\$ 1,100,850	\$ 5,626,817	\$ 4,526,462	\$ 3,360,866	
29		Check		1,100,850				
30	Test Year ended 12/31/2016 Benefits Expense				RR-3-04WP	\$ 3,973,203		
31	Adjustment to Benefits Expense				Line 28 - Line 30	\$ 553,259		
32								
33	Historical Test Year Pension & OPEB Expense				RR-3-04WP	\$ 2,310,275		
34	Adjustment to Pension & OPEB Expense				RR-3-04WP	\$ (771,965)		
35								
36	Historical Test Year Other Employee Benefits Expense				RR-3-04WP	\$ 54,579		
37	Adjustment to Other Employee Benefits Expense					\$ -		
38								
39	Adjustment: Pension and OPEB Amortization Concludes							
40	Monthly Pension Amortization					\$ 60,609		
41	Monthly OPEB Amortization					25,472		
42	Total Expense - Monthly					86,080		
43	Total Expense - Annually					1,032,964		
44	Adjustment					\$ (1,032,964)		
45								
46	Adjustment: Account 1930-1826 - FAS 158 - Pension							
47	Historical Test Year End of Year Balance					\$ 21,625,753		
48	Proposed Amortization Period (Years)					10.52		
49	Yearly Amortization					2,055,680		
50	Adjustment					\$ 2,055,680		
51								
52	Adjustment - Including Capitalized Portion - To Account 926					\$ 804,009		
53								
54	Total					1,836,974		
55	Capitalization Rate					28.50%		
56								
57	Adjustment - Capitalized Portion - To Account 922					\$ (523,546)		
58								
59								
60	Adjustment to Rate Year Expense					\$ 280,464		
61								
62	This adjustment reflects 2017 health care, 401K matching, and Pension/OPEB expense amounts based on the 2017 budget.							

Liberty Utilities (EnergyNorth)  
Adjustments to Test Year  
Adjustment 5  
Depreciation Expense

Line	Account	Account Number	Depreciation Rates	Plant in Service					Balance (less CIBS) 12/31/2016	Pro Forma Depreciation Expense	Accumulated Reserve		
				Balance 12/31/2015	Additions	Account 106	Balance 12/31/2016	CIBS spending			Accumulated Reserve as of 12/31/2016	Accounts 1084 and 2420 by FERC Plant Account	Adjusted Accumulated Reserve
1													
2	Miscellaneous Intangible Plant	303	16.13%	\$ 12,134,139	\$ 2,607,253	\$ 4,497	\$ 14,745,889	\$ -	\$ 14,745,889	\$ 2,378,512	\$ 4,975,703	\$ -	\$ 4,975,703
3	Subtotal - INTANGIBLE PLANT			\$ 12,134,139	\$ 2,607,253	\$ 4,497	\$ 14,745,889	\$ -	\$ 14,745,889	\$ 2,378,512	\$ 4,975,703	\$ -	\$ 4,975,703
4													
5	Land & Land Rights	304		\$ 394,087	\$ -	\$ -	\$ 394,087		\$ 394,087	\$ -	\$ -	\$ -	\$ -
6	Structures and Improvements	305	2.86%	1,975,163	-	-	1,975,163		1,975,163	56,490	1,374,447		1,374,447
7	Liquefied Petroleum Gas Equipment	311	2.86%	258,481	-	-	258,481		258,481	7,393	63,766		63,766
8	Other Equipment	320	2.86%	10,858,157	30,356	445,002	11,333,515		11,333,515	324,139	8,130,128		8,130,128
9	Purification Equipment	361	2.86%	57,345	-	-	57,345		57,345	1,640	9,179		9,179
10	Other Equipment	363	2.86%	7,646	-	-	7,646		7,646	219	1,560		1,560
11	Subtotal - PRODUCTION PLANT			\$ 13,550,879	\$ 30,356	\$ 445,002	\$ 14,026,237	\$ -	\$ 14,026,237	\$ 389,879	\$ 9,579,080	\$ -	\$ 9,579,080
12													
13	Land & Land Rights	365		\$ 197,931	\$ -	\$ -	\$ 197,931		\$ 197,931	\$ -	\$ -	\$ -	\$ -
14	Structures and Improvements	366	2.86%	623,659	-	-	623,659		623,659	17,837	455,849		455,849
15	Mains	367	1.92%	208,516,455	8,060,614	18,102,066	234,679,135	6,033,667	228,645,468	4,389,993	58,932,904	4,745,773	54,187,131
16	Measuring and Regulating Station Equipment	369	2.86%	4,909,092	115	-	4,909,208		4,909,208	140,403	1,916,351	26,735	1,889,616
17	Services	380	3.55%	134,933,509	8,585,358	3,203,273	146,722,140		146,722,140	5,208,636	68,264,895	1,550,278	66,714,617
18	Meters	381.0	3.13%	14,628,345	-	-	14,628,345		14,628,345	457,867	7,852,295	13,932	7,838,363
19	Meters - Instrument	381.1	3.13%	188,398	-	-	188,398		188,398	5,897	31,378		31,378
20	Meters - ERTS	381.2	6.67%	5,647,769	-	-	5,647,769		5,647,769	376,706	2,073,245		2,073,245
21	Meter Installations	382	3.13%	11,066,005	3,294,000	-	14,360,005		14,360,005	449,468	2,516,155	5,801	2,510,354
22	Other Equipment	387	5.26%	877,578	30,436	-	908,013		908,013	47,761	339,112		339,112
23	Subtotal - DISTRIBUTION PLANT			\$ 381,588,740	\$ 19,970,523	\$ 21,305,339	\$ 422,864,603	\$ 6,033,667	\$ 416,830,936	\$ 11,094,569	\$ 142,382,185	\$ 6,342,520	\$ 136,039,665
24													
25	Land & Land Rights	389		\$ 16,806	\$ -	\$ -	\$ 16,806		\$ 16,806	\$ -	\$ -	\$ -	\$ -
26	Structures and Improvements	390	2.86%	12,663,867	4,163,183	5,243,651	22,070,702		22,070,702	631,222	3,319,951	5,900	3,314,051
27	Office Furniture and Equipment	391.0	5.28%	284,914	653	-	285,566		285,566	15,078	26,275		26,275
28	Office Furniture and Equipment - Computers	391.1	10.00%	1,990,778	(149,867)	-	1,840,911		1,840,911	184,091	297,543		297,543
29	Office Furniture and Equipment - Laptop Computers	391.2	20.00%	656,386	23,530	-	679,916		679,916	135,983	81,882		81,882
30	Transportation Equipment - Auto	392.0	20.00%	1,003,814	510,648	1,051,678	2,566,139		2,566,139	513,228	623,499		623,499
31	Transportation Equipment - Truck	392.1	20.00%	45,117	(45,117)	-	-		-	-	-		-
32	Stores Equipment	393	3.33%	99,421	-	-	99,421		99,421	3,311	28,007		28,007
33	Tools, Shop, and Garage Equipment	394	5.26%	939,599	107,563	-	1,047,162		1,047,162	55,081	540,550		540,550
34	Power Operated Equipment	396	20.00%	584,513	(92,570)	-	491,943		491,943	98,389	430,651		430,651
35	Communications Equipment	397	10.00%	377,372	18,440	48,153	443,965		443,965	44,396	212,912		212,912
36	Miscellaneous Equipment	398	6.67%	228,803	119,499	-	348,302		348,302	23,232	151,520		151,520
37	Subtotal - GENERAL PLANT			\$ 18,891,390	\$ 4,655,962	\$ 6,343,483	\$ 29,890,834	\$ -	\$ 29,890,834	\$ 1,704,010	\$ 5,712,789	\$ 5,900	\$ 5,706,889
38	TOTAL			\$ 426,165,148	\$ 27,264,094	\$ 28,098,321	\$ 481,527,563	\$ 6,033,667	\$ 475,493,896	\$ 15,566,971	\$ 162,649,758	\$ 6,348,420	\$ 156,301,338
39													
40	OPI-STRUCTURES-RETAINED	121									133,284		133,284
41													
42	GRAND TOTAL			\$ 426,165,148	\$ 27,264,094	\$ 28,098,321	\$ 481,527,563	\$ 6,033,667	\$ 475,493,896	\$ 15,566,971	\$ 162,783,041	\$ 6,348,420	\$ 156,434,621
43													
44	Less: Amortization expense included above							To RR-EN-3-06	\$ (2,378,512)				
45	Amortization of Reserve Surplus							From Order 25,202	\$ (933,588)				
46	Pro Forma Depreciation Expense								\$ 12,254,871				
47	Test Year Actual Depreciation Expense								\$ 11,610,051				
48	Adjustment to Depreciation Expense								\$ 644,820				
49													
50	This adjustment annualizes the depreciation expense for items added to plant during the historical test year, and removes CIBS spending from plant.												

**Liberty Utilities (EnergyNorth)**  
**Adjustments to Test Year**  
**Adjustment 6**  
**Amortization Expense**

Line	Description	Reference	Amortization Expense
1	Adjustment 1: Account 1929-4073 - Amortization of Costs to Achieve		
2	Pro Forma Annual Amortization Expense Pursuant to Order 25,797	Order 25,797 at 7	\$ 181,327
3	Amount in Historical Test Year	RR-EN-2-1	409,200
4	Adjustment		\$ (227,873)
5			
6	<b>Adjustment to Test Year Account 407.3</b>		<b>\$ (227,873)</b>
7			
8	Adjustment 2: Account 1930-1824 - R/A Deferred Tilton Temp Compressors		
9	Historical Test Year End of Year Balance	Trial Balances	\$ 124,124
10	Proposed Amortization Period (Years)		3
11	Adjustment		\$ 41,375
12			
13	Adjustment 3: Amortization of Concord Steam settlement		\$ 497,247
14			
15	Adjustment 4: Amortizing the depreciation reserve imbalance		
16	Depreciation, per Books at 12/31/2016	RR-EN-3-05	\$ 156,434,621
17	Depreciation, Theoretical Reserve with Net Salvage		
18	Theoretical Reserve with Net Salvage, per Depreciation Study	Depreciation Study, Sch. A	\$ 165,193,965
19	Accumulated Reserve on Accounts 392, 396, and 1211	Depreciation Study, Sch. A	1,187,434
20	Total Depreciation, Theoretical Reserve with Net Salvage		\$ 166,381,399
21	Difference		\$ 9,946,778
22	Proposed Amortization Period (Years)		3
23	Adjustment		\$ 3,315,593
24			
25	<b>Adjustment to Test Year Account 407.4</b>		<b>\$ 3,854,214</b>
26			
27	Adjustment 4: Account 8640-4050 - Amortization of Intangibles		
28	Pro Forma Annual Amortization Expense	RR-EN-3-05	\$ 2,378,512
29	Historical Test Year Expense	RR-EN-2-1	2,123,142
30	Adjustment		\$ 255,370
31			
32	<b>Adjustment to Test Year Account 405.0</b>		<b>\$ 255,370</b>
33			
34	<b>Total adjustment</b>		<b>\$ 3,881,711</b>
35			
36	This total adjustment reflects the commencement of amortization of 3 regulatory assets, the conclusion of amortization		
37	of another, the annualization of the amortization expense related to intangible assets, and Order 25,797.		

**Liberty Utilities (EnergyNorth)**  
**Adjustments to Test Year**  
**Adjustment 7**  
**Property Tax**

Line	Municipality	Parcel	Tax Based on Most Recent Invoice	
1	Allentown	0400-001	\$	58,994
2	Amherst	002-033-008		89,940
3	Amherst	002-033-007		7,634
4	Auburn	000001/000001/000UTL		1,378
5	Bedford	1-1-A		67,320
6	Belmont	999-000-000-001		41,189
7	Berlin	000404-000051.0000L1		22,281
8	Boscawen	000099-000002-000000		14,860
9	Bow	0-9-99		120,278
10	Canterbury	000000-000002-000000		5,182
11	Concord	109/1/3		2,067
12	Concord	109/1/4		5
13	Concord	109/2/4		19
14	Concord	NO00/1/13		5,384
15	Concord	P000/1/6		914
16	Concord	P000/1/3		87,925
17	Concord	NO00/1/2		947,781
18	Concord	77/2/23		268
19	Concord	26/1/6		7,297
20	Concord	70/1/1		305
21	Concord	109/2/1		1,423
22	Concord	109/2/3		4,057
23	Concord	109/1/2		28,516
24	Concord	494Z/3		909
25	Concord	202Z/21		798
26	Derry	35-102		57,740
27	Franklin	000-001-00		55,968
28	Gilford	210-002.000		110
29	Gilford	210-003.000		102
30	Gilford	210-004.000		100
31	Gilford	210-005.000		103
32	Gilford	200-003.000		6,791
33	Goffstown	42		48,220
34	Goffstown	99-4-1		12,373
35	Hollis	056-027-001		5,316
36	Hooksett	0GAS-0001		287,971
37	Hooksett	0036-0041-0001		7,430
38	Hudson	100-006-000		427,742
39	Hudson	167-030-000		1,635
40	Hudson	167-029-000		1,560

**Liberty Utilities (EnergyNorth)**  
**Adjustments to Test Year**  
**Adjustment 7**  
**Property Tax**

Line	Municipality	Parcel	Tax Based on Most Recent Invoice
41	Laconia	425/44/83/1	220,852
42	Litchfield	000UTL-000UTL-000001	19,893
43	Londonderry	81-7-0	408,313
44	Londonderry	81-10-0	101,129
45	Londonderry	7-34-1	30,385
46	Loudon	000070-000004-000000	50,509
47	Manchester	0999A-0075	1,764,743
48	Manchester	0752-0001	45,378
49	Manchester	0508-0002A	140
50	Manchester	0394-0004	604
51	Manchester	0471-0008	1,031
52	Merrimack	006D-3-000000-000000	339,233
53	Milford	036-183-000-000	1,746
54	Milford	055-007-000-000	105,641
55	Nashua	0039-00026	3,210
56	Nashua	0038-00063	243
57	Nashua	0038-00020	390
58	Nashua	0041-00011	1,310,791
59	Nashua	0000-00005	50,140
60	Northfield	000999-000001-000001	76,363
61	Pembroke	999-11	149,528
62	Pembroke	632-18-16	-
63	Sanbornton	00.003.000.000	1,013
64	Tilton	000R23-000014-000000	24,331
65	Tilton	000R23-000013-000000	202,713
66	State of NH	Utility Property Tax RSA 83-F	1,830,532
67	Total		\$ 9,168,736
68			
69	<b>Remove CIBS-related property tax</b>		
70	CIBS related spending		\$ 6,033,667
71	Property tax rate		2.00%
72	Amount		\$ 120,533
73			
74	Total with variance and CIBS		\$ 9,048,203
75			
76	Property Tax expense, Test Year		\$ 8,466,333
77	<b>Increase (Decrease) in Property tax expense</b>		<b>\$ 581,870</b>

This adjustment reflects the most recently available property tax expense information, and removes estimated CIBS-related property tax.

**Liberty Utilities (EnergyNorth)**  
**Adjustments to Test Year**  
**Adjustment 8**  
**Income Tax Expense - Historical Test Year**

Line	Description	Reference	Amount
1	<b>Test Year Actual to Statutory Rates</b>		
2	Normalized Revenue	RR-EN-2, line 4	\$ 69,841,002
3	Normalized Expenses, Excluding Income Tax	RR-EN-2, lines 7-13	52,391,390
4	Income (Loss) Before Taxes		\$ 17,449,612
5			
6	Rate Base	RR-1	\$ 249,876,373
7	Debt Portion	RR-4	50.00%
8	Debt Component		124,938,186
9	Debt Cost	RR-4	4.425%
10	Synchronized Interest Expense		5,528,515
11	Pre-Tax Income		\$ 11,921,097
12			
13	Combined Income Tax Rate	Line 20	39.41%
14	Income Tax Expense (Credit) at Statutory Rates		\$ 4,698,104
15	Income Tax Expense (Credit) Recorded		6,359,035
16	<b>Adjustment to Normalize Historical Test Year</b>		<b>\$ (1,660,930)</b>
17			
18	Federal Statutory Rate		34.00%
19	New Hampshire Business Tax Rate		8.20%
20	Combined Income Tax Rate		39.41%
21			
22	This adjustment normalizes income tax expense in the Test Year before adjustments to reflect statutory rates.		

**Liberty Utilities (EnergyNorth)**  
**Adjustments to Test Year**  
**Adjustment 9**  
**Income Tax Expense - Pro Forma Test Year at Current Rates**

Line	Description	Reference	Adjustment Amount	Items with Tax Effects
1	Adjustments to increase (decrease) taxable income:			() = Lower income
2	Revenue Adjustments	RR-EN-3-01	\$ 377,713	\$ 377,713
3	Salary and Wage Expense	RR-EN-3-02	(696,058)	(696,058)
4	Payroll Tax Expense	RR-EN-3-03	(76,430)	(76,430)
5	Pension and Benefits Expense	RR-EN-3-04	(280,464)	(280,464)
6	Depreciation Expense	RR-EN-3-05	(644,820)	(644,820)
7	Amortization Expense	RR-EN-3-06	(3,881,711)	(3,881,711)
8	Property Tax	RR-EN-3-07	(581,870)	(581,870)
9	Income Tax Expense - Historical Test Year	RR-EN-3-08	1,660,930	
10	Income Tax Expense - Pro Forma Test Year at Current Rates	RR-EN-3-09	2,331,623	
11	Other Adjustments	RR-EN-3-10	(132,682)	(132,682)
12			<u>\$ (1,923,769)</u>	<u>\$ (5,916,322)</u>
13	Tax Rate			39.41%
14	<b>Adjustment to Test Year at Current Rates</b>			<b>\$ (2,331,623)</b>
15				
16	This adjustment reflects income tax expense related to the Company's adjustments, computed at statutory rates.			



**Liberty Utilities (EnergyNorth)**  
**Adjustments to Test Year**  
**Adjustment 10**  
**Other Adjustments**

Line	Description	Monthly	Amount
1			
2	<b>Adjustment for Concord Office Lease</b>		
3	Historical Test Year Expense	\$	-
4	2017 Expense	\$ 6,075	72,900
5	Allocation to EnergyNorth		70%
6	Pro Forma Expense		51,030
7	<b>Adjustment to Account 931</b>	<b>\$</b>	<b>51,030</b>
8			
9	<b>Adjustment for PUC Annual Assessment</b>		
10	PUC Annual Assessment- Future - Quarterly	\$ 168,370	
11	PUC Annual Assessment- Future - Annually	\$	673,480
12			
13	PUC Gas Pipeline Safety Assessment- Future - Quarterly	\$ 4,965	
14	PUC Gas Pipeline Safety Assessment- Future - Annually	\$	19,860
15	Regulatory Expenses- Test Year		(634,272)
16	Account 928	\$	59,068
17			
18	<b>Adjustment to Account 928</b>	<b>\$</b>	<b>59,068</b>
19			
20	<b>Adjustment for Change in Customer Satisfaction Vendor</b>		
21	Previous Customer Satisfaction Survey cost (Annual)	\$	178,026
22	JD Power cost (Annual)		207,750
23	Difference		29,724
24	EnergyNorth Allocation		70%
25			
26	<b>Adjustment to Account 903</b>	<b>\$</b>	<b>20,807</b>
27			
28	<b>Adjustment for Concord Training Center</b>		
29	Test Year Credit to Account 931 for Rental Expense Intercompany Credit (\$146,559 x 8/12)	\$	97,706
30	Annualization of Monthly Rental Expense Credit	\$ 7,994	95,930
31			
32	<b>Adjustment to Account 931</b>	<b>\$</b>	<b>(1,776)</b>

Liberty Utilities (Keene)			Adjustment 1Adjustment 2Adjustment 3Adjustment 4Adjustment 5Adjustment 6Adjustment 7Adjustment 8Adjustment 9Adjustment 10												
Summary of Adjustments - Keene															
Test Year Ended December 31, 2016			\$ 84,302	\$ 111,175	\$ 10,542	\$ (123,522)	\$ 40,043	\$ 116,470	\$ (11,252)	\$ 35,914	\$ (97,708)	\$ (118,396)	\$ 121,035		
Line	Account	Account Number	Total	Salary and Wage	Payroll Tax	Benefits	Depreciation	Amortization	Property Tax	Uncollectible Accounts Expense	Income Tax Expense - Historical Test Year	Income Tax Expense- Pro Forma Test Year at Current Rates	Other Adjustments	Historical Test Year Labor Expense	% Total Labor
1	OPERATING AND MAINTENANCE EXPENSES														
2	O&M- Gas Production														
3	Gas Mixing Expense	733	\$ (3,081)	\$ (3,081)										\$ (9,365)	-2.77%
4	Miscellaneous Production Expenses	735	0	0										0	0.00%
5	Natural Gas City Gate Purchases	804	0	0										0	0.00%
6	Other Gas Purchases	805	0	0										0	0.00%
7	Gas Withdrawn from Storage	808	0	0										0	0.00%
8			<u>\$ (3,081)</u>	<u>\$ (3,081)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (9,365)</u>	<u>-2.77%</u>
9	O&M- Distribution														
10	Mains Services Expenses	874	\$ -	\$ -										\$ -	0.00%
11	Customer Installations Expenses	879	35,082	5,082									30,000	15,447	4.57%
12	Other Expenses	880	996	996										3,028	0.90%
13	Maintenance of Structures and Improvements	886	2,125	2,125										6,460	1.91%
14	Maintenance of Mains	887	(863)	(863)										(2,624)	-0.78%
15	Maintenance of Services	892	4,433	4,433										13,476	3.99%
16	Maintenance of Meters and House Regulators	893	14,800	14,800										44,989	13.31%
17	Maintenance of Other Equipment	894	395	395										1,201	0.36%
18			<u>\$ 56,968</u>	<u>\$ 26,968</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 30,000</u>	<u>\$ 81,977</u>	<u>24.26%</u>
19	Customer Accounting														
20	Meter Reading Expenses	902	\$ 6,544	\$ 6,544										\$ 19,891	5.89%
21	Customer Records and Collection Expenses	903	(1,146)	(1,146)										(3,482)	-1.03%
22	Uncollectible Accounts	904	35,914	0						35,914				0	0.00%
23	Total Customer Accounting		<u>\$ 41,312</u>	<u>\$ 5,398</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 35,914</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 16,409</u>	<u>4.86%</u>
24	ADMINISTRATIVE AND GENERAL														
26	A&G Salaries	920	\$ 81,890	\$ 81,890										\$ 248,926	73.66%
27	Office Supplies and Expenses	921.0	0	0										0	0.00%
28	Office Supplies and Expenses - Utilities	921.2	0	0										0	0.00%
29	Outside Services Employed	923	0	0										0	0.00%
30	Property Insurance	924	0	0										0	0.00%
31	Injuries and Damages	925	0	0										0	0.00%
32	Employee Pensions and Benefits	926	(123,522)	0		(123,522)								0	0.00%
33	Regulatory Commission Expenses	928	264	0									264	0	0.00%
34	Miscellaneous General Expenses	930	0	0										0	0.00%
35	Rents	931	0	0										0	0.00%
36	Total Administrative & General		<u>\$ (41,367)</u>	<u>\$ 81,890</u>	<u>\$ -</u>	<u>\$ (123,522)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 264</u>	<u>\$ 248,926</u>	<u>73.7%</u>
37	Total Operating Expenses		<u>\$ 53,832</u>	<u>\$ 111,175</u>	<u>\$ -</u>	<u>\$ (123,522)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 35,914</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 30,264</u>	<u>\$ 337,947</u>	<u>100.0%</u>
38	DEPRECIATION AND AMORTIZATION EXPENSE														
40	Depreciation Expense	403	\$ 156,513				\$ 40,043	\$ 116,470							
41	Total Depreciation Expense		<u>\$ 156,513</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 40,043</u>	<u>\$ 116,470</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
42	TAXES OTHER THAN INCOME TAXES														
44	Taxes other than Income Taxes - Payroll Taxes	408	\$ 10,542		\$ 10,542										
45	Taxes other than Income Taxes - Property Taxes	408	\$ (11,252)						\$ (11,252)						
46	Subtotal - Taxes other than Income Taxes		<u>\$ (711)</u>	<u>\$ -</u>	<u>\$ 10,542</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (11,252)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
47	FEDERAL / STATE INCOME TAXES														
49	Income Tax Expense	410	\$ (216,103)								\$ (97,708)	\$ (118,396)			
50	Subtotal - Income Tax		<u>\$ (216,103)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (97,708)</u>	<u>\$ (118,396)</u>	<u>\$ -</u>		
51	Total Expenses		<u>\$ (6,469)</u>	<u>\$ 111,175</u>	<u>\$ 10,542</u>	<u>\$ (123,522)</u>	<u>\$ 40,043</u>	<u>\$ 116,470</u>	<u>\$ (11,252)</u>	<u>\$ 35,914</u>	<u>\$ (97,708)</u>	<u>\$ (118,396)</u>	<u>\$ 30,264</u>	<u>\$ 337,947</u>	
52	Revenue														
53	Revenues from Non-Utility Operations	417	\$ -												
54	Interest Income	419	0												
55	Metered sales to Residential Customers	480	(90,771)										(90,771)		
56	Metered sales to Commercial Customers	481	0												
57	Misc Service Revenues	488	0												
58	Total Revenue		<u>\$ (90,771)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (90,771)</u>	
59	Utility Net Income		<u>\$ (84,302)</u>	<u>\$ (111,175)</u>	<u>\$ (10,542)</u>	<u>\$ 123,522</u>	<u>\$ (40,043)</u>	<u>\$ (116,470)</u>	<u>\$ 11,252</u>	<u>\$ (35,914)</u>	<u>\$ 97,708</u>	<u>\$ 118,396</u>	<u>\$ (121,035)</u>		

**Liberty Utilities (Keene)**  
**Adjustments to Test Year**  
**Adjustment 1**  
**Salary and Wage**

Line	Department	Employees	Regular Salary	Incentive	Overtime and Premiums	Total Salary	To Keene	To Keene OpEx	% To Keene	% To Keene OpEx
1										
2	Operations-Gas-Keene	7	\$ 421,532	\$ 20,053	\$ 62,740	\$ 504,325	\$ 504,325	\$ 449,122	100.0%	89.1%
3									Capitalized	10.9%
4	Test Year 12/31/2016							337,947		
5	<b>Adjustment to Rate Year Expense</b>							<b>\$ 111,175</b>		

**Liberty Utilities (Keene)**  
**Adjustments to Test Year**  
**Adjustment 2**  
**Payroll Tax**

Line	Department	Payroll Taxes	To Keene	To Keene OpEx
1				
2	Unadjusted Test Year Labor Expense	RR-K-2-1	\$ 337,947	
3	Unadjusted Test Year Payroll Tax Expense	RR-K-2-1	\$ 32,044	
4	Payroll Tax Rate (%)		9.48%	
5				
6	Operations-Gas-Keene	\$ 47,820	\$ 47,820	\$ 42,586
7				
8	Test Year 12/31/2016			32,044
9	<b>Adjustment to Rate Year Expense</b>			<b>\$ 10,542</b>

**Liberty Utilities (Keene)**  
**Adjustments to Test Year**  
**Adjustment 3**  
**Benefits**

Line	Department	Health Care / Other	401K @ 4% match	Total Health Care / Other / 401k / Pension / OPEB	To Keene	To Keene OpEx
1						
2	Operations-Gas-Keene	\$ 76,318	\$ 20,173	\$ 96,491	\$ 96,491	\$ 85,514
3						
4	Test Year 12/31/2016					209,036
5	<b>Adjustment to Rate Year Expense</b>					<b>\$ (123,522)</b>

**Liberty Utilities (Keene)**  
**Adjustments to Test Year**  
**Adjustment 4**  
**Depreciation**

Line	Account	Account Number	Depreciation Rate	Plant in Service			Pro Forma	Accumulated reserve as of 12/31/2016
				Balance 12/31/2015	Additions	Balance 12/31/2016	Additions Expense	
1								
2	Gas Mixing Equipment	319	5.00%	\$ 335,421	\$ -	\$ 335,421	\$ 16,771	\$ 188,851
3	Subtotal - PRODUCTION PLANT			\$ 335,421	\$ -	\$ 335,421	\$ 16,771	\$ 188,851
4								
5	Mains-STL	376.0	5.00%	\$ 127,028	\$ -	\$ 127,028	\$ 6,351	\$ 127,028
6	Mains-OTH	376.1	5.00%	626	-	626	31	626
7	Mains-PLST	376.2	3.00%	2,116,636	173,746	2,290,382	68,711	794,847
8	Mains-CI	376.3	5.00%	8,888	-	8,888	444	8,888
9	Mains-Valve >4"	376.4	3.00%	7,061	-	7,061	212	501
10	Measuring & Regulating Station Equipment	378	5.00%	15,020	-	15,020	751	8,641
11	Services	380	5.00%	761,650	28,965	790,615	39,531	199,640
12	Meters	381.0	6.25%	131,691	-	131,691	8,231	122,255
13	Meters - Instrument	381.1	6.25%	82,745		82,745	5,172	55,059
14	Meters - ERTS	381.2	4.00%	102,577		102,577	4,103	39,024
15	Other Equipment	387	5.00%	78,264	-	78,264	3,913	38,686
16	Subtotal - DISTRIBUTION PLANT			\$ 3,432,186	\$ 202,710	\$ 3,634,896	\$ 137,451	\$ 1,395,194
17								
18	Structures and Improvements	390	20.00%	\$ 55,693	\$ -	\$ 55,693	\$ 11,139	\$ 55,693
19	Office Furniture and Equipment	391	10.00%	90,666	14,256	104,923	10,492	104,923
20	Transportation Equipment-Pass/Trailer	392.1	10.00%	183,446	(59,672)	123,773	12,377	123,773
21	Transportation Equipment-Service Vans	392.2	14.29%	60,238		60,238	8,608	60,238
22	Tools, Shop and Garage Equipment	394	10.00%	101,181	-	101,181	10,118	101,181
23	Power Operated Equipment	396	14.29%	235,024	-	235,024	33,585	235,024
24	Communications Equipment	397	33.33%	13,240	20,374	33,614	11,203	27,838
25	Miscellaneous Equipment	398	33.33%	5,264	-	5,264	1,754	5,264
26	Subtotal - GENERAL PLANT			\$ 744,752	\$ (25,042)	\$ 719,710	\$ 99,277	\$ 713,935
27	<b>TOTAL</b>			<b>\$ 4,512,358</b>	<b>\$ 177,669</b>	<b>\$ 4,690,027</b>	<b>\$ 253,499</b>	<b>\$ 2,297,980</b>
28								
29	<b>Pro Forma Depreciation Expense</b>						\$ 253,499	
30	<b>Test Year Actual Depreciation Expense</b>						213,455	
31	<b>Adjustment</b>						\$ 40,043	

**Liberty Utilities (Keene)**  
**Adjustments to Test Year**  
**Adjustment 5**  
**Amortization**

Line	Description	Amount	Proposed Life (years)	Total
1				
2	2016 Keene Production Costs	\$ 148,410	3	\$ 49,470
3	December 2015 Keene Incident	201,000	3	67,000
4				
5	<b>Adjustment</b>			<b>\$ 116,470</b>

**Liberty Utilities (Keene)**  
**Adjustments to Test Year**  
**Adjustment 6**  
**Property Tax**

<b>Line</b>	<b>Location</b>	<b>Parcel</b>	<b>Tax Based on Most Recent Invoice</b>
1	Keene	47020020010	\$ 74,396
2	Keene	702010050000	14,010
3	Keene	50030300000	10,360
4	Keene	47020020000	34,836
5			
6	Pro Forma Property Tax Expense		133,603
7	Historical Test Year Property Tax Expense		144,855
8	Adjustment		<u>\$ (11,252)</u>



**Liberty Utilities (Keene)**  
**Adjustments to Test Year**  
**Adjustment 7**  
**Uncollectible Accounts Expense**

<b>Line</b>	<b>Description</b>	<b>Debit Amount</b>	<b>Credit Amount</b>	<b>Total</b>
1	Uncollectible Accounts 3/31/2016 Adjusting Entry	\$ -	\$ 35,914	\$ (35,914)
2				
3	Remove 3/31/2016 Entry			(35,914)
4				
5	Historical Test Year Uncollectible Accounts Expense			(21,993)
6	Adjustment			<u>\$ 35,914</u>

**Liberty Utilities (Keene)**  
**Adjustments to Test Year**  
**Adjustment 8**  
**Income Tax Expense - Historical Test Year**

<b>Line</b>	<b>Description</b>	<b>Reference</b>	<b>Amount</b>
1	Test Year Actual to Statutory Rates		
2	Normalized Revenue	RR-K-2, line 4	\$ 1,434,580
3	Normalized Expenses, Excluding Income Tax	RR-K-2, lines 7-13	1,616,124
4	Income (Loss) Before Taxes		\$ (181,543)
5			
6	Rate Base	RR-K-5	\$ 2,152,312
7	Debt Portion	RR-4	50%
8	Debt Component		1,076,156
9	Debt Cost	RR-4	4.425%
10	Synchronized Interest Expense		47,620
11	Pre-Tax Income		(229,163)
12			
13	Combined Income Tax Rate	Line 20	39.41%
14	Income tax expense (Credit) at Statutory Rates		\$ (90,318)
15	Income tax expense (Credit) Recorded		7,390
16	<b>Adjustment to Normalize Historical Test Year</b>		<b>\$ (97,708)</b>
17			
18	Federal Statutory Rate		34.00%
19	New Hampshire Business Tax Rate		8.20%
20	Combined Income Tax Rate		39.41%

**Liberty Utilities (Keene)****Adjustments to Test Year****Adjustment 9****Income Tax Expense- Pro Forma Test Year at Current Rates**

Line	Description	Reference	Adjustment Amount	Items with Tax Effects
1	Adjustments to increase (decrease) taxable income:			() = Lower income
2	Salary and Wage	Adjustment 1	\$ (111,175)	\$ (111,175)
3	Payroll Tax	Adjustment 2	(10,542)	(10,542)
4	Benefits	Adjustment 3	123,522	123,522
5	Depreciation	Adjustment 4	(40,043)	(40,043)
6	Amortization	Adjustment 5	(116,470)	(116,470)
7	Property Tax	Adjustment 6	11,252	11,252
8	Uncollectible Accounts Expense	Adjustment 7	(35,914)	(35,914)
9	Income Tax Expense - Historical Test Year	Adjustment 8	97,708	
10	Income Tax Expense- Pro Forma Test Year at Current Rates	Adjustment 9	118,396	
11	Other Adjustments	Adjustment 10	(121,035)	(121,035)
12			<u>\$ (84,302)</u>	<u>\$ (300,405)</u>
13	Tax Rate			39.41%
14	<b>Adjustment to Test Year at Current Rates</b>			<b><u>\$ (118,396)</u></b>
15				
16	This adjustment reflects income tax expense related to the Company's adjustments, computed at statutory rates.			

**Liberty Utilities (Keene)**  
**Adjustments to Test Year**  
**Adjustment 10**  
**Other Adjustments**

Line	Account	Account Number	Ref.	Amount
1				
2	Adjustment to Remove Actual Test Year Unbilled Revenue	Input (Simek-Therrien Testimony, Table 1)	\$	(62,485)
3	Non-recurring Test Year Adjustments to Revenue	Input (Simek-Therrien Testimony, Table 1)		(28,285)
4				
5	Pro Forma Adjustment to operating revenue		\$	(90,771)
6				
7	2017 Excess Flow Valve costs	878.0	\$	30,000
8				
9	Pro Forma Adjustment to Account 879		\$	30,000
10				
11	PUC Annual Assessment- Future - Quarterly		\$	3,001
12	PUC Annual Assessment- Future - Annually			12,004
13				
14	PUC Gas Pipeline Safety Assessment- Future - Quarterly		\$	18
15	PUC Gas Pipeline Safety Assessment- Future - Annually			72
16	Historical Test Year Expense		\$	11,812
17				
18	Pro Forma Adjustment to Account 928		\$	264
19				
20	Total, Other Adjustments:		\$	121,035

**Liberty Utilities (EnergyNorth)**  
**Weighted Average Cost of Capital**  
**Test Year Ended December 31, 2016**

Line	Description	Capital Structure	Cost of Capital	Weighted Cost of Capital	Tax Rate	Pre-Tax
1	Common Stock	50.00%	10.30%	5.15%	39.41%	8.50%
2	Long-Term Debt	50.00%	4.425%	2.21%		2.21%
3		100.00%		7.36%		10.71%

**Liberty Utilities (EnergyNorth)**  
**Rate Base - EnergyNorth**  
**Balances at December 31, 2016**

<b>Line</b>	<b>Description</b>	<b>Reference</b>	<b>Rate Base</b>
1	Utility Plant (Balance 12/31/2016)	RR-EN-3-05	\$ 475,493,896
2	Depreciation Allowance (Balance 12/31/2016)	RR-EN-3-05	(156,434,621)
3	Net Utility plant		<u>\$ 319,059,274</u>
4			
5	Materials and Supplies (13-month Average)	RR-EN-5-1	\$ 6,833,143
6	Prepayments (13-month Average)	RR-EN-5-1	2,704,979
7	Customer Deposits (13-month Average)	RR-EN-5-1	(1,774,868)
8			
9	Cash Working Capital	RR-EN-5-2	\$ 2,635,735
10			
11	Deferred Tax Liability, Net (Balance 12/31/2016)	RR-EN-5WP1	\$ (79,581,891)
12			
13	<b>Rate Base</b>		<u><u><b>\$ 249,876,373</b></u></u>

**Liberty Utilities (EnergyNorth)**  
**Rate Base Quarterly Balances - EnergyNorth**  
**Test Year Ended December 31, 2016**

Line	Description	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	5 Quarter Average
1	<b>Materials and Supplies</b>						
2	Plant Supplies	\$ 3,090,778	\$ 3,270,930	\$ 3,237,327	\$ 3,147,194	\$ 3,108,608	\$ 3,170,967
3	Gas Stored Underground	3,650,875	1,867,638	2,185,128	3,049,886	2,796,536	2,710,013
4	Fuel Stock - Propane	1,116,257	697,834	681,382	950,850	975,209	884,306
5	UG Storage - LNG	80,382	57,759	62,938	66,426	71,783	67,857
6		<u>\$ 7,938,290</u>	<u>\$ 5,894,161</u>	<u>\$ 6,166,774</u>	<u>\$ 7,214,356</u>	<u>\$ 6,952,136</u>	<u>\$ 6,833,143</u>
7							
8	<b>Prepayments</b>						
9	Prepays	\$ 499,267	\$ 442,603	\$ 166,819	\$ 132,102	\$ 127,015	\$ 273,561
10	Prepaid Municipal Property Tax	2,542,504	1,110,476	3,180,606	1,698,031	3,625,473	2,431,418
11		<u>\$ 3,041,771</u>	<u>\$ 1,553,079</u>	<u>\$ 3,347,425</u>	<u>\$ 1,830,133</u>	<u>\$ 3,752,488</u>	<u>\$ 2,704,979</u>
12							
13	<b>Customer Deposits</b>						
14	Customer Deposits	\$(1,751,946)	\$(1,767,603)	\$(1,703,949)	\$(1,637,777)	\$(1,723,598)	\$(1,716,974)
15	Accrued Interest	(70,015)	(70,015)	(70,015)	(70,015)	(9,407)	(57,893)
16		<u>\$(1,821,961)</u>	<u>\$(1,837,618)</u>	<u>\$(1,773,964)</u>	<u>\$(1,707,792)</u>	<u>\$(1,733,004)</u>	<u>\$(1,774,868)</u>

**Liberty Utilities (EnergyNorth)**  
**Cash Working Capital - EnergyNorth**  
**Test Year Ended December 31, 2016**

Line	Description	Reference	Test Year Pro Forma
1	<b>O&amp;M Expenses</b>		
2	Distribution, before Adjustments	RR-EN-2-1	\$ 58,750,425
3	Less: Depreciation and Amortization	RR-EN-2-1	(14,142,392)
4	Less: Deferred Income Taxes	RR-EN-2-1-WP	(6,128,035)
5	Known and Measurable Adjustments (excluding depreciation and amortization)	RR-EN-2-1	(2,225,049)
6			<u>\$ 36,254,948</u>
7			
8	Cash Working Capital Required- Days	26.53	<u>7.27%</u>
9			
10	<b>Cash Working Capital Required</b>		<u><u>\$ 2,635,735</u></u>



**Liberty Utilities (Keene)**  
**Rate Base - Keene**  
**Balances at December 31, 2016**

Line	Description	Reference	Rate Base
1	Utility Plant (Balance 12/31/2016)	RR-K-3-04	\$ 4,690,027
2	Depreciation Allowance (Balance 12/31/2016)	RR-K-3-04	(2,297,980)
3	Net Utility plant		\$ 2,392,047
4			
5	Materials and Supplies (13-month Average)	RR-K-5-1	\$ 115,674
6	Prepayments (13-month Average)	RR-K-5-1	28,454
7	Customer Deposits (13-month Average)	RR-K-5-1	(882)
8			
9	Cash Working Capital	RR-K-5-2	\$ 90,125
10			
11	Deferred Tax Liability, Net (Balance 12/31/2016)	RR-K-5WP2	\$ (473,107)
12			
13	<b>Rate Base</b>		<b>\$ 2,152,312</b>

**Liberty Utilities (Keene)**  
**Rate Base Quarterly Balances - Keene**  
**Test Year Ended December 31, 2016**

Line	Description	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	5 Quarter Average
1	<b>Materials and Supplies</b>						
2	Plant Supplies	\$ 97,549	\$ 98,879	\$ 115,860	\$ 142,219	\$ 123,863	\$ 115,674
3		\$ 97,549	\$ 98,879	\$ 115,860	\$ 142,219	\$ 123,863	\$ 115,674
4							
5	<b>Prepayments</b>						
6	Prepays	\$ 1,600	\$ 1,600	\$ 1,600	\$ 1,600		\$ 1,600
7	Prepaid Municipal Property Tax	50,498	(11,680)	37,745	(6,887)	64,595	26,854
8		\$ 52,098	\$ (10,080)	\$ 39,345	\$ (5,287)	\$ 64,595	\$ 28,454
9							
10	<b>Customer Deposits</b>						
11	Customer Deposits	\$ -	\$ (1,775)	\$ (1,310)	\$ (925)	\$ (400)	\$ (882)
12		\$ -	\$ (1,775)	\$ (1,310)	\$ (925)	\$ (400)	\$ (882)

**Liberty Utilities (Keene)**  
**Cash Working Capital - Keene**  
**Test Year Ended December 31, 2016**

Line	Description	Reference	Test Year Pro Forma
1	<b>O&amp;M Expenses</b>		
2	Distribution, before Adjustments	RR-K-2-1	\$ 1,623,514
3	Less: Depreciation and Amortization	RR-K-2-1	\$ (213,455)
4	Less: Deferred Income Taxes	RR-K-2-1	\$ (7,390)
5	Known and Measurable Adjustments (excluding depreciation and amortization)	RR-K-2	(162,982)
6			<u>\$ 1,239,686</u>
7			
8	Cash Working Capital Required- Days	26.53	7.27%
9			
10	<b>Cash Working Capital Required</b>		<u><u>\$ 90,125</u></u>

Liberty Utilities (EnergyNorth)  
Step Increase - EnergyNorth

Line	Description	Misc. Intangible Plant	LNG Plant	Mains	Station Equipment	General-Structures	Mains	Meas. & Reg. Station Equip.	Services	Meters	Structures and Improvements	Office Equipment	Vehicles	Tools	Total
1	Capital Spending	303	320	367	369	375	376	378	380	381	390	391	392	394	
2		\$ 2,105,141	\$ 2,020,000	\$ 20,524,204	\$ 300,000	\$ 1,565,000	\$ 300,000	\$ 325,000	\$ 8,620,517	\$ 1,600,000	\$ 1,164,662	\$ 760,384	\$ 1,978,000	\$ 175,000	\$ 41,437,907
3	Deferred Tax Calculation														
4	Tax Method	MACRS15	MACRS20	MACRS20	MACRS20	MACRS39	MACRS20	MACRS20	MACRS20	MACRS20	MACRS39	MACRS7	MACRS5	MACRS7	
5	Tax Depreciation Rate	5.00%	3.75%	3.75%	3.75%	1.28%	3.75%	3.75%	3.75%	3.75%	1.28%	14.29%	20.00%	14.29%	
6															
7	Bonus Depreciation @ 50.00%		\$ 1,010,000	\$ 10,262,102	\$ 150,000	\$ 782,500	\$ 150,000	\$ 162,500	\$ 4,310,258	\$ 800,000	\$ 582,331	\$ 380,192	\$ 989,000	\$ 87,500	\$ 19,666,383
8															
9	Tax Basis	\$ 2,105,141	\$ 1,010,000	\$ 10,262,102	\$ 150,000	\$ 782,500	\$ 150,000	\$ 162,500	\$ 4,310,258	\$ 800,000	\$ 582,331	\$ 380,192	\$ 989,000	\$ 87,500	\$ 21,771,524
10	MACRS Depreciation	\$ 105,257	\$ 37,875	\$ 384,829	\$ 5,625	\$ 10,032	\$ 5,625	\$ 6,094	\$ 161,635	\$ 30,000	\$ 7,466	\$ 54,313	\$ 197,800	\$ 12,500	\$ 1,019,050
11															
12	Tax Depreciation - Federal	\$ 105,257	\$ 1,047,875	\$ 10,646,931	\$ 155,625	\$ 792,532	\$ 155,625	\$ 168,594	\$ 4,471,893	\$ 830,000	\$ 589,797	\$ 434,505	\$ 1,186,800	\$ 100,000	\$ 20,685,434
13	Tax Depreciation - State	\$ 105,257	\$ 75,750	\$ 769,658	\$ 11,250	\$ 20,064	\$ 11,250	\$ 12,188	\$ 323,269	\$ 60,000	\$ 14,932	\$ 108,626	\$ 395,600	\$ 25,000	
14															
15	Book Depreciation Rate	16.13%	2.86%	1.92%	5.26%	2.86%	1.92%	1.92%	3.55%	3.13%	2.86%	5.28%	20.00%	6.67%	
16	Book Depreciation	\$ 339,559	\$ 57,772	\$ 394,065	\$ 15,780	\$ 44,759	\$ 5,760	\$ 6,240	\$ 306,028	\$ 50,080	\$ 33,309	\$ 40,148	\$ 395,600	\$ 11,673	\$ 1,700,773
17															
18	Tax over (under) Book - Federal	\$ (234,302)	\$ 990,103	\$ 10,252,866	\$ 139,845	\$ 747,773	\$ 149,865	\$ 162,354	\$ 4,165,865	\$ 779,920	\$ 556,487	\$ 394,357	\$ 791,200	\$ 88,328	\$ 18,984,660
19	Tax over (under) Book - State	\$ (234,302)	\$ 17,978	\$ 375,593	\$ (4,530)	\$ (24,695)	\$ 5,490	\$ 5,948	\$ 17,241	\$ 9,920	\$ (18,378)	\$ 68,478	\$ 0	\$ 13,328	\$ 232,070
20	Deferred Taxes - Federal @ 31.21%	\$ (73,130)	\$ 309,031	\$ 3,200,125	\$ 43,648	\$ 233,395	\$ 46,776	\$ 50,674	\$ 1,300,250	\$ 243,429	\$ 173,691	\$ 123,087	\$ 246,949	\$ 27,569	\$ 5,925,492
21	Deferred Taxes - State @ 8.20%	\$ (19,213)	\$ 1,474	\$ 30,799	\$ (371)	\$ (2,025)	\$ 450	\$ 488	\$ 1,414	\$ 813	\$ (1,507)	\$ 5,615	\$ 0	\$ 1,093	\$ 19,030
22	Deferred Tax Balance @ 39.41%	\$ (92,343)	\$ 310,505	\$ 3,230,923	\$ 43,277	\$ 231,370	\$ 47,226	\$ 51,162	\$ 1,301,663	\$ 244,242	\$ 172,184	\$ 128,702	\$ 246,949	\$ 28,662	\$ 5,944,522
23															
24	Rate Base Calculation														
25	Plant in Service	\$ 2,105,141	\$ 2,020,000	\$ 20,524,204	\$ 300,000	\$ 1,565,000	\$ 300,000	\$ 325,000	\$ 8,620,517	\$ 1,600,000	\$ 1,164,662	\$ 760,384	\$ 1,978,000	\$ 175,000	\$ 41,437,907
26	Accumulated Depreciation	\$ (339,559)	\$ (57,772)	\$ (394,065)	\$ (15,780)	\$ (44,759)	\$ (5,760)	\$ (6,240)	\$ (306,028)	\$ (50,080)	\$ (33,309)	\$ (40,148)	\$ (395,600)	\$ (11,673)	\$ (1,700,773)
27	Deferred Tax Balance	\$ 92,343	\$ (310,505)	\$ (3,230,923)	\$ (43,277)	\$ (231,370)	\$ (47,226)	\$ (51,162)	\$ (1,301,663)	\$ (244,242)	\$ (172,184)	\$ (128,702)	\$ (246,949)	\$ (28,662)	\$ (5,944,522)
28	Rate Base	\$ 1,857,925	\$ 1,651,723	\$ 16,899,216	\$ 240,943	\$ 1,288,871	\$ 247,014	\$ 267,598	\$ 7,012,825	\$ 1,305,678	\$ 959,169	\$ 591,534	\$ 1,335,451	\$ 134,666	\$ 33,792,612
29															
30	Revenue Requirement Calculation														
31	Return on Rate Base @ 10.71%	\$ 198,984	\$ 176,900	\$ 1,809,906	\$ 25,805	\$ 138,038	\$ 26,455	\$ 28,660	\$ 751,074	\$ 139,838	\$ 102,727	\$ 63,353	\$ 143,027	\$ 14,423	\$ 3,619,189
32	Depreciation Expense	\$ 339,559	\$ 57,772	\$ 394,065	\$ 15,780	\$ 44,759	\$ 5,760	\$ 6,240	\$ 306,028	\$ 50,080	\$ 33,309	\$ 40,148	\$ 395,600	\$ 11,673	\$ 1,700,773
33	Property Tax @ 2.00%	\$ 40,353	\$ 410,007	\$ 5,993	\$ 31,264	\$ 5,993	\$ 6,492	\$ 6,492	\$ 16,916	\$ 3,140	\$ 2,285	\$ 1,492	\$ 3,881	\$ 343	\$ 523,368
34	Insurance @ 0.20%	\$ 3,964	\$ 40,274	\$ 589	\$ 3,071	\$ 589	\$ 638	\$ 638	\$ 16,916	\$ 3,140	\$ 2,285	\$ 1,492	\$ 3,881	\$ 343	\$ 77,182
35	Annual Revenue Requirement	\$ 538,543	\$ 278,988	\$ 2,654,252	\$ 48,167	\$ 217,132	\$ 38,797	\$ 42,030	\$ 1,074,018	\$ 193,058	\$ 161,588	\$ 104,994	\$ 542,508	\$ 26,439	\$ 5,920,512
36															
37	Rate of Return Calculation														
38	Equity	50.0%	10.30%	39.41%	8.50%										
39	Debt	50.0%	4.425%	2.21%											
40		100.0%		10.71%											
41															
42	Description					Reference		Amount							
43	Property taxes (Account 408-P)					RR-StepWP2	\$	9,168,736							
44	Property insurance (Account 924)					RR-EN-2-1	\$	38,113							
45	Injuries and Damage (Casualty Insurance) (Account 925)					RR-EN-2-1		877,844							
46							\$	9,168,736	\$	915,957					
47	Plant at Cost					RR-Step-EN-WP2	\$	458,970,702	\$	466,781,674					
48	As % of Plant Cost							2.00%		0.20%					

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

Line	Description	Capitalized Software	Mains	Meas. & Reg. Station Equip.	Services	Meters	Office Equipment	Vehicles	Stores Equipment	Total
	<i>FERC Account</i>	<i>303</i>	<i>367</i>	<i>378</i>	<i>380</i>	<i>381</i>	<i>391</i>	<i>392</i>	<i>393</i>	
1	Capital Spending	\$ 25,000	\$ 341,000	\$ 55,000	\$ 200,000	\$ 10,000	\$ 65,000	\$ 45,000	\$ 4,000	\$ 745,000
2										
3	Deferred Tax Calculation									
4	Tax Method	MACRS15	MACRS20	MACRS20	MACRS20	MACRS20	MACRS7	MACRS5	MACRS7	
5	Tax Depreciation Rate	5.00%	3.75%	3.75%	3.75%	3.75%	14.29%	20.00%	14.29%	
6										
7	Bonus Depreciation @ 0.00%	\$ 12,500	\$ 170,500	\$ 27,500	\$ 100,000	\$ 5,000	\$ 32,500	\$ 22,500	\$ 2,000	\$ 372,500
8										
9	Tax Basis	\$ 12,500	\$ 170,500	\$ 27,500	\$ 100,000	\$ 5,000	\$ 32,500	\$ 22,500	\$ 2,000	\$ 372,500
10	MACRS Depreciation	\$ 625	\$ 6,394	\$ 1,031	\$ 3,750	\$ 188	\$ 4,643	\$ 4,500	\$ 286	\$ 21,416
11										
12	Tax Depreciation - Federal	\$ 13,125	\$ 176,894	\$ 28,531	\$ 103,750	\$ 5,188	\$ 37,143	\$ 27,000	\$ 2,286	\$ 393,916
13	Tax Depreciation - State	\$ 1,250	\$ 12,788	\$ 2,063	\$ 7,500	\$ 375	\$ 9,286	\$ 9,000	\$ 571	
14										
15	Book Depreciation Rate	20.00%	0.96%	5.00%	5.00%	6.25%	10.00%	10.00%	3.33%	
16	Book Depreciation	\$ 5,000	\$ 3,274	\$ 2,750	\$ 10,000	\$ 625	\$ 6,500	\$ 4,500	\$ 133	\$ 32,782
17										
18	Tax over (under) Book - Federal	\$ 8,125	\$ 173,620	\$ 25,781	\$ 93,750	\$ 4,563	\$ 30,643	\$ 22,500	\$ 2,153	\$ 361,134
19	Tax over (under) Book - State	(3,750)	9,514	(688)	(2,500)	(250)	2,786	4,500	438	10,050
20	Deferred Taxes - Federal @ 31.21%	2,536	54,190	8,047	29,261	1,424	9,564	7,023	672	
21	Deferred Taxes - State @ 8.20%	(308)	780	(56)	(205)	(21)	228	369	36	
22	Deferred Tax Balance @ 39.41%	\$ 2,228	\$ 54,970	\$ 7,990	\$ 29,056	\$ 1,404	\$ 9,793	\$ 7,392	\$ 708	\$ 113,541
23										
24	Rate Base Calculation									
25	Plant in Service	\$ 25,000	\$ 341,000	\$ 55,000	\$ 200,000	\$ 10,000	\$ 65,000	\$ 45,000	\$ 4,000	\$ 745,000
26	Accumulated Depreciation	(5,000)	(3,274)	(2,750)	(10,000)	(625)	(6,500)	(4,500)	(133)	(32,782)
27	Deferred Tax Balance	(2,228)	(54,970)	(7,990)	(29,056)	(1,404)	(9,793)	(7,392)	(708)	(113,541)
28	<b>Rate Base</b>	<b>\$ 17,772</b>	<b>\$ 282,756</b>	<b>\$ 44,260</b>	<b>\$ 160,944</b>	<b>\$ 7,971</b>	<b>\$ 48,707</b>	<b>\$ 33,108</b>	<b>\$ 3,159</b>	<b>\$ 598,677</b>
29										
30	Revenue Requirement Calculation									
31	Return on Rate Base @ 10.71%	\$ 1,903	\$ 30,283	\$ 4,740	\$ 17,237	\$ 854	\$ 5,217	\$ 3,546	\$ 338	\$ 64,118
32	Depreciation Expense	5,000	3,274	2,750	10,000	625	6,500	4,500	133	32,782
33	Property Tax @ 3.62%	12,345	1,991.05	7,240.18	362.01					21,938
34	Insurance @ 4.47%	15,256	2,461	8,948	447		2,908	2,013	179	32,212
35	<b>Annual Revenue Requirement</b>	<b>\$ 6,903</b>	<b>\$ 61,157</b>	<b>\$ 11,942</b>	<b>\$ 43,425</b>	<b>\$ 2,288</b>	<b>\$ 14,625</b>	<b>\$ 10,059</b>	<b>\$ 650</b>	<b>\$ 151,050</b>
36										
37										
38										
39										
40										
41										
42										
43										
44										
45										
46										
47										
48										

Rate of Return Calculation	Portion	After-Tax Cost	Tax	Pre-Tax WACC
Equity	50.0%	10.30%	39.41%	8.50%
Debt	50.0%	4.425%		2.21%
	100.0%			10.71%

Description	Reference	Amount
Property taxes (Account 408-P)	RR-K-2-1	133,603
Property insurance (Account 924)	RR-K-2-1	(2,183)
Injuries and Damage (Casualty Insurance) (Account 925)	RR-K-2-1	197,006
		133,603
		194,823
Plant at Cost	RR-Step-K-WP2	3,690,589
As % of Plant Cost		4.47%

**Liberty Utilities (EnergyNorth)**  
**Rate Case Expense**  
**Test Year Ended December 31, 2016**

<b>Line</b>	<b>Description</b>	<b>Vendor</b>	<b>Amount</b>
1	Revenue Requirement	Concentric Energy Advisors	\$ 131,240
2	Marginal Cost Study	Concentric Energy Advisors	100,315
3	Rate Design/Rate Calculations	Concentric Energy Advisors	38,364
4	Decoupling	Concentric Energy Advisors	38,598
5	Functional Cost Study	Concentric Energy Advisors	13,645
6	Cost of Capital	ScottMadden Associates	75,465
7	Depreciation Study	Management Applications Consulting	38,325
8	Miscellaneous (printing, legal notices, court reporter, Staff consultants, etc.)		164,048
9	Total		<u>\$ 600,000</u>