



# Ken Sosnick Managing Director ken.sosnick@ftionsulting.com

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#### **Education**

B.S., Accounting, Indiana University of Pennsylvania Ken Sosnick is a Managing Director at FTI Consulting and is based in Boston. Mr. Sosnick has more than 16 years of experience with electric utility, natural gas pipeline and crude/product pipeline industry matters before the Federal Regulatory Commission (FERC).

Prior to joining FTI, Mr. Sosnick spent over 5 years as a consultant extensively engaged in the natural gas, crude/product and electricity markets. His work included analysis of natural gas pipeline and crude/product pipeline cost of service rates, market-based rates, discounted and negotiated rates, incremental vs. rolled-in project costs, initial certificate rates, allocation of corporate overhead costs, master-limited partnership income taxes, throughput/system rate design quantities, fuel recovery mechanisms, NGA Section 5 rate complaints, Return on Equity calculations under the DCF/Risk Premium/CAPM/Expected Earnings methods, depreciation rate and negative salvage rate calculations, Asset Retirement Obligations, FERC Form 1 and 2 filing requirements as well as being proficient in the application of FERC's Uniform System of Accounts.

Mr. Sosnick served as a panelist for the Liquid Shippers Group in Docket No. RM15-19-000 seeking revisions to the FERC Form 6 Page 700 as well as addressing FERC's regulation of common carrier liquid pipelines including the review of liquid markets and specifically understanding product pipeline pro-rationing policies.

Mr. Sosnick has prepared expert testimony for proceedings at FERC as well as expert reports assessing and quantifying damages in civil litigation, conducted strategic analysis for a large energy company considering alternatives for its existing pipeline and storage portfolio. In addition, he conducted confidential buyside valuations and assessments of regulated electric and natural gas utilities in the U.S.

Mr. Sosnick has also written a whitepapers, an example is discussing the regulatory and rate impacts of the Tax Cuts and Jobs Act on FERC regulated assets as well as a whitepaper on the impacts of FERC Orders in SFPP, LP Docket No. ISO8-390 related to Master Limited Partnerships and other pass-through entities income tax allowance.

Mr. Sosnick spent 10 years at FERC in which he spent two years as an auditor in the Office of Enforcement, and 8 years as an expert witness and one of the lead technical staff negotiators on major electric utility proceedings, interstate natural gas pipeline and crude/product pipeline in the Office of Administrative Litigation.



Mr. Sosnick's insights were incorporated into the revision of the FERC Form 2 in Docket No. RM07-9-000, which lead to the FERC-initiated Section 5 natural gas pipeline proceedings from 2009 to today.

Mr. Sosnick currently teaches an executive FERC Natural Gas 101 course for EUCI, and previously taught at the New Mexico State University Center for Public Utilities Practical and Regulatory Training for the Natural Gas Interstate Pipeline Industry specifically addressing FERC requirements for determining "Just and Reasonable" rates.

#### PROFESSIONAL EXPERIENCE

- FTI Consulting, Managing Director, Boston, MA, 2019 Present
- Concentric Energy Advisors, Senior Project Manager, Marlborough MA, 2015 – 2019
- MRW & Associates, LLC, Energy Consultants, Senior Project Manager, Oakland, CA, 2013 – 2015
- Federal Energy Regulatory Commission, Energy Industry Analyst, Office of Administrative Litigation, Washington, D.C., 2005 – 2013
- Federal Energy Regulatory Commission, Auditor, Office of Enforcement, Washington, D.C., 2003 – 2005

#### **SELECTED PROJECTS**

**Cost of Service:** Natural Gas, Electric and Liquids Experience

Mr. Sosnick assists clients, state regulatory agencies, and other experts developing and refining cost of service models regarding rate base calculations, appropriate levels of operations and maintenance expenses, appropriate levels of directly assigned or allocated affiliated or parent company overhead costs, the application of cost allocation procedures in the allocation of costs between jurisdictional activities, between non-jurisdictional and jurisdictional activities or amongst separate jurisdictional systems.

Cost Allocation & Rate Design: Natural Gas, Electric and Liquids Experience

Mr. Sosnick assists clients, regulatory agencies, and other experts developing and refining cost allocation and rate design models.

Regulatory Policy & Strategic Analysis: Natural Gas and Electric Experience

Utilizing his background in accounting, regulatory affairs, and the nuances of the energy sector, Mr. Sosnick has helped clients ensure they are charging or paying appropriate rates, under terms and conditions that are just, reasonable and not unduly discriminatory or preferential. In addition, Mr. Sosnick helps clients develop safe, reliable and efficient energy infrastructure that serves the public interest.



#### Tariffs: Natural Gas, Electric and Liquids Experience

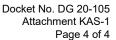
- Analyzed Open Access Transmission Tariff formula rates to verify conformity to FERC's Uniform System of Accounts and the structure of their formula had FERC's approval
- Participated in the review and refunding of Southern Company's RTO
  Development Costs that were collected erroneously through their Open
  Access Transmission Tariff, Unit Power Sales Agreements, and
  Transmission Service Agreements
- Confidential Client; Review of a SPP Member's ATRR to provide an opinion on the appropriateness of the inclusion of certain costs
- Confidential Client; Review of multiple entities RTO/ISO Formula Rates to ensure compliance with current FERC precedent
- Served the role of advisor to clients to internal FERC Trial Staff on settlements on FERC wholesale electric, liquid pipeline and natural gas pipelines Tariff matters

#### Negotiations: Natural Gas, Electric and Liquids Experience

- Coordinated Pre-filing Settlement negotiations on behalf of a firm storage customer in a state rate proceeding in the western US
- Facilitated the settlement of the refund amounts associated with the sale and related costs of the portion of the Kewaunee Nuclear Power Plant owned by Wisconsin Public Service Corp.
- California Independent System Operator Corporation, ER05-150: Reviewed the Utility Distribution Company Operating Agreement to ensure compliance with FERC precedent and coordinated with all parties to confirm understanding of commitments being filed
- PG&E, ER05-130: Reviewed the CASIO requirements and Western Interconnection Agreement as well as the FERC precedent to assist TPUD and PG&E to reach a settlement resolving the interconnection issue
- KO Transmission Company, Docket No. RP16-1097-000: Filed testimony on behalf of KO Transmission and served as the Rate Case Filing/Settlement Coordinator
- Served the role of lead FERC Trial Staff Technical Witness on settlements on FERC wholesale electric, liquid pipeline and natural gas pipelines related to cost of service and cost allocation and rate design

#### **PRESENTATIONS**

- Panelist EBA-Section 5 Perspectives, January 2018
- FC Intelligence-Natural Gas Impact, Transportation Options and Regulatory Oversight, May 2016





- Western States Association of Tax Administrators, four presentations between 2015 to 2017
- Panelist, "Will Fracking Change the Gas Pipeline Flows in Ways that Affect Rate Design and Cost Allocation?" EBA Mid-Year Meeting, November 2014
- Panelist at the FERC Commission Open Meeting for the Revisions to the FERC Form 2, Docket No. RM07-9-000, 2009

#### Liberty Utilities (EnergyNorth) Index to Revenue Requirement Schedules Test Year Ended December 31, 2019

Line	Title	Reference
1	Summary Schedules	_
2	Index to Revenue Requirement Schedules	Index
3	Revenue Deficiency and Revenue Requirement	Schedule RR-1
4	Operating Income Statement - EnergyNorth	Schedule RR-EN-2
5	Operating Income Statement - Detail - EnergyNorth	Schedule RR-EN-2-1
6	Summary of Adjustments	Schedule RR-EN-3
7	Summary of Adjustments	Schedule RR-ER-5
8		
9	Adjustments - EnergyNorth	
10	Adjustment 1 - Revenue Adjustments	Schedule RR-EN-3-1
11	Adjustment 2 - Salary and Wage Expense	Schedule RR-EN-3-2
12	Adjustment 3 - Payroll Tax Expense	Schedule RR-EN-3-3
13	Adjustment 4 - Pension and Benefits Expense	Schedule RR-EN-3-4
14	Adjustment 5 - Depreciation Expense	Schedule RR-EN-3-5
15	Adjustment 6 - Amortization Expense	Schedule RR-EN-3-6
16	Adjustment 7 - Property Tax	Schedule RR-EN-3-7
17	Adjustment 8 - Income Tax Expense - Historical Test Year	Schedule RR-EN-3-8
18	Adjustment 9 - Income Tax Expense - Pro Forma Test Year at Current Rates	Schedule RR-EN-3-9
19	Adjustment 10 - Other Adjustments	Schedule RR-EN-3-10
20		
21		
22	Cost of Capital	
23	Weighted Average Cost of Capital	Schedule RR-EN-4
24		
25	Rate Base	
26	Rate Base - EnergyNorth	Schedule RR-EN-5
27	Rate Base Quarterly Balances - EnergyNorth	Schedule RR-EN-5-1
28	Cash Working Capital - EnergyNorth	Schedule RR-EN-5-2
29		
30	Step Increase	
31	Step Increase - EnergyNorth	Schedule Step-EN
32	<u>.</u>	•
33	Rate Case Expense	
34	Rate Case Expense	Schedule RC

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

Line	Description	Reference	E	EnergyNorth
1	Rate Base	RR-5	\$	356,411,727
2 3 4	Target Rate of Return on Rate Base	RR-4		7.47%
5	Operating Income Requirement	Line 1 X Line 3	\$	26,623,956
7 8	Operating Income at Present Rates	RR-2	\$	16,781,762
9 10	Operating Income Deficiency	Line 5 - Line 7	\$	9,842,195
11 12	Gross-up Factor for Additional Income Taxes	Line 19		1.3714
13 14	Revenue Deficiency	Line 9 X Line 11	\$	13,497,250
15	Gross-up Factor for Income Taxes			
16	Federal Income Tax Rate	_		21.00%
17	New Hampshire State Income Tax Rate			7.70%
18	Combined Income Tax Rate	Line 16 + Line 17 - (Line 16 X Line 17)		27.08%
19 20	Gross-up Factor	1 / (1- Line 18)		1.3714
21 22	Additional Income Tax Required	Line 13 - Line 9	\$	3,655,055
23 24	Distribution Revenue at Present Rates	RR-2	\$	85,789,234
25 26	% Increase Needed	Line 13 / Line 23		15.73%
27 28	Revenue with Increase	RR-2	\$	99,286,484
29	% Increase Needed - Total Revenue			8.60%

	Source						RR-EN-3		<u>RR-1</u>		
Lin	e Account	Test Year Ended ecember 31, 2019	C	ost of Gas & LDAC	Distribution Operating Income	I	Known and Measurable Adjustments	Cest Year at urrent Rates	Proposed Increase	I	Distribution Operating ncome with Proposed Increase
1	Revenue										
2	Operating Revenue	\$ 155,813,183	\$	(72,649,313)	\$ 83,163,870	\$	1,427,588	\$ 84,591,458	\$ 13,497,250	\$	98,088,708
3	Other Revenue	1,197,776		-	1,197,776		-	1,197,776			1,197,776
4		\$ 157,010,959	\$	(72,649,313)	\$ 84,361,646	\$	1,427,588	\$ 85,789,234	\$ 13,497,250	\$	99,286,484
5											
6	Operating Expenses										
7	Operations and Maintenance - Gas	\$ 68,016,418	\$	(68,187,738)	\$ (171,320)	\$	(138,439)	\$ (309,759)		\$	(309,759)
8	Operations and Maintenance - Distribution	14,187,750		-	14,187,750		182,041	14,369,791			14,369,791
9	Customer Accounting	4,011,638		983,441	4,995,080		45,731	5,040,811			5,040,811
10	Sales and New Business	663,477		-	663,477		11,141	674,618			674,618
11	Administrative & General	8,719,450		-	8,719,450		(530,336)	8,189,114			8,189,114
12	Depreciation and Amortization	25,339,396		(3,025,052)	22,314,344		597,567	22,911,910			22,911,910
13	Taxes other than Income Taxes	14,030,617		-	14,030,617		784,558	14,815,175			14,815,175
14	Income Taxes	 3,709,928		-	3,709,928		(394,116)	3,315,812	3,655,055		6,970,867
15		\$ 138,678,675	\$	(70,229,348)	\$ 68,449,327	\$	558,145	\$ 69,007,472	\$ 3,655,055	\$	72,662,528
16											
17	Utility Net Income	\$ 18,332,284	\$	(2,419,965)	\$ 15,912,319	\$	869,443	\$ 16,781,762	\$ 9,842,195	\$	26,623,956
18											
19	Rate Base				\$ 356,411,727			\$ 356,411,727		\$	356,411,727
20						-					
21	Rate of Return on Rate Base				4.46%			4.71%			7.47%

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

RR-EN-3 RR-EN-3 Source Distribution Known and **Test Year Ended** Cost of Gas & Test Year At Account Labor Pro Line Account Operating Measurable Labor December 31, 2019 Number LDAC **Current Rates** Forma Income Adjustments OPERATION AND MAINTENANCE EXPENSES O&M - Gas Production Operation Supervision and Engineering 710 \$ 976,663 976,663 \$ 20,392 997,056 944,645 \$ 965,037 Liquefied Petroleum Gas Expenses 717 Liquefied Petroleum Gas 728 Gas Mixing Expense 733 185,703 185,703 (114,984) 70,719 185,703 189,712 Miscellaneous Production Expenses 514,254 514,254 735 (43,853)470,400 Maintenance of Production Equipment 119.531 119,531 119.531 8 742 Natural Gas City Gate Purchases (713.592)713,592 804 (67 686 807) 10 Other Gas Purchases 805 67 686 807 11 Gas Withdrawn from Storage 808 1,214,522 (1,214,522)12 Operation Labor and Expenses 841 (1.967.471) (1.967.471) 13 Other Expenses 846 (1.967.465)263 269 Total O&M - Gas Production 14 68,016,418 \$ (68,187,738) \$ (171,320) \$ (138,439) \$ (309,759)1.130.611 1,155,018 15 16 O&M - Distribution Expenses 17 Measuring and Regulating Station Expenses (Transmission) 857 \$ 18 Maintenance of Mains (Transmission) 863 19 Operation Supervision and Engineering 870 536,299 536,299 7,153 543,453 331,359 338,512 20 Distribution Load Dispatching 871 575,530 575,530 12,414 587,944 575,068 587,482 21 5,633,309 5,633,309 5,708,819 3,497,946 3,573,456 Mains Services Expenses 874 75,511 Measuring and Regulating Station Expenses - General 875 23 Measuring and Regulating Station Expenses - Industrial 876 1,140,737 Meter and House Regulator Expenses 878 1.118.308 1,118,308 22,429 1.038.978 1,061,406 25 Customer Installations Expenses 879 629,292 629,292 13,454 642,746 623,226 636,680 26 Other Expenses 880 1,717,919 1,717,919 18,651 1,736,570 864,000 882,651 27 881 10,618 Rents 10.618 10.618 28 Maintenance Supervision and Engineering 885 29 Maintenance of Structures and Improvements 147,555 147,555 150,147 122,643 886 2,592 120,051 2,660,338 17,605 2,677,943 815,525 833,130 30 Maintenance of Mains 887 2,660,338 Maintenance of Measuring and Regulating Station Expenses 31 889 462,357 462,357 466.805 206.069 210.518 32 Maintenance of Services 892 4.448 Maintenance of Meters and House Regulators 351.020 351.020 356,709 263.554 33 893 5.689 269.244 34 Maintenance of Other Equipment 97 049 894 345 205 345 205 2.095 347 300 99,144 35 Total O&M - Distribution 14.187.750 14,187,750 182,041 14,369,791 8 432 825 8,614,866 36 Total O&M - Gas Production and Distribution 82,204,168 (68,187,738) 14.016.431 43,601 14,060,032 9.563,437 9,769,884 37 38 **Customer Accounts Expenses** 39 Supervision 901 \$ 243,201 243,201 \$ 5,250 \$ 248,451 243,201 \$ 248,451 40 Meter Reading Expenses 902 323,371 323,371 6,427 329,798 297,723 304,150 41 Customer Records and Collection Expenses 903 2,734,690 2,734,690 34,054 2,768,744 1,577,532 1,611,586 42 904.0 1,680,770 1,680,770 1,680,770 Uncollectible Accounts 43 Bad Debt Expense - Commodity 904.1 (983,441)983,441 44 Miscellaneous Customer Accounts Expenses 13,047 13,047 13,047 983,441 2,164,187 45 Total Customer Accounting 4.011.638 4.995.080 45,731 5.040.811 2.118.456 46 47 Customer Service and Informational & Sales Expenses 48 908 \$ \$ Cust Assistance 49 Informational and Instructinal Advertising Expenses 909 95,856 95,856 462 96,318 21,409 21,871 50 15,180 15,180 15,180 Cust Service Misc 910 51 Sales & Advertising 912 449.660 449,660 9.032 458.691 418.379 427.410 26,484 26,484 52 913 26,484 Advertising Expenses 77<u>,946</u> 53 Miscellaneous Sales Expenses 916 76,299 76,299 1.647 77,946 76,299 54 Total Customer Service and Informational & Sales Expenses 663,477 663.477 11.141 674.618 516.086 55 Total Customer Accounts, Customer Service and Informational 4,675,116 983,441 5,658,557 56,872 5,715,429 2,634,542 2,691,414 56 57 Administrative and General Expenses 58 A&G Salaries 920.0 \$ 2,690,132 2,690,132 \$ 52,626 \$ 2.742.757 \$ 2,437,821 \$ 2,490,446 59 A&G Salaries - LU Head Office 920.1 3,128,482 3,128,482 3,128,482 Allocated costs 60 Office Supplies and Expenses 921 2,214,501 2,214,501 (10.202)2,204,299 61 Administrative Expenses Transferred 922.0 (13,438,703) (13,438,703) 233,952 (13,204,750) Allocated costs LU Labor Allocations Capitalized 922.1 (2,935,673) (2,935,673) (2.935.673)63 Outside Services Employed 923.0 1,038,455 1,038,455 1,038,455 Allocated LU Head Office 923.1 6,179,915 6,179,915 6,179,915 65 Property Insurance 924 51,523 51,523 51,523 814,179 814,179 66 Injuries and Damages 925 814,179 67 Employee Pensions and Benefits 926 7,987,623 7,987,623 (727, 193)7,260,431 68 Regulatory Commission Expenses 928 813,919 813,919 (36,883)777,036 69 Miscellaneous General Expenses 930 1,146 1,146 1,146 70 931 173,951 173,951 (42,637)131,314 Rents Maintenance of General Plant 71 932 8,719,450 8,719,450 (530,336) \$ 8,189,114 2,437,821 2,490,446 72 Total Administrative & General 14,951,744 (67,204,296) \$ 73 Total Operation and Maintenance Expenses 95,598,734 \$ 28,394,438 \$ (429,863) \$ 27,964,575 \$ 14,635,799

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

	Test Year With Known and Measurable Changes															
	Source	?								RR-EN-3					RR	<u>-EN-3</u>
Line	Account	Account Number		Year Ended nber 31, 2019	Co	st of Gas & LDAC		istribution Operating Income	N	Inown and Ieasurable djustments		st Year At rrent Rates	La	bor		or Pro orma
75	DEPRECIATION AND AMORTIZATION EXPENSE															
76	Depreciation Expense	403	\$	18,173,439	\$	-	\$	18,173,439	\$	1,836,152	\$	20,009,591				
77	Amortization - Intangibles	405		3,435,643		-		3,435,643		(128,313)		3,307,330				
78	Regulatory Debits - Amortization of Regulatory Assets	407.3		705,261		-		705,261		186,853		892,115				
79	Regulatory Credits - Amortization of Regulatory Liabilities	407.4		3,025,052		(3,025,052)		-		(1,297,126)		(1,297,126)				
80	Total Depreciation and Amortization Expense		\$	25,339,396	\$	(3,025,052)	\$	22,314,344	\$	597,567	\$	22,911,910				
81																
82	TAXES OTHER THAN INCOME TAXES															
83	Taxes other than Income Taxes - Payroll Taxes	408	\$	1,625,755	\$	-	\$	1,625,755	\$	382,609	\$	2,008,364				
84	Taxes other than Income Taxes - Property Taxes	408		12,404,863		-		12,404,863		401,949		12,806,811				
85	Total Taxes other than Income Taxes		\$	14,030,617	\$	-	\$	14,030,617	\$	784,558	\$	14,815,175				
86																
87	FEDERAL / STATE INCOME TAXES															
88	Income Tax Expense	409-410	\$	3,709,928		-	\$	3,709,928		(394,116)		3,315,812				
89	Subtotal - Income Tax		\$	3,709,928	\$	-	\$	3,709,928	\$	(394,116)	\$	3,315,812				
90																
91																
92	moment www.			100 (50 (55		(=0.000.010)								<		
93	TOTAL EXPENSES		\$	138,678,675	\$	(70,229,348)	\$	68,449,327	\$	558,145	\$	69,007,472	\$ 14,	635,799	\$ 14	4,951,744
94	DEVENING															
95	REVENUES		e.	155.813.183	¢.	(72 (40 212)	ф	83,163,870	¢.	1 407 500	¢.	04 501 450				
96 97	Operating Revenue Other Revenue		\$	1,197,776	Э	(72,649,313)	3	1,197,776	2	1,427,588	3	84,591,458 1,197,776				
98	Total Revenue		•	157,010,959	\$	(72,649,313)	¢	84,361,646	¢	1,427,588	\$	85,789,234				
99	Total Revenue		Ф	157,010,959	Þ	(72,049,313)	Ф	04,301,040	Ф	1,427,500	Þ	05,709,234				
100	UTILITY NET INCOME		•	18,332,284	•	(2,419,965)	•	15,912,319	¢	869,443	¢	16,781,762				
101	CHEFT NET INCOME		Ψ	10,552,204	Ψ	(2,417,703)	Ψ	13,712,317	Ψ	002,443	Ψ	10,701,702				
102	TOTAL RATE BASE	RR-EN-5	¢	356,411,727			\$	356,411,727			Φ	356,411,727				
103	TO THE MITE BAGE	2.11-3	Ψ	550,711,727		=	Ψ	550,711,727	:	=	Ψ	JJJ97119/2/				
104	Income Tax Rate			16.83%				18.91%				16.50%				
105				10.0070				10.5170				10.0070				
106	Rate of Return			5.14%				4.46%				4.71%				

Liberty Utilities (EnergyNorth) Summary of Adjustments Test Year Ended December 31, 2019

(869,443)

Adjustment 1 Adjustment 2 (1,427,588) 315,945

382,609

(493,240) 1,83

1,836,152

(1,238,585)

443,281 (522,835)

128,718 (293,900)

Page 1 of 2

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	\$	20,392		\$ 20,392									\$ 944,645	
4	Liquefied Petroleum Gas Expenses Liquefied Petroleum Gas	717 728		-		-									-	0.00%
5 6	Gas Mixing Expense	733		(114,984)		4,009								(118,993)	185,703	
7	Miscellaneous Production Expenses	735		(43,853)		4,007								(43,853)	105,705	0.00%
8	Maintenance of Production Equipment	742		(43,633)		-								(43,033)		0.00%
9	Natural Gas City Gate Purchases	804				_										0.00%
10	Other Gas Purchases	805		-		-									-	0.00%
11	Gas Withdrawn from Storage	808		-		-									-	0.00%
12	Operation Labor and Expenses	841		-		-									-	0.00%
13	Other Expenses	846		6		6									263	
14 15	Total O&M - Gas Production		\$	(138,439)	\$ -	\$ 24,407	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (162,846)	\$ 1,130,611	7.72%
16	O&M - Distribution Expenses															
17	Measuring and Regulating Station Expenses (Transmission	857	\$	_		s -									s -	0.00%
18	Maintenance of Mains (Transmission)	863	φ	-		-									φ - -	0.00%
19	Operation Supervision and Engineering (Transmission)	870		7,153		7,153									331,359	
20	Distribution Load Dispatching	871		12,414		12,414									575,068	3.93%
21	Mains Services Expenses	874		75,511		75,511									3,497,946	23.90%
22	Measuring and Regulating Station Expenses - General	875		-		-									-	0.00%
23	Measuring and Regulating Station Expenses - Industrial	876														0.00%
24	Meter and House Regulator Expenses	878 879		22,429 13,454		22,429									1,038,978	
25 26	Customer Installations Expenses Other Expenses	880		18,651		13,454 18,651									623,226 864,000	
27	Rents	881		10,051		10,031									304,000	0.00%
28	Maintenance Supervision and Engineering	885		_		_										0.00%
29	Maintenance of Structures and Improvements	886		2,592		2,592									120,051	
30	Maintenance of Mains	887		17,605		17,605									815,525	5.57%
31	Maintenance of Measuring and Regulating Station Expense			-		-									-	0.00%
32	Maintenance of Services	892		4,448		4,448									206,069	
33	Maintenance of Meters and House Regulators	893		5,689		5,689									263,554	
34 35	Maintenance of Other Equipment  Total O&M - Distribution	894		2,095 182,041	-	2,095 182,041									97,049 8,432,825	
35 36	Total O&M - Distribution  Total O&M - Gas Production and Distribution		S	43,601	-	\$ 206,447	\$ -	¢ -	¢ -	· -	· -	\$ -	•	\$ (162,846)		
37	Total Octiv - Gus Froduction and Distribution		-	43,001	<u> </u>	3 200,447	<b>y</b> -	Ψ -	Ψ -	<b>y</b> -	y -	<b>y</b> -	-	\$ (102,040)	9 7,303,437	03.3470
38	Customer Accounts Expenses															
39	Supervision	901	\$	5,250		\$ 5,250									\$ 243,201	1.66%
40	Meter Reading Expenses	902		6,427		6,427									297,723	
41	Customer Records and Collection Expenses	903		34,054		34,054									1,577,532	
42	Uncollectible Accounts	904.0		-		-									-	0.00%
43 44	Bad Debt Expense - Commodity Miscellaneous Customer Accounts Expenses	904.1 905		-		-									-	0.00%
45	Total Customer Accounting	903	S	45,731	\$ -	\$ 45,731	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ .	\$ 2,118,456	
46	Total Canonic recoming			15,751		0 13,731	4	Ψ	Ψ	Ψ	<b>-</b>	Ψ	-		2,110,130	11.1770
47	Customer Service and Informational & Sales Expenses															
48	Cust Assistance	908	\$	-		\$ -									\$ -	0.00%
49	Informational and Instructinal Advertising Expenses	909		462		462									21,409	
50	Cust Service Misc	910													-	0.00%
51	Sales & Advertising	912		9,032		9,032									418,379	
52 53	Advertising Expenses Miscellaneous Sales Expenses	913 916		1,647		1,647									76,299	0.00% 0.52%
54	Total Customer Service and Informational & Sales Expens			11,141		11,141									516,086	
55	Total Customer Accounts, Customer Service and Informati		\$	56,872	s -	\$ 56,872	s -	\$ -	\$ -	\$ -	\$ -	\$ -	S -	s -	\$ 2,634,542	
56	<b>,</b>				-		•			•						
57	Administrative and General Expenses															
58	A&G Salaries	920.0	\$	52,626		\$ 52,626									\$ 2,437,821	
59	A&G Salaries - LU Head Office	920.1		-		-									Allocated costs	0.00%
60	Office Supplies and Expenses	921.0		(10,202)		-		222.052						(10,202)		0.00%
61 62	Administrative Expenses Transferred LU Labor Allocations Capitalized	922.0 922.1		233,952		-		233,952							Allocated costs Allocated costs	0.00%
63	Outside Services Employed	922.1		-		-									Allocated costs	0.00%
64	Allocated LU Head Office	923.1		-		-									-	0.00%
65	Property Insurance	924		-		-									-	0.00%
66	Injuries and Damages	925		-		-									-	0.00%
67	Employee Pensions and Benefits	926		(727,193)		-		(727,193	)						-	0.00%
68	Regulatory Commission Expenses	928		(36,883)		-								(36,883)	-	0.00%
69 70	Miscellaneous General Expenses Rents	930 931		(42,637)		-								(42.627)	-	0.00%
70 71	Rents Maintenance of General Plant	931 932		(42,637)		-								(42,637)	-	0.00%
71	Total Administrative & General	932		(530,336)		52,626		(493,240)	) -	_	_	_	-	(89,722)	2,437,821	
73	Total Operation and Maintenance Expenses		\$	(429,863)	\$ -	\$ 315,945	s -	\$ (493,240		\$ -	\$ -	\$ -	\$ -	\$ (252,568)	\$ 14,635,799	
	r		Ψ	(.27,003)		- 212,743		. (470,240		,	-		<u> </u>	. (202,000)		

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 Liberty Utilities (EnergyNorth)
 Adjustment 1
 Adjustment 2
 Adjustment 3
 Adjustment 3

Historical Test Year Labor Expense % Total Labor

Line	Account	Account Number	 Total	Revenue justments		alary and ige Expense	yroll Tax Expense	F	nsion and Benefits Expense	preciation Expense		rtization xpense	Prop	erty Tax	Ex	ome Tax pense - storical st Year	Pro I	ome Tax Expense - Forma Test Year a Current Rates		Other justments
74																				
75	DEPRECIATION AND AMORTIZATION EXPENSE																			
76	Depreciation Expense	403.0	\$ 1,836,152							\$ 1,836,152										
77	Amortization - Intangibles	405.0	(128,313)									(128,313)								
78	Regulatory Debits	407.3	186,853									186,853								
79	Regulatory Credits - Amortization of Regulatory Assets	407.4	 (1,297,126)									(1,297,126)								
80	Total Depreciation and Amortization Expense		\$ 597,567	\$ -	\$	-	\$ -	\$	-	\$ 1,836,152	\$ (	(1,238,585)	\$	-	\$	-	\$	-	\$	
81																				
82	TAXES OTHER THAN INCOME TAXES																			
83	Taxes other than Income Taxes - Payroll Taxes	408	\$ 382,609				\$ 382,609													
84	Taxes other than Income Taxes - Property Taxes	408	 401,949											443,281						(41,332)
85	Total Taxes other than Income Taxes		\$ 784,558	\$	\$	-	\$ 382,609	\$	-	\$ -	\$		\$	443,281	\$	-	\$	-	\$	(41,332)
86																				
87	FEDERAL / STATE INCOME TAXES																			
88	Income Tax Expense		\$ (394,116)	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$	-	\$	(522,835)	, \$	128,718	\$	-
89																				
90																				
91																				
92	TOTAL EXPENSES		\$ 558,145	\$	\$	315,945	\$ 382,609	\$	(493,240)	\$ 1,836,152	\$ (	(1,238,585)	\$	443,281	\$	(522,835)	\$	128,718	\$	(293,900)
93																				
94	REVENUES																			
95	Operating Revenue		\$ 1,427,588	\$ 1,427,588	3															
96	Other Revenue			-																
97	Total Revenue		\$ 1,427,588	\$ 1,427,588	\$ \$	-	\$ -	\$	-	\$ -	\$		\$	-	\$	-	\$		\$	-
98			 																	
99	UTILITY NET INCOME		\$ 869,443	\$ 1,427,588	\$	(315,945)	\$ (382,609)	\$	493,240	\$ (1,836,152)	\$	1,238,585	\$	(443,281)	\$	522,835	\$	(128,718	) \$	293,900

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

Line	Description	Cı	rrent Amounts (12/31/2019 Test Year)	Source/Notes
1	Operating Revenue	\$	83,163,870	Trial Balance
2				
3	Adjustments to Operating Revenue			
4				
5	Granite Ridge Special Contract	\$	(776,312)	
6	iNATGAS Special Contract		(24,630)	
7	Allowed Base Revenue Adjustment to Test Year		(831,044)	
8	Customer Count Adjustment		734,227	Required by Commission Order No. 26,122
9	Pelham Risk Sharing Adjustment		64,583	Mullen Testimony
10	One-time correcting entry - ROR on Concord Steam Adjustment		(45,747)	DBS/KAS-1
11	One-time correcting entry - True-up on LRAM Adjustment		81,406	DBS/KAS-1
12	CIBS Revenue Adjustment		1,612,633	Required by Commission in Docket DG 20-049
13	End of Year Rate Adjustment			Input (Table 1 of DeCourcey Testimony)
14	Pro Forma Operating Revenue	\$	84,591,458	• • • • • • • • • • • • • • • • • • • •
15	1 0		, ,	
16	Total Adjustment to Operating Revenues	\$	1,427,588	

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

Line	Department	Total
1	Test Year LU NH Labor Charged to EnergyNorth	\$ 14,635,799
2	Less: vacancy adjustment	211,691
3	Net Test Year Labor Charged to EnergyNorth	\$ 14,424,108
4	2019 Salary & Wage Increase Annualization- O&M	 3%
5	2019 Payroll Increase Annualization (not in test year, effective March 2019)	71,394
6	2019 LU NH Labor Charged to EnergyNorth Annualized	14,495,502
7		
8	2020 Salary & Wage Increase - O&M	434,865
9	Adjustment for pro rated increase (effective March 2020)	(72,478)
10	2020 Payroll Increase - O&M	\$ 362,388
11		
12	Test year LU Regional Allocated Labor (not included in test year labor)	\$ 3,128,482
13	2019 Salary & Wage Increase LU Regional	3%
14	2019 Salary & Wage Increase Annualization (not in test year)	 15,261
15	2019 Salary & Wages Annualized	\$ 3,143,743
16		
17	2020 Salary & Wage Increase - O&M	94,312
18	Adjustment for pro rated increase (effective March 2020)	(15,719)
19	2020 Payroll Increase - O&M	\$ 78,594
20	•	 
21	Pro Forma LU NH Labor for 2020 Payroll Increase	18,080,226
22		,,
23	Test Year Labor Charged to EnergyNorth	17,764,281
24	6	.,,
25	Increase Due to Known and Measurable - Payroll	\$ 315,945

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

Line	Particulars	Reference	E	xpense (\$)
1	Unadjusted Test Year Labor Expense	RR-EN-2-1	\$	14,635,799
2	Unadjusted Test Year Payroll Tax Expense	RR-EN-2-1		1,625,755
3	Payroll Tax Rate (%)			11.11%
4				
5	Adjusted Test Year Labor Expense		\$	18,080,226
6	Payroll Tax Rate (%)			11.11%
7	Adjusted Payroll Tax Expense			2,008,364
8	Increase Due to Known and Measurable Payroll Tax Expense		\$	382,609

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

21

Line	Particulars Source		Amount
1	Test Year ended 12/31/2019 Benefits Expense RR-3-04WP	s	4,623,151
2	Adjustment to Benefits Expense	\$	17,010
3			.,.
4	Historical Test Year Pension & OPEB Expense RR-3-04WP	\$	3,300,364
5	Adjustment to Pension & OPEB Expense RR-3-04WP	\$	(680,094)
6	•		
7	Historical Test Year Other Employee Benefits Expense RR-3-04WP	\$	64,108
8	Adjustment to Other Employee Benefits Expense	\$	(64,108)
9			
10			
11	Adjustment - Including Capitalized Portion of Pensions and OPEBs - To Account 926	\$	(727,193)
12			
13	Total Ln 5		(680,094)
14	Capitalization Rate		34.40%
15			
16	Adjustment - Capitalized Portion - To Account 922	\$	233,952
17			
18			
19	Adjustment to Rate Year Expense	\$	(493,240)
20			

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

Pinche   Account   Accou							Plant in Se	rvice			Pro Forma		Accun	ulated Reserve	
Capital Software -   Years   930.0   16.13%   16.411/22   999.181   39.00   99.178   18.5,450   72.542   241.247   526.66   47.08   72.542   72.04	Line	Account				Additions	Account 106			(less IT)				Accounts 1084 and 2420 by FERC Account	Adjusted Accumulated Reserve
Capital Software -   Years   930.0   16.13%   16.411/22   999.181   39.00   99.178   18.5,450   72.542   241.247   526.66   47.08   72.542   72.04	1	Franchicas and Consents	302	0.00%	250.950			250.050		250.950					
Copies Software - 3 Years   303.1   33.33	,					989 181		,							
Capital Software - 1 Years   93.2   20.00%   14.13.20   14.13.20   13.103.204   1	-				10,411,722	707,101			185 436		241 247	526 686			485.478
Compain Software   10 Norm   10 No									105,150						10.753.219
Subsoil NTANDIELP LANT	5				_				_						2,322,064
Recommendation   Section	6				\$ 16,662,672 \$	989.181			\$ 185,436				\$ 41,208	\$ -	\$ 13,560,761
Structures and Improvements   305   2.86%   815.122   37,045   - 882,167   - 882,167   - 82,167   - 24,372   - 280,124   - 1	7														
Liquerical Percoleum Cas Equipment   311   2.86%	8	Land & Land Rights	304		\$ 97,504	\$ -	S - S	97,504	s -	\$ 97,504	s -	S -	S -	\$ -	\$ -
Cas Mixing Equipment   319   5.00%   33.6984   31.600   368,345   368,345   18.417   241.92°   1.7246   1.724	9	Structures and Improvements	305	2.86%	815,122	37,045	-	852,167	-	852,167	24,372	280,124	-		280,124
Other Equipment   NG   320,   2,86%   294,148   21,422   315,570   315,570   3,925   (57,148)   1   1   1   1   1   1   1   1   1	10	Liquefied Petroleum Gas Equipment	311	2.86%			-		-			(35,647)	) -		(35,647)
Other Equipment   320,	11	Gas Mixing Equipment	319	5.00%	336,984	31,360	-	368,345	-	368,345	18,417	241,392	-		241,392
Purification Equipment   361   2,80%   9,09%   - 9,0980   2,774   17,233   - 9,000   1,000   1,000   - 9,000   1,000   - 9,000   1,000   - 9,000	12	Other Equipment - LNG	320.0	2.86%	294,148	21,422	-	315,570	-	315,570	9,025	(57,148)	) -		(57,148)
Other Equipment   363   2,86%   7,646   8,98,27   8   7,646   7,646   219   2,044   8   7,046   7,04	13	Other Equipment	320.1	2.86%	3,478,111	0	-	3,478,111	-	3,478,111	99,474	1,389,131	-		1,389,131
Subtocal - PRODUCTION PLANT   Solid	13		361	2.86%	96,980	-	-	96,980	-	96,980	2,774	17,233	-	-	17,233
Table   Tabl	15	Other Equipment	363	2.86%	7,646	-	-	7,646	-	7,646	219	2,044	-	-	2,044
Land & Land Rights   364.1   0.00%   \$73.15   \$ . \$ . \$ . \$ . \$ . \$ . \$ . \$ . \$ . \$	16	Subtotal - PRODUCTION PLANT			\$ 5,126,494 \$	89,827	\$ - \$	5,216,322	S -	\$ 5,216,322	\$ 154,281	\$ 1,837,129	\$ -	\$ -	\$ 1,837,129
Structures and Improvements															
Other Equipment   Sabotal LNG Terminaling and Processing   Sabotal LNG Terminaling and Processing Sabotal LNG Terminaling and Processing Sabotal LNG Terminali	18					-	\$ - \$		S -		-	-	-	-	-
Subtoral LNG Terminaling and Processing	19					-	-		-					-	460,293
22			364.8	5.26%			-		-					-	2,400,155
23   Land & Land Rights   365   0.00%   S -		Subtotal LNG Terminaling and Processing			\$ 4,595,825 \$	(33,412)	\$ - \$	4,562,412	\$ -	\$ 4,562,412	\$ 222,350	\$ 2,860,448	\$ -	\$ -	\$ 2,860,448
Structures and Improvements   36.2   2.86%   -   -   -   -   -   -   -   -   -															
25   Structures and Improv-Other   366.3   2.86%   -   -   -   -   -   -   -   -   (48.434)   -					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -			\$ -	\$ -
26   Mains   367   1.92%   1.722,426   11.827)   29.863   11.740,462   - 11.740,462   22.5417   404,274   - 12.74					-	-	-		-	-	-			-	(34,860)
27   Measuring and Regulating Station Equipment   369   2,86%   115,257   22,924   -   138,182   -   138,182   3,952   (18,159)   -					-	-	-		-	-				-	(48,434)
28 Land & Land Rights 374 0.00% 357,903 - 579,003 - 357,903 - 357,							29,863							-	404,274
29   Structures and Improvements   375   2,86%   99,272   1,590,024   - 1,689,296   - 1,689,296   43,314   213,309   - 1,689,296   - 1,689,298   - 1,689,296   - 1,689,2						22,924	-				3,952	(18,159)	-	-	(18,159)
30 T&D Mains - STL-PLST-Cl-Mixed 376.0 1.92% 257.097.448 29.961.341 25.023.889 312.082.678 - 312.082.678 5.991.987 72.204.757 - 2.799.1   31 T&D Mains - OTH 376.1 1.92% 288 - 288 - 288 - 288 6 288 - 288 3 12.082.678 - 312.082.078 - 312.082.678 - 312.082.						-	-		-		-	-	-	-	-
31 T&D Mains - OTH							-		-				-	-	213,309
32         T&D Mains - PLST         376.2         1.92%         2,783,066         305,297         1,444,003         4,532,366         - 4,532,366         87,021         988,333         - 38,333           33         T&D Mains - CI         376.3         1,92%         6,137         6,137         - 118         6,137         - 1           34         T&D Mains - Valve > 4"         376.4         1,92%         7,061         7,061         - 7,061         136         984         -           35         Dist-Compressor station equipment         377         1,92%         - 2,246,186         - 2,246,186         - 2,246,186         43,127         192,723         -           36         Measuring and regulating Station equipment - General         378         2,86%         6,490,028         943,675         1,887         7,435,290         - 7,455,290         21,649         4,388,391         -           37         Dist-Measuring and regulating station equipment-Gineral         379         2,86%         1,883,503         3,411,244         - 5,294,746         - 5,294,746         151,430         1,321,095         -           38         T&D Gas Services - STI         380.1         3,55%         893,282         124,699         371,956         1,389,937         - 1,389,9						29,961,341	25,023,889		-				-	2,799,937	
33 T&D Mains - CI 376, 3 1,92% 6,137 - 6,137 - 6,137 118 6,137 3 128 Mains - Valve > 4" 376,4 1,92% 7,061 - 7,061 - 7,061 - 7,061 136 984 3 150 bits-Compressor station equipment 377 1,92% 7,061 - 2,246,186 - 2,246,186 - 2,246,186 43,127 192,723 - 7,455,290 - 7,435,290 - 7,435,290 212,649 4,358,391 3 10 1,000 1 1,000						205 207	1 444 002								
34         T&D Mains - Valve > 4"         376,4         1,92%         7,061         -         -         7,061         -         7,061         136         984         -           35         Dist-Compressor station equipment         377         1,92%         -         2,246,186         -         2,246,186         -         2,246,186         43,127         192,723         -           36         Measuring and regulating station equipment - General         378         2,86%         6,490,028         943,675         1,587         7,435,290         -         7,455,290         21,264,9         4,358,391         -           37         Dist-Measuring and regulating station equipment - General         379         2,86%         1,883,503         3,411,244         -         5,294,746         -         5,294,746         151,430         1,321,095         -           38         T&D Gas Services - STL         380.0         3,55%         159,518,056         6,111,903         176,556,254         -         176,556,254         6,267,747         86,081,825         -         872,246,186         -         1,389,937         -         1,389,937         -         1,389,937         -         1,389,937         -         1,389,937         -         1,389,937         - <td></td> <td></td> <td></td> <td></td> <td></td> <td>305,297</td> <td>1,444,003</td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>38,323</td> <td></td>						305,297	1,444,003		-					38,323	
37 Dist-Compressor station equipment 377 1.92% 2.246,186 - 2.246,186 - 2.246,186 43,127 192,723 - 3   Measuring and Regulating Station Equipment - General 378 2.86% 6.490,028 943,675 1.587 7,435,290 - 7,435,290 212,649 4,358,391 - 3   Measuring and Regulating Station equipment - General 379 2.86% 1.883,503 3.411,244 - 5,294,746 - 5,294,746 15,1430 1,321,095 - 3   Measuring and regulating station equipment - General 379 2.86% 1.883,503 3.411,244 - 5,294,746 - 5,294,746 15,1430 1,321,095 - 3   Measuring and Regulating station equipment - General 379 2.86% 1.893,503 3.411,244 - 5,294,746 - 5,294,746 15,1430 1,321,095 - 3   Measuring and Regulating Station equipment - General 379 2.86% 1.893,503 3.411,244 - 5,294,746 - 5,294,746 - 5,294,746 15,1430 1,321,095 - 3   Measuring and Regulating Station equipment - General 379 2.86% 1.893,503 3.411,244 - 15,294,746 - 5,294,746 - 5,294,746 15,1430 1,321,095 - 3   Measuring and Regulating Station equipment - General 379 2.86% 18,951,819,319 176,556,524 - 176,556,254 6,267,747 86,081,825 - 872,347   Meters - PLST 380,2 3.55% 757,753 153,465 66,375 977,594 - 977,594 34,705 250,267 - 3   Meters - Instrument 381,0 3.13% 13,465,33 (201,985) 1,550,680 14,795,228 463,091 4,544,359 - 5,444,349 - 5,444,349						-	-		-				-	238	
36         Measuring and Regulating Station Equipment - General         378         2.86%         6.490,028         943,675         1,587         7,435,290         - 7,435,290         212,649         4,358,391         -           37         Dist-Measuring and regulating station equipment-Ci         379         2.86%         1,883,503         3,411,244         -         5,294,746         -         5,294,746         151,430         1,321,095         -         872.5           38         T&D Gas Services - STL         380.0         3,55%         189,282         124,699         371,956         1,389,937         -         1,389,937         49,343         151,982         -           40         T&G Gas Services - PLST         380.1         3,55%         893,282         124,699         371,956         1,389,937         -         1,389,937         49,343         151,982         -           40         T&G Gas Services - PLST         380.1         3,15%         757,753         153,465         66,675         977,594         -         977,594         49,434         34,705         250,267         -           41         Meters         381.0         3,13%         276,522         -         -         276,522         -         14,795,228         46,799 </td <td></td> <td></td> <td></td> <td></td> <td>7,061</td> <td>2 246 196</td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td>-</td> <td>38</td> <td>192,723</td>					7,061	2 246 196			-				-	38	192,723
37         Dist-Measuring and regulating station equipment-Ci         379         2.8%         1.883.503         3.411.244         -         5.294.746         -         5.294,746         151.430         1.321.095           38         T&D Gas Services - OTH         380.0         3.55%         159,518.056         10,726.295         6.311.903         176,556.254         -         176,556.254         6.267,747         86.081.825         -         872.2           39         T&D Gas Services - OTH         380.1         3.55%         893.282         124.699         371.956         1,389.937         -         1,389.937         49,343         151.982         -           40         T&G Gas Services - PLST         380.2         3.55%         757.753         153.465         66.375         977.594         -         977.594         34,705         250.267         -           41         Meters - Instrument         381.1         3.13%         276.522         -         276.522         -         276.522         -         276.522         8,655         113.499         -           43         Meters - LeRTS         381.2         6.67%         6.073.514         (27.801)         -         276.522         -         276.522         8,655         113.49					6 400 020								-	-	4,358,391
38 T&D Gas Services - STL 380.0 3.55% 89.528 10.756.295 6.311.903 176.556.254 - 176.556.254 6.267.747 86.081.825 - 872.3   7.80 Gas Services - OTH 380.1 3.55% 893.282 124.699 371.956 1.389.937 - 1.389.937 49.343 151.982 -  40 T&G Gas Services - PLST 380.2 3.55% 757.753 153.465 66.375 977.594 - 977.594 34.705 250.267 -  41 Meters - STRIMMENT 381.0 3.13% 13.446.533 (201.985) 1.550.680 14.795.228 - 14.795.228 463.091 4.544.559 - 9.0   42 Meters - Instrument 381.1 3.13% 276.522 - 276.522 - 276.522 8.655 113.499 -  43 Meters - ERTS 381.2 6.67% 6.073.154 (27.801) - 6.045.353 - 6.045.353 403.225 2.744.146 -  44 Meter Installations 382 3.13% 18.597.177 - 7.464.547 26.061.724 - 26.061.724 18.5732 4.122.684 -							1,587						-	-	1,321,095
39 T&D Gas Services - OTH 380.1 3.55% 893,282 124,699 371,956 1,389,937 - 1,389,937 49,343 151,982 - 4   40 T&G Gas Services - PLST 380.2 3.55% 757,753 153,465 66,375 977,594 - 977,594 34,705 250,267 - 4   41 Meters 381.0 3.13% 13,446,533 (201,985) 1,550,680 14,795,228 - 14,795,228 463,091 4,544,359 - 9   42 Meters - Instrument 381.1 3.13% 276,522 - 276,522 - 276,522 8,655 113,499 - 4   43 Meter S- LRTS 381.2 66,7% 6,073,154 (27,801) - 6,045,353 - 6,045,353 403,225 2,744,146 - 4   44 Meter Installations 382 3.13% 18,597,177 - 7,464,547 26,061,724 - 26,061,724 18,732 41,122,684 - 4							6 211 002		-					872,591	
40 T&G Gas Services - PLST 380.2 3.5% 757,753 153.465 66.375 977,594 - 977,594 34.705 250,267 - 4 Meters - Instrument 381.1 3.13% 276,522 - 276,522 - 276,522 463,91 4,544,359 - 97.594 4 Meters - Instrument 381.1 3.13% 276,522 - 276,522 - 276,522 - 276,522 8,655 113,499 - 276,522 - 276,522 8,655 113,499 - 276,522 8,645,533 403,225 2,744,146 - 276,524 4 Meters instillations 382 3.13% 18,597,177 - 7,464,547 26,061,724 26,061,724 26,061,724 18,5732 41,22,684 - 276,061,724 18,75														072,371	151,982
41 Meters 381.0 3.13% 13,446,533 (201,985) 1,550,680 14,795,228 - 14,795,228 463,091 4,544,359 - 9 1 1,000 1															250,267
42 Meters - Instrument 381.1 3.13% 276,522 - 276,522 - 276,522 8,655 113,499 - 4 43 Meters - ERIS 381.2 6.67% 6,073,154 (27,801) - 6,045,353 - 6,045,353 403,225 2,744,146 - 4 44 Meter Installations 382 3.13% 18,597,177 - 7,464,547 26,061,724 - 26,061,724 815,732 4,122,684 -													-	919	
43 Meters - ERTS 381.2 6.67% 6,073,154 (27,801) - 6,045,353 - 6,045,353 403,225 2,744,146 - 4 44 Meter Installations 382 3.13% 18,597,177 - 7,464,547 26,061,724 - 26,061,724 815,732 4,122,684 -							1,550,000							,,,,	113,499
44 Meter Installations 382 3.13% 18,597,177 - 7,464,547 26,061,724 - 26,061,724 815,732 4,122,684 -							-		-					-	2,744,146
						(27,001)	7 464 547		-				-	-	4,122,684
					10,577,177	53 375	7,707,777		-				-	1,229	
46 Other Equipment 387 5.26% 1.714.172 24.435 939.163 2.677.770 - 2.677.770 140.851 1.078.797 -					1.714.172		939.163		-				-	1,227	1.078.797
	47			5.2070					S -				S -	\$ 3,713,289	

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

50 St 51 St 52 St 53 Oi 54 Oi 55 Oi 56 Tr 57 Tr	Account  and & Land Rights tructures and Improvements tructures and Improvements - Boiler tructures and Improvements ffice Furniture and Equipment ffice Furniture and Equipment - Computers	389 390.0 390.1 390.2	Depreciation Rates  0.00% 2.86% 2.86%	Balance 1/1/2019 \$ 174,525 \$	Additions	Account 106	Balance 12/31/2019	Decoupling IT over \$50k	Balance (less IT)	Depreciation Expense	Accumulated Reserve as of 12/31/2019		Accounts 1084 and 2420 by FERC	Adjusted
49 La 50 St 51 St 52 St 53 Or 54 Or 55 Or 56 Tr 57 Tr	tructures and Improvements tructures and Improvements - Boiler tructures and Improvements ffice Furniture and Equipment	390.0 390.1 390.2	2.86%						12/31/2019	Expense	as of 12/31/2019	II over \$50k	Account	Accumulated Reserve
50 St 51 St 52 St 53 Oi 54 Oi 55 Oi 56 Tr 57 Tr	tructures and Improvements tructures and Improvements - Boiler tructures and Improvements ffice Furniture and Equipment	390.0 390.1 390.2	2.86%				121,489	s -	s 121.489	\$ -		\$ -	\$ -	s -
51 St 52 St 53 Oi 54 Oi 55 Oi 56 Tr 57 Tr	tructures and Improvements - Boiler tructures and Improvements ffice Furniture and Equipment	390.1 390.2		18,958,404	(53,036) 2,605,825		22,632,412		22,632,412	\$ - 647,287	5,559,722	5 -	26,833	
52 St 53 Oi 54 Oi 55 Oi 56 Tr 57 Tr	tructures and Improvements  ffice Furniture and Equipment	390.2		20,705	2,003,823	1,008,183	20,705		22,632,412	592	21,812	-	20,833	21,812
53 Oi 54 Oi 55 Oi 56 Tr 57 Tr	ffice Furniture and Equipment		2.86%	20,703			20,703	-	20,703	392	5,360	-		5,360
54 Or 55 Or 56 Tr 57 Tr		391.0	5.28%	357,246	176,299		636,368		636,368	33,600	119.886	-		119.886
55 Oi 56 Tr 57 Tr	rince rurniture and Equipment - Computers	391.1	10.00%	846,215	176,299	1.71.11	867,103		867,103	86,710	(403,214)	-		(403,214)
56 Tr 57 Tr	ffice Furniture and Equipment - Laptop Computers	391.1	20.00%	834.476	44.256		899,621	-	899.621	179.924	440,849	-		440,849
57 Tr	ransportation Equipment - Auto	391.2 392.0	20.00%	5,380,959	1,102,627		7,714,115		7,714,115	1,542,823	3,451,477	-	-	3,451,477
	ransportation Equipment - Auto ransportation Equipment - Truck	392.0	20.00%	170.840	(20,060)		150,780	-	150.780	30.156	150,780	-		150.780
	ransportation Equipment - Truck ransportation Equipment - Van	392.1 392.2	20.00%	170,840	128,607		142,220	-	142,220	28,444	13,613	-	-	130,780
	ransportation Equipment - van ransportation Equipment - Van	392.2 392.3	20.00%	13,613	128,607		142,220		142,220	28,444	13,613 34,070	-	-	34.070
	ransportation Equipment - van tores Equipment	392.3	3.33%	99,421		-	138,142	-	138.142	4,600	34,070 35,198	-	-	34,070
					2 000 550	30,722		-		4,600 175.655	35,198 787,804	-	-	35,198 787,804
	ools, Shop, and Garage Equipment ools, Shop, and Garage Equipment - CNG Station	394.0 394.1	5.26% 5.26%	1,041,043	2,099,550	,	3,339,457	-	3,339,457	,		-	-	
	oois, Snop, and Garage Equipment - CNG Station ower Operated Equipment <=12,000 lbs			-		-		-	-		(33,749)	-	-	(33,749)
		396.0	20.00%	454,189	214,302	,	1,201,359	-	1,201,359	240,272	177,393	-		177,393
	ower Operated Equipment >=12,000 lbs	396.1	20.00%	177,393			177,393	-	177,393	35,479	461,164 44,952	-	-	461,164 44,952
	ower Operated Equipment <=12,000 lbs	396.2	20.00%				-	-	-	-		-	-	
	ommunications Equipment	397	10.00%	507,407	165,492		892,402		892,402	89,240	433,204	-		433,204
	liscellaneous Equipment	398	6.67%	485,924		317,050	802,973		802,973	53,558	251,165	-		251,165
	ubtotal - GENERAL PLANT	_		\$ 29,522,360 \$	6,463,862	\$ 3,750,318 \$	39,736,540	S -	\$ 39,736,540	\$ 3,148,341	\$ 11,551,486	S -	\$ 26,833	11,524,653
69 70 <b>T</b> C	OTAL	_		\$ 537,746,391 \$	56 920 904	\$ 47.140.284 \$	641,375,210	e 105.426	\$ 641.189.774	\$ 21,659,125	\$ 208.532.762	\$ 41.208	\$ 3,740,121	\$ 204,751,433
71 1	UIAL	_		\$ 337,740,391 \$	30,830,804	3 47,140,284 3	041,373,210	3 185,450	5 041,189,774	\$ 21,039,123	\$ 208,332,702	3 41,208	3 3,740,121	\$ 204,/31,433
	PI-LAND RETAINED	121					13,665		Non-Rate Base					
	PI-STRUCTURES-RETAINED	121.1					133,284		Non-Rate Base		133,284			Not In Rate Base
	LANT HELD FOR FUTURE USE	105					852,305		Non-Rate Base		133,204			Not ill Rate Base
75	LANT HELD FOR FUTURE USE	103					632,303		Non-Kate Base					
	RAND TOTAL	_		\$ 537,746,391 \$	56.830.804	\$ 47,140,284 \$	642,374,464	\$ 185,436	\$ 641,189,774	\$ 21,659,125	\$ 208,666,046	\$ 41.208	\$ 3,740,12	1 \$ 204,751,433
77	MILD TOTAL	_		Ψ 557,710,551 Ψ	30,030,001	ψ 17,110,201 c	012,571,101	0 100,100	0 011,102,771	U 21,007,120	Ψ 200,000,010	y 11,200	5,710,12	201,731,133
	ess: Amortization expense included above						To RR-EN-3-6			\$ (3,185,122)				
	epreciation Expense, as Calculated						10 1111 1211 2 0			\$ 18,474,003				
	epreciation Reserve Imbalance									\$ 9,213,530				
	mortization Period									6				
	epreciation Reserve Imbalance Adjustment Amortization (Acc	ount 403)								\$ 1,535,588				
	ro Forma Depreciation Expense									\$ 20,009,591				
	est Year Actual Depreciation Expense									\$ 18,173,439				
	djustment to Depreciation Expense									\$ 1,836,152				

Line	Description	Reference	Amortization Expense		
1	Adjustment 1: Account 1929-4073 - Amortization of Costs to Achieve				
2	Amount in Historical Test Year	RR-EN-2-1	\$	705,261	
4	Remove Cost to Achieve	KK-EN-2-1	φ	(195,850)	
5	New Costs to Achieve			48,197	
6	Proposed Cost to Achieve			3	
7	Add New Cost to Achieve Amortization			16,066	
8	Remove Test Year Amortization for Concord Steam			(500,658)	
9	Add New Concord Steam Amortization			518,100	
10	Adjustment		\$	(162,343)	
11	Aujusunoni		Ψ	(102,343)	
12	Adjustment 2: NHDAS Special Contract Amortization				
13	Total NHDAS Special Contract Amount		\$	1,047,589	
14	Proposed Amortization Period (Years)		Ψ	3	
15	Adjustment		\$	349,196	
16	<del>-</del>			,	
17	Adjustment to Test Year Account 407.3		\$	186,853	
18	.,,			7	
19	Adjustment 3: Amortization of Excess Accumulated Deferred Income Taxes (EADIT)				
20	Total EADIT (inclusive of gross-up)		\$	(37,525,847)	
21	Weighted Average Remaining Life (years)			28.93	
22	Total Amortization Due to Customers		\$	(1,297,126)	
23					
24	Adjustment to Test Year Account 407.4		\$	(1,297,126)	
25					
26	Adjustment 4: Account 8640-4050 - Amortization of Intangibles				
27	Annual Amortization Expense, as Calculated	RR-EN-3-5	\$	3,185,122	
28	Deprecation Reserve Imbalance (Account 405)		\$	733,248	
29	Amortization Period			6	
30	Depreciation Reserve Impalance Amortization		\$	122,208	
31	Pro Forma Annual Amortization Expense			3,307,330	
32	Historical Test Year Expense	RR-EN-2-1		3,435,643	
33	Adjustment		\$	(128,313)	
34					
35	Adjustment to Test Year Account 405.0		\$	(128,313)	
36					
37	Total Adjustment		\$	(1,238,585)	

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

			Tax Year 2019								
Line	Municipality	Parcel	Installment #1	Installment #2	Total Due						
1	Allenstown	0400-001	\$ 30,526	\$ 32,637	\$ 63,163						
2	Amherst	002-033-008	48,942	47,884	96,826						
3	Amherst	002-033-007	4,171	4,081	8,252						
4	Auburn	000001/000001/000UTL	604	743	1,347						
5	Bedford	1-1-A	45,894	59,286	105,180						
6	Belmont	999-000-000-001	21,788	20,272	42,060						
7	Berlin	000404-000051.0000L1	10,810	11,418	22,228						
8	Boscawen	000099-000002-000000	10,906	12,263	23,169						
9	Bow	0-9-99	71,941	78,266	150,207						
10	Canterbury	000000-000002-000000	3,726	2,682	6,408						
11	Derry	35-102	37,832	57,824	95,656						
12	Franklin	000-001-00	44,651	47,057	91,709						
13	Gilford	210-002.000	53	70	123						
14	Gilford	210-003.000	49	67	116						
15	Gilford	210-004.000	47	65	112						
16	Gilford	210-005.000	49	67	116						
17	Gilford	200-003.000	3,336	3,954	7,290						
18	Goffstown	99-4-2	29,805	48,006	77,811						
19	Goffstown	99-4-1	2,780	(478)	2,302						
20	Hollis	056-027-001	2,647	2,614	5,261						
21	Hooksett	0GAS-0001	148,146	139,528	287,674						
22	Hooksett	0036-0041-0001	3,009	2,834	5,843						
23	Hudson	100-006-000	191,528	179,829	371,357						
24	Hudson	167-030-000	788	807	1,594						
25	Hudson	167-029-000	752	770	1,522						
26	Laconia	425/44/83/1	119,581	134,274	253,855						
27	Litchfield	000UTL-000UTL-000001	10,892								
28	Londonderry	81-7-0	221,407	11,171 232,117	22,063 453,524						
28 29	Londonderry	81-14-0									
30	Loudon	000070-000004-000000	19,889	19,464	39,353						
	Manchester		112,584	121,342	233,926						
31 32	Manchester	0999A-0075	992,725	1,031,464	2,024,189						
	Manchester	0752-0001	22,843	24,254	47,097						
33 34		0508-0002A 0394-0004	72 310	76	148						
	Manchester	0471-0008		329	639						
35	Manchester		529	562	1,091						
36	Merrimack	006D-3-000000-000000	180,814	180,650	361,464						
37	Milford	036-183-000-000	884	690	1,575						
38	Milford	055-007-000-000	56,819	63,292	120,111						
39	Nashua	0039-00026	2,676	2,681	5,357						
40	Nashua	0038-00063	88	93	181						
41	Nashua	0038-00020	139	146	285						
42	Nashua	0041-00011	1,122,729		2,159,806						
43	Nashua	0000PC-00005	62,561	26,914	89,475						
44	Northfield	000999-000001-000001	33,990	35,226	69,216						
45	Pembroke	999-11	774,000	51,160	825,160						
46	Sanborton	00.003.000.000	1,156	1,969	3,125						
47	Tilton	000R23-000013-000000	110,104	108,282	218,386						
48	Tilton	000R23-000014-000000	13,102	11,615	24,717						

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

			Tax Year 2019				
ıe	Municipality	Parcel	Ir	stallment #1	Installment #2	Total Due	
	Concord	109/1/2	\$	8,484	\$ 8,275	\$ 16,759	
	Concord	109/1/2	Φ	8,484	8,275	16,759	
	Concord	109/1/2		601	586	1,188	
	Concord	109/1/3		601	586	1,188	
	Concord	109/1/3		6,954	6,783	13,737	
	Concord	109/1/4		6,954	6,783	13,737	
	Concord	109/1/4		338	330	13,737	
	Concord	109/2/1		338	330	668	
	Concord	109/2/1		619	604	1,223	
	Concord	109/2/3		619	604	1,223	
	Concord Concord	109/2/4		978	954	1,932	
		109/2/4 NO00/1/12		978	954	1,932	
	Concord	NO00/1/13		1,326	1,293	2,619	
	Concord	NO00/1/13		1,326	1,293	2,619	
	Concord	P000/1/6		228	236	464	
	Concord	P000/1/6		228	236	464	
	Concord	P000/1/3		30,567	37,111	67,678	
	Concord	P000/1/3		30,567	37,111	67,678	
	Concord	NO00/1/2		319,552	370,457	690,009	
	Concord	NO00/1/2		319,552	370,457	690,009	
	Concord	202Z/21		276	269	545	
	Concord	202Z/21		276	269	545	
	Concord	26/1/6		1,912	1,865	3,777	
	Concord	26/1/6		1,912	1,865	3,777	
	Concord	494Z/3		315	307	621	
	Concord	494Z/3		315	307	621	
	Concord	109/2/4/A		6	6	12	
	Concord	109/2/4/A		6	6	12	
	State of NH	TRUE UP			230,708	230,708	
	State of NH	NH DRA 1-2		605,067	605,067	1,210,134	
	State of NH	NH DRA 3-4		605,067	605,067	1,210,134	
	Keene	583038000001000		45,598	43,361	88,959	
	Keene	116039000000000		8,012	8,264	16,276	
	R&M REALTY	582014000000000		5,249	5,385	10,633	
	Keene Propane	047020020000		21,051	20,281	41,332	
	State of NH	NH DRA 1-2		3,858	3,858	7,716	
	State of NH	NH DRA 3-4		3,858	3,858	7,716	
	Total		\$	6,616,745	\$ 6,231,399	\$ 12,848,143	
	Pro Forma Property Ta			12,848,143	:		
	Less Amount for Non-			-			
	Property Tax expense,		\$	12,404,863	•		
	Increase (Decrease) in	Property tax expense	\$	443,281			

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

Line	<b>Description</b> Reference			Amount
1	Test Year Actual to Statutory	Rates		
2				
3	Normalized Revenue	RR-EN-2, line 4	\$	84,361,646
4	Normalized Expenses, Excluding Income Tax	RR-EN-2, lines 7-13		64,739,399
5	Income (Loss) Before Taxes		\$	19,622,247
6				
7	Rate Base	RR-1	\$	356,411,727
8	Debt Portion	RR-4		49.85%
9	Debt Component			177,671,246
10	Debt Cost	RR-4		4.420%
11	Synchronized Interest Expense			7,853,069
12	Pre-Tax Income		\$	11,769,178
13				
14	Combined Income Tax Rate	Line 20		27.08%
15	Income Tax Expense (Credit) at Statutory Rates		\$	3,187,093
16	Income Tax Expense (Credit) Recorded			3,709,928
17	<b>Adjustment to Normalize Historical Test Year</b>		\$	(522,835)
18				
19	Federal Statutory Rate			21.00%
20	New Hampshire Business Tax Rate			7.70%
21	Combined Income Tax Rate			27.08%
22				
23	This adjustment normalizes income tax expense in t statutory rates.	he Test Year before adju	ıstme	ents to reflect

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 v	with Tax Effects
1	Adjustments to increase (decrease) taxable income:	_			() =	Lower income
2	Revenue Adjustments	RR-EN-3-1	\$	1,427,588	\$	1,427,588
3	Salary and Wage Expense	RR-EN-3-2		(315,945)		(315,945)
4	Payroll Tax Expense	RR-EN-3-3		(382,609)		(382,609)
5	Pension and Benefits Expense	RR-EN-3-4		493,240		493,240
6	Depreciation Expense	RR-EN-3-5		(1,836,152)		(1,836,152)
7	Amortization Expense	RR-EN-3-6		1,238,585		1,238,585
8	Property Tax	RR-EN-3-7		(443,281)		(443,281)
9	Income Tax Expense - Historical Test Year	RR-EN-3-8		522,835		
10	Income Tax Expense - Pro Forma Test Year at Current Rates	RR-EN-3-9		(128,718)		
11	Other Adjustments	RR-EN-3-10		293,900		293,900
12			\$	869,443	\$	475,326
13	Tax Rate		-			27.08%
14	Adjustment to Test Year at Current Rates				\$	128,718
15						<u> </u>

<sup>16</sup> 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	<b>Description</b>	Account	Amount
1	Adjustment for PUC Annual Assessment		
2	Liberty Utilities (ENNG) - Gas	\$	579,781
3	Liberty Utilities (ENNG) - IESR		149,295
4			
5	Liberty Utilities (ENNG) - GPSP	\$	39,717
6	Liberty Utilities (ENNG) - PIESR		7,805
7	Regulatory Expenses- Test Year		(813,481)
8			
9			
10	Total PUC Annnual Assessment Adjustment Adjustment	count 928 <u>\$</u>	(36,883)
11			
12	Adjustement for Concord Rental Expense Credit		
13	Test Year Concord Training Center Lease Credit	\$	(267,014)
14	Going forward Concord Traing Center Lease Credit		(309,651)
15			
16			
17	Total Concord Rental Expense Credit Adjustment Ad	count 931 \$	(42,637)
18			
19	Adjustment to Remove Keene Production Costs		
20	Keene Production Cost Ad	ecount 733 \$	(118,993)
21	Ac	count 735 \$	(43,853)
22	Ac	count 921 \$	(10,202)
23 24	Ac	ecount 408	(41,332)
25	Total Keene Production Cost Adjustment	<u> </u>	(214,380)

#### Liberty Utilities (EnergyNorth) Weighted Average Cost of Capital Test Year Ended December 31, 2019

Line	Description	Capital Structure	Cost of Capital	Weighted Cost of Capital	Tax Rate	Pre-Tax
1 2	Common Stock Long-Term Debt	50.15% 49.85%	10.51% 4.420%	5.27% 2.20%	27.08%	7.23% 2.20%
3	Total	100.00%	- -	7.47%		9.43%

## Liberty Utilities (EnergyNorth) Rate Base - EnergyNorth Balances at December 31, 2019

Line	Description	Reference	Rate Base		
1	Utility Plant (Balance at 12/31/2019)	RR-EN-3-5	\$ 641,189,774		
2	Depreciation Allowance (Balance at 12/31/2019)	RR-EN-3-5	(204,751,433)		
3	Net Utility Plant		\$ 436,438,341		
4					
5	Materials and Supplies (Average of 5 Quarterly Balances)	RR-EN-5-1	\$ 5,936,060		
6	Customer Deposits (Average of 5 Quarterly Balances)	RR-EN-5-1	(3,019,271)		
7					
8	Cash Working Capital	RR-EN-5-2	\$ 3,004,115		
9					
10	Deferred Tax Liability, Net (Balance at 12/31/2019)	RR-EN-5-WP1	\$ (58,583,670)		
11					
12	Excess Accumulated Deferred Income Taxes (less gross-up)	RR-EN-5-WP1	\$ (27,363,848)		
13					
14	Rate Base		\$ 356,411,727		

### Liberty Utilities (EnergyNorth) Rate Base Quarterly Balances - EnergyNorth Test Year Ended December 31, 2019

Line	e Description	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4	5 Quarter Average
1 2 3	Materials and Supplies	\$ 5,281,934	\$ 5,460,957	\$ 6,220,835	6,712,826	6,003,746	\$ 5,936,060
4 5	<b>Customer Deposits</b>	\$(2,989,774)	\$ (2,978,394)	\$ (3,062,985)	(3,000,070)	(3,065,133)	\$(3,019,271)

## Liberty Utilities (EnergyNorth) Cash Working Capital - EnergyNorth Test Year Ended December 31, 2019

Line	Description	Reference	Te	est Year Pro Forma
1	O&M Expenses			
2	Distribution, before Adjustments	RR-EN-2-1	\$	68,449,327
3	Less: Depreciation and Amortization	RR-EN-2-1		(22,314,344)
4	Less: Deferred Income Taxes	RR-EN-2-1-WP		(3,483,997)
5	Known and Measurable Adjustments (excluding depreciation and amortization)	RR-EN-2-1		(39,421)
6	-		\$	42,611,565
7				
8	Cash Working Capital Required - Days	25.72		7.05%
9				
10	Cash Working Capital Required		\$	3,004,115

#### Liberty Utilities (EnergyNorth) Step Increase - EnergyNorth

Line	Description	Misc	. Intangible Plant - 3 yr	Miso	e. Intangible Plant - 5 yr	Lľ	NG Plant		Mains		Station Equipment		Mains		Ieas. & Reg. ation Equip.		Services		Meters
-	FERC Account		303		303		320		367		369		376		378		380		381
1	Capital Spending	\$	382,500	\$	839,457	\$	100,000	\$	26,047,414	\$	350,000	\$	500,000	\$	130,000	\$	1,313,000	\$	1,880,000
2	D.C. 17. C.1.1.																		
3	Deferred Tax Calculation		14. CD 015		14. CD 015		r i con con		14. GD G20		M. CDCCC		M. CDCC		NA CORGO		14. CD CO		N/ A GD GOO
4	Tax Method		MACRS15		MACRS15	N	MACRS20		MACRS20		MACRS20		MACRS20		MACRS20		MACRS20		MACRS20
5	Tax Depreciation Rate		5.00%		5.00%		3.75%		3.75%		3.75%		3.75%		3.75%		3.75%		3.75%
7	Bonus Depreciation @ 0.00%	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_
8	Bonds Depreciation @ 0.00%	Ψ		Ψ		Ψ		Ψ		Ψ		Ψ		Ψ		Ψ		Ψ	
9	Tax Basis	\$	382,500	\$	839,457	\$	100,000	\$	26,047,414	\$	350,000	\$	500,000	\$	130,000	\$	1,313,000	\$	1,880,000
10	MACRS Depreciation	\$	19,125		41,973	\$	3,750	\$	976,778		13,125		18,750		4,875		49,238		70,500
11		·		·	, , , ,		- ,		,		-, -	Ċ	-,		,		.,		,
12	Tax Depreciation - Federal	\$	19,125	\$	41,973	\$	3,750	\$	976,778	\$	13,125	\$	18,750	\$	4,875	\$	49,238	\$	70,500
13	Tax Depreciation - State	\$	19,125	\$	41,973	\$	3,750	\$	976,778	\$	13,125	\$	18,750	\$	4,875	\$	49,238	\$	70,500
14	•																		
15	Book Depreciation Rate		33.00%		20.00%		2.86%		1.92%		2.86%		1.92%		2.86%		3.55%		3.13%
16	Book Depreciation	\$	126,225	\$	167,891	\$	2,860	\$	500,110	\$	10,010	\$	9,600	\$	3,718	\$	46,612	\$	58,844
17																			
18	Tax over (under) Book - Federal	\$	(107,100)	\$	(125,919)	\$	890	\$	476,668	\$	3,115	\$	9,150	\$	1,157	\$	2,626	\$	11,656
19	Tax over (under) Book - State		(107,100)		(125,919)		890		476,668		3,115		9,150		1,157		2,626		11,656
20	Deferred Taxes - Federal @ 19.38%	)	(20,759)		(24,407)		173		92,392		604		1,774		224		509		2,259
21	Deferred Taxes - State @ 7.70%		(8,247)		(9,696)		69		36,703		240		705		89		202		898
22	Deferred Tax Balance @ 0.00%	\$	(29,006)	\$	(34,103)	\$	241	\$	129,096	\$	844	\$	2,478	\$	313	\$	711	\$	3,157
23																			
24	Rate Base Calculation																		
25	Plant in Service	\$	382,500	\$	839,457	\$	,	\$	26,047,414	\$	350,000	\$	500,000		130,000		1,313,000	\$	1,880,000
26	Accumulated Depreciation		(126,225)		(167,891)		(2,860)		(500,110)		(10,010)		(9,600)		(3,718)		(46,612)		(58,844)
27	Deferred Tax Balance		29,006		34,103		(241)		(129,096)		(844)		(2,478)		(313)		(711)		(3,157)
28	Rate Base	\$	285,281	\$	705,668	\$	96,899	\$	25,418,207	\$	339,146	\$	487,922	\$	125,969	\$	1,265,677	\$	1,817,999
29																			
30	Revenue Requirement Calculation	Φ.	26,002	Φ.	66.545	Ф	0.120	ф	2 20 6 027	ф	21.002	ф	46.011	Φ	11.070	ф	110.252	ф	171 407
31	Return on Rate Base @ 9.43%	\$	26,902	\$	66,545	\$	9,138	\$	2,396,937	\$	31,982	<b>3</b>	46,011	\$	11,879	\$	119,353	<b>3</b>	171,437
32 33	Depreciation Expense		126,225		167,891		2,860 2,140		500,110 557,456		10,010 7,491		9,600 10,701		3,718		46,612		58,844
33 34	Property Tax @ 2.14% Insurance @ 0.14%						2,140				7,491 486				2,782 180		1 922		2.600
34 35	Annual Revenue Requirement	\$	153,127	¢	234,436	¢	14,276	•	36,144 <b>3,490,647</b>	¢	486	¢	694 <b>67,006</b>	•	18,559	•	1,822 <b>167,787</b>	¢	2,609 232,890
	Annual Kevenue Kequirement	Þ	153,127	Þ	234,436	Þ	14,2/0	\$	3,490,047	Þ	49,968	Þ	07,006	Þ	18,559	Þ	10/,/8/	Þ	232,890
36	,															-			

Rate of Return Calculation	Portion	After-Tax Cost	Pre-Tax WACC	Tax
Equity	50.2%	10.51%	7.23%	27.08%
Debt	49.9%	4.420%	2.20%	
	100.0%	_	9.43%	

Description	Am	ount	Reference	
Property taxes (Account 408-P)	\$ 12	2,848,143	RR-StepWP2	
Property insurance (Account 924)			RR-EN-2-1	\$ 51,523
Injuries and Damage (Casualty Insurance) (Account 925)			RR-EN-2-1	814,179
	\$ 13	2,848,143		\$ 865,702
Plant at Cost	\$ 60	00,336,257	RR-Step-EN-WP2	\$ 623,879,626
As % of Plant Cost		2.14%		0.14%

#### Liberty Utilities (EnergyNorth) Step Increase - EnergyNorth

Line	Description		tructures and inprovements	E	Office quipment		Vehicles		Tools	-	ommunication Equipment		iscellaneous Equipment		Total
	FERC Account		390		391		392		394		397		398		
1	Capital Spending	\$	810,000	\$	2,025,000	\$	2,861,000	\$	315,000	\$	60,000	\$	15,000	\$	37,628,371
2															
3	Deferred Tax Calculation														
4	Tax Method		MACRS39		MACRS7		MACRS5		MACRS7		MACRS7		MACRS8		
5	Tax Depreciation Rate		1.28%		14.29%		20.00%		14.29%		14.29%		14.29%		
6															
7	Bonus Depreciation @ 0.00%	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
8															
9	Tax Basis	\$	810,000		2,025,000	\$	_,,	\$	315,000	\$	60,000		15,000	\$	37,628,371
10	MACRS Depreciation	\$	10,385	\$	289,286	\$	572,200	\$	45,000	\$	8,571	\$	2,143	\$	2,125,698
11									.=						
12	Tax Depreciation - Federal	\$	10,385	\$	,	\$	572,200		45,000	\$	8,571		2,143	\$	2,125,698
13	Tax Depreciation - State	\$	10,385	\$	289,286	\$	572,200	\$	45,000	\$	8,571	\$	2,143		
14 15	D 1D 11 D		2.060/		5.000/		20.000/		5.060/		10.000/		6.670/		
16	Book Depreciation Rate	\$	2.86%	\$	5.28% 106.920	ď	20.00% 572,200	d.	5.26% 16,569	\$	10.00% 6,000	¢.	6.67% 1,001	\$	1,651,726
17	Book Depreciation	Э	23,166	Э	106,920	Э	572,200	Э	10,309	Э	6,000	Э	1,001	Э	1,031,720
17	Tax over (under) Book - Federal	\$	(12,781)	¢	182,366	Ф		\$	28,431	Ф	2,571	•	1.142	\$	473,972
19	Tax over (under) Book - Federal Tax over (under) Book - State	Ф	(12,781)	Ф	182,366	Ф	-	Ф	28,431	Ф	2,571	Ф	1,142	Ф	473,972
20	Deferred Taxes - Federal @ 19.38%		(2,477)		35,348		-		5,511		498		221		91,870
21	Deferred Taxes - State @ 7.70%		(984)		14,042		-		2,189		198		88		36,496
22	Deferred Tax Balance @ 0.00%	\$	(3,462)	\$		\$		\$	7,700	\$	696	\$	309	\$	127,360
23	Deferred Tax Barance @ 0.0070	Ψ	(3,402)	Ψ	47,370	Ψ		Ψ	7,700	Ψ	070	Ψ	307	Ψ	127,300
24	Rate Base Calculation														
25	Plant in Service	\$	810,000	\$	2.025.000	\$	2.861.000	\$	315,000	\$	60,000	\$	15,000	\$	37.628.371
26	Accumulated Depreciation	Ψ	(23,166)	Ψ	(106,920)	Ψ	(572,200)	Ψ	(16,569)	Ψ	(6,000)	Ψ	(1,001)	Ψ.	(1,651,726)
27	Deferred Tax Balance		3,462		(49,390)		0		(7,700)		(696)		(309)		(128,366)
28	Rate Base	\$	790,296	\$	1,868,690	\$	2,288,800	\$	290,731	\$	53,304	\$	13,690	\$	35,848,279
29					, , , , , , , , , , , , , , , , , , , ,		,,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				- 7,		,,
30	Revenue Requirement Calculation														
31	Return on Rate Base @ 9.43%	\$	74,525	\$	176,217	\$	215.834	\$	27,416	\$	5.027	\$	1.291	\$	3,380,493
32	Depreciation Expense		23,166		106,920		572,200		16,569		6,000		1,001		1,651,726
33	Property Tax @ 2.14%		17,335		/-		, , , , ,		.,		-,		,		597,905
34	Insurance @ 0.14%		1,124		2,810		3,970		437		83		21		50,518
35	Annual Revenue Requirement	\$	116,150	\$	285,947	\$	792,004	\$	44,422	\$	11,110	\$	2,312	\$	5,680,641
36	-		•		•		•				•		•		

## Liberty Utilities (EnergyNorth) Rate Case Expense Test Year Ended December 31, 2019

Line	Description	Vendor	I	Amount	
1 2 3 4 5 6	Revenue Requirement Marginal Cost Study Rate Design/Rate Calculations Decoupling/Effects on EE Functional Cost Study Cost of Capital	FTI Consulting		386,000	
7	Legal Services	Keegan Werlin		360,000	
8	Depreciation Reserve Review	Management Applications Consulting		35,000	
9	Miscellaneous (printing, legal no	tices, court reporter, Staff/OCA consultants, etc.)		319,000	
10	Total		\$	1,100,000	