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Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Step Adjustment- 2016 Capital Investments

Line	Description	Substation	OH Conductors	UG Conductors	Transformers	Meters	Structures	Fleet	Other	IT	Total
	<i>FERC Account</i>	362	364	366	368	370	390	392	394 et al	303	
1	Deferred Tax Calculation										
2	Capital Spending	3,656,730	11,212,868	202,116	224,994	158,990	1,520,572	516,362	83,135	111,814	17,687,581
3											
4	Tax method	MACRS20	MACRS20	MACRS20	MACRS20	MACRS20	MACRS20	MACRS5	MACRS20	MACRS5	
5	Tax Depr. Rate, 20-year MACRS	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	20.00%	3.75%	20.00%	
6											
7	Annual Tax Depreciation- Year 1	137,127	420,483	7,579	8,437	5,962	57,021	103,272	3,118	22,363	765,363
8	Bonus Year 1	1,759,801	5,396,193	97,268	108,279	76,514	731,775	206,545	40,009		8,416,383
9	Book Depreciation Rate- Year 1	2.80%	3.25%	2.00%	3.51%	5.23%	1.68%	4.33%	4.17%	20.00%	50.00%
10	Annual Book Depreciation	102,388	364,418	4,042	7,897	8,315	25,546	22,358	3,467	22,363	560,795
11	Tax over (under) Book- Fed	1,794,540	5,452,257	100,805	108,819	74,161	763,251	287,459	39,660	(0)	8,620,951
12	Tax over (under) Book- State	34,739	56,064	3,537	540	(2,353)	31,476	80,914	(349)	(0)	204,568
13	Deferred Tax Balance	612,092	1,856,913	34,472	37,029	25,083	261,271	102,275	13,465	(0)	2,942,600
14											2,942,600
15	Rate Base Calculation										
16	Plant in Service	3,656,730	11,212,868	202,116	224,994	158,990	1,520,572	516,362	83,135	111,814	17,687,581
17	Accumulated Depreciation	(102,388)	(364,418)	(4,042)	(7,897)	(8,315)	(25,546)	(22,358)	(3,467)	(22,363)	(560,795)
18	Deferred Tax Balance	(612,092)	(1,856,913)	(34,472)	(37,029)	(25,083)	(261,271)	(102,275)	(13,465)	0	(2,942,600)
19	Rate Base	2,942,249	8,991,537	163,601	180,068	125,592	1,233,755	391,729	66,204	89,451	14,184,186
20											
21	Revenue Requirement Calculation										
22	Return on Rate Base @ 10.72%	315,490	964,140	17,543	19,308	13,467	132,292	42,004	7,099	9,592	1,520,934
23	Depreciation Expense	102,388	364,418	4,042	7,897	8,315	25,546	22,358	3,467	22,363	560,795
24	Property Tax, Insurance @ 2.22%	81,041	248,501	4,479	4,986	3,524	33,699	11,444	1,842	2,478	391,994
25	Annual Revenue Requirement	498,919	1,577,059	26,064	32,192	25,306	191,537	75,806	12,408	34,432	2,473,723
26		498,919	1,577,059	26,064	32,192	25,306	191,537	75,806	12,408	34,432	2,473,723
27											
28	Rate of Return Calculation	Portion	After-Tax Cost	WACC				Pre-Tax WACC			
29	Equity	50.0%	9.40%	4.70%				7.78%			
30	Debt	50.0%	5.88%	2.94%				2.94%			
31		100.0%		7.64%				10.72%			
32											
33	Property Taxes and Insurance as % of Plant Cost										2.22%

Project #	Project_Description	Discipline	FERC	Blanket/ Specific /Program	Budget Class	Priority	Final 2016 Spend
8830-C13968	PS&I Activity - New Hampshire	E - Overhead	364	Blanket	E - Reliability	5. Discretionary	\$ -
8830-C14646	IE-NN UG Structures and Equipment	E - Overhead	364	Program	E - Asset Replacement	2. Mandated	\$ -
8830-C18603	Bare Conductor Replacement Program	E - Overhead	REP	Program	E - Reliability	4. Regulatory Programs	\$ 621,964
8830-C18620	Charlestown 32 Dline	E - Overhead/Underground	364	Specific	E - Asset Replacement	5. Discretionary	\$ -
8830-C18630	Charlestown DSub	E - Substation	362	Specific	E - Asset Replacement	5. Discretionary	\$ -
8830-C18710	RTU Installations - LU/NG Substations	E - Substation	362	Specific	E - Asset Replacement	5. Discretionary	\$ 5,683
8830-C18720	Refreshing Existing Buildings GSE(Capital	E - Non-Delivery	390	Specific	Facilities	5. Discretionary	\$ (18,065)
8830-C18740	Customer Walk In Centers (Salem & Lebanon)	E - Non-Delivery	390	Specific	Facilities	5. Discretionary	\$ 5,197
8830-C18750	Security Conversion GSE	E - Non-Delivery	390	Specific	Facilities	2. Mandated	\$ 22,611
8830-C18780	Upfit Londonderry - GSE Allocation	E - Non-Delivery	390	Specific	Facilities	5. Discretionary	\$ 490
8830-C20473	IE - NN Recloser Installations	E - Overhead	REP	Program	E - Reliability	4. Regulatory Programs	\$ 177,857
8830-C21093	IE-NN Dist Transformer upgrades	E - Overhead/Underground	364	Program	E - Load Related	5. Discretionary	\$ 2,160
8830-C21595	01663 GS Storm Program Proj	E - Overhead	364	Program	E - Damage/Failure	2. Mandated	\$ 179,791
8830-C22214	NN ERR/Pockets of Poor Perf	E - Overhead	364	Program	E - Reliability	5. Discretionary	\$ 107,612
8830-C26061	NH ARP Relay & related	E - Substation	362	Program	E - Asset Replacement	5. Discretionary	\$ -
8830-C26263	NN D-Line Work Found by Insp.	E - Overhead	364	Program	E - Asset Replacement	2. Mandated	\$ 40,161
8830-C31402	IE-NN URD Cable Replacement	E - Underground	366	Program	E - Reliability	5. Discretionary	\$ 7,079
8830-C32279	01757 NN ARP Breakers & Reclosers	E - Overhead	364	Program	E - Reliability	4. Regulatory Programs	\$ 709
8830-C33766	NEN-NH Electric Fence FY10	E - Overhead/Underground	364	Program	E - Reliability	5. Discretionary	\$ 44,730
8830-C36423	Mt Support Sub- New LP Fdr Pos	E - Substation	362	Specific	E - Load Related	4. Regulatory Programs	\$ 3,059,868
8830-C36424	Mt Support-New 16L3 Feeder	E - Overhead/Underground	364	Specific	E - Load Related	4. Regulatory Programs	\$ 1,647,572
8830-C36425	Mt Support-New 16L5 Feeder	E - Overhead/Underground	364	Specific	E - Load Related	4. Regulatory Programs	\$ 443,824
8830-C36427	Feeder Getaway Cable Replacement	E - Underground	366	Program	E - Reliability	5. Discretionary	\$ 195,036
8830-C36430	Pelham Sub-Add 2nd Xfmr and Fdr Pos	E - Substation	362	Specific	E - Load Related	5. Discretionary	\$ 447,126
8830-C36431	Pelham-New 14L4 Fdr	E - Overhead/Underground	364	Specific	E - Load Related	5. Discretionary	\$ 143,195
8830-C36433	Distribution Feeder Power Factor Correction	E - Overhead	364	Program	E - Reliability	2. Mandated	\$ 80,556
8830-C36435	Lebanon Area Low Voltage Mitigation	E - Overhead	364	Program	E - Load Related	2. Mandated	\$ 57,381
8830-C42850	Relocate Distribution Dulak St Lebanon	E - Overhead	364	Specific	E - Load Related	2. Mandated	\$ (848)
8830-C42851	Enhanced Bare Conductor Replacement	E - Overhead	364	Program	E - Reliability	5. Discretionary	\$ 972,680
8830-C42852	Pelham-New 14L5 Fdr	E - Overhead/Underground	364	Specific	E - Load Related	5. Discretionary	\$ -
8830-C42901	Underperforming Feeder Program	E - Overhead/Underground	364	Program	E - Reliability	5. Discretionary	\$ 209,597

Project #	Project_Description	Discipline	FERC	Blanket/ Specific /Program	Budget Class	Priority	Final 2016 Spend
8830-C42910	Cogsdale Modification - Crystal Report Bill Template Elec	E - Non-Delivery	303	Specific	IT	5. Discretionary	\$ 19,729
8830-C42911	Install CSC Cubicles and Furniture - GSE - Londonderry	E - Non-Delivery	391	Specific	Facilities	5. Discretionary	\$ (342)
8830-C42913	Golden Rock Damage Failure	E - Substation	362	Specific	E - Load Related	5. Discretionary	\$ 52,366
8830-C42915	Install CNG Dispenser in Salem Lowell Rd. Facility	E - Non-Delivery	393	Specific	Facilities	5. Discretionary	\$ 650
8830-C42917	Install AC Unit - 15 Buttrick Road	E - Non-Delivery	390	Specific	Facilities	5. Discretionary	\$ 75,902
8830-C42919	Install Server Room AC Units Londonderry	E - Non-Delivery	390	Specific	Facilities	5. Discretionary	\$ 32,073
8830-C42921	INSTALL SPLICES - 6L2 & 6L4 DISTRIBUTION CIRCUITS	E - Substation	362	Specific	E - Load Related	4. Regulatory Programs	\$ 82,207
8830-C42926	Slayton Hill Rd, Lebanon Pole Relocation	E - Overhead	364	Program	E - Reliability	5. Discretionary	\$ 50,548
8830-C42933	Vilas Bridge 12L1	E - Overhead	364	Program	E - Reliability	5. Discretionary	\$ 2,047
8830-CD0272	11255 Michael Ave Getaway	E - Substation	362	Specific	E - Load Related	4. Regulatory Programs	\$ 1,184
8830-CD0291	Sky View URD - Salem, NH	E - Overhead	364	Specific	E- New Business Residential	3. Growth	\$ (1,676)
8830-CD0376	ENFIELD SUPPLY	E - Overhead	364	Program	E - Reliability	5. Discretionary	\$ (4,560)
8830-CD0785	Whelen Engineering Charlestown, NH	E - Overhead	364	Program	E - Reliability	5. Discretionary	\$ 145
8830-CN4104	01659 Granite St Meter Purchases	E - Meters	370	Blanket	E- Meter Installations	2. Mandated	\$ 158,990
8830-CN4120	01660 Granite St Transformer Purchases	E - Transformers	368	Blanket	E- Transformer Installations	2. Mandated	\$ 224,994
8830-CNN002	01737 GSE-Dist-Subs Blanket	E - Substation	362	Blanket	E - Damage/Failure	2. Mandated	\$ 8,295
8830-CNN004	GSE-Dist-Meter Blanket	E - Overhead/Underground	364	Blanket	E- Meter Installations	2. Mandated	\$ (188)
8830-CNN006	GSE-Dist-Genl Equip Blanket	G - Production	390	Blanket	E - Distribution General	5. Discretionary	\$ 20,732
8830-CNN007	GSE-Dist-Water Heater Blanket	E - Non-Delivery	390	Blanket	E - Damage/Failure	2. Mandated	\$ (57,638)
8830-CNN009	GSE-Dist-Land/Land Rights Blanket	E - Overhead/Underground	364	Blanket	E- Land & Land Rights	2. Mandated	\$ -
8830-CNN010	GSE-Dist-New Bus-Resid Blanket	E - Overhead	364	Blanket	E- New Business Residential	3. Growth	\$ 855,368
8830-CNN011	GSE-Dist-New Bus-Comm Blanket	E - Overhead	364	Blanket	E - New Business Commercial	3. Growth	\$ 1,513,315
8830-CNN012	GSE-Dist-St Light Blanket	E - Overhead	364	Blanket	E- Outdoor Lightning	2. Mandated	\$ 181,024
8830-CNN013	GSE-Dist-Public Require Blanket	E - Overhead	364	Blanket	E - Public Requirements	2. Mandated	\$ 521,946
8830-CNN014	Dist-Damage&Failure Blanket	E - Overhead	364	Blanket	E - Damage/Failure	2. Mandated	\$ 1,940,363
8830-CNN015	GSE-Dist-Reliability Blanket	E - Overhead	364	Blanket	E - Reliability	2. Mandated	\$ 1,124,162
8830-CNN016	GSE-Dist-Load Relief Blanket	E - Overhead	364	Blanket	E - Load Related	2. Mandated	\$ 70,264
8830-CNN017	GSE-Dist-Asset Replace Blanket	E - Overhead	364	Blanket	E - Asset Replacement	2. Mandated	\$ 948,224
8830-CNN020	Dist-Transf/Capac Install Blanket	E - Transformers	368	Blanket	E- Transformer Installations	2. Mandated	\$ -
8830-CNN021	GSE-Dist-Telecomm Blanket	E - Telecommunications	397	Blanket	E- Telecommunications	2. Mandated	\$ (947)
8830-CNN022	GSE-Dist-3rd Party Attach Blanket	E - Overhead	364	Blanket	E - 3rd Party Attachments	2. Mandated	\$ 52,606

Project #	Project_Description	Discipline	FERC	Blanket/ Specific /Progra m	Budget Class	Priority	Final 2016 Spend
8830-CNN023	GSE Distributed Generation Blanket	E - Overhead	364	Blanket	E - Load Related	2. Mandated	\$ 30,159
8830-CNN025	IT Systems & Equipment Blanket	E - Non-Delivery	390	Blanket	IT	5. Discretionary	\$ 914,660
8830-CNN026	Misc Capital Imprvmnts GSE Facilities Blanket	E - Non-Delivery	390	Blanket	Facilities	5. Discretionary	\$ 22,369
8830-CNN027	Transportation Fleet & Equip. Blanket	E - Non-Delivery	390	Blanket	Vehicles	5. Discretionary	\$ 232,760
8830-CRSRVARS_017	Reserve for Sub Asset Repl Specifics	E - Substation	362	Specific	E - Asset Replacement	5. Discretionary	\$ -
8830-CRSRVDF_014	Reserve for Damage/Failure Unidentified Specifics &	E - Overhead/Underground	364	Specific	E - Damage/Failure	5. Discretionary	\$ -
8830-CRSRVLRL_016	Reserve for Load Relief Unidentified Specifics	E - Overhead/Underground	364	Specific	E - Load Related	5. Discretionary	\$ -
8830-CRSRVNBC_010	Reserve for New Business Residential	E - Overhead/Underground	364	Specific	E - New Business Residential	3. Growth	\$ -
8830-CRSRVNBC_011	Reserve for New Business Commercial Unident specific & SC	E - Overhead/Underground	364	Specific	E - New Business Commercial	3. Growth	\$ -
8830-CRSRVPR_013	Reserve for Public Requirements Unidentified Specifics	E - Overhead/Underground	364	Specific	E - Public Requirements	5. Discretionary	\$ -
8830-CRSRVRL_015	Reserve for Reliability Unidentified Specifics	E - Overhead/Underground	364	Specific	E - Reliability	5. Discretionary	\$ -
8830-IT	IT System Oakville	E - Non-Delivery	303	Specific	IT	5. Discretionary	\$ 87,585
8830-MISC EQUIPMT	Misc Discretionary Purch Equipment	E - Non-Delivery	394	Specific	E - Asset Replacement	5. Discretionary	\$ (454)
8830-OTH-002	Salem WIC Security Upgrade	E - Non-Delivery	390	Specific	Facilities	5. Discretionary	\$ 82,197
8830-OTH-003	Lebanon WIC Security Upgrade	E - Non-Delivery	390	Specific	Facilities	5. Discretionary	\$ 71,815
8830-OTH-004	Londonderry WIC Security Upgrade	E - Non-Delivery	390	Specific	Facilities	5. Discretionary	\$ 24,473
8830-OTH-005	SHELVING IN SALEM WAREHOUSE	E - Non-Delivery	394	Specific	Facilities	5. Discretionary	\$ 11,277
8830-OTH-006	SALEM MAIN GATE	E - Non-Delivery	394	Specific	Facilities	5. Discretionary	\$ 4,529
8830-OTH-007	Salem Server Room AC Replacement	E - Non-Delivery	390	Specific	Facilities	5. Discretionary	\$ 9,676
8830-OTH-008	Salem Security Cameras	E - Non-Delivery	390	Specific	Facilities	5. Discretionary	\$ -
8830-OTH-009	ETRACK Electronic Vendor Invoicing	E - Non-Delivery	303	Specific	IT	5. Discretionary	\$ 4,500
8830-OTH-110	Londonderry Office Renovation	E - Non-Delivery	390	Specific	Facilities	5. Discretionary	\$ 32,560
8830-OTH-111	Install Customer Drop Boxes	E - Non-Delivery	390	Specific	Facilities	5. Discretionary	\$ -
8830-OTH-112	Salem NH Pole Pile	E - Non-Delivery	394	Specific	Facilities	5. Discretionary	\$ 68,422
8830-OTH-113	Replacement Windows for Lebanon Warehouse	E - Non-Delivery	390	Specific	Facilities	5. Discretionary	\$ 48,760
8830-OTH-114	Salem Electric Fleet	E - Non-Delivery	392	Specific	Vehicles	5. Discretionary	\$ 502,191
8830-OTH-120	EH&S Facility Vehicle	E - Non-Delivery	392	Specific	Vehicles	5. Discretionary	\$ 14,171
							18,487,402
	Less: REP		REP				\$ 799,821
	Capital Budget						17,687,581

Project #	Project_Description	Discipline	FERC	Blanket/ Specific /Progra m	Budget Class	Priority	Final 2016 Spend
			Summary by FERC Account				
			303				111,814
			362				3,656,730
			364				11,212,868
			366				202,116
			368				224,994
			370				158,990
			390				1,520,572
			391				(342)
			392				516,362
			393				650
			394				83,774
			397				(947)
							<u>17,687,581</u>
			REP				<u>799,821</u>
							<u><u>18,487,402</u></u>

2017 and 2018 Step Projects

(a)	(b)	(c)	(d)	(e)	(f)	(g)	
Project Description	FY2017 Capital Budget from Orig. Testimony Table 3	2017 Planning Criteria Investment Exclusion	Plant In Service (less Planning Criteria) as of 12/31/17	FY2018 Capital Budget from Orig. Testimony Table 3	2018 Planning Criteria Investment Exclusion	Plant In Service (less Planning Criteria) as of 12/31/18	Notes
Pelham Sub-Add 2nd Xfmr and Fdr Pos	\$2,000,000	\$0	\$2,000,000	\$1,600,000	\$350,000	\$1,250,000	2018 reflects the exclusion of the 14L5 planning criteria feeder position from the substation spend
Pelham-New 14L4 Fdr	\$400,000	\$0	\$400,000	\$0	\$0	\$0	
Pelham-New 14L5 Fdr (Planning Criteria Proj.)	\$450,000	\$450,000	\$0	\$350,000	\$350,000	\$0	
Charlestown DSub	\$25,000		\$0	\$50,000		\$0	
Charlestown 32 Dline	\$500,000	\$0	\$0	\$1,300,000	\$1,415,000	\$385,000	2018 reflects the exclusion of the 40L3 feeder planning criteria incremental spend and the inclusion of 40L3 construction started in 2017 and placed into service in 2018.
Step Totals	\$3,375,000	\$450,000	\$2,400,000	\$3,300,000	\$2,115,000	\$1,635,000	

Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities
Procedure for Adjusting Distribution Rates
Docket No. DE 16-383 2018 Compliance
Rates Effective June 1, 2018

(1) Increase in Revenue Requirement - Section II.B of the Settlement Agreement	\$289,348
(2) Annual Base Distribution Revenues	\$42,391,045
(3) Percentage of Adjustment to Distribution Rates	0.68%
(4) Additional Rate Case Expenses - Section II.D of the Settlement Agreement	\$82,353
(5) Forecasted Annual Base Distribution Revenues	\$42,391,045
(6) Percentage of Adjustment to Distribution Rates	0.19%
(7) Adjustment to Distribution Rates May 1, 2018, Line (3) + Line (6)	0.87%

Notes

- (1) Annual Revenue Requirement related to the 2017 Pelham Substation Capital Investment
- (2) Test year billing determinants multiplied by current distribution rates
- (3) Line (1) ÷ Line (2)
- (4) Additional Rate Case Expense of \$48,039 referenced in Staff's 3/5/18 audit report, annualized ($\$48,039 / 7 * 12 = \$82,353$)
- (5) Test year billing determinants multiplied by current distribution rates
- (6) Line (4) ÷ Line (5). Total Rate Case Expense, along with Recoupment, will be removed from rates 1/1/19.
- (7) Line (3) + Line (6)

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Step Adjustment - 2017 Pelham Substation Capital Investment
Docket No. DE 16-383 Compliance

Line	Description	Substation			
	<u>FERC Account</u>	<u>362</u>			
1	Deferred Tax Calculation				
2	Capital Spending	2,400,000			
3					
4	Tax method	MACRS20			
5	Tax Depr. Rate, 20-year MACRS	3.75%			
6					
7	Annual Tax Depreciation- Year 1	90,000			
8	Bonus Year 1	1,155,000			
9	Book Depreciation Rate- Year 1	2.80%			
10	Annual Book Depreciation	67,200			
11	Tax over (under) Book- Fed	1,177,800			
12	Tax over (under) Book- State	22,800			
13	Deferred Tax Balance	<u>401,685</u>			
14					
15	<u>Rate Base Calculation</u>				
16	Plant in Service	2,400,000			
17	Accumulated Depreciation	(67,200)			
18	Deferred Tax Balance	(401,685)			
19	Rate Base	<u><u>1,931,115</u></u>			
20					
21	<u>Revenue Requirement Calculation</u>				
22	Return on Rate Base @ 8.74%	168,868			
23	Depreciation Expense	67,200			
24	Property Tax, Insurance @ 2.22%	53,280			
25	Annual Revenue Requirement	<u>289,348</u>			
26		<u>289,348</u>			
27					
28	<u>Rate of Return Calculation</u>	Portion	After-Tax Cost	WACC	Pre-Tax WACC
29	Equity	50.0%	9.40%	4.70%	6.46%
30	Debt	50.0%	4.57%	2.29%	2.29%
31		<u>100.0%</u>		<u>6.99%</u>	<u>8.74%</u>
32					
33	Property Taxes and Insurance as % of Plant Cost				2.22%

