

| FERC Account | Average Service Lives (Years) | Net Salvage Value (%) | Depreciation Rate      |
|--------------|-------------------------------|-----------------------|------------------------|
| 303          | Intangible Plant (Amort.)     |                       |                        |
|              | 3                             | N/A                   | 33.33%                 |
|              | 5                             | N/A                   | 20.00%                 |
|              | 10                            | N/A                   | 10.00%                 |
|              | <u>Production Plant</u>       |                       |                        |
| 305          | 35                            | 0.0                   | 2.86%                  |
| 311          | 35                            | 0.0                   | 2.86%                  |
| 319          | 20                            | 0.0                   | 5.00%                  |
| 320          | 35                            | 0.0                   | 2.86%                  |
|              | <u>Storage Plant</u>          |                       |                        |
| 361          | 35                            | 0.0                   | 2.86%                  |
| 363          | 35                            | 0.0                   | 2.86%                  |
|              | <u>Transmission Plant</u>     |                       |                        |
| 366          | 35                            | 0.0                   | 2.86% (reclass to 375) |
| 367          | 60                            | -15.0                 | 1.92% (reclass to 376) |
| 369          | 35                            | 0.0                   | 2.86% (reclass to 378) |
|              | <u>Distribution Plant</u>     |                       |                        |
| 375          | 35                            | 0.0                   | 2.86%                  |
| 376          | 60                            | -15.0                 | 1.92%                  |
| 378          | 35                            | 0.0                   | 2.86%                  |
| 380          | 45                            | -60.0                 | 3.55%                  |
| 381          | 33                            | 0.0                   | 3.03%                  |
| 381.1        | 33                            | 0.0                   | 3.03%                  |
| 381.2        | 20                            | 0.0                   | 5.00%                  |
| 382          | 33                            | 0.0                   | 3.03%                  |
| 387          | 19                            | 0.0                   | 5.26%                  |
|              | <u>General Plant</u>          |                       |                        |
| 390          | 30                            | 0.0                   | 3.33%                  |
| 391          | 18                            | 5.0                   | 5.28%                  |
| 391.1        | 11                            | 0.0                   | 9.09%                  |
| 391.2        | 5                             | 0.0                   | 20.00%                 |
| 392          | 5                             | 0.0                   | 20.00%                 |
| 393          | 30                            | 0.0                   | 3.33%                  |
| 394          | 19                            | 0.0                   | 5.26%                  |
| 396          | 5                             | 0.0                   | 20.00%                 |
| 397          | 10                            | 0.0                   | 10.00%                 |
| 398          | 12                            | 0.0                   | 8.33%                  |

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

| 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     | Stores Equipment | Tools      | Total          |
|------|--|------------------------|--------------|---------------|-------------------|--------------------|------------|-----------------------------|--------------|--------------|-----------------------------|------------------|--------------|------------------|------------|----------------|
| 1    | Capital Spending - EnergyNorth         | \$ 2,105,141           | \$ 2,020,000 | \$ 14,414,334 | \$ 300,000        | \$ 1,215,000       | \$ 300,000 | \$ 325,000                  | \$ 1,115,000 | \$ 1,600,000 | \$ 1,156,662                | \$ 760,384       | \$ 1,978,000 | \$ 4,000         | \$ 175,000 | \$ 27,464,521  |
| 2    | Capital Spending - Keene               | 25,000                 |              | 236,000       |                   |                    |            | 55,000                      | 50,000       | 10,000       |                             | 65,000           | 45,000       | 4,000            |            | 490,000        |
| 3    | Capital Spending - Total               | 2,130,141              | 2,020,000    | 14,650,334    | 300,000           | 1,215,000          | 300,000    | 380,000                     | 1,165,000    | 1,610,000    | 1,156,662                   | 825,384          | 2,023,000    | 4,000            | 175,000    | 27,954,521     |
| 4    | Deferred Tax Calculation               |                        |              |               |                   |                    |            |                             |              |              |                             |                  |              |                  |            |                |
| 5    | Tax Method                             | MACRS15                | MACRS20      | MACRS20       | MACRS20           | MACRS39            | MACRS20    | MACRS20                     | MACRS20      | MACRS20      | MACRS39                     | MACRS7           | MACRS5       | MACRS7           | MACRS7     |                |
| 6    | 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%           | 14.29%     |                |
| 7    | Bonus Depreciation @ 0.00%             |                        |              |               |                   |                    |            |                             |              |              |                             |                  |              |                  |            |                |
| 8    | Tax Basis                              | \$ 2,130,141           | \$ 2,020,000 | \$ 14,650,334 | \$ 300,000        | \$ 1,215,000       | \$ 300,000 | \$ 380,000                  | \$ 1,165,000 | \$ 1,610,000 | \$ 1,156,662                | \$ 825,384       | \$ 2,023,000 | \$ 4,000         | \$ 175,000 | \$ 27,954,521  |
| 9    | MACRS Depreciation                     | \$ 106,507             | \$ 75,750    | \$ 549,388    | \$ 11,250         | \$ 15,577          | \$ 11,250  | \$ 14,250                   | \$ 43,688    | \$ 60,375    | \$ 14,829                   | \$ 117,912       | \$ 404,600   | \$ 571           | \$ 25,000  | \$ 1,450,946   |
| 10   | Tax Depreciation - Federal             | \$ 106,507             | \$ 75,750    | \$ 549,388    | \$ 11,250         | \$ 15,577          | \$ 11,250  | \$ 14,250                   | \$ 43,688    | \$ 60,375    | \$ 14,829                   | \$ 117,912       | \$ 404,600   | \$ 571           | \$ 25,000  | \$ 1,450,946   |
| 11   | Tax Depreciation - State               | \$ 106,507             | \$ 75,750    | \$ 549,388    | \$ 11,250         | \$ 15,577          | \$ 11,250  | \$ 14,250                   | \$ 43,688    | \$ 60,375    | \$ 14,829                   | \$ 117,912       | \$ 404,600   | \$ 571           | \$ 25,000  | \$ 1,450,946   |
| 12   | Book Depreciation Rate - EN            | 16.13%                 | 2.86%        | 1.92%         | 2.86%             | 2.86%              | 1.92%      | 2.86%                       | 3.55%        | 3.03%        | 3.33%                       | 5.28%            | 20.00%       | 3.33%            | 5.26%      |                |
| 13   | Book Depreciation - EN                 | \$ 339,559             | \$ 57,772    | \$ 276,755    | \$ 8,580          | \$ 34,749          | \$ 5,760   | \$ 9,295                    | \$ 39,583    | \$ 48,480    | \$ 38,517                   | \$ 40,148        | \$ 395,600   | \$ -             | \$ 9,205   | \$ 1,304,003   |
| 14   | Book Depreciation Rate - Keene         | 16.13%                 | 1.92%        |               |                   |                    |            |                             |              |              |                             |                  |              |                  |            |                |
| 15   | Book Depreciation - Keene              | \$ 4,033               | \$ 4,531     |               |                   |                    |            | \$ 1,573                    | \$ 1,775     | \$ 303       |                             | \$ 3,432         | \$ 9,000     | \$ 133           |            | \$ 24,780      |
| 16   | Book Depreciation - Total              | \$ 343,592             | \$ 57,772    | \$ 281,286    | \$ 8,580          | \$ 34,749          | \$ 5,760   | \$ 10,868                   | \$ 41,358    | \$ 48,783    | \$ 38,517                   | \$ 43,580        | \$ 404,600   | \$ 133           | \$ 9,205   | \$ 1,328,783   |
| 17   | Tax over (under) Book - Federal - EN   | \$ (237,085)           | \$ 17,978    | \$ 268,101    | \$ 2,670          | \$ (19,172)        | \$ 5,490   | \$ 3,382                    | \$ 2,330     | \$ 11,592    | \$ (23,688)                 | \$ 74,332        | \$ -         | \$ 438           | \$ 15,795  | \$ 122,163     |
| 18   | Tax over (under) Book - State - EN     | \$ (237,085)           | \$ 17,978    | \$ 268,101    | \$ 2,670          | \$ (19,172)        | \$ 5,490   | \$ 3,382                    | \$ 2,330     | \$ 11,592    | \$ (23,688)                 | \$ 74,332        | \$ -         | \$ 438           | \$ 15,795  | \$ 122,163     |
| 19   | Deferred Taxes - Federal @ 19.28% - EN | \$ (45,705)            | \$ 3,466     | \$ 51,685     | \$ 515            | \$ (3,696)         | \$ 1,058   | \$ 652                      | \$ 449       | \$ 2,235     | \$ (4,567)                  | \$ 14,330        | \$ 0         | \$ 84            | \$ 3,045   | \$ 23,551      |
| 20   | Deferred Taxes - State @ 8.20% - EN    | \$ (19,441)            | \$ 1,474     | \$ 21,984     | \$ 219            | \$ (1,572)         | \$ 450     | \$ 277                      | \$ 191       | \$ 951       | \$ (1,942)                  | \$ 6,095         | \$ 0         | \$ 36            | \$ 1,295   | \$ 10,017      |
| 21   | Deferred Tax Balance @ 27.48%          | \$ (65,146)            | \$ 4,940     | \$ 73,669     | \$ 734            | \$ (5,268)         | \$ 1,509   | \$ 929                      | \$ 640       | \$ 3,185     | \$ (6,509)                  | \$ 20,425        | \$ -         | \$ 120           | \$ 4,340   | \$ 33,568      |
| 22   | Rate Base Calculation                  |                        |              |               |                   |                    |            |                             |              |              |                             |                  |              |                  |            |                |
| 23   | Plant in Service                       | \$ 2,130,141           | \$ 2,020,000 | \$ 14,650,334 | \$ 300,000        | \$ 1,215,000       | \$ 300,000 | \$ 380,000                  | \$ 1,165,000 | \$ 1,610,000 | \$ 1,156,662                | \$ 825,384       | \$ 2,023,000 | \$ 4,000         | \$ 175,000 | \$ 27,954,521  |
| 24   | Accumulated Depreciation               | \$ (343,592)           | \$ (57,772)  | \$ (281,286)  | \$ (8,580)        | \$ (34,749)        | \$ (5,760) | \$ (10,868)                 | \$ (41,358)  | \$ (48,783)  | \$ (38,517)                 | \$ (43,580)      | \$ (404,600) | \$ (133)         | \$ (9,205) | \$ (1,328,783) |
| 25   | Deferred Tax Balance                   | \$ 65,146              | \$ (4,940)   | \$ (73,669)   | \$ (734)          | \$ 5,268           | \$ (1,509) | \$ (929)                    | \$ (640)     | \$ (3,185)   | \$ 6,509                    | \$ (20,425)      | \$ 0         | \$ (120)         | \$ (4,340) | \$ (33,568)    |
| 26   | Rate Base                              | \$ 1,851,695           | \$ 1,957,288 | \$ 14,295,379 | \$ 290,686        | \$ 1,185,519       | \$ 292,731 | \$ 368,203                  | \$ 1,123,002 | \$ 1,558,032 | \$ 1,124,654                | \$ 761,379       | \$ 1,618,400 | \$ 3,746         | \$ 161,455 | \$ 26,592,170  |
| 27   | Revenue Requirement Calculation        |                        |              |               |                   |                    |            |                             |              |              |                             |                  |              |                  |            |                |
| 28   | Return on Rate Base @ 8.60%            | \$ 159,246             | \$ 168,327   | \$ 1,229,403  | \$ 24,999         | \$ 101,955         | \$ 25,175  | \$ 31,665                   | \$ 96,578    | \$ 133,991   | \$ 96,720                   | \$ 65,479        | \$ 139,182   | \$ 322           | \$ 13,885  | \$ 2,286,927   |
| 29   | Depreciation Expense                   | \$ 343,592             | \$ 57,772    | \$ 281,286    | \$ 8,580          | \$ 34,749          | \$ 5,760   | \$ 10,868                   | \$ 41,358    | \$ 48,783    | \$ 38,517                   | \$ 43,580        | \$ 404,600   | \$ 133           | \$ 9,205   | \$ 1,328,783   |
| 30   | Property Tax @ 2.06% - EN Capital      | \$ 41,512              | \$ 296,222   | \$ 6,165      | \$ 24,969         | \$ 6,679           | \$ 6,679   | \$ 6,679                    | \$ 6,679     | \$ 6,679     | \$ 6,679                    | \$ 6,679         | \$ 6,679     | \$ 6,679         | \$ 6,679   | \$ 405,483     |
| 31   | Insurance @ 0.20% - EN Capital         | \$ 3,983               | \$ 28,421    | \$ 592        | \$ 2,396          | \$ 592             | \$ 592     | \$ 592                      | \$ 592       | \$ 592       | \$ 592                      | \$ 592           | \$ 592       | \$ 592           | \$ 592     | \$ 50,001      |
| 32   | Property Tax @ 4.17% - Keene Capital   | \$ 9,838               | \$ 9,838     | \$ 9,838      | \$ 9,838          | \$ 9,838           | \$ 9,838   | \$ 9,838                    | \$ 9,838     | \$ 9,838     | \$ 9,838                    | \$ 9,838         | \$ 9,838     | \$ 9,838         | \$ 9,838   | \$ 14,633      |
| 33   | Insurance @ 4.25% - Keene Capital      | \$ 10,032              | \$ 10,032    | \$ 10,032     | \$ 10,032         | \$ 10,032          | \$ 10,032  | \$ 10,032                   | \$ 10,032    | \$ 10,032    | \$ 10,032                   | \$ 10,032        | \$ 10,032    | \$ 10,032        | \$ 10,032  | \$ 19,767      |
| 34   | Annual Revenue Requirement             | \$ 502,837             | \$ 271,594   | \$ 1,855,203  | \$ 40,336         | \$ 164,068         | \$ 37,692  | \$ 54,484                   | \$ 144,344   | \$ 186,770   | \$ 161,288                  | \$ 113,321       | \$ 549,595   | \$ 625           | \$ 23,435  | \$ 5,044,835   |

| Rate of Return Calculation | Portion | After-Tax Cost | Tax    | Pre-Tax WACC |
|----------------------------|---------|----------------|--------|--------------|
| Equity                     | 49.20%  | 9.40%          | 27.48% | 6.38%        |
| Debt (ST)                  | 0.95%   | 2.49%          |        | 0.02%        |
| Debt (LT)                  | 49.85%  | 4.42%          |        | 2.20%        |
|                            | 100.00% |                |        | 8.60%        |

"Carry Over Cost Provision Adjustments" per DG 17-063, Knepper Direct Testimony

|   |         |
|---|---------|
| Unadjusted annual revenue requirement for FY 16 | 694,182 |
| Adjusted annual revenue requirement for FY 16   | 688,807 |
| Difference to be recovered                      | 5,375   |

|   |           |
|---|-----------|
| Estimated paving cost for FY 17                       | 2,301,960 |
| Recoverable paving cost for FY 17                     | 899,390   |
| Difference to be recovered                            | 1,402,570 |
| Revenue Requirement of the Difference, per CIBS model | 155,703   |

| Description - Property Tax and Insurance Rates for EnergyNorth | Reference      | Amount         |
|--|----------------|----------------|
| Property taxes (Account 408-P)                                 | RR-StepWP2     | \$ 9,386,306   |
| Property insurance (Account 924)                               | RR-EN-2-1      | \$ 38,113      |
| Injuries and Damage (Casualty Insurance) (Account 925)         | RR-EN-2-1      | \$ 877,844     |
|  |                | \$ 9,386,306   |
| Plant at Cost  | RR-Step-EN-WP2 | \$ 464,553,396 |
| As % of Plant Cost   |                | 2.06%          |

| Adjustments Identified in Rebuttal Testimony          | Reference   | Amount  |
|---|---|---------|
| Increase in Expense Portion of Pension and OPEB Costs | Response to Staff Tech 3-15                       | 419,583 |
| Legal Fees, 2017                                      | Lafamme & Mullinax Direct, Schedule EN 4, Line 27 | 172,517 |
| Degradation Fees, 2017                                | Lafamme & Mullinax Direct, Schedule EN 4, Line 35 | 186,065 |
| Total Additional Expense - Goes to Line 35            |   | 778,165 |

| New Tax Rate Analysis |        |
|-----------------------|--------|
| Federal Tax Rate      | 21.00% |
| State Tax Rate        | 8.20%  |
| Combined Tax Rate     | 27.48% |

| Description - Property Tax and Insurance Rates for Keene | Reference     | Amount    |
|--|---------------|-----------|
| Property taxes (Account 408-P)                           | RR-K-2-1      | 153,854   |
| Property insurance (Account 924)                         | RR-K-2-1      | (2,183)   |
| Injuries and Damage (Casualty Insurance) (Account 925)   | RR-K-2-1      | 187,292   |
|  |               | 153,854   |
| Plant at Cost  | RR-Step-K-WP2 | 3,690,589 |
|  |               | 4,354,606 |

| Priority                 | Project      | Company     | Project Description                                     | CY2017 Capital Budget | FERC Account |
|--------------------------|--------------|-------------|---|-----------------------|--------------|
| LU CapEx - Growth        | 8840-1753    | EnergyNorth | Install Main on Varney and Worthely and Rockland        | \$ 350,000            | 367          |
| LU CapEx - Improvement   | 8840-1721    | EnergyNorth | Install Security Equipment - EN Facilities              | \$ 125,000            | 391          |
| LU CapEx - Improvement   | TBD          | EnergyNorth | Northeast Expansion                                     |                       | 367          |
| LU CapEx - Improvement   | 8840-1722    | EnergyNorth | Inactive Service Program                                | \$ 75,000             | 380          |
| LU CapEx - Improvement   | 8840-1723    | EnergyNorth | Main & Service Replacement City/State Construction      | \$ 5,200,000          | 367          |
| LU CapEx - Improvement   | 8840-1725    | EnergyNorth | Service Replacement Fitting City/State Construction     | \$ 60,000             | 380          |
| LU CapEx - Improvement   | 8840-1726    | EnergyNorth | LNG/LPG Capital Improvements                            | \$ 100,000            | 320          |
| LU CapEx - Improvement   | 8840-1727    | EnergyNorth | Facility Improvements & Additions - Various             | \$ 100,000            | 375          |
| LU CapEx - Improvement   | 8840-1728    | EnergyNorth | Upgrade Hi Line - Concord to Tilton Phase 2             | \$ 350,000            | 367          |
| LU CapEx - Improvement   | 8840-1729    | EnergyNorth | Pre-Code Stee Pipe Protection Program                   | \$ 175,000            | 367          |
| LU CapEx - Improvement   | 8840-1730    | EnergyNorth | IT - Software, Equipment & Infrastructure               | \$ 50,000             | 303          |
| LU CapEx - Improvement   | 8840-1731    | EnergyNorth | Gas System Planning & Reliability                       | \$ 500,000            | 367          |
| LU CapEx - Improvement   | 8840-1732    | EnergyNorth | Gas System Control & Regulation                         | \$ 300,000            | 369          |
| LU CapEx - Improvement   | 8840-1733    | EnergyNorth | Facility Improvements & Additions - Manchester          | \$ 200,000            | 391          |
| LU CapEx - Improvement   | 8840-1734    | EnergyNorth | Facility Improvements & Additions - Nashua              | \$ 100,000            | 391          |
| LU CapEx - Improvement   | 8840-1735    | EnergyNorth | Facility Improvements & Additions - Tilton              | \$ 200,384            | 391          |
| LU CapEx - Improvement   | 8840-1736    | EnergyNorth | Facility Improvements & Additions - Londonderry         | \$ 75,000             | 391          |
| LU CapEx - Improvement   | 8840-1737    | EnergyNorth | Facility Improvements & Additions - Concord             | \$ 60,000             | 391          |
| LU CapEx - Improvement   | 8840-1738    | EnergyNorth | IT Systems Allocations - Corporate                      | \$ 750,000            | 303          |
| LU CapEx - Improvement   | 8840-1739    | EnergyNorth | Dresser Coupling Replacement Program                    | \$ 300,000            | 376          |
| LU CapEx - Improvement   | 8840-1740    | EnergyNorth | ERP Foundation Year                                     | \$ 536,463            | 303          |
| LU CapEx - Improvement   | 8840-1741    | EnergyNorth | EAM Foundation Year                                     | \$ 536,463            | 303          |
| LU CapEx - Improvement   | TBD          | EnergyNorth | CIS Foundation Year                                     | \$ -                  | 303          |
| LU CapEx - Improvement   | 8840-1742    | EnergyNorth | GIS Gas Upgrade   | \$ 118,544            | 303          |
| LU CapEx - Improvement   | 8840-1743    | EnergyNorth | GIS - One Graphic Card                                  | \$ 15,440             | 303          |
| LU CapEx - Improvement   | 8840-1744    | EnergyNorth | GIS Marketing Enhancement                               | \$ 51,177             | 303          |
| LU CapEx - Improvement   | 8840-1745    | EnergyNorth | Mobiletech Enhancements                                 | \$ 37,054             | 303          |
| LU CapEx - Improvement   | 8840-1746    | EnergyNorth | Concord Office  | \$ 500,000            | 390          |
| LU CapEx - Improvement   | 8840-1755    | EnergyNorth | Motorized Gate for Concord Plant                        | \$ 55,000             | 375          |
| LU CapEx - Improvement   | 8840-1756    | EnergyNorth | Nashua Meter Building Repointing                        | \$ 150,000            | 375          |
| LU CapEx - Improvement   | 8840-1757    | EnergyNorth | CNG Fast Fill Station for Manchester and Tilton Yards   | \$ 1,920,000          | 320          |
| LU CapEx - Improvement   | 8840-1758    | EnergyNorth | Manchester Solar Install                                | \$ 190,000            | 380          |
| LU CapEx - Improvement   | 8840-1759    | EnergyNorth | Paving Manchester Yard                                  | \$ 900,000            | 375          |
| LU CapEx - Improvement   | TBD          | EnergyNorth | Paving Nashua Yard                                      | \$ -                  | 375          |
| LU CapEx - Improvement   | 8840-1762    | EnergyNorth | Tilton Office Refresh                                   | \$ 600,000            | 390          |
| LU CapEx - Improvement   | 8840-1763    | EnergyNorth | Manchester Kitchen Refresh                              | \$ 35,000             | 390          |
| LU CapEx - Improvement   | 8840-1764    | EnergyNorth | Supplemental AC for Londonderry (Dispatch/Training Rms) | \$ 21,000             | 390          |
| LU CapEx - Improvement   | 8840-1765    | EnergyNorth | Tilton Yard Shelving Replacement                        | \$ 8,662              | 390          |
| LU CapEx - Improvement   | 8840-1766    | EnergyNorth | Chestnut Street, Nashua Regulator Station Replacement   | \$ 325,000            | 378          |
| LU CapEx - Improvement   | 8840-1769    | EnergyNorth | Laconia Phase II  | \$ 850,000            | 367          |
| LU CapEx - Improvement   | 8840-1770    | EnergyNorth | Daniel Webster Highway                                  | \$ 650,000            | 367          |
| LU CapEx - Improvement   | 8840-C18800  | EnergyNorth | Upgrade Hi Line - Concord to Tilton Phase 1             | \$ 700,000            | 367          |
| LU CapEx - Replenishment | 8840-1701    | EnergyNorth | Reserve for Unidentified Mandated/Growth Projects       | \$ 3,139,334          | 367          |
| LU CapEx - Replenishment | 8840-1702    | EnergyNorth | Meter Protection Program                                | \$ 50,000             | 381          |
| LU CapEx - Replenishment | 8840-1703    | EnergyNorth | Cathodic Protection Program                             | \$ 750,000            | 367          |
| LU CapEx - Replenishment | 8840-1704    | EnergyNorth | Replacement Services Random (Non Leaks)                 | \$ 490,000            | 380          |
| LU CapEx - Replenishment | 8840-1705    | EnergyNorth | Replacement Services Random (Due to Leaks)              | \$ 300,000            | 380          |
| LU CapEx - Replenishment | 8840-1706    | EnergyNorth | Meter Work Project (Changes)                            | \$ 150,000            | 381          |
| LU CapEx - Replenishment | 8840-1707    | EnergyNorth | Meter Work Project (Meter Purchases)                    | \$ 1,300,000          | 381          |
| LU CapEx - Replenishment | 8840-1708    | EnergyNorth | Corrosion & Miscellaneous Fitting                       | \$ 100,000            | 367          |
| LU CapEx - Replenishment | 8840-1709    | EnergyNorth | Valve Installation/Replacement                          | \$ 50,000             | 367          |
| LU CapEx - Replenishment | 8840-1710    | EnergyNorth | Leak Repairs  | \$ 250,000            | 367          |
| LU CapEx - Replenishment | 8840-1713    | EnergyNorth | Main Replacement Fitting LPP                            | \$ 200,000            | 367          |
| LU CapEx - Replenishment | 8840-1714    | EnergyNorth | K Meter Replacement Program                             | \$ 100,000            | 381          |
| LU CapEx - Replenishment | 8840-1715    | EnergyNorth | Aldy1-A Replacement Program                             | \$ 550,000            | 367          |
| LU CapEx - Replenishment | 8840-1716    | EnergyNorth | Main Replacement Reactive                               | \$ 100,000            | 367          |
| LU CapEx - Replenishment | 8840-1717    | EnergyNorth | Dispatch and Control Center                             | \$ 10,000             | 375          |
| LU CapEx - Replenishment | 8840-1718    | EnergyNorth | Purchase Misc Capital Equipment & Tools                 | \$ 175,000            | 394          |
| LU CapEx - Replenishment | 8840-1719    | EnergyNorth | Transportation Fleet and Equipment Purchases            | \$ 1,978,000          | 392          |
| LU CapEx - Replenishment | 8840-1720    | EnergyNorth | SCADA Capital Improvements                              | \$ 10,000             | 303          |
| LU CapEx - Replenishment | 8840-1767    | EnergyNorth | Replace Mueller Stopping Equipment w/ TD Williamson     | \$ 500,000            | 367          |
|                          |              | EnergyNorth | Bond Refund for Concord Training Center                 | \$ (8,000)            | 390          |
| LU CapEx - Improvement   | 8843-1704    | Keene       | Facility Improvements & Additions - Keene               | \$ 5,000              | 391          |
| LU CapEx - Improvement   | 8843-1705    | Keene       | IT - Software, Equipment & Infrastructure               | \$ 25,000             | 303          |
| LU CapEx - Improvement   | 8843-1706    | Keene       | Facility Improvements & Additions - Keene               | \$ 45,000             | 391          |
| LU CapEx - Improvement   | 8843-C18750  | Keene       | Install Security Equipment - Keene                      | \$ 15,000             | 391          |
| LU CapEx - Improvement   | 8843-EN1103  | Keene       | Main Replacement City/State Construction                | \$ 50,000             | 367          |
| LU CapEx - Improvement   | 8843-EN1137  | Keene       | Service Replacement City/State Construction             | \$ 20,000             | 380          |
| LU CapEx - Improvement   | 8843-REL105  | Keene       | Gas System Planning & Reliability                       | \$ 50,000             | 378          |
| LU CapEx - Replenishment | 8843-1701    | Keene       | Reserve for unidentified projects                       | \$ 25,000             | 367          |
| LU CapEx - Replenishment | 8843-1702    | Keene       | Purchase Misc. Capital Tools/Equipment                  | \$ 4,000              | 393          |
| LU CapEx - Replenishment | 8843-1703    | Keene       | Transportation Fleet and Equipment Purchases            | \$ 45,000             | 392          |
| LU CapEx - Replenishment | 8843-EN1006  | Keene       | Cathodic Protection/Corrosion Mitigation Program        | \$ 5,000              | 367          |
| LU CapEx - Replenishment | 8843-EN1007  | Keene       | Replacement Services Random                             | \$ 5,000              | 380          |
| LU CapEx - Replenishment | 8843-EN1100P | Keene       | Meter Work Project (Meter Purchases)                    | \$ 10,000             | 381          |
| LU CapEx - Replenishment | 8843-EN1107  | Keene       | Main Replacement LPP                                    | \$ 150,000            | 367          |
| LU CapEx - Replenishment | 8843-EN1117  | Keene       | Service Replacement LPP                                 | \$ 25,000             | 380          |
| LU CapEx - Replenishment | 8843-REL109  | Keene       | SCADA Capital Improvements                              | \$ 5,000              | 378          |
| LU CapEx - Replenishment | 8843-REL110  | Keene       | Valve Installation/Replacement                          | \$ 6,000              | 367          |

Liberty Utilities (EnergyNorth Natural Gas) Corp.  
Docket No. DG 17-048  
Calculation of Recoupment Amount

|  | (A)                | (B)                       |
|--|--------------------|---------------------------|
| 1. Settlement Permanent Rate Increase                | \$10,300,000       |                           |
| 2. Temporary Rate Increase                           | <u>\$6,750,000</u> |                           |
| 3. Annual Recoupment                                 |                    | \$3,550,000               |
| 4. divided by: TY Weather Normal Deliveries (th)*    |                    | <u>159,761,663</u>        |
| 5. Recoupment per Therm                              |                    | \$0.0222                  |
| 6. Times: Actual/Estimated Jul-Apr Deliveries (th)** |                    | <u>161,741,745</u>        |
| 7. Recoupment  |                    | <u><u>\$3,590,667</u></u> |

\* Test Year Delivery data from initial filing Schedule Rates-2, p.6

\*\* Time Difference is number of months that Temporary Rates were in effect.  
Due to colder than normal temperatures, actual therms for the recoupment period exceeded the annual weather normalized sales.

Liberty Utilities (EnergyNorth Natural Gas) Corp.

Docket No. DG 17-048

Actual/Estimated Deliveries (th) for Recoupment Calculation

|     | <u>Month</u> | <u>Deliveries</u>  | <u>*</u> |
|-----|--------------|--------------------|----------|
| 1.  | Jul-17       | 5,277,399          | A        |
| 2.  | Aug-17       | 5,724,645          | A        |
| 3.  | Sep-17       | 5,838,102          | A        |
| 4.  | Oct-17       | 8,439,912          | A        |
| 5.  | Nov-17       | 16,780,042         | A        |
| 6.  | Dec-17       | 26,501,752         | A        |
| 7.  | Jan-18       | 26,925,176         | E        |
| 8.  | Feb-18       | 25,940,404         | E        |
| 9.  | Mar-18       | 23,074,433         | E        |
| 10. | Apr-18       | 17,239,880         | E        |
| 11. | <u>TOTAL</u> | <u>161,741,745</u> |          |

\* Actual data (A), Estimated data (E)

Liberty Utilities (EnergyNorth Natural Gas) Corp.  
Rate Case Expense (Through February 15, 2018)  
Docket No. DG 17-048

| <u>Purpose</u>  | <u>Provider</u>       | <u>Amount</u>            |
|---|-----------------------|--------------------------|
| Revenue Requirement   | Concentric            | \$ 136,829               |
| Marginal Cost Study   | Concentric            | 70,939                   |
| Functional Cost of Service Study                                | Concentric            | 14,993                   |
| Rate Design   | Concentric            | 35,696                   |
| Decoupling  | Concentric            | 29,826                   |
| Return on Equity  | ScottMadden           | 39,830                   |
| Depreciation Study  | MAC                   | 43,444                   |
| Legal Notice  |                       | 1,446                    |
| Court Reporter  | Patnaude              | 472                      |
| Copying   | Minuteman Press       | 2,753                    |
| <u>Staff Consultants</u>  |                       |                          |
| Revenue Requirement   | Blue Ridge Consulting | 34,691                   |
| Return on Equity  | J. Randall Woolridge  | -                        |
| Follow-Up   | Liberty Consulting    | <u>57,340</u>            |
| Total through February 15, 2018                                 |                       | \$ 468,259               |
| Additional Estimated Expenses through Conclusion of case        |                       | <u>61,741</u>            |
| Total Rate Case Expenses (Actual through Feb. 15 plus estimate) |                       | <u><u>\$ 530,000</u></u> |

|  |                           |                      |
|--|---------------------------|----------------------|
| Permanent rate increase                    | 10,300,000                |                      |
| Original gross-up                          | <u>1.6504</u>             |                      |
| Increase before gross-up                   | 6,240,911                 |                      |
| Gross-up with new tax rates                | <u>1.3789</u>             |                      |
| Revised Grossed-up increase                | 8,605,593                 |                      |
| Difference in gross-up                     | (1,694,407)               |                      |
| Excess DIT (amort. over 39.05 years) *     | <u>(699,657)</u>          | (27,321,620 / 39.05) |
| Total annual amount to return to customers | <u><u>(2,394,065)</u></u> |                      |

\* Revaluing the existind deferred tax assets and liabilities at the lower tax rates resulted in a net amount of excess deferred tax liaibility of \$27,321,620 which will be amortized and returned to customers over the average remaining life of the underlying assets which is 39.05 years.































