THE STATE OF NEW HAMPSHIRE
BEFORE THE
NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

**Public Service Company of New Hampshire**
**d/b/a Eversource Energy**
**Line Extension Policy**

**Docket No. DE 18-030**

**Technical Statement of**
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**March 26, 2018**

## A. Purpose of Technical Statement

This Technical Statement is being submitted to provide a report of the average line extension cost per foot by construction type for the years 2015 through 2017. The Settlement Agreement in Docket No. 08-135, which was closed and replaced with Docket No. DE 15-089 on March 18, 2015, requires Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource") to provide this report to the Settling Parties by March 1 of each year, beginning in 2013, with the resulting costs per foot for overhead and underground single-phase facilities to be charged to customers during the period April 1 of the current year through March 31 of the following year. Charges for overhead and underground three-phase line extensions will continue to be based on the customer-specific job requirements. In March 2018, Docket No. DE 18-030 was established for this compliance report which establishes the cost per foot charges for overhead and underground single-phase line extensions initiated during the period April 1, 2018 – March 31, 2019.

## B. Background

In the Settlement Agreement approved by the Commission in Order No. 25,046, dated November 20, 2009, the Parties agreed to a line extension policy which better aligned the costs and revenues related to the provision of service to new customer locations. The Settling Parties agreed to phase in, over the three-year period ending March 31, 2013, the implementation of the average cost per foot charges in order to lessen the impact of the proposed line extension policy on customers who request line extensions. The Settling Parties also agreed to update the methodology to calculate the average cost per foot charges by construction type after the three-year phase-in was complete. Eversource is required to update the average cost per foot figures annually thereafter, based on line extensions completed during the previous three calendar years. Updated cost per foot amounts were then to become effective on April 1 of each year, starting in 2013.

## C. Calculation of line extension average costs per foot

Following the methodology described in the Settlement, Eversource recorded the actual cost of each line extension that was initiated and completed during the period January 1, 2015 through December 31, 2017. Eversource recorded whether each line extension included an overhead or underground service drop and the total length of the line extension and the

length of the service drop, if applicable. Eversource included all actual costs associated with the line extension construction, except for the cost of transformers.

From this total population of line extensions, the following types of line extensions were eliminated from database: 1) Temporary services; 2) Distributed generation services; 3) Services not associated with new construction (upgrades); 4) Customer built line extensions; 5) Three-phase construction; 6) Combination of overhead and underground construction; 7) More than one service on the project; 8) Footage greater than one mile; 9) Non-standard billing codes; 10) Private work; and 11) Any line extensions where the actual charges were greater than three times the estimate.

This data set was then separated into two categories: overhead single-phase construction and underground single-phase construction. To eliminate outliers using a statistical approach, the line extensions in each category were analyzed to remove line extensions having an average cost per foot greater than plus or minus three standard deviations from the category average. In a normal probability distribution, 99.7% of the population values are within plus or minus 3 standard deviations from the population average, while 0.3% are outside of plus or minus 3 standard deviations. Eversource considered those line extensions with cost per foot figures outside of this boundary as outliers for this analysis, and did not include them in the calculation of the average cost per foot figures.

Finally, line extension costs for 2015 and 2016 were adjusted to the 2017 level, using the annual average Consumer Price Index, all urban customers, northeast region, all items, not seasonally adjusted, as published by the Bureau of Labor Statistics of the U.S. Department of Labor.

In previous years' filings, a service drop adjustment was made to overhead single-phase and underground single-phase line extensions that included a service drop. Specifically, the actual costs were reduced by the cost of an overhead single-phase service drop and the total length of the distribution facilities were reduced by 125 feet. In the preparation of this filing, Eversource utilized data available in its work management system through additional programming efforts to calculate the total line extension length and to separate the length by the service drop length and the beyond service drop length. Based on the actual data, the average length of an overhead service drop is 107 feet. Since the line extension length data is consistent with the cost data, adjustments (such as the service drop adjustment described above) are not required, and could skew the results since the adjustment is based on 125 feet and the average length of an overhead service drop is 107 feet. Since complete data is now available, it can be utilized without incorporating the service drop adjustment.

Attachment GJK-1 shows the calculation of the average cost per foot rates for overhead single-phase construction and underground single-phase construction. As shown, 233 actual line extensions were included in the overhead single-phase calculation, and 657 line extensions were included in the underground single-phase calculation. The increase in the overhead single-phase average cost per foot in 2017 is primarily due to changes in business practices implemented for reliability improvements which result in higher material and/or installation costs. For example, covered wire is utilized in all new overhead installations. Covered wire has a higher material cost, and the installation of covered wire requires additional time (increased labor, vehicle and traffic control costs). Eversource has also transitioned from a class 3 standard pole size to a class 2 standard pole size. The more robust class 2 poles have a higher material cost. In addition, Eversource has transitioned from completely self-protected (CSP) transformers to conventional style transformers. The installation and cost of protection equipment is included in the actual cost of the line

extensions versus being capitalized as part of the cost of the CSP transformers used in previous years.

**D. Comparison between current and revised charges**

Based on the updated calculations, the cost per foot for single-phase overhead line extensions will increase $1.52, from $23.68 to $25.20, on April 1, 2018. The cost per foot for single-phase underground line extensions will increase $0.28, from $14.65 to $14.93. Charges for three-phase overhead and underground line extensions will continue to be based on customer-specific job requirements.

The table below displays the costs per foot calculated for rates effective April 1, 2017 and April 1, 2018

| Rate effective date: | April 2017 | April 2018 |
|---|---|---|
| Overhead - Single Phase | $23.68 | $25.20 |
| Underground - Single Phase | $14.65 | $14.93 |
| Years included in analysis: | 2014 - 2016 | 2015 – 2017 |

**E. Revised Tariff Pages**

Eversource has enclosed revised tariff pages, in both clean and "black-lined" versions, incorporating the revised line extension amounts described above. Since this filing is made in compliance with a settlement previously approved by the Commission, Eversource requests that the Commission allow the tariff pages to become effective on April 1, 2018 absent an order, pursuant to Puc 1603.07.