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 20-XXX

Technical Statement of George J. Knowles

February 28, 2020

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 2017 through 2019. The Settlement Agreement in Docket No. DE 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. It contains the resulting costs per foot for overhead and underground single-phase facilities to be charged to customers during the period April 1, 2020 through March 31, 2021. Charges for overhead and underground three-phase facilities will continue to be based on the customer-specific job requirements.

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 completed during the period January 1, 2017 through December 31, 2019. 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 the 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 three standard deviations from the category average. In a normal probability distribution, 99.7% of the population values are within 3 standard deviations from the population average, while 0.3% are outside of 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 2017 and 2018 were adjusted to the 2019 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.

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, 255 actual line extensions were included in the overhead single-phase calculation, and 654 line extensions were included in the underground single-phase calculation.

D. Comparison between current and revised charges

Based on the updated calculations, the cost per foot for single-phase overhead line extensions will increase \$2.38, from \$27.13 to \$29.51, on April 1, 2020. The cost per foot for single-phase underground line extensions will increase \$0.86, from \$15.36 to \$16.22. 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, 2019 and April 1, 2020.

	Rate Effective Date	
	April 1, 2019	April 1, 2020
Overhead, Single-Phase	\$27.13	\$29.51
Underground, Single-Phase	\$15.36	\$16.22
X 7	2016 2010	2017 2010
Years included in analysis	2016 - 2018	2017 - 2019

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, 2020 absent an order, pursuant to Puc 1603.07.