STATE OF NEW HAMPSHIRE

BEFORE THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

DIRECT TESTIMONY OF DAVID JAMES BURNHAM

PETITION OF PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
d/b/a EVERSOURCE ENERGY
REQUEST FOR TRANSMISSION COST ADJUSTMENT MECHANISM (TCAM)
RATE CHANGE

June 20, 2022

Docket No. DE 22-034

Q. Please state your name, business address and your present position.

A. My name is David James Burnham. My business address is 56 Prospect Street, Hartford, CT 06103. I am the Director of Transmission Policy at Eversource Energy ("Eversource").

Q. Have you previously testified before the Commission?

A. Yes, I previously testified before the Commission on behalf of Public Service Company of New Hampshire d/b/a Eversource Energy ("PSNH" or the "Company") in support of the Transmission Cost Adjustment Mechanism ("TCAM") in Docket Nos. DE 20-085 and DE 21-109.

Q. What are your current responsibilities?

A. I represent Eversource on several ISO New England and NEPOOL stakeholder committees, including those that focus on transmission-related topics. I am responsible for advising Eversource transmission project teams on stakeholder processes and reporting requirements. Among other things, I oversee the preparation and submission of Transmission Cost Allocation (TCA) filings and other project-related filings with ISO New England. I also coordinate Eversource's responses to policy and tariff changes that are developed via the NEPOOL stakeholder processes.

Q. Please describe your educational background.

A. I hold a Bachelor of Engineering from Dartmouth College in Hanover, New Hampshire, and a Master of Science in Electrical Engineering from the University of Texas in Austin, Texas.

Q. Please describe your professional experience.

A. I have experience with transmission planning, project development, and ISO New England markets. I joined Eversource as an electrical engineer supporting economic analysis of major transmission projects and have held positions of increasing responsibility within the transmission business. Prior to joining Eversource, I was an Electrical Engineer within the Office of Electric Reliability at the Federal Energy Regulatory Commission in Washington, DC.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to describe the transmission planning process at ISO-NE and to provide a detailed description of the projects included in the LNS rates that have been included as part of PSNH's TCAM filing consistent with the directive of Order No. 25,912 dated June 28, 2016 in Docket No. DE 16-566.

Q. Will anyone else be providing testimony in support of this filing?

A. Yes. Edward A. Davis is filing testimony in support of the proposed retail transmission rates. In his testimony, Mr. Davis will detail the rates applicable to each individual rate class. Marisa B. Paruta and James E. Mathews are filing joint testimony in support of the calculation of PSNH's TCAM rate effective August 1, 2022 as well as the reconciliation of actual/forecast transmission costs through the reconciliation period ending July 2022, and to describe the year-to-year change in LNS and RNS rates.

Q. What information have you provided to meet the requirements of Order No. 25,912, dated June 28, 2016, in Docket No. DE 16-566?

A. The ISO-NE transmission planning process is a regionally-coordinated process conducted periodically to reliably meet customer demand, system stability and asset condition needs throughout the region. Broadly speaking, there is an extensive stakeholder process to identify the various needs of the electrical system

and the potential solutions to those needs through the development of the regional system plan. As part of that process, ISO-NE will review potential transmission solutions and potential market alternatives. Eventually, a preferred solution is selected to address the identified needs. Eversource employs similar methods to develop a local system plan to address more localized needs of the electric system.

A more complete description of these processes is contained in the Company's last Least Cost Integrated Resource Plan submitted on October 1, 2020 in Docket No. DE 20-161. Bates pages 33-36 of that filing provide descriptions and links to information on both of the planning processes.

Additionally, as Attachment DJB-1, I have provided the Actual 2021 Projects in Service greater than $5 million included in Schedule 21-ES, Category A (Local Network Service) for The Connecticut Light and Power Company ("CL&P"), PSNH, and NSTAR Electric Company (West) ("NSTAR(West)") that are included in the LNS expenses in this filing. The attachment includes projects for CL&P, PSNH and NSTAR(West) because all LNS customers (including PSNH retail customers) pay an average rate under Schedule 21-ES. It should be noted that beginning January 1, 2022, in accordance with the settlement approved by FERC on December 28, 2020 in Docket No. ER20-2054-000, each operating company's LNS costs are billed to its LNS customers within the state it operates; for example, PSNH's LNS costs will be billed only to PSNH's LNS customers in New

Hampshire. Attachment DJB-1 details the projects by individual company, project title, total project investment amount and what portion of the project is classified by ISO-New England as a Pool Transmission Facility ("PTF") investment.

Q. How does Eversource minimize energy losses from transmission lines?

A. Line losses occur due to resistive heating of power-carrying transmission equipment – primarily transmission lines. While Eversource does not estimate line losses associated with its transmission system in New Hampshire, other analyses have estimated that the overall loss rate across all New England Pool Transmission Facilities is approximately 1.6 percent.[1] Eversource comprehensively plans for all major transmission projects, including consideration of potential line loss reductions where appropriate. Line losses can be reduced by utilizing larger and more efficient conductors. In New Hampshire, PSNH typically selects the largest standard-sized conductor that can be supported by standard transmission towers when performing transmission line reconstructions and rebuilds, which maximizes line loss reduction for minimal incremental cost. These conductors can be installed when a transmission line is replaced for various reasons such as asset condition or to improve reliability. But because costs of transmission line losses are dwarfed by the costs of transmission equipment replacements, it is not cost-effective to perform equipment replacements for the sole purpose of reducing losses. So,

[1] Avoided Energy Supply Components in New England: 2021 Report, page 333

while the Company has no policy for upgrading conductors strictly to reduce line losses, it does pursue this objective by harnessing the efficiency afforded by already-necessary transmission line repairs to install conductors that will reduce line losses in a cost-effective manner.

Q. Does this conclude your testimony?

A. Yes, it does.