Public Service Company of New Hampshire d/b/a Eversource Energy Docket No. DE 20-161

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Request from: New Hampshire Public Utilities Commission

Witness: Freeman, Lavelle A

#### **Request:**

Refer to Exhibit 24

a. What is Eversource's vision for AMI deployment in New Hampshire over the next five-years?

b. Please provide a description of Eversource's AMI deployment in other jurisdictions.

#### **Response:**

# Part a. What is Eversource's vision for AMI deployment in New Hampshire over the next five-years?

Eversource endeavors to be a catalyst for clean energy initiatives and supports the important public policy goals that are providing the strong impetus to modernize the electric grid, including goals designed to promote energy efficiency, clean transportation, energy storage deployments and renewable energy resources, among other initiatives. Enabling a cleaner energy future will require a strategic focus on increasing visibility and optimization of the distribution system. Widespread visibility of power flows is a prerequisite to optimizing real-time system conditions to capture the time and location-based value of clean energy resources. The confluence of these factors is driving a need to make "enabling" investments that provide the grid edge visibility necessary to support a broad spectrum of the grid-modernization efforts envisioned for the next generation electric-distribution utility.

Current metering technology, in service for most customers, measures and stores total usage for a single month. This one value is collected via an automated meter reading ("AMR") drive-by system and stored in the Company's meter data management system ("MDMS") for billing purposes. The Company's AMR metering system installed at all residential and small commercial customer premises in New Hampshire between 2014 and 2016 has proven efficient and effective in collecting accurate usage data for billing a single volumetric rate. These meters, however, provide no insight into usage throughout the day in granular intervals and thus no opportunity to provide information or incentives for customers to reduce peak demand.

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In contrast, advanced metering infrastructure ("AMI") collects usage data in 15-minute intervals that can be shared with customers and used to: (1) support time varying rates; (2) support two-way communication for remote operation and storm restoration; (3) serve as an alternative to current net meters for customers with distributed generation; (4) provide operational insight into grid edge voltage and power quality; and (5) enable customer insights (e.g., bill and usage alerts) and behind the meter load disaggregation.

The eventual transition to AMI meters is a foundational element of the Company's grid modernization vision. Successful AMI implementation is dependent on maximizing value to customers relative to the cost to deploy all system components. Achieving the benefits of AMI includes spending in the following implementation categories:

- AMI meters;
- Communications infrastructure and head end system;
- Meter data management system;
- Customer information system;
- Cybersecurity;
- Project management;
- Customer enablement (e.g., online access to usage data);
- Analytics for customer and operational outcomes (e.g., transformer load management, targeted participation in energy efficiency);
- Outage Management System (OMS) and Distribution Management System (DMS) integrations;
- Customer education and marketing; and
- Customer service representatives (e.g., incremental costs associated with additional representatives needed to assist customers and address questions as AMI meters are deployed).

The Company's AMI plan is designed to deliver the benefits of AMI while minimizing implementation costs. The current inventory of AMR meters deployed since 2014 typically have a useful life of 20 years. Early retirement of AMR meters has a cost that the Company is managing by planning for AMI meter installations in the longer term once AMR meters are more substantially used by customers. At the current time, the Company expects the transition to AMI will likely begin at the end or slightly beyond the five-year time horizon.

In order to further minimize costs to customers, installation of AMI meters will start once the enabling communications infrastructure is in place. Deploying communications to a single meter increases costs relative to the Company's plan of a geographic deployment where all meters are communicating on a single network. Thus, the Company plans to continue to deploy AMR meters until the transition to AMI begins. Implementation of the meter data management system and all

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other project components will also commence as a part of the overall AMI project.

To further detail the costs and benefits of different scenarios for AMI deployment, the Company is participating in an AMI Feasibility Study in partnership with the New Hampshire Department of Energy and Office of Consumer Advocate. With the support of a third-party consultant, the AMI Feasibility Study will provide insights into potential options for deploying AMI across the state.

#### Part b. Please provide a description of Eversource's AMI deployment in other jurisdictions.

In November 2022, the Company received approval for its AMI implementation plan in Massachusetts. The implementation plan calls for deploying AMI meters to all 1.5 million residential and small commercial customers in the state between 2022 and 2028. The project includes all components outlined in the response to part (a) above. Implementation activities are currently underway including the design and build of a new customer information system and procurement for the meter data management system; AMI meters, head end and communications; and project management services. The Company plans to begin meter deployment in the first quarter of 2025 and deploy meters over a three-year period.

In July 2020, the Company filed a proposal to deploy AMI meters to all 1.2 million residential and small commercial customers in Connecticut. The filing includes a business case analysis of the benefits and costs of the proposed plan for customers. The plan and associated business case was updated based on feedback from Connecticut Public Utilities Regulatory Authority ("CT PURA") in November 2021. The project as proposed includes all components outlined in the response to part (a) above. The proposal is still pending with CT PURA.