THE STATE OF NEW HAMPSHIRE

BEFORE THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

PREPARED TESTIMONY OF ERICA L. MENARD AND DAVID F. BIDMEAD

TRANSMISSION COST ADJUSTMENT MECHANISM (TCAM)

Docket No. DE 19-106

Q. Please state your names, business addresses and your present positions.

A. My name is Erica L. Menard. My business address is 780 North Commercial Street, Manchester, NH. I am employed by Eversource Energy Service Company as the Manager of New Hampshire Revenue Requirements and in that position, I provide service to Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource" or the "Company").

My name is David F. Bidmead. My business address is 107 Selden Street, Berlin, Connecticut. I am employed by Eversource Energy as a Senior Revenue Requirements Analyst - New Hampshire and in that position, I provide service to Eversource.

Q. Have you previously testified before the Commission?

A. Yes, we both have.

Q. What are your current responsibilities?

A. (ELM) I am currently responsible for the coordination and implementation of revenue requirements calculations for Eversource, as well as the filings associated

with Eversource's Energy Service ("ES") rate, Stranded Cost Recovery Charge ("SCRC"), Transmission Cost Adjustment Mechanism ("TCAM"), and Distribution Rates.

(DFB) I currently prepare and/or review the calculation of New Hampshire revenue requirements for Eversource, as well as the filings associated with Eversource's ES, SCRC, and TCAM rates.

Q. What is the purpose of your testimony?

A. Our testimony supports Eversource's TCAM filing for rates effective August 1, 2019. The testimony and supporting attachments present the reconciliation through May 2019 for transmission costs as well as the proposed TCAM rate for the forecast period to be effective August 1, 2019.

Q. What is Eversource requesting in this filing?

A. Eversource is requesting approval of a forecasted average retail transmission rate to be effective August 1, 2019, for a twelve-month billing period. In addition, we are requesting approval of the over- or under-recoveries resulting from the reconciliation of actual transmission costs and revenues as compared to forecasted transmission costs and revenues used in the previous rate filing. Our requests are in accordance with the Commission's approval of the settlement in Docket No. DE 06-028 (Distribution Rate Case), which included a provision for a transmission cost adjustment mechanism.

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

A. Yes. Edward A. Davis and John P. Dipaola-Tromba will be filing testimonies in support of the proposed retail transmission rates. In his testimony, Mr. Davis will detail the rates applicable to each individual rate class. In his testimony, Mr. Dipaola-Tromba will be providing a description of projects included in LNS rates as well as describing the planning process at ISO-NE.

Q. Describe the types of costs included in this TCAM filing.

A. There are two different groups of costs within this TCAM filing. The first group of costs consists of four cost categories of "wholesale transmission" costs. The second group consists of two cost categories of "other transmission" costs.

The "wholesale transmission" costs are as follows:

1) Regional Network Service (RNS) costs
2) Local Network Service (LNS) costs
3) Reliability costs
4) Scheduling and Dispatch (S&D) costs.

All of these costs are regulated by the FERC. These costs are discussed below in more detail.

1) RNS costs support the regional transmission infrastructure throughout New England. RNS costs are charged to Eversource by ISO-NE based upon tariffs approved by the FERC. RNS costs are billed to all entities in the region that have RNS load responsibility, such as Eversource, based on their monthly peak load.

2) LNS costs encompass Eversource's local transmission costs that are not included in the FERC-jurisdictional RNS tariff. These billings are also governed by FERC approved tariffs and are based on costs allocated to Eversource based on load ratio share. Eversource's load ratio share is calculated using a rolling twelve-month coincident peak (12 CP).

3) Reliability costs include costs such as Black Start and VAR support that are related to electric reliability. These reliability costs are billed to all entities in the region that have RNS load responsibility, such as Eversource, based on their monthly peak load.

4) S&D costs are associated with services provided by ISO-NE related to scheduling, system control and dispatch services. These costs are billed by ISO-NE to all entities in the region that have RNS load responsibility, such as Eversource, based on their monthly peak load, in accordance with the applicable FERC tariff.

The "other transmission" costs are as follows:

A) Hydro-Quebec (HQ) support costs and related revenues,

B) TCAM working capital allowance return, and

C) Hydro Quebec (HQ) Interconnection Capacity Credits.

Other transmission costs A) and B) were previously recovered through Eversource's distribution rates, but were transferred in total or in part to the TCAM for recovery, effective July 1, 2010, as part of a negotiated "Settlement Agreement on Permanent Distribution Service Rates" ("Settlement Agreement") between Eversource, the Commission Staff, and the Office of Consumer Advocate (OCA) in Docket No. DE 09-035 that was approved in Order No. 25,123. These costs are discussed below in more detail.

A) Hydro-Quebec support costs are costs associated with FERC approved contractual agreements between Eversource and other New England utilities to provide support for transmission and terminal facilities that are used to import electricity from HQ in Canada. Under these agreements, Eversource is charged its proportionate share of O&M and capital costs for a thirty-year period ending in 2020.

Eversource's share of any revenue associated with the HQ facility was previously returned to customers through the ES rate. Effective July 1, 2010, consistent with the requirements of NHPUC Order No. 25,122, in the 2010 TCAM docket, Docket No. DE 10-158, Eversource began returning its share of any HQ facility revenues to customers as a revenue credit in the TCAM.

B) When the TCAM was initially approved in Docket No. DE 06-028, there was no provision for a working capital allowance in the TCAM. The TCAM working capital allowance continued to be included with the distribution working capital

allowance. As part of the Settlement Agreement, the distribution revenue requirement calculation excluded working capital on transmission costs. Therefore, the TCAM includes a working capital allowance. An updated lead/lag analysis has been completed for rates effective August 1, 2019 based on the lead/lag study we discuss later in this testimony.

C) Hydro Quebec Interconnection Capacity Credits were historically included in the Capacity Expense/Credit portion of the ES rate. With the transition from the Eversource-owned generation energy service rates to the new market solicitation rates effective April 1, 2018, it was appropriate to start including these credits in the TCAM as that is where Hydro Quebec Support Costs and Revenue Credits currently are included.

Q. Please describe the overall mechanics of the TCAM as they are presented in this filing.

A. The TCAM is a mechanism that allows Eversource to fully recover defined FERC and/or Commission approved transmission costs. The proposed TCAM rate is based on reconciliations of historic transmission costs and forecasted future transmission costs using the latest approved FERC transmission rates. There are two premises that form the basis of the TCAM. First, the TCAM sets transmission rates for a defined future billing period based on transmission cost estimates using current budget and forecast data supported by the latest known FERC approved transmission rates. This future billing period is referred to as the

"forecast period". Second, the TCAM provides all available actual cost and revenue (recovery) data referred to as the "reconciliation period". Any over- or under-recoveries that are incurred in the reconciliation period are rolled into the subsequent billing period as part of the next TCAM rate.

Q. What is the forecast period used in this filing, and what is the reconciliation period?

A. The forecast period in this filing is the twelve-month period August 2019 through July 2020. The reconciliation period includes actual results for January 2018 through May 2019 and estimated results for June and July 2019.

Q. Do the transmission rate forecasts contained in this filing reflect the most current FERC rates that were to be effective on June 1, 2019?

A. Yes.

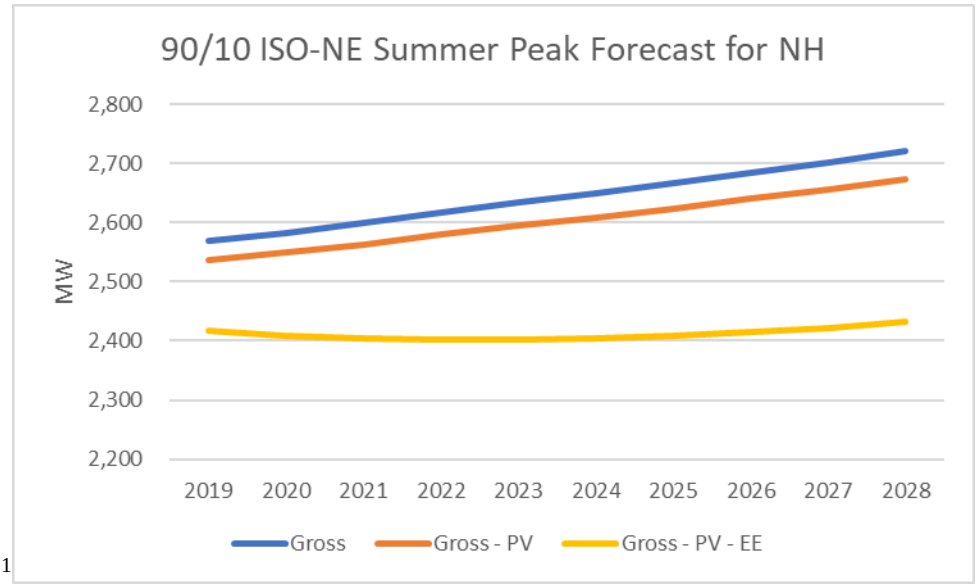
Q. What then, is Eversource proposing as its annual TCAM rate in this filing?

A. As shown in Attachment ELM/DFB-1, page 1a, Eversource is proposing a forecasted average TCAM rate of 2.051 cents/kWh as compared to the current average rate of 1.864 cents/kWh. The increase in the average TCAM rate is driven primarily by an increase in LNS costs of $7.4M, a decrease in the forecasted over recovery of $4.1M, a decrease in the forecasted Hydro Quebec Interconnection Capacity Credits of $3.6M, increased other costs of $0.3M offset by decreased RNS costs of ($1.1M).

Q. In Order No. 26,031 (June 28, 2017) in Docket No. DE 17-081, the Commission noted that there have been changes in the RNS rates as a result of changes in peak demand throughout New England. In that order, the Commission noted that as other states in the region reduce their share of peak load relative to the total, New Hampshire's share of the peak, and allocation of costs, increases. The Commission stated that it expected the Company to explain its efforts to reduce peak demand in New Hampshire in future TCAM filings. What efforts has Eversource made to address peak demand in New Hampshire?

A. As the Company described during the hearing in Docket No. DE 17-081, energy efficiency programs reduce consumption of energy (kWh), and costs, for customers across New Hampshire. The efficiency measures that reduce kWh often also reduce electric demand (kW) at the ISO-NE, distribution and customer level during peak periods. The current New Hampshire 3-Year Energy Efficiency Plan includes estimates of kW savings for 2018-2020 during ISO-NE summer and winter peak hours. The efficiency measures installed in 2018 are estimated to achieve 7.7 MW in summer peak demand reduction and 10 MW in winter peak demand reduction. The measures installed in 2019 and 2020 are estimated, respectively, to achieve 9.8 MW and 12.7 MW of summer peak reduction and 12 MW and 15 MW of winter peak reduction. As with the kWh savings, the demand savings will persist over the lifetime of the measures installed.

ISO-NE has recognized the impact of these energy efficiency measures on its peak demand forecast for NH, as shown in the below chart:



[1]

As is the case in New Hampshire, the vast majority of demand savings from energy efficiency programs in the region are achieved as a secondary benefit of the measures designed to generate kWh savings. However, New Hampshire efficiency programs are also reviewing a number of demand reduction demonstrations currently taking place in Massachusetts and other states in the region that focus more specifically on achieving peak demand reductions. The Company also has proposals for demonstration projects as part of the Distribution Rate Case in Docket No. DE 19-057 that, if implemented, would provide additional data and insight related to potential peak demand reduction capabilities. Leveraging this demonstration work done elsewhere will help to ensure that we understand the

[1] Graphical representation of the 90/10 data contained in the Final 2019 CELT Forecast: ISO-NE and States Annual Energy and Seasonal Peak Forecasts, page 48, available here: https://www.iso-ne.com/static-assets/documents/2019/03/lfc_29mar2019_final.pdf.

potential market and have good information on cost effectiveness to inform future decisions about new program elements in New Hampshire.

Q. Has Eversource taken any direct efforts to reduce peak demand in New Hampshire?

A. Yes, Eversource has developed a Commercial and Industrial Demand Reduction Initiative as part of its energy efficiency offerings. This initiative was approved as part of the 2019 Update plan in Docket No. DE 17-136. Under an active demand reduction approach, customers agree to respond to an event call targeting conditions that typically result in peak reductions through curtailment service providers ("CSPs")—vendors who identify curtailable load, enroll customers, manage curtailment events, and calculate payments. The customer is incentivized to respond to event calls using performance-based incentives. This approach is technology agnostic and can utilize single end-use control strategies or a multitude of approaches that can reduce demand when an event is called. This typically entails customers using lighting with both manual and automated controls, HVAC with both manual and automated controls, process loads, scheduling changes, excess Combined Heat & Power (CHP) capacity, and energy storage to reduce demand. As noted by the Commission in Order No. 26,232 (April 5, 2019) when approving the proposal, Eversource is targeting a demand reduction of 5 MW through this initiative and will be reporting on the success of the initiative in the coming months.

Q. Did Eversource conduct a lead/lag study for the TCAM as required in Order No. 25,912, dated June 28, 2016, in Docket No. DE 16-566?

A. Yes, Eversource conducted a lead/lag study for the TCAM and provided that analysis as Attachment ELM/DFB-2. The results of the lead/lag analysis were applied effective August 1, 2019. This lead/lag study methodology is substantially the same as the one provided in Docket No. DE 18-089.

Q. How is cash working capital estimated through a lead-lag study?

A. A lead/lag study identifies the amount of time it typically takes for the Company to collect revenue from customers, as well as the amount of time the Company takes to make payment for applicable operating costs. The difference between those two numbers is used as the basis to estimate cash working capital requirements.

Q. Please describe the lead/lag study completed for the TCAM provided as Attachment ELM/DFB-2.

A. The Lead/Lag Study consists of 10 pages of calculations and supporting schedules to calculate working capital allowances by month for RNS, S&D, LNS, Reliability, Hydro Quebec Interconnection Capacity Credits (HQ ICC), and HQ support components. Revenue lag days are the same for all components, however expense lead days vary by component. Each component has a separate expense lead days schedule.

Q. Please define the terms "revenue lag days" and "expense lead days."

A. Revenue lag is the time, measured in days, between delivery of a service to Eversource customers and the receipt by Eversource of the payment for such service. Similarly, expense lead is the time, again measured in days, between the performance of a service on behalf of Eversource by a vendor or employee and payment for such service by Eversource. Since base rates are based on revenue and expenses booked on an accrual basis, the revenue lag results in a need for capital while the expense lead offsets this need to the extent the Company is typically not required to reimburse its vendors until after a service is provided.

Q. How is the retail revenue lag computed?

A. The retail revenue lag consists of a "meter reading or service lag," "collection lag" and a "billing lag." The sum of the days associated with these three lag components is the total retail revenue lag experienced by Eversource. See Attachment ELM/DFB-2, Page 3 of 10.

Q. What lag does the Lead/Lag Study reveal for the component "meter reading or service lag?"

A. The Lead/Lag Study reveals 15.2 days. This lag was obtained by dividing the number of billing days in the test year by 12 months and then in half to arrive at the midpoint of the monthly service periods.

Q. How was the "collection lag" calculated and what was the result?

A. The "collection lag" for TCAM totaled 30.7 days. This lag reflects the time delay between the mailing of customer bills and the receipt of the billed revenues from customers. The 30.7 days lag was arrived at by a thorough examination of TCAM accounts receivable balances using the accounts receivable turnover method. End of month balances were utilized as the measure of customer accounts receivable. Attachment ELM/DFB-2, Page 4 details monthly balances for the majority of the accounts receivable accounts. Attachment ELM/DFB-2, Page 3 calculated the average daily revenue amount by dividing total revenue by 365 days. The resulting Collection Lag is derived by dividing the average daily accounts receivable balance by the average daily revenue amount to arrive at the Collection lag of 30.7 days.

Q. How did you arrive at the 1.00 day "billing lag"?

A. Nearly all of the Company's customers are billed the evening after the meters are read. Therefore, we have included a 1.00 day billing lag. We have not made an exception for large customers which may require additional time to process

Q. Is the total retail revenue lag computed from these separate lag calculations?

A. Yes. The total retail revenue lag of 46.9 days is computed by adding the number of days associated with each of the three retail revenue lag components. See, Attachment ELM/DFB-2, Page 3. This total number of lag days represents the amount of time between the recorded delivery of service to retail customers and the receipt of the related revenues from retail customers.

Q. Please explain how the RNS, S&D, LNS, Reliability, HQ expenses, and HQ ICC lead/lag period is determined.

A. The monthly payments were reviewed and the expense lead days were calculated based on the actual payment date of the payments. Once the lead days for each category were determined, the lead days were summarized and dollar weighted according to 2018 actual annual amounts to arrive at the lead days. These calculations are shown in Attachment ELM/DFB-2, pages 5 through 10.

Q. Would you summarize the Company's proposal regarding Cash Working Capital?

A. Based on the results of the lead/lag analysis of Eversource TCAM Cash Working Capital, the Company identified an RNS working capital component of (16.8) days, or (4.61) percent, an S&D working capital component of (16.8) days, or (4.60) percent, an LNS working capital component of 6.5 days, or 1.77 percent, a Reliability working capital component of (16.8) days, or (4.61) percent an HQ Expense working capital component of 48.0 days, or 13.15 percent, and an HQ ICC working capital component of (16.4) days or (4.48) percent. Application of these values results in a total forecasted cash working capital allowance of ($5.773) million and a forecasted return on working capital of ($0.554) million for the forecasted period of August 2019 through July 2020.

Q. Does Eversource require Commission approval of this rate by a specific date?

A. Yes, Eversource is requesting final approval of the proposed TCAM rate change by July 27, 2019 to allow for the implementation of an August 1, 2019 change in rates.

Q. Does this conclude your testimony?

A. Yes, it does.