THE STATE OF NEW HAMPSHIRE

BEFORE THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

PREPARED TESTIMONY OF CHRISTOPHER J. GOULDING

TRANSMISSION COST ADJUSTMENT MECHANISM (TCAM)

Docket No. DE 17-081

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

A. My name is Christopher J. Goulding. 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"). For purposes of this testimony, references to Eversource Energy will mean the parent company and references to Eversource will mean PSNH.

Q. Have you previously testified before the Commission?

A. Yes, I have.

Q. What are your current responsibilities?

A. 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 Alternate Default Energy ("ADE") rate.

Q. What is the purpose of your testimony?

A. My testimony supports Eversource's TCAM filing for rates effective July 1, 2017. The testimony and supporting attachments present the actual reconciliation period through May 2017 for transmission costs in this TCAM filing as well as the proposed TCAM rate for the forecast period to be effective July 1, 2017.

Q. What is Eversource requesting in this filing?

A. Eversource is requesting approval of a forecasted average retail transmission rate to be effective July 1, 2017, for a twelve-month billing period. In addition, we are requesting approval of the reconciliation of actual transmission costs and revenues for the calendar year 2016. 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. Lois B. Jones and Kenneth B. Bowes will be filing testimonies in support of the proposed retail transmission rates. In her testimony, Ms. Jones will detail the rates applicable to each individual rate class. In his testimony, Mr. Bowes 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 Energy'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, and

B) TCAM working capital allowance return.

These other transmission costs 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 Energy Service (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 July 1, 2017 based on the lead/lag study I discuss later in my testimony.

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 for the eighteen-month period just prior to the forecast

period. This eighteen-month period is referred to as the "reconciliation period". Any over- or under-recoveries that are incurred in the billing 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 eighteen- month reconciliation period?

A. The forecast period in this filing is the twelve-month period July 2017 through June 2018. The eighteen-month reconciliation period includes actual calendar year 2016 and actual January 2017 through May 2017 costs, as well as estimated costs for June 2017.

Q. Do the transmission rate forecasts contained in this filing reflect the most current FERC rates that were to be effective on June 1, 2017?

A. Yes.

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

A. Eversource is proposing a forecasted average TCAM rate of 2.318 cents/kWh as compared to the current average rate of 2.193 cents/kWh. The increase in the average TCAM rate is driven primarily by increased RNS costs of $13.4M and increased LNS costs of $2.1M offset by a decrease in forecasted reliability cost of ($1.5M), decrease in the forecasted return on working capital of ($1.5M) due to incorporating results of a TCAM specific lead/lag analysis, and a decrease in the

forecasted under recovery of ($6.3M). Additionally lower forecasted sales volumes for the 12 months ended 6/30/18 put upward pressure on the rate.

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 CJG-2. The results of the lead/lag analysis were applied effective July 1, 2017.

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

A. The Lead/Lag Study consists of 9 pages of calculations and supporting schedules to separately calculate lag days for the RNS expenses, S&D expenses, LNS expenses, reliability expenses and HQ expenses. As can be seen on page 2 of Attachment CJG-2, the Lead/Lag Study produced a 14.8 day net lag for RNS and S&D expenses, a 11.1 day net lag for LNS expense, a 14.4 day net lag for reliability expenses, and a 44.6 day net lag for HQ expenses.

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 CJG-2, Page 3 of 9.

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 27.4 days. This lag reflects the time delay between the mailing of customer bills and the receipt of the billed revenues from customers. The 27.4 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 CJG-2, Page 4 details monthly balances for the majority of the accounts receivable accounts. Attachment CJG-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 27.4 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, I have included a 1.00 day billing lag. I 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 43.6 days is computed by adding the number of days associated with each of the three retail revenue lag components. See, Attachment CJG-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 and HQ expenses lead/lag period is determined.

A. The monthly payments were reviewed and the 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 2016 actual annual amounts to arrive at the lead days. These calculations are shown in Attachment CJG-2, pages 5 through 9.

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 and S&D working capital component of 14.8 days, or 4.05 percent, a LNS working capital component of 11.1 days, or 3.03 percent, a Reliability working capital component of 14.4 days, or 3.94 percent and a HQ working capital component of 44.6 days, or 12.22 percent. Application of these values results in a total cash working capital allowance of $7.458 million and a return on working capital of $0.818 million for the forecasted period of July 2017 through June 2018.

Q. How do the Lead/Lag Study results compare to the historic 45 day convention?

A. The Lead/Lag Study determined that the Company realizes a net revenue lag of less than 45 days. The net effect of applying the results of the Lead/Lag study is a decrease in cash working capital requirements from $22.206 million to $7.458 million.

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 June 28, 2017 to allow for the implementation of a July 1, 2017 change in rates.

Q. Does this conclude your testimony?

A. Yes, it does.