

**STATE OF NEW HAMPSHIRE**  
**BEFORE THE**  
**NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION**

**DOCKET NO. DE 21-029**

**DIRECT TESTIMONY OF**  
**JENNIFER A. ULLRAM**

*Calculation of Lost Base Revenues due to Net Metering*

**On behalf of Public Service Company of New Hampshire**  
**d/b/a Eversource Energy**

**April 30, 2021**

**Table of Contents**

1 I. INTRODUCTION ..... 1  
2 II. SCOPE AND PURPOSE ..... 2  
3 III. LOST BASE REVENUE..... 3  
4 V. CUSTOMER BILL IMPACTS ..... 7

**Attachments**

Attachment JAU-1	Summary of 2019 and 2020 Net Metering Lost Base Revenues
Attachment JAU-2, Exhibits A – E	2019 Calculation of Net Metering Lost Base Revenues (Rate R)
Attachment JAU-3, Exhibits A – E	2020 Calculation of Net Metering Lost Base Revenues (Rate R)
Attachment JAU-4, Exhibits A – J	2019 Calculation of Net Metering Lost Base Revenues (Rates G and GV)
Attachment JAU-5, Exhibits A – J	2020 Calculation of Net Metering Lost Base Revenues (Rates G and GV)
Attachment JAU-6	PVWatts Model

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1 **I. INTRODUCTION**

2 **Q. Please state your name, position and business address.**

3 A. My name is Jennifer A. Ullram. I am employed by Eversource Energy Service Company  
4 as the Manager of Rates in Connecticut and New Hampshire. In this position, I provide  
5 support to Public Service Company of New Hampshire, d/b/a Eversource Energy  
6 (“Eversource” or the “Company”). My business address is 107 Selden Street, Berlin,  
7 Connecticut.

8 **Q. What are your principal responsibilities in this position?**

9 A. As the Manager of Rates, I am responsible for activities related to rate design, cost of  
10 service and rates administration for electric and gas subsidiaries of Eversource Energy,  
11 including Eversource.

12 **Q. Please describe your educational and professional background.**

13 A. I graduated from Bryant College (now Bryant University) in Smithfield, Rhode Island in  
14 1997 with a Bachelor of Science degree in Finance. In 2005, I graduated from the  
15 University of Hartford Barney School of Business with a Master of Science in Accounting

1 and Taxation. Immediately prior to my employment at Eversource Energy, I was a SEC  
2 and NYSE auditor for Advest. In 2001, I joined the predecessor to Eversource (“Northeast  
3 Utilities”) and held various staff and supervisor level positions in the Transmission Rates  
4 and Revenue Requirements Department prior to joining the Rates group. In 2015, I was  
5 promoted to Manager of Connecticut Rates and in 2019, was promoted to Manager of  
6 Connecticut and New Hampshire Rates.

7 **Q. Have you testified previously before the New Hampshire Public Utilities Commission**  
8 **or other regulatory bodies?**

9 A. Yes. I have testified before the New Hampshire Public Utilities Commission  
10 (“Commission”) on behalf of Eversource, and at the state utility commission in Connecticut  
11 on behalf of other Eversource Energy companies on rate related matters.

## 12 **II. SCOPE AND PURPOSE**

13 **Q. What is the purpose of your testimony?**

14 A. The purpose of my testimony is to present the Company’s calculation of Lost Base  
15 Revenues (“LBR”) associated with net metering for 2019 and 2020 so that it may be  
16 included in the Regulatory Reconciliation Adjustment (“RRA”) effective August 1, 2021.

17 **Q. Please outline the organization of your Testimony and Attachments.**

18 A. In addition to this written testimony, I am presenting six attachments. Attachment JAU-1  
19 provides a summary of the total 2019 and 2020 calculation LBR as a result of net metering.  
20 Attachments JAU-2 and JAU-3, Exhibits A through E provide the detailed calculation of

1 LBR for Rate R for 2019 and 2020, respectively. Attachments JAU-4 and JAU-5, Exhibits  
2 A through J provide the calculation of LBR for Rate G and GV customers for 2019 and  
3 2020. Finally, Attachment JAU-6 provides the PVWatts model used to calculate the  
4 estimated kWh generated for each customer by month.

5 **III. LOST BASE REVENUE**

6 **Q. On what basis is Eversource requesting recovery of LBR associated with net metering**  
7 **for 2019 and 2020?**

8 A. Under RSA 362-A:9, VII, distribution utilities like Eversource “may perform an annual  
9 calculation to determine the net effect this section had on its default service and distribution  
10 revenues and expenses in the prior calendar year.” Further, it provides that the “method of  
11 performing the calculation and applying the results, as well as a reconciliation mechanism  
12 to collect or credit any such net effects with appropriate carrying charges and credits  
13 applied, shall be determined by the commission.” In Order No. 26,433 (December 15,  
14 2020) in Docket No. DE 19-057 the Commission approved the Company’s Settlement  
15 Agreement in its distribution rate case. The Settlement Agreement required LBRs  
16 associated with net metering to be calculated consistent with RSA 362-A:9, VII and the  
17 Commission’s approved method in Order No. 26,029 (June 23, 2017) in Docket No. DE  
18 16-576. That approved method was based upon a mechanism and process approved by the  
19 Commission for Unitil in Order No. 25,991 (February 21, 2017) in Docket No. DE 15-147.  
20 In the Settlement Agreement in Docket No. DE 19-057, the Settling Parties acknowledged  
21 that base distribution revenues do not include any LBR associated with net metering for

1 installations on or after January 1, 2019. The Settlement Agreement also stated that the  
2 RRA shall recover LBR beginning as of January 1, 2019.

3 **Q. Please describe how the Company estimated the monthly and annual generation for**  
4 **net metering customers.**

5 A. The amount of the displaced kWh of generation was calculated based on the PVWatts  
6 model (see Attachment JAU-6). To calculate the amount of kWh generated per kW (AC)  
7 installed for a Photovoltaic system, the Company input a 1,250 kW-DC into the model and  
8 utilized a DC to AC ratio of 1.25 to achieve 1,000 kW-AC. The model estimated the annual  
9 kWh of generation of 1,611,023 with a capacity factor of 14.7%.

10 **Q. Please explain how the output of the PVWatts data was used to calculate the monthly**  
11 **kWh generation of each customer's load.**

12 A. The Company first took the total installed AC kW and multiplied that by the total hours in  
13 the year (8,760) and further multiplied by the capacity factor of 14.7% calculated in the  
14 PVWatts model. The result is the total estimated annual kWh output of each facility and  
15 is shown for Rate R customers in Exhibit A in Attachments JAU-2 and JAU-3. For Rate  
16 G and GV customers that calculation is provided in Exhibit A in Attachments JAU-4 and  
17 JAU-5.

18 To determine the monthly amounts, the Company took the total monthly kWh energy  
19 calculated by PVWatts to allocate the total output to each month. In the first month a  
20 facility went in-service, the Company determined whether there were kWh purchases

1 (energy delivered to customers from the distribution system) or kWh sales associated with  
2 the facility (the portion of energy produced by the facility and delivered to the distribution  
3 system). If there was, the Company allocated the estimated generation by multiplying the  
4 monthly amount by the prorated number of days the facility was in-service. The results for  
5 Rate R customers are provided in Exhibits B to Attachments JAU-2, and JAU-3, and for  
6 Rate G and GV customers are provided in Exhibits B to Attachments JAU-4 and JAU-5.

7 **Q. Please provide an explanation of how the Company used the data to calculate the total**  
8 **displaced revenue for Rate R customers.**

9 A. After the Company calculated the estimated total generation kWh's produced as described  
10 above, the Company downloaded the total kWh sales and subtracted those amounts from  
11 the estimated total generation kWh's. Because the Company recovers the expense  
12 associated with sales through the Stranded Cost Recovery Charge ("SCRC"), removal of  
13 those sales from the estimated generation ensures that the Company does not double  
14 recover any revenues it is seeking through LBR.

15 Once the total displaced generation was calculated, the Company multiplied that value by  
16 the distribution rate in effect for each month to determine the total LBR. Those amounts  
17 are included in Exhibits E in Attachments JAU-2 and JAU-3.

18 **Q. Please provide an explanation of the calculation the Company used to calculate the**  
19 **total displaced revenue for Rate G and GV customers.**

20 A. Because Rates G and GV have block rates, the Company had to approach this calculation  
21 slightly different than the displaced revenues for Rate R customers. To calculate these

1 displaced revenues, the Company first calculated the total usage the customer would have  
2 been billed absent net metering. That calculation sums the total monthly estimated  
3 generation plus the actual monthly billed amount and the result of that calculation is shown  
4 in Attachments JAU-4 and JAU-5, Exhibits I. Those usage levels were then allocated to  
5 each appropriate block to calculate the customers total bill absent net metering. The  
6 Company then performed the same calculation based on actual purchases (Attachments  
7 JAU-4 and JAU-5, Exhibits F and G). The difference between the total bill absent net  
8 metering and the total purchases results in the LBR amounts provided in Attachments JAU-  
9 4 and JAU-5, Exhibit E.

10 The reason this calculation works is due to the fact that the difference in total kWh usage  
11 absent net metering minus total kWh purchases is equal to the displaced kWh due to net  
12 metering. The following example supports this:

		Customer #1 - 2019			
		(kWh)	Reference		
1	Estimated Generation	1,605	JAU-4, Ex. B		
2	Purchases	4,995	JAU-4, Ex. F		
3	Sales	39	JAU-4, Ex. C		
4	Billed	4,956	Line 2 - Line 3		
5	Total Usage	6,561	Line 1 + Line 4		
6	Displaced kWh	1,566	Line 1 - Line 3		
		Billed Amount of Total Usage		Billed Amount of Purchases	
		kWh	Revenues	kWh	Revenues
7	Block 1	500	\$ 34.93	500	\$ 34.93
8	Block 2	1,000	17.31	1,000	17.31
9	Block 3	5,061	30.97	3,495	21.39
10	Total	6,561	\$ 83.21	4,995	\$ 73.63
11			Difference	1,566 kWh	\$ 9.58

13



1 As shown on line 11 above, the total displaced kWh for January 2019 is 1,566 kWh which  
2 ties to the calculated displaced kWh on line 6. Therefore, the difference between the billed  
3 total usage and the billed purchases is equal to the displaced kWh and revenues. The total  
4 \$9.58 for this customer is show in Attachment JAU-4, Exhibit E.

5 **Q. How does this methodology differ from what Until files in its calculation of LBR?**

6 A. As stated above, because the Company recovers the “Sales” portion through the SCRC, the  
7 Company needs to ensure there is no double recovery of revenues. It is my understanding  
8 that Unutil’s calculation determines the estimated generation less any surplus kWh  
9 multiplied by the distribution rates in effect to estimate the LBR. Given the way the  
10 Company’s meters record sales and purchases, applying the Unutil methodology exactly  
11 the same way to our data would result in some revenues being recovered twice – once  
12 through the SCRC and then again through the LBR calculation that is ultimately included  
13 in the RRA. Nonetheless, the methodology we applied is based on the Unutil method  
14 achieves the appropriate calculation of LBR.

15 **V. CUSTOMER BILL IMPACTS**

16 **Q. Please describe the impact that the proposed LBR calculation would have on a 600**  
17 **kWh and 650 kWh residential Rate R customer.**

18 A. The Company estimates that the total LBR of \$290,446 results in an estimated increase to  
19 a 600 kWh Rate R customer of \$0.03 per month. The portion of the RRA related to LBR  
20 results in a rate equivalent to \$0.00004 per kWh.

1           In addition, other changes are being included in the RRA which will affect the total rate  
2           impacts being proposed for August 1, 2021. Please see the joint testimony of Ms. Menard  
3           and Ms. Ullram for total bill impacts of the RRA.

4   **Q.    Does this conclude your testimony?**

5   **A.    Yes, it does.**