

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

**JOINT REBUTTAL TESTIMONY OF EDWARD A. DAVIS, MARISA PARUTA  
AND KEVIN M. BOUGHAN**

**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
D/B/A EVERSOURCE ENERGY**

**ELECTRIC VEHICLE PUBLIC CHARGING MAKE-READY INFRASTRUCTURE  
AND DEMAND CHARGER ALTERNATIVE PROPOSAL**

**Docket No. DE 21-078**

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1 **Q. Mr. Davis, please state your name, business address and position.**

2 A. My name is Edward A. Davis. My business address is 107 Selden Street, Berlin, CT  
3 06037. My position is Director, Rates at Eversource Energy Service Company and in that  
4 position I provide rate and tariff related services to the operating companies of  
5 Eversource Energy including Public Service Company of New Hampshire d/b/a  
6 Eversource Energy (“Eversource” or “the Company”).

7 **Q. Have you previously testified before the Commission?**

8 A. Yes. I have on many occasions testified before the Commission on behalf of Eversource,  
9 and at the state utility commissions in Connecticut and Massachusetts on behalf of other  
10 Eversource Energy affiliates on rate related matters.

11 **Q. Have you previously submitted testimony in this proceeding?**

12 A. Yes. On April 15, 2021, I submitted direct, pre-filed joint testimony in this docket with  
13 Brian Rice and Kevin Boughan. In that testimony, I summarize my educational and  
14 professional background.

1 **Q. Mr. Boughan, please state your name, business address and position.**

2 A. My name is Kevin M. Boughan. My business address is 107 Selden Street, Berlin, CT  
3 06037. My position is Manager, Research and Business Development at Eversource  
4 Energy Service Company and in that position I provide service to the operating  
5 companies of parent company Eversource Energy including the Company.

6 **Q. Have you previously testified before the Commission?**

7 A. No. However, I have testified before the Massachusetts Department of Public Utilities  
8 and Connecticut Public Utilities Regulatory Authority in several proceedings related to  
9 utility electric vehicle (“EV”) infrastructure program design, cost recovery, and EV  
10 specific rates.

11 **Q. Have you previously submitted testimony in this proceeding?**

12 A. Yes. On April 15, 2021, I submitted direct, pre-filed joint testimony in this docket with  
13 Brian Rice and Edward Davis. In that testimony, I summarize my educational and  
14 professional background.

15 **Q. Ms. Paruta, please state your name, business address and position.**

16 A. My name is Marisa Paruta, my business address is 107 Selden Street, Berlin, CT 06037.  
17 My position is Director of Revenue Requirements for Eversource Energy Service  
18 Company.

19 **Q. Have you previously testified before this Commission?**

20 A. Yes, I have testified in Docket No. DE 21-029 and most recently in Docket No. DE 20-  
21 092.

1 **Q. Have you previously submitted testimony in this proceeding?**

2 A. No. I am replacing Brian Rice in this docket and assuming his previous testimony, as he  
3 has moved to a different position in the Company and no longer assigned to this docket. I  
4 am directly familiar with the content of Mr. Rice's testimony regarding the cost recovery  
5 approach the Company is seeking in this docket.

6 **Q. Please describe your educational and professional experience, including the**  
7 **responsibilities for your current role for your company.**

8 A. I received a Bachelor of Arts degree in accounting from the University of Connecticut  
9 School of Business. I started my career at Arthur Andersen in the client Audit and  
10 Assurance practice, continuing at Deloitte in the same practice. I joined Northeast  
11 Utilities in 2002, Eversource Energy's predecessor, and worked in the Accounting  
12 organization through multiple positions leading to the Director of Corporate Accounting  
13 and Financial Reporting in 2015. I moved to the Regulatory and Revenue Requirements  
14 organization in my current role in June 2021. As the Director of Revenue Requirements,  
15 I am responsible for the coordination and implementation of revenue requirements  
16 calculations and regulatory filings for Connecticut and New Hampshire electric and  
17 natural gas subsidiaries of Eversource Energy.

18 **Q: What is the purpose of this rebuttal testimony?**

19 A: This rebuttal testimony reiterates and clarifies the context, intent and purpose behind the  
20 rate design for the proposed demand charge alternative, particularly in the context of the  
21 recent Commission directive in Order No. 26,604 in Docket No. DE 20-170 to implement  
22 commercial electric vehicle ("EV") time of use ("TOU") rates; and to respond to  
23 suggestions made in party testimony that Eversource expand its make-ready program

1 beyond what is proposed and provide an overview of what an expansion of this program  
2 would entail and the possible implications. The Company further reiterates the basis,  
3 relevance and importance to customers of its proposal in advancing its demand charge  
4 alternative in conjunction with the make-ready program, and as a complement to the  
5 commercial EV TOU rate to be implemented pursuant to DE 20-170.

6 **Q: Is there a reason why the Company proposed a different design for a demand**  
7 **charge alternative for New Hampshire than Eversource either provides or has**  
8 **proposed in other states?**

9 A: Yes, there were a number of interests and conditions specific to New Hampshire along  
10 with key rate design concerns that were taken into consideration. First, the Company  
11 committed to work with stakeholders as a term to the settlement agreement in its  
12 distribution rate case, Docket No. DE 19-057. Parties in that docket that are also parties  
13 to this docket expressed that demand charges were a primary, if not the primary, market  
14 barrier to operating an EV charging station. This concern was the reason the settlement  
15 agreement in DE 19-057 directed the Company to work with the interested parties  
16 collaboratively when designing the rate proposed in this docket, and it is why the  
17 proposed demand charge alternative rate contains no demand charges whatsoever, but  
18 instead is purely volumetric.

19  
20 Given that EV charging represents new load with service characteristics that can vary  
21 widely depending on the type of charging, the Company has squarely addressed rate  
22 design for service to commercial EV charging stations, particularly those stations taking  
23 service to provide public charging of EV's and who would participate in the Company's

1 make-ready program. The proposed demand charge alternative is predicated on a design  
2 point for levels of charging associated with the near-term development of the EV market  
3 in New Hampshire and expected utilization of service (i.e., up to a ten percent load  
4 factor) by these stations. We have addressed the core concerns of customers and  
5 stakeholders in the demand charge alternative design, and at the same time have sought to  
6 strike a balance with concerns such as cost allocation, cost shifting and cross-subsidies  
7 within and among customer classes, using the best available information at this time.  
8 While a central issue addressed in the Company's proposal is the demand charge barrier,  
9 we also recognize the nature of service is to charging stations, who host multiple,  
10 individual charging ports. Thus, Eversource customers who take service under this rate  
11 would make available charging to individual EV's that are expected to charge their EV's  
12 on demand and would largely not have the discretion to shift their load to charging at a  
13 different time. The Company's design of a volumetric rate addresses these key  
14 principles, providing an equivalent to demand charges that recovers a reasonable level  
15 of fixed, demand related costs directly associated with the rate under which they would  
16 otherwise receive service. The Company believes, at a minimum, that it has put forth a  
17 rate that is designed around the specific service needs and characteristics of this new  
18 customer sector, public EV charging station owners, who are also participating in and can  
19 benefit from the accompanying make-ready program.

20  
21 But the Company was not at liberty to simply eliminate demand charges. New  
22 Hampshire has no explicit public policy directing for the subsidization of EV charging  
23 stations through discounted rates, so the Company had to be mindful of minimizing

1 subsidies while still addressing the significant market barrier facing this customer group.

2 The proposed demand charge alternative does create some discount compared to the  
3 otherwise-applicable Rate GV if the charging station's utilization rate is below ten  
4 percent, but given the current state of EV charging infrastructure throughout the state and  
5 the challenges facing charging station owners, the Company feels it struck a balance with  
6 a limited subsidy for EV charging stations with low utilization rates, while ensuring the  
7 discount as compared with Rate GV was a moderate one to account for the current  
8 absence of an explicit public policy directive. Indeed, the design of the volumetric rate  
9 includes adjustments to assure parity with the demand charges of the otherwise applicable  
10 rate for low utilization levels at these stations. The Company maintains that this is an  
11 appropriate and workable solution to address demand charges while still resulting in just  
12 and reasonable rates.

13 **Q. And how did rate design principles come into play with the proposed demand**  
14 **charge alternative rate?**

15 A: Cost causation, price signals, and avoiding cost shifting and subsidization are certainly  
16 important principles of rate design, but they aren't the only principles, and even these  
17 principles cannot be implemented without some degree of compromise. For example,  
18 even the commercial EV TOU rate design with a 50 percent demand charge that was  
19 approved in Docket No. DE 20-170, also proposed by the DOE's testimony in this  
20 docket, does not completely eliminate subsidies for customers taking the rate. The  
21 approved commercial EV TOU rate design creates a discount for stations with utilization  
22 up to five percent, but it also fails to eliminate the demand charge barrier. So this is all a  
23 balancing of interests. The Company's proposed demand charge alternative not only

1 addresses the market barrier of demand charges, it also takes into account and seeks to  
2 strike a balance with the rate design principles of simplicity, stability, cost causation and  
3 equity, all of which are important to provide reasonable rates that effectively motivate  
4 customers to take advantage of this rate offering for new services while minimizing  
5 impacts and subsidies for service to other customers. Incorporating these other elements  
6 of rate design also ensure that on balance, the proposed demand charge alternative will  
7 result in just and reasonable rates.

8 **Q: Does the Company still recommend its proposed demand charge alternative rate**  
9 **design even though the Commission directed all utilities to implement commercial**  
10 **EV TOU rates in Order No. 26,604?**

11 A: Yes, the Company stands behind this rate design and advocates for its implementation.  
12 The demand charge alternative proposal takes a different approach by eliminating  
13 demand charges altogether, addressing a market barrier all relevant stakeholders have  
14 identified as the chief concern for market viability of fast charging stations in New  
15 Hampshire.

16  
17 Both the Commission-approved commercial EV TOU rate and the Company's proposed  
18 demand charge alternative shift costs to a degree – the commercial EV TOU rate uses a  
19 five percent utilization level while the demand charge alternative uses a ten percent  
20 utilization level with a parity adjustment to minimize cost shifting. While there is no  
21 proposal that avoids cost shifting altogether, the Company's design is more appropriate  
22 for the target end user of the rate and, along with the Company's proposed make-ready  
23 program, will advance the growth of EV infrastructure within the Company's service area

1 statewide. As such, the Company believes this is a better transition rate that addresses  
2 customer concerns and needs as the commercial EV charging market develops.

3  
4 The commercial EV TOU rate the Commission has implemented in Docket No. DE 20-  
5 170 includes a significant demand charge and time-varying volumetric components to  
6 apply to a broad range of commercial applications. But according to the parties to this  
7 docket that represent the interests of charging station customers, that design does not  
8 sufficiently address the most important concerns of those customer-parties from the  
9 Company's settlement agreement in Docket No. DE 19-057 for whom the proposed  
10 demand charge alternative has been developed. The Company proposal is customer-  
11 driven, particularly targeting service for those customers who operate public charging  
12 stations and would receive benefits from the proposed make-ready program. The  
13 Company's demand charge alternative addresses the specific concerns identified in the  
14 DE 19-057 settlement agreement and expressed by stakeholders who would take service  
15 under the otherwise applicable general service Rate GV, so the Company adjusted Rate  
16 GV and created the demand charge alternative rate, while ensuring an equitable balance  
17 with all customers would be maintained.

18  
19 It is important to note, that in any event, both the commercial EV TOU and the demand  
20 charge alternative rates represent the rates for charges to the station operator, and that  
21 whatever the basis of charges to the station, that operator will still need to determine the  
22 rates for charging the individual entities charging their EV's. The Company has in its  
23 testimony highlighted not only the sound and balanced basis for its demand charge

1 alternative rate design, but also the benefits of this rate design to station owners at this  
2 stage of market development. One very important aspect of the Company's design that  
3 offers a clear benefit to station owners is the pure volumetric rate upon which the station  
4 would be charged for any kWh's drawn. The pricing to the station is conducive to stable,  
5 predictable, known pricing directly aligned and conducive to setting its rates for  
6 individual EV charging. The implementation of a demand charge adds complexity and  
7 volatility to the average price on an hours-use basis that station operators have difficulty  
8 addressing when setting charging rates, as their customers often cannot choose when to  
9 charge. A volumetric rate, designed to recover the costs that would otherwise be billed to  
10 a station based on demand and volumetric rates for all service to stations provides direct  
11 alignment of pricing for utility service, and is particularly well suited for service to  
12 stations with individual EV's who do not have discretionary load that can be shifted to a  
13 different time.

14  
15 Offering the Company's demand charge alternative is not in conflict with offering the  
16 commercial EV TOU rate, but rather would be a complementary rate offering. It is  
17 assumed that either rate would be optional, and that an EV charging station could in any  
18 event elect to take service under the otherwise applicable Rate GV. However, not  
19 approving the implementation of the Company's proposed demand charge alternative  
20 rate, and making available only the EV TOU rate, would fail to address the expressly  
21 stated concerns of the demand charge barrier and non-discretionary nature of the load  
22 with respect to the inability to avoid the higher peak or mid-peak pricing because station  
23 charging times are inflexible. The Commission can approve both rates and see which the

1 market best responds to. Furthermore, valuable information regarding the costs to  
2 provide such service, effective rate design and customer price response, along with  
3 additional station and program data as outlined in the Company's initial testimony, can be  
4 obtained as EV charging deployments and market growth occur. Given the type of  
5 charging contemplated by the Company's proposed demand charge alternative rate and  
6 make-ready program, and the potential for a variety of EV charging use types that may  
7 emerge under the Company's proposed rate or the commercial EV TOU rate (and under  
8 general service rates), it seems reasonable to not forego having both rates in place to  
9 obtain information and be able evaluate the market's response, and subsequently to  
10 inform potential, future rate design for various sectors that may emerge. What's more,  
11 the Company's demand charge alternative rate is much simpler in design and therefore  
12 for Eversource customers, this rate will be easier to understand and more conducive to  
13 the needs of these targeted customers that own public EV charging stations. If  
14 successful, the Company's rate would serve to support and enable New Hampshire to  
15 achieve further growth of EV infrastructure statewide.

16 **Q: How do you respond to parties' suggestion that the demand charge alternative be**  
17 **expanded and offered to either all Rate GV-eligible customers or all commercial**  
18 **customers?**

19 A: The Company's proposed rate was designed specifically in concert with the make-ready  
20 program, and so there are cost and cost recovery implications. Eversource's projections  
21 of the number of customers taking service is relatively small. An expansion of make-  
22 ready with the same rate GV eligibility would be intended to support further growth of  
23 public EV charging (projections can be evaluated based on the scale of increase to the

1 make-ready program). The demand charge alternative is not, however, supported or  
2 recommended for all commercial customers. Rates for service to all commercial  
3 customers have been addressed in the Company's distribution rate case, and any review  
4 and proposed changes to such rates should be for the customers in established classes of  
5 service, and as such would be addressed in a future fully adjudicated distribution rate  
6 proceeding. Even at this stage, all proposals for new service have been designed on the  
7 basis of the otherwise applicable rate. With very few EV charging station deployments,  
8 there is little or no actual data available, nor is it clear that a distinct, homogenous service  
9 class will emerge as contemplated with future EV market development. This rate offering  
10 is only to support the design and specific objectives for incremental, new EV charging  
11 load, as outlined in the Company's proposal. It is conceivable that the proposed rate  
12 offering could also be made available to new service for stations that match the  
13 availability and applicability criteria of this proposal, but who may not receive make-  
14 ready funding. However, the Company believes that by only applying the proposed rate  
15 to make-ready customers the limited scope of application of this rate would clearly  
16 delineate costs and rates for these services and should make it easier to implement  
17 alongside the commercial EV TOU rate.

1 **Q: Mr. Skoglund of Clean Energy New Hampshire recommended in his testimony that**  
2 **the Commission approve an expansion of the Company’s proposal so that the**  
3 **funding was proportional to Eversource’s service territory when compared to that**  
4 **of the Unitil program proposed in the settlement agreement in Docket No. DE 21-**  
5 **030. Is the Company generally supportive of an expanded make-ready program?**

6 A: Eversource’s make-ready program was developed with the specific purpose of  
7 supporting NH’s primary EV-related policy objective, which has been identified as the  
8 successful distribution of the state’s allocation of Volkswagen Environmental Mitigation  
9 Trust Funds (“VW Funds”), specifically targeted to support the deployment of DC Fast  
10 Chargers along the state’s major travel corridors. The size, scale and scope of the  
11 Company’s program was thoughtfully developed to complement the eligible project costs  
12 available through the VW Funds to customers selected through the competitive Request  
13 for Proposals (“RFP”) process facilitated by the NH Department of Environmental  
14 Services (“NH DES”).

15  
16 Though the Company’s proposal was designed to specifically support NH DES’  
17 distribution of VW Funds, the Company would generally support additional make-ready  
18 funding to reduce the barriers typically experienced by site hosts interested in deploying  
19 public EV charging stations at their properties.

20  
21 The primary barrier faced by site hosts in New Hampshire interested in deploying public  
22 EV charging stations at their properties is similar to that faced by customers in the  
23 Company’s other affiliate jurisdictions, which is that the cost of installing the necessary

1 electrical infrastructure to enable the operation of an EV charging station can be a  
2 deterrent to making the necessary investment. Make-ready programs reduce the cost of  
3 that electrical infrastructure for the customer installing the EV charging station(s),  
4 thereby reducing this barrier to expansion of the public EV charging network.

5 **Q: Is it possible to expand the Company's make-ready proposal by simply approving**  
6 **more funding than what was originally proposed?**

7 A: No. As previously mentioned, the Company's proposal is specifically tied to supporting  
8 the state's distribution of VW Funds. Under the make-ready program as proposed, the  
9 program would fund the electrical infrastructure not covered by the VW Funds for RFP  
10 award winners.

11  
12 Because the program is tethered to the VW RFP, the scale of Company investment is  
13 limited to the sites selected by NH DES, in terms of the number of sites that fall within  
14 Eversource service territory, the configuration (# of chargers, size of chargers) of the  
15 awarded sites, and the site-specific cost of infrastructure needed to enable EV charging at  
16 those locations.

17 **Q: What would be required for the Company to develop additional make-ready**  
18 **offerings?**

19 A: A make-ready program offering beyond the current proposal should be considered a  
20 "new" program, rather than an "expansion" of the existing proposal. To develop a more  
21 robust, comprehensive make-ready program to customers outside of NH VW Fund  
22 recipients, the Company would have to determine the type of chargers to support, an  
23 appropriate number of EV chargers and charging sites, the structure of incentives offered,

1 customer eligibility requirements, and various other program administration elements,  
2 including the potential for program management, engineering and implementation  
3 resources. Additionally, a detailed marketing, outreach and site host recruitment plan  
4 would be required to engage with potential sites hosts to attract interest to the program.  
5 The Company's Massachusetts affiliate has demonstrated successful implementation of  
6 this type of expanded make-ready program, which is designed to support the  
7 Massachusetts EV adoption goals per the Multi-State Zero Emission Vehicle  
8 Memorandum of Understanding ([https://www.nescaum.org/documents/zev-mou-10-](https://www.nescaum.org/documents/zev-mou-10-governors-signed-20191120.pdf)  
9 [governors-signed-20191120.pdf](https://www.nescaum.org/documents/zev-mou-10-governors-signed-20191120.pdf)). Through that \$55 million program authorized by the  
10 Massachusetts Department of Public Utilities, the Company has installed approximately  
11 2,000 Level 2 chargers at more than 450 customer sites in public and workplace locations  
12 throughout its service territory in Massachusetts.

13 **Q: Expanding the make-ready program would have obvious cost-recovery implications.**  
14 **What is the Company recommending in regard to cost recovery in the event of**  
15 **approval of an expanded program?**

16 A: The Company reiterates the approach outlined in its direct testimony at Bates pages 15-  
17 18. First, the Company looks for a determination from the Commission that make-ready  
18 investment is a reasonable line of investment. This is not the equivalent of a before-the-  
19 fact prudence finding, but rather just an approval that the Company pursue these  
20 investments. As for specific cost-recovery, the Company would seek to recover capital  
21 investments from front of the meter work in its next base distribution rate case. For the  
22 non-capital behind the meter and other O&M costs, the Company recommends that these  
23 non-recurring incremental costs be recovered through a reconciling mechanism or

1           alternatively be able to defer these costs in a regulatory asset and amortize in base  
2           distribution rates over a period to be determined in the Company's next base distribution  
3           rate case.

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

5   **A:   Yes it does.**