



Edison Electric
INSTITUTE

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VIA EMAIL

September 14, 2021

Scott Seigal
Hearing Officer
Department of Public Utilities
One South Station, 5th Floor
Boston, MA 02110

Re: Petition of NSTAR Electric Company D/B/A Eversource Energy For Approval Of Its Phase II Electric Vehicle Infrastructure Program And Electric Vehicle Demand Charge Alternative Proposal, Docket No. 21-90

Dear Hearing Officer Seigal,

The Edison Electric Institute (EEI) respectfully submits this letter to the Massachusetts Department of Public Utilities (DPU) in support of Eversource's proposal in the above-referenced proceeding. EEI monitors electric vehicle (EV) proceedings across the country and appreciates the opportunity to provide the DPU a national perspective on the integral role electric companies play in advancing the deployment of EV infrastructure through programs that incentivize and provide rebates for charging infrastructure, recognize the need to rapidly electrify medium- and heavy-duty and fleet vehicles to achieve the commonwealth's ambitious greenhouse gas reduction goals, help develop a workforce to facilitate the transition to EVs, and offer rates which incentivize efficient integration of EVs into the electric grid.

EEI is the association that represents all U.S. investor-owned electric companies. Our members operate in all 50 states and the District of Columbia and provide electricity for 220 million Americans. Collectively, the electric power industry supports more than 7 million jobs in communities across the United States. EEI's member companies, which include Eversource, deliver safe, reliable, affordable and increasingly clean electricity that powers the economy, transforms transportation through increased use of EVs, and enhances the lives of all Americans.

To date, 52 electric companies in 31 states and the District of Columbia have received approval to invest nearly **\$3 billion** in EV programs.¹ This includes recent approvals in New York², California,³ and New Jersey⁴ which together represent more than \$1.3 billion in investment. While this is an impressive number, more is needed to ready infrastructure and to incentivize greater EV adoption. The type of EV program can vary by state and electric company, but

¹ See Edison Electric Institute, "Electric Transportation State Biannual Regulatory Update: February 2021," [FINAL_ET Biannual State Regulatory Update_February2021.pdf \(eei.org\)](#)

² See State of New York Public Service Commission, *Order Establishing Electric Vehicle Infrastructure Make-Ready Program and Other Programs*, Case 18-E-0138

³ See Public Service Commission of the State of California, *Decision Authorizing Southern California Edison Company's Charge Ready 2 Infrastructure and Market Education Programs*, Application 18-06-015

⁴ See New Jersey Board of Public Utilities, *Decision and Order Approving Stipulation*, BPU Docket No. EO18101111

usually includes at least one of the following elements: (1) investments in, or ownership of, charging infrastructure; (2) customer rebates or incentives for all or part of charging infrastructure deployment; (3) customer education and outreach; and (4) rate design. Separately or together, these elements can unlock value for all customers by growing and making the EV market attainable for all participants, by helping to integrate EV charging into the energy grid in a cost-effective manner, and by driving outcomes that protect customer interests while maximizing customer value.

Electric companies, such as Eversource, are well-positioned to make targeted and strategic investments in EV charging infrastructure that benefit the broader community and accelerate EV adoption. The Commonwealth has long been recognized as a leader in transportation electrification and has set ambitious goals to ensure its citizens and the broader community can benefit from reduced greenhouse gas (GHG) and criteria pollutant emissions, including a commitment of having at least 300,000 zero-emission light-duty vehicles (ZEVs) registered by 2025⁵, and sales of new medium- and heavy-duty vehicles being at least 30 percent ZEVs by 2030.⁶ As of January 1st, 2021, there were approximately 36,000 light-duty EVs and fewer than 100 medium- and heavy-duty EVs on the road in Massachusetts,⁷ meaning the Commonwealth will need to add approximately 66,000 light-duty EVs annually over the next four years if it wants to meet its targets. Programs such as the one proposed by Eversource will be key in helping the Commonwealth achieve its ZEV deployment goals.

Nationally, the current lack of EV charging infrastructure is one of the primary barriers to widespread EV adoption. EEI and the Institute for Electric Innovation (IEI) released a report in 2018 forecasting 18.7 million electric vehicles on the road by 2030.⁸ To support that many EVs by 2030, 9.6 million charging ports will be needed.⁹ This penetration is unlikely to be achieved without significant electric company investment. Locally, there is currently approximately 3,500 public Level 2 (L2) charging ports and 360 Direct Current Fast Charge (DCFC) charging ports in Massachusetts.¹⁰ To achieve the Commonwealth's goal of 300,000 light-duty EVs on the road by 2025, the number of L2 and DCFC ports would need to increase substantially and the charging needs analysis performed by National Grid, Eversource, and Unitil demonstrates that their proposed EV Programs are of the scope necessary to meet that goal.¹¹ Eversource's filing focuses on enabling deployment of charging infrastructure and will help ensure that the transition to EVs is a seamless one for customers.

⁵ See The Commonwealth of Massachusetts, Zero Emission Vehicle Action Plan, August 2015, <https://www.mass.gov/files/documents/2016/08/nk/massachusetts-zero-emission-vehicle-action-plan2015.pdf>

⁶ See NESCAUM, Multi-State Medium- and Heavy-Duty Zero Emission Vehicle Memorandum of Understanding, July 14, 2020, <https://www.nescaum.org/documents/multistate-truck-zev-governors-mou-20200714.pdf/>

⁷ See Massachusetts Department of Public Utilities, *Petition of Massachusetts Electric Company and Nantucket Electric Company, Each D/B/A National Grid, for Approval of its Phase III Electric Vehicle Market Development Program and Electric Vehicle Demand Charge Alternative Proposal*, Docket No. 21-91

⁸ See Edison Electric Institute and the Institute for Electric Innovation, *Electric Vehicle Sales Forecast and the Charging Infrastructure Required Through 2030*, November 2018, available at https://www.edisonfoundation.net/-/media/Files/IEI/publications/IEI_EEI-EV-Forecast-Report_Nov2018.ashx

⁹ See *Id.*

¹⁰ Alternative Fuels Data Center, "Electric Vehicle Charging Station Locations", https://afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fuel=ELEC

¹¹ See Massachusetts Department of Public Utilities, *Petition of NSTAR Electric Company D/B/A Eversource Energy For Approval Of Its Phase II Electric Vehicle Infrastructure Program And Electric Vehicle Demand Charge Alternative Proposal*, Docket No. 21-90

The bulk of Eversource’s proposal aims primarily at reducing obstacles to installing EV charging infrastructure for residential customers, multi-unit dwellings, workplaces, fleets, and public charging. The proposal, as designed, is an example of how electric company investment in EV charging infrastructure can guide outcomes that protect all customer interests and maximize customer value, both directly and indirectly. Phase II of the EV Program would directly benefit customers by building on the success of Phase I and further lowering the barrier to entry for EV adoption by providing full incentives for make-ready installation of multi-unit dwelling, workplace, and public charging stations, as well as partial rebates for L2 and DCFC electric vehicle supply equipment (EVSE) at public charging, workplace, and residential locations. In addition to addressing the barrier of upfront cost, Eversource, along with National Grid and Unitil, have proposed a limited term demand charge alternative to ensure rate structure is not an impediment to EV infrastructure buildout. To help spur EV adoption and reduce “range anxiety¹²,” Massachusetts will need more public charging stations, particularly in locations where local adoption of EVs is low. However, new stations in these markets can face low rates of utilization. If approved, Eversource’s innovative offering will ensure that new public charging stations can remain economical to operate while the local EV market matures.

As mentioned above, EVs provide numerous benefits to drivers and non-drivers, including potential downward pressure on overall electricity rates¹³, but it is also important to emphasize that electric companies’ direct participation in the EV market is vital to ensure that these benefits are realized by all customers, regardless of socio-economic situation, geographic location or whether they own an EV. More than a quarter of all approved investment in electric company programs have an equity component.¹⁴ This can include dedicating a portion of program funds to deploying infrastructure in a low-income community or investing in pilots to increase access to electric mobility options. Eversource’s proposed program includes all of these elements and more, with increased incentives for charging stations deployed in environmental justice communities (EJCs), a commitment to fully fund the both the installation and EVSE for up to five DCFC charging hubs in EJCs, a pilot car sharing program that would specifically serve EJCs, a MD-HD make-ready pilot for fleets that serve EJCs, and by recruiting low-income and EJC residents for their proposed workforce development program. Make-ready infrastructure, ownership of charging stations, and/or rebates are mechanisms electric companies utilize to support markets that private investors may not find attractive because of unfavorable economics. This is because electric companies take seriously their role of serving all customers. However, when evaluating whether an EV program proposal is reasonable, the DPU should not only consider equity in customer rates, but also the impacts on the community including increasing access to zero-emission transportation options, impacts on jobs, and reductions in air pollution.

In addition to all the direct customer benefits summarized above, EVs emit less air pollution than traditional gasoline powered vehicles, which enhances communities’ efforts to reduce

¹² Range anxiety refers to concern from EV drivers that they will become stranded with no place to recharge before their battery runs out

¹³ See Synapse Energy, “Electric Vehicles Are Driving Electric Rates Down: June 2019 Update,” <https://www.synapse-energy.com/sites/default/files/EV-Impacts-June-2019-18-122.pdf>. See also Energy and Environmental Economics, “Cost-Benefit Analysis of Plug-in Electric Vehicle Adoption in the AEP Ohio Service Territory,” https://www.ethree.com/wp-content/uploads/2017/10/E3-AEP-EV-Final-Report-4_28.pdf

¹⁴ See Atlas Public Policy EV Hub, “25 Percent of Approved Utility Investment Going to Underserved Communities,” December 2, 2019, https://www.atlasevhub.com/data_story/25-percent-of-approved-utility-investment-going-to-underserved-communities/

their carbon emissions. As of 2017, Massachusetts’s transportation sector accounts for 42 percent of GHG emissions, which is the largest single sector of carbon emissions.¹⁵ When looking to reduce emissions, light-duty vehicles should not be the only vehicle segment up for consideration. Medium- and heavy-duty vehicles, including trucks, buses and fleets should also be prioritized as they account for a larger share of air pollutants and have lower fuel efficiency when compared to light-duty vehicles.¹⁶ This is particularly true for criteria pollutants and, as of 2017, heavy-duty vehicles were the second largest source of harmful nitrogen oxides in Massachusetts¹⁷ despite accounting for less than 10 percent of all registered vehicles.¹⁸ Many states have recognized the value of electrifying trucks and buses and have dedicated more than \$1.6 billion in public funds to this technology.¹⁹ Eversource’s proposal includes pilots to address the charging infrastructure needs of these larger use segments via their fleet offerings which include make-ready support, fleet advisory services, and planning tools. Eversource is also ensuring that the benefits of electric medium- and heavy-duty vehicles are experienced by the most vulnerable populations via their proposed MD-HD make-ready pilot for fleets that serve EJs.

The proposed Phase II EV Program is a truly comprehensive plan to accelerate EV adoption in Massachusetts and of the scale necessary for the Commonwealth to achieve the ambitious goals it has set to combat climate change. As explained in the filing, Eversource will target every segment of the transportation sector, from single-family homes to public transit to large commercial fleets, and significantly lower the barriers to EV adoption for each. This also includes a strong focus on equity to ensure that the benefits of transportation electrification are experienced by all customers, regardless of socioeconomic status. In accordance with DPU order 20-69-A, this proposal was developed in coordination with both National Grid and Unitil, ensuring that the effort to advance transportation electrification will be a unified and consistent one across the Commonwealth and that all citizens of Massachusetts, particularly those in EJs, can share in the benefits of electrification.

As Massachusetts works to implement policies that support greater deployment of EVs and grow the market for all participants, electric companies should not only be permitted to participate in this space but also be given an important role in designing and implementing programs that best meet the needs of all customers while also helping to integrate EV charging into the grid in a cost-effective manner. Eversource’s program aims to do just that; their proposal provides the DPU with an opportunity to take immediate, concrete action to advance the Commonwealth’s goals, make EV technology available for all customers, maintain leadership in advanced transportation technologies, and expand the benefits of electric transportation.

¹⁵ Transportation Sector Report: A Technical Report of the Massachusetts 2050 Decarbonization Roadmap Study December 2020; <https://www.mass.gov/doc/transportation-sector-technical-report>.

¹⁶ Driving California’s Transportation Emissions to Zero, April 2021, https://escholarship.org/uc/item/3np3p2t0#article_abstract

¹⁷ Environmental Protection Agency, 2017 National Emissions Inventory Data, <https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data#datas>

¹⁸ Federal Highway Administration, State Motor-Vehicle Registrations – 2017 (Revised February, 2021), <https://www.fhwa.dot.gov/policyinformation/statistics/2017/mv1.cfm>; For total medium- and heavy-duty vehicle registrations, See Massachusetts Department of Public Utilities, *Petition of Massachusetts Electric Company and Nantucket Electric Company, Each D/B/A National Grid, for Approval of its Phase III Electric Vehicle Market Development Program and Electric Vehicle Demand Charge Alternative Proposal*, Docket No. 21-91

¹⁹ See Atlas Public Policy, “Medium- and Heavy-Duty Vehicle electrification,” May 2021, <https://www.atlasevhub.com/materials/medium-and-heavy-duty-vehicle-electrification/>

EEI thanks the DPU for the opportunity to share our thoughts on Eversource's Petition and the overall growth of EVs in Massachusetts.

Respectfully submitted,

A handwritten signature in black ink that reads "Philip D Moeller". The signature is written in a cursive style with a large initial "P" and "M".

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