

**COMMONWEALTH OF MASSACHUSETTS**  
**DEPARTMENT OF PUBLIC UTILITIES**

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<b>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.</b>	)	
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	)	<b>D.P.U. 21-90</b>
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<b>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.</b>	)	
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	)	<b>D.P.U. 21-91</b>
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**Comments of Electrify America**

**Introduction**

Electrify America appreciates this opportunity to offer public comments on the Electric Vehicle Infrastructure Programs and Demand Charge Alternative Proposals filed by Eversource and National Grid. Massachusetts was an early adopter of infrastructure “Make Ready” policies to leverage the capabilities of the utilities and the private sector to accelerate Transportation Electrification (TE). Massachusetts has been a leader in advancing policies for decarbonization and the TE provisions of An Act Authorizing and Accelerating Transportation Investment (“Transportation Act”) from the 2020-2021 Legislative session will be realized in this proceeding.

Eversource and National Grid have provided robust proposals that include provisions for public and workplace offerings, residential customers, fleets, and related supporting programs, as well as alternative rate designs.

## **Electrify America**

Electrify America is a subsidiary of Volkswagen Group of America, headquartered in Reston, Virginia. It is investing \$2 billion over ten years on Zero Emissions Vehicle (“ZEV”) infrastructure, education, and awareness, and efforts to support the increased adoption of ZEV technology in the United States. To date, Electrify America has built a coast-to coast network of ultra-fast Direct Current Fast-Charging (“DCFC”) at over 650 locations with over 2,800 individual DCFC plugs in total. It owns and operates the charging stations and is the customer of record for electric vehicle charging service. All its stations are designed for universal customer access through the inclusion of credit card readers and both non-proprietary fast-charging connector standards: SAE Combo (CCS) and CHAdeMO.

Electrify America installs stations with multiple 150kW and 350kW chargers based on anticipated needs and use cases, as well as available real estate and power. The standard metro configuration is four 150 kW chargers, while the standard highway configuration is two 350 kW and two 150 kW chargers. The 350 kW electric vehicle chargers are the most powerful public DCFC available on the market today and can enable recharging speeds approaching gasoline refueling, charging compatible EVs at 20 miles of range per minute. Electrify America currently operates 11 charging stations with 44 DCFC plugs in Massachusetts open to the public and has 8 charging stations with 31 DCFC plugs under construction.

## **Direct Current Fast Charging**

Through extensive research and stakeholder outreach, Electrify America knows that the fast-charging customer experience is crucial to empower consumers to adopt EVs, especially for

long distance travel and in metropolitan areas where a large segment of the population may not have access to workplace or home charging.

DCFC loads are unique because:

- They are inelastic as DCFC stations serve EV drivers that are in transit who need to charge quickly to continue their journeys
- They are still evolving as new EVs with greater capabilities enter the market and EV driver habits adapt to the presence Electrify America's existing stations. Load factors are a challenge and newer high capacity EVs coming to market may exacerbate this issue.<sup>1</sup>
- DCFC station operator business models depend on rate designs with low or no demand charges
- They are not weather sensitive

Public DCFC station siting can be challenging since these stations are highly capital intensive and require sufficient traffic patterns, available real estate, distribution grid capacity, and proximate EV driver amenities such as access to bathrooms, etc.

Utility Make Ready infrastructure policies are extremely important for the viability of new station construction. The Phase II EV Programs proposed by both Eversource and National Grid include constructive Make Ready infrastructure provisions.

A key theme throughout both filings is the prioritization of equity, and the demand charge alternative rate designs help narrow the unit cost gap between residential and commercial

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<sup>1</sup> For example, the new Porsche Taycan has a maximum charging capacity of 270 kW and the 2022 Audi E-tron will have a maximum charging capacity of 150 kW. For reference, the Chevy Bolt maximum charge rate is 55 kW.

distribution rates available for EV charging. Approval of alternative rates for electricity delivered to DCFC that result in the same effective cost per kWh as residential rates would greatly advance the ability for DCFC operators to offer more competitive pricing - advancing equity between those who charge in public and those who can charge at home, improving the customer experience, and incentivizing the use of more electric vehicles.

### **The Road Ahead**

Rapid adoption of EVs and commercial TE, as envisioned by Massachusetts policy makers, requires the construction of a complex ecosystem of charging options so that drivers can feel confident in their ability to travel with the same convenience as an internal combustion engine vehicle. Building this ecosystem requires a sufficient network of DCFC stations so that an EV driver can quickly recharge and continue their journey.

This DCFC network will require a significant amount of private sector capital in addition to utility Make Ready investments. The proposed Phase II EV Programs, under review in these proceeding, will hopefully lay the foundation for sustainable DCFC station operator business models. A sustainable DCFC operating model is needed to attract the capital investment that Massachusetts will require to transition away from fossil fuels for transportation.

### **Conclusion**

Electrify America looks forward to engaging in this proceeding with other stakeholders and offering our experience and lessons learned in jurisdictions throughout North America to help shape Massachusetts EV policy into a national exemplar.

Respectfully submitted,

Electrify America

By its attorney:

A handwritten signature in black ink that reads "Robert Ruddock". The signature is written in a cursive, flowing style.

Robert Ruddock

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