COMMONWEALTH OF 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
Petition of Massachusetts Electric Company and Nantucket Elecrric 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, and	)	Docket No. 21-91
Petition of Fitchburg Gas and Electric Light Company d/b/a Unitil for approval of its Electric Vehicle Infrastructure Program, Electric Vehicle Demand Charge Alternative Proposal, and Residential Electric Vehicle Time-of-Use Rate Proposal.	)	Docket No. 21-92

COMMENTS OF TESLA, INC

Pursuant to the Department of Public Utilities' July 29, 2021 Notice of Public Hearing and Request for Comments, Tesla, Inc. ("Tesla") hereby respectfully submits its initial written comments in the above-captioned proceeding. As stated in Tesla's petition for leave to intervene as a full party, which petition was granted on August 26, 2021, Tesla has a significant and material interest in the outcome of the above-captioned matters. To date, Tesla electric vehicles ("EVs") represent 16,856 registrations in Massachusetts out of a total of 21,010 all-electric vehicles in the state, or a more than 80% market share of the Commonwealth's battery electric

vehicles ("BEVs").[1] Tesla has established a worldwide presence of sales and service centers, including six in the Commonwealth (in Natick, Watertown, Boston, Dedham, Norwell, and Peabody). Tesla has made significant investments in EV charging across the state. There are currently 26 Tesla owned and operated public DC fast charging ("DCFC") stations, representing 242 DC fast chargers in the Commonwealth.

The EDCs Proposed Demand Charge Alternative Is Inadequate

Tesla, as the leading provider of battery electric vehicles in Massachusetts and a major owner/operator of charging stations in the state, fully supports the introduction of alternatives to traditional demand-based rate structures for electric vehicles, as was required by House Bill 5248, signed into law on January 15, 2021.[2] Massachusetts has some of the highest utility rates in the country, and they are particularly high for EV charging customers who currently have relatively lower load factors, far below those of the average commercial customer. The combination of low load factors with high demand charges results in uneconomic operation of charging stations and stymies investment in charging infrastructure in otherwise promising markets where the number of EV drivers is growing.

Tesla appreciates the Massachusetts electric distribution utilities ("EDCs") thoughtful consideration of EV charging, and the opportunity for Tesla to provide input from the private charging industry perspective. However, the current proposals from all 3 EDCs (Eversource, National Grid, and Unitil) all stop demand charge relief at a 15% load factor, which remains far below the commercial average load factor and results in a perverse incentive where charging stations with less usage (below 5% load factor) would pay lower electricity rates than charging

[1] DOE Alternative Fuels Data Center: https://afdc.energy.gov/data/10962.
[2] https://malegislature.gov/Bills/191/H5248.

stations above 15% load factor. Charging stations above 15% load factor would be stuck in a situation where they would be paying higher electricity rates than both regular commercial customers (with higher average load factors) as well as charging stations with extremely low load factors (below 5%).This leaves a large gap above 15% load factor between when the demand charge relief ends and before EV charging customers may have a sufficiently high load factor for a smooth on-ramp back to regular commercial rates (i.e. no demand charge discount but load factor closer to average commercial customer). Tesla requests consideration of expanding the demand charge relief tranches in a way that provides support up to 30% load factor as a way to provide meaningful interim support and a glidepath back to traditional commercial rates.

The 30% load factor threshold is a clear and fair point of departure in the transition from early market adoption towards growing EV adoption. There is precedent across a number of states for this level of support where EV charging and in some cases regular low load factor customers are considered at thresholds below 30% as in need of alternative rate treatment. For example, Dominion in Virginia, with its GS-2[3] regular commercial rate provides all-volumetric billing for customers below usage levels of 200 kWh per kW of demand, which translates to no demand charges being applied below a threshold of a 27% load factor (200 hours/730 hours per month = 27.4% load factor).

Arizona Public Service ("APS"), which also has considerable demand charges, has proposed an interim Rate Rider DCFC in its current general rate case,[4] which provides 10 years of declining demand charge relief starting out at a 25% load factor limit through June 30, 2025.

[3] https://www.dominionenergy.com/virginia/rates-and-tariffs/business-rates.
[4] See Exhibit APS-77, as filed on February 18, 2021, Docket No. E-01345A-19-0236.

APS' declining demand charge limiter starts at a 25% load factor limit and only steps down to a level of 15% load factor in 2028. Massachusetts EDCs' current proposals are suggesting EV charging stations above 15% load factor step down to this level of demand charge relief as early as 2023, five years ahead of charging stations in Arizona.[5]

In the Midwest, Ameren Illinois just approved an EV charging rate with Rider EVCP,[6] which, similar to Arizona, provides 10 years of declining demand charge relief. Ameren's demand limiter starts at the 30% threshold and incrementally steps down over 10 years ending at a 10% load factor threshold in 2032. The Massachusett's EDCs have proposed stopping demand charge relief at the 15% load factor threshold as early as year 2 of their programs is equivalent to what Ameren will provide in 2030, giving the Illinois market 7 years of smooth transition back to existing commercial rates, rather than the abrupt termination in 2023.

Virginia, Arizona, and Illinois are just a few places where EV rates have been proposed or adopted in supportive environments that recognize the need for interim rate considerations of low load factor EV charging customers who are likely to remain well below the commercial average load factor for the foreseeable future. Smooth glidepaths back onto existing commercial rates has become industry best practice and demand charge relief via demand limiter mechanisms are seen going up to a threshold of 30% load factor, and in many cases demand charges are removed altogether in favor of all-volumetric time-of-use rates.

[5] On August 2, 2021, the Arizona Public Service Commission issued a Recommended Opinion and Order generally adopted the APS proposal. *See* http://docket.images.azcc.gov/E000014911.pdf?i=1631627637736.
[6] Docket No. 20-0710 see Rider EVCP included in Ameren Exhibit 8.1 Filed April 6, 2021: https://www.icc.illinois.gov/docket/P2020-0710/documents.

Eversource has completely removed demand charges in its Connecticut territory via its successful EV Rate Rider, which converts the demand charges billed on a $/kW basis into a volumetric charge to be billed on a $/kWh basis, similar to what the average commercial customer pays in its territory.[7] The Rider provides:

> *Where a rate component of such schedule is priced on a demand basis (i.e., per kW or per kVA) the EV customer under this Rider will be subject to a charge determined on an equivalent per kWh basis using the corresponding average price of such rate component.*

Eversource's Connecticut EV Rate Rider is a simple and market-inducing example of an all-volumetric EV rate. There are many other examples across the country, but Eversource Connecticut's EV Rate Rider is particularly innovative.

Tesla appreciates the many enthusiastic participants from the State of Massachusetts who care deeply about transport electrification and are keenly aware of what an opportunity there is to pave the way in these proceedings for the continued growth of EV adoption and the charging infrastructure to support it. As the provider of the majority of battery electric vehicles and supporting DCFC infrastructure to the Commonwealth, Tesla looks forward to working with the Commonwealth to help meet its goal of more than one million electric light-duty vehicles registered in the Commonwealth by 2030.[8]

Conclusion

Tesla shares with the Companies, and the Department, an interest in increasing the deployment of EV charging stations in the Companies' service territories and has made substantial investments in the Commonwealth's DCFC network. Tesla expects to increase its investments

[7] https://www.eversource.com/content/docs/default-source/rates-tariffs/ct-electric/ev-rate-rider.pdf?sfvrsn=e44ca62_0.
[8] Exhibit ES-KB-1, p. 15, *citing* MA 2050 Decarbonization Roadmap Report.

with tariff reform and appreciates the opportunity to provide public written comment on this matter.

Tesla reserves the right to provide additional comments as the case develops and discovery proceeds.

Dated: September 14, 2021

Respectfully submitted,

TESLA, Inc.

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CERTIFICATE OF SERVICE

I hereby certify that I have on or about September 14, 2021, served on all counsel of record via electronic and/or first class mail, Tesla's Written Comments in this docket.

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