



Testimony of ChargePoint

before the Joint Standing Committee on Energy, Utilities & Technology in support of L.D. 347, *An Act To Facilitate Maine's Climate Goals by Encouraging Use of Electric Vehicles*

February 25, 2021

Good morning, Senator Lawrence, Representative Berry and members of the Joint Standing Committee on Energy, Utilities & Technology. ChargePoint, the world's leading electric vehicle ("EV") charging network with thousands of independently-owned charging spots in the country, including hundreds in Maine, enthusiastically supports L.D. 347 *An Act To Facilitate Maine's Climate Goals by Encouraging Use of Electric Vehicles*.

L.D. 347 will help Maine to overcome the most significant barrier to deploying high-powered EV chargers: antiquated electricity rate designs that do not reflect customer needs or how EVs are charged. By overcoming this barrier, Maine will be able to achieve meaningful progress in its Climate Action Plan to meet statewide climate goals, accelerate private investment in EV chargers, and support the creation of local jobs.

I. EV Charging Behavior & Benefits for All Ratepayers

Refueling an EV is completely different to refueling an internal combustion engine vehicle. The majority of EV charging takes place at home and at work, which can be supported by longer-term and lower-powered EV charging stations. New load from EV charging is generally very flexible and can be incentivized to take place at times that are good for the electric grid. This beneficial load growth exerts a downward pressure on unit energy costs that creates widespread benefit to all utility ratepayers, whether they own an EV or not.

However, there are still many use cases that require higher-powered charging at direct current ("DC") fast charging ("DCFC") stations for shorter-duration charging. DCFC complements longer-term charging, and does not replace it. Higher-powered charging can (i) increase EV driver range confidence on longer trips, (ii) support community charging when drivers do not have dedicated overnight parking, and (iii) support electrifying light- and heavier-duty fleets for municipal, county, state, and private entities.

II. Maine's Electricity Rates Were Not Designed with EVs in Mind

Public and private entities that invest in DCFC are typically subscribed in one or more traditional commercial and industrial ("C&I") electricity rates. Like residential rate structures, C&I electricity rates require customers to pay for the amount of energy used. However, C&I rates often also include fees for the amount of energy that could be used, which is collected through a "demand charge".

For traditional C&I customers (e.g., factories), it may be appropriate to allocate electricity costs based on peak demand as a method for utilities to ensure that there is adequate capacity for all customers. However, C&I demand charges were not designed for the type of electricity load profile of a DC fast charger. The model simply does not fit.

Demand charges are typically based on the highest average 15-minutes of energy use in a monthly billing cycle. DCFC are typically characterized by having a *low load factor*, meaning that there are sporadic instances of high energy use. Site hosts can face high demand charges due to the few peak charging sessions that occur each month, which effectively penalizes site hosts for providing charging services in earlier-stage EV markets. In some markets, demand charges can account for as high as 90% of electricity costs.¹

¹ Rocky Mountain Institute, 2017. "EVgo Fleet and Tariff Analysis." Available at: https://rmi.org/wp-content/uploads/2017/04/eLab_EVgo_Fleet_and_Tariff_Analysis_2017.pdf

These operating cost barriers are perhaps most acute for fleet operators, especially for medium- and heavy-duty (“MHD”) vehicle fleets. MHD vehicles touch the lives of everyone in Maine, from school & transit buses to municipal service trucks to last-mile delivery. Addressing the operating cost barriers for public and private vehicle fleets is absolutely essential if policymakers want to ensure widespread and equitable access to the benefits of electric transportation for all Mainers. While Maine has taken a step in examining alternative ways of incenting EV infrastructure development, it has only done so on a limited pilot basis through a time-limited subsidy. Unfortunately, Maine cannot subsidize its way past the structural mismatch of high-powered charging and antiquated electricity rate designs.

III. Alternatives to Traditional Demand-Based Electricity Rates

There are many sustainable ways to mitigate the structural impact of demand charges with innovative C&I electricity rate designs. Alternative electricity rate structures for high-powered charging can be designed by utilities to be revenue-neutral, track revenues and costs, and effectively reduce operating cost barriers for system profiles. These innovative approaches are already in place in California, Connecticut, New Jersey, Oregon, Pennsylvania, Virginia, and Wisconsin.

L.D. 347 would establish a flexible path forward for Maine to overcome the barrier of demand charges and enable voluntary adoption of EVs. This bill would require utilities to develop, and submit for Maine PUC review and public comment, alternatives to demand-based electricity rate structures. This approach appropriately identifies a critically important public policy goal while still maintaining flexibility for utilities to design solutions that work for their unique service territories. Doing so will ensure that utilities can account for specific grid conditions, lower an immediate-term barrier to private investment in transportation electrification, and support the success of complementary public investments by municipalities, county governments, and state agencies. Addressing this issue now will also position Maine to act on any electric transportation infrastructure investments undertaken by the 117th Congress.

IV. Conclusion

ChargePoint appreciates the Committee’s consideration of this critically important issue to scaling up electric transportation in Maine. We thank Representative Grohoski for her commitment to expanding equitable access to clean transportation for all Mainers and ask you to vote Ought to Pass for L.D. 347. I am happy to answer questions now or at the work session. Thank you.



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