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Testimony in Support of LD 347,
An Act To Facilitate Maine's Climate Goals by Encouraging Use of Electric Vehicles
by
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Senator Lawrence, Representative Berry, and distinguished members of the Energy, Utilities, and Technology Committee. My name is Sue Ely, and I am a staff attorney at the Natural Resources Council of Maine. I am pleased to testify today in support of LD 347, An Act To Facilitate Maine's Climate Goals by Encouraging Use of Electric Vehicles and to offer a few small suggestions to improve upon the legislation.

The goal of LD 347 is to create a new rate structure for high-speed direct current (DC) electric vehicle (EV) charging stations, commonly referred to as "DC Fast Chargers," that will promote the installation and operation of DC Fast Chargers throughout Maine. This is directly in line with the Maine Climate Council's goal of accelerating Maine's transition to electric vehicles (EVs) by getting 41,000 light-duty EVs on the road in Maine by 2025 and 219,000 by 2030.[1]

One significant barrier to a rapid transition to electric vehicles is the fear that an EV will have insufficient battery range to get to and from a destination, commonly called "range anxiety." While range anxiety is often unwarranted, and more than 80% of EV charging occurs overnight at home, one way to combat range anxiety is to ensure that there is a connected network of safe and reliable DC Fast Chargers available to EV drivers when charging on the go is necessary. Unfortunately, Maine's current demand charge discourages investment in DC Fast Chargers, limiting the number and distribution of charging stations available as drivers make this transition to EVs.[2] Representative Grohoski's bill would allow the Maine Public Utilities Commission (PUC) to approve a DC Fast Charging rate schedule to make Maine more hospitable to EV Fast Chargers.

EVs can provide significant benefits to Maine

Our electricity system is in transition: wind and solar costs continue to decrease; energy-efficient technological advances provide greater opportunities to use electricity in place of gasoline, heating oil, and natural gas; and smart technology allows us to manage the grid to be more flexible, reduce system peaks, and make better use of cleaner energy resources. LD 347 would promote a policy of harnessing these trends to strategically, and for the benefit of all of

[1] https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/MaineWontWait_December2020.pdf.
[2] https://scripts.betterenergy.org/reports/GPI_DCFC_Analysis_July_2019.pdf.

Maine, electrify our transportation sector. The result would be lower costs to Maine ratepayers and reduced pollution that harms our health and causes global warming.

Commonly referred to as "beneficial" or strategic electrification, electrifying end uses that have historically been powered by fossil fuels can, if done correctly, provide Maine a triple benefit:

- Reduced costs for utilities and Maine ratepayers,
- Better grid management, leading to greater reliability, and
- Reduced greenhouse gas emissions and other harmful air pollutants.

Electric vehicles use technologies that are inherently more efficient than burning gasoline, but we can and must pair them with other conservation and energy efficiency measures to get the biggest consumer and pollution benefits. While we have a long way to go toward reducing emissions from our energy sector, Maine and New England have one of the cleanest electricity systems in the country. For example, a 2019 Chevy Bolt charged here in Augusta today produces about as much global warming pollution as a gasoline-powered vehicle getting 129 miles per gallon.[3] As our state and region continue to trend toward a cleaner electricity mix, electrifying vehicles will only get cleaner.

This is incredibly important as pollution from our cars and trucks is our leading source of climate-changing pollution in Maine. Electric cars, which have zero tailpipe pollution and are already significantly less polluting that gasoline-powered vehicles, will be an important and necessary part of reducing our state's transportation pollution.

Maine's demand charges are inhibiting deployment of EV chargers

Maine's demand charges pose a significant barrier for the installation of EV charging equipment. In Maine, utilities recover their transmission and distribution costs for medium- and large-business customers by calculating "demand" charges. Demand charges are based on the maximum amount of electricity used by customers during a 15-minute interval.[4] DC Fast Chargers trigger a demand charge because they require a great deal of energy to charge an EV, but that demand is highly irregular, particularly at this point in time when utilization of DC Fast Chargers is quite low, making a demand charge a bad fit. In general, unless utilization of a DC Fast Charger is quite high, the demand charges can dramatically exceed the revenue that can be recovered from customers charging their EVs, making DC Fast Chargers a bad investment here in Maine. Estimates indicate that the breakeven rate may range from 30-50% utilization and current utilization rates are around 5-10 percent. That means that EV charging stations could end up paying a very large amount for a very small number of charges, and it is difficult to build

[3] https://evtool.ucsusa.org/#z/04330/2019/Chevrolet/Bolt.

[4] Residential and small commercial customers are not charged a demand charge and are instead charged energy charges to recover T&D system costs. Depending on the utility, the dividing line between small and medium rate class is typically between 20 kW and 50kW.

a business case with such a significant amount of risk and uncertainty in pricing. Maine cannot expect to build a charging network sufficient to support the number of EVs needed to reach Maine's climate emissions reduction targets without a speedy solution to this rate mismatch.

LD 347 would allow the creation of a better rate schedule for DC Fast Chargers

LD 347 would allow for the creation of a rate schedule that would still allow for the recovery of system costs but would better match the unique nature of high speed EV charging to encourage the deployment of EV chargers throughout the state.

I would like to take this opportunity to offer two (2) suggested modifications to the legislation that would increase the effectiveness of LD 347: 1) Include immediate demand charge relief for EV chargers with low utilization and 2) revise proposed Section 3157(1) to require the PUC to solicit input from a broader set of stakeholders on incentive rate schedules to promote the installation and operation of electric vehicle charging stations.

1. **Immediate demand charge relief:**
   Maine's EV charging market needs relief from demand charges immediately and cannot wait for the PUC to conduct an EV incentive rate schedule process. LD 347 should be amended to grant existing and future EV charging stations short-term but immediate relief from demand charges until a permanent rate schedule can be approved. This demand charge relief could be limited to EV charging stations where utilization is below the 30-50% utilization threshold. Instead, those stations could be charged a per kW rate to recover costs. An alternative approach might be to offer some type of stepped-down demand charge based on utilization rates.

2. **Allow broader stakeholder involvement in creation of EV rate schedule:**
   As currently drafted, LD 347 requires each T&D utility to submit a proposed incentive rate schedule to the PUC. While it is possible for each T&D utility to comply with this request, the quality of proposals is likely to be significantly better, and be better tailored to the unique characteristics of EV charging operations, if a broader stakeholder group is engaged from the beginning of the process rather than responding to utility proposals. Modifying the bill to require the PUC to open an EV rate schedule docket to solicit input in a more collaborative manner would address this concern.

LD 347 recognizes the need to quickly deploy EV charging infrastructure and provides relief from incompatible demand charges. LD 347 is a critical component in Maine's goal of getting 41,000 light-duty EVs on the road by 2025 and 219,000 by 2030. NRCM strongly supports this legislation and urges this Committee to pass this bill with our suggested modifications. I appreciate this opportunity to testify and would be glad to answer any questions you may have.