

**STATE OF IOWA  
BEFORE THE IOWA UTILITIES BOARD**

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<b>IN RE:</b>	)	
	)	<b>DOCKET NO. RMU-2018-0100</b>
<b>ELECTRIC VEHICLE</b>	)	
<b>INFRASTRUCTURE</b>	)	<b>COMMENTS</b>
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The Environmental Law and Policy Center (ELPC) and the Iowa Environmental Council (IEC) (Environmental Advocates) appreciate the Board setting up this process and giving us the opportunity to submit comments on the future of electric vehicles (EV) in Iowa. This comment process and the workshop scheduled for October 17<sup>th</sup> constitute a good start for the type of process the Environmental Advocates believe will benefit the public.

The EV market is going to develop quickly in the Midwest in the next few years, driven by EV sales in California, Europe and China. The automakers are making substantial investments in EV technology, driven by the demand. California has goal of 5 million EVs on the road by 2030 and has committed to spend \$2.5 billion on EV rebates and charging stations. New York Times, Sec. A p. 18 (Sept. 12, 2018). China is requiring carmakers to ensure 10 percent of their fleets are electric in 2019. Chicago Tribune, Sec. 8, p1 (Sept. 16, 2018). While auto manufacturers may emphasize the coasts initially, they will surely focus on the Midwest at some point in the next few years.

EVs can provide significant benefits, including lowering transportation costs, reducing pollution, and lowering electric rates. The end goals for EV market development in Iowa should include increased purchases of EVs to achieve these benefits. This requires a network of charging stations that gives consumers confidence that they can charge their vehicles along

highway corridors and in enough public places that they will not be stranded. While most charging should be done at home, multiple studies have shown that this “range anxiety” is a key barrier to EV adoption. Additionally, electric rate design must encourage customers to do most of their charging at night off peak. This will allow utilities to provide as much clean wind as possible and make the trade-off between fossil and wind, as opposed to gasoline and coal. Given that the utilities must cover their fixed costs, if managed properly with night time charging, EVs have the potential to both reduce pollution and lower rates.

ELPC has been involved in both docketed proceedings addressing EV charging programs and policy processes such as PowerForward in Ohio and NextGrid in Illinois. In the docketed proceedings, such as the Consumers Energy and Detroit Edison rate cases in Michigan, the deliberation starts from a utility proposal that artificially limits the discussion and the options reviewed. The PowerForward process in contrast has been positive but has given little specific direction other than the need for a working group. The Iowa Utilities Board has started a process that, if done correctly, can provide optimal customer input and a real plan for the state that benefits everyone.

#### **I. Utilities Should Not Own Charging Stations Unless the Market Fails to Develop**

Fundamentally, the Environmental Advocates believe that Iowans will benefit from a competitive market for EV charging and that utilities should not own the charging stations. The technology for charging stations will rapidly improve, and it will create a myriad of problems if the utilities own those stations, including how to address the fact that ratepayers will have invested millions in sunk costs. Hence, when a charging station with a life of ten years or longer

is technologically obsolete in three years, does the Board then allow the utility to buy new stations while the old ones still have significant book value?

While the analogy is not perfect, we believe the Board should consider the development of the cell phone market and the rapid changes brought by competition. Competitors pushed the development of networks and improvement to phones that we believe would not have occurred under monopoly ownership.

We also note that the utilities themselves will benefit from increased sales of electricity. Moreover, they will benefit from the wiring investment and other grid enhancement that fall under capital investment.

## **II. Interoperability Critical**

Any public dollars invested through utility programs or other programs should be structured to ensure that any EV owner can charge their vehicle at any charging station. Additionally, investments should ensure that regulators have access to data to allow us to study a number of important issues including customer charging habits, the effects of charging on the grid, and grid optimization.

## **III. Charging Station Owners Should be Allowed to Set Rates for Customer Charging**

While some advocates have argued for regulated charging rates for all charging, Environmental Advocates support TOU rates for customer home charging and for the station owners, but believe station owners should be able to set rates for customer charging. With night time low prices to encourage customers to charge at night, studies show that most customers will choose that option. Moreover, given Iowa's abundant wind, the state has an even greater interest

in incentivizing customers to charge at night utilizing wind. Environmental Advocates also note that it is critical station owners are able to sell electricity by the kWh so that customers can compare prices in the market. There is wide variability of charging speeds among charging stations and between vehicles, and most EVs can be set to charge at a faster or slower rate. A vehicle that charges at 40 amps will use more kWh charging for 20 minutes than a car charging at only 20 amps, which will take the vehicle owner a correspondingly shorter number of miles. The owner should pay for the value of the energy, not the number of minutes they utilized the infrastructure to charge.

#### **IV. The State Should Test Using EV's to Enhance the Grid**

Smart chargers have the potential to communicate with the grid. On the hottest days of the summer many EVs will be sitting idle while their owners work. The EV batteries may benefit the grid by providing incremental amounts of excess power. This is something that we encourage Iowa to pilot and test. At a minimum, smart chargers would benefit the grid by minimizing charging at peak times, sending customers price signals regarding peak time charging, and minimizing harm.

#### **V. Public Charging Stations Should Not be Regulated as Utilities**

While public charging stations do sell electricity to customers, Environmental Advocates believe that resale is analogous to the auto service industry (Sears, Pep Boys, GoodYear, numerous service stations and others) currently charging batteries for customers who own gasoline powered vehicles. Today consumers can get their car batteries charged at numerous locations that are not regulated as utilities. The EV industry charging stations essentially do the same. While public charging stations do sell electricity to end-use customers, traditional reasons

for public utility regulation, such as consumer protection from a natural monopoly, ensuring a highly functioning grid, and avoiding duplication of costly infrastructure do not apply to EV charging stations.

In fact, Iowa has the opportunity to create a market that avoids the pitfalls that lead to regulation by ensuring transparency, open access, and competition. The appropriate role of the Board is not to set price, but to ensure consumer protection and we believe the Board has the authority it needs to protect consumers without regulating charging stations as public utilities.

In addition to these limited comments on this topic filed today, Environmental Advocates incorporates their Comments from August 13, 2018 in Docket TF-2017-0305 by reference.

## **VI. Multi-family Buildings**

While single family homes can easily charge vehicles through either standard outlets or level 2 chargers, multi-family buildings have different issues regarding placement and availability of chargers. The first option should still be to determine whether competitor suppliers will provide sufficient chargers or whether those buildings will need to be served by utilities. The IUB should first see how the competitive market responds before assuming that utilities will need to fill a void.

## **VII. Low Income Communities**

Environmental Advocates share the concern expressed by many parties that the low income communities may be left behind when it comes to EVs. We support setting up processes to consider input from the low income communities themselves. It may be that low income customers would benefit more, at least initially, from EV car sharing programs or EV school

buses, transit buses, shuttle buses, etc. Most importantly, the IUB needs to ensure public input in these decisions.

EV school buses can reduce pollution both in low income communities and for the children who ride the buses and directly breathe the diesel exhaust. The EV school buses also offer potential to enhance the grid on hot summer days when children are not in school and the buses can act as storage batteries, charging with wind at night and then providing power for the grid during the day.

### **VIII. Conclusion**

The Iowa Utilities Board should allow competition where possible, setting up policies that reflect the desire for a robust and customer-focused EV charging system in all corners of the state. The IUB should also design a plan for the state that encourages night time charging to take advantage of Iowa's inexpensive and clean wind. If certain markets are slow to develop, such as multi-family buildings, the state may consider allowing for more utility investment in those markets. Most importantly, the IUB and other stakeholders should be working with low income communities at the outset to ensure that all customers benefit from electric vehicles.

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Respectfully submitted,

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