

**Natural Resources Defense Council – Brightergy  
Arnold Development Group  
The Sierra Club, Missouri Chapter - Bridging the Gap  
Renew Missouri - Missouri Sun Solar**

July 1, 2016

Missouri Public Service Commission  
200 Madison Street  
Jefferson City, MO 65101

Re: EW-2016-0123: In a Matter of a Working Case Regarding Electric Vehicle Charging Facilities

Commissioners:

Across the country, transportation electrification developments have evolved rapidly in recent years. With over 450,000 electric vehicles (EVs) on the road today and counting, electrified transport offers a proven, viable, and attractive alternative to petroleum-fueled vehicles. Electric vehicles can also provide substantial benefits to EV owners, system-benefits for all electricity users, and the public at large, but barriers to widespread adoption persist. To the extent that utility investment in charging infrastructure and EV-related programs facilitates the attainment of broad electric vehicle benefits, we encourage the Commission to provide utilities with the regulatory approval needed to invest prudently in such programs and recover reasonably associated costs.

Electric vehicles provide a range of benefits that grow with increased EV adoption. First, electric vehicles provide significant clean air benefits relative to conventional vehicles. Even in Missouri, where a significant percentage of the state's electric generation comes from coal plants, a US Department of Energy analysis shows battery electric vehicles still emit approximately 27 percent less CO<sub>2</sub> equivalent "well-to-wheels" emissions than gasoline-powered vehicles on an annual basis. Moreover, thanks to a suite of clean air regulations, criteria pollutants from Missouri coal plants have also declined markedly in recent years and improved public health outcomes. These clean air and public health benefits will only increase as market and policy trends shift the state's generation mix towards cleaner, renewable resources.

Electric vehicle charging can also put downward pressure on electric rates for all customers. When there is excess (off-peak) capacity on the distribution system, greater utilization of existing system assets from increased EV loads allows a utility to spread out fixed cost recovery over a greater amount of electricity sold. In return, the utility has the ability to lower the per-

unit cost of electricity for all customers. Policies that encourage charging during off-peak periods should be put in place to help maximize this benefit for all electricity customers.

Finally, EVs provide a host of services that maintain the reliability of the electric grid to everyone's benefit, including the reliable grid integration of renewable energy. As more intermittent resources like wind are connected to the electric system, electric vehicles' ability to charge dynamically can prevent periods of over-generation and smooth out large load ramps in the morning or evening. Demand Response, Vehicle-to-Grid, and battery second life programs are all additional ways that EVs can effectively shore up grid reliability in the future.

From established customer relationships to in-depth knowledge of the distribution system, utilities are uniquely positioned to develop charging infrastructure programs and incentives that unlock and expand the public benefits of electric vehicles. To this end, we urge the Commission to allow utilities to invest in and recover costs associated with these programs. To the extent possible, the Commission should also explore additional measures (e.g. secondary market incentive programs) to make EVs more accessible for all drivers – including those in low-income communities. Increasing access to the use of electricity as a transportation fuel is especially important for families who spend a disproportionate share of their disposable income at the pump.

It was evident from the Public Service Commission EV Workshop in May that a general level of agreement exists among stakeholders on both the role of the utility in providing electric vehicle programs and the benefits that EVs bring to all Missourians. As the transition to EVs accelerates, it is important that the state have the right policies in place to make sure that the benefits are shared broadly and that the electric charging infrastructure is in place to accommodate the growth.

Sincerely,

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