



AP PHOTO/RICH FREDRICK/CELLI

Electric Utilities and the Future of Clean Transportation

By Myriam Alexander-Kearns and Alison Cassady April 2016

Introduction and summary

As part of the global coalition of countries committed to fighting climate change, the United States has pledged to reduce its greenhouse gas emissions by 26 percent to 28 percent below 2005 levels by 2025. To meet that goal, the Obama administration has taken action to clean up the power sector, make cars and trucks more energy efficient, and reduce emissions from other parts of the economy. To avoid the worst impacts of climate change, however, the United States—and its global partners—will have to achieve much steeper emissions reductions in the coming decades.

The transportation sector accounts for more than one-quarter of all U.S. greenhouse gas emissions, the majority of which come from gasoline-powered cars and light trucks.¹ One critical path toward a cleaner transportation sector relies on the increased presence of electric cars and trucks, running on electricity generated from an increasingly cleaner power sector.

The need to deploy more electric vehicles² comes at an interesting time for the U.S. electricity sector. The U.S. economy is more energy-efficient, meaning the nation is using less energy per dollar of GDP, and a growing number of U.S. households are installing solar panels to generate their own electricity and rely less on the power grid. As a result, many electric utilities are selling less of their product. In 2015, total electricity sales fell, marking the fifth time in eight years that sales have declined year-over-year. Experts predict electricity consumption to remain flat in the coming decades.

The United States needs more electric vehicles in order to reduce emissions and utilities need new electricity demand to stay in business. This confluence presents a unique opportunity for electric utilities to play an active role in deploying more electric vehicles and related infrastructure. Recognizing this opportunity, the Edison Electric Institute—which represents the entire U.S. investor-owned

utility sector and 70 international electric company members—signed a memorandum of understanding, or MOU, with the U.S. Department of Energy, or DOE, to work together to accelerate the deployment of electric vehicles and the charging infrastructure to support them.

Many utilities are already engaged. Some are offering special rates to electric vehicle owners in their service area to incentivize them to charge their cars during off-peak electricity demand hours. This saves consumers money and helps utilities manage their demand load. Several utilities, including the three largest in California, are investing directly in electric vehicle infrastructure to accommodate a predicted increase in electric vehicle ownership in coming years.

Both private companies and consumer groups are concerned about this involvement by electric utilities. Private companies, such as Chargepoint, that provide charging services worry that the utilities will stifle healthy competition and crowd out, rather than build upon, privately funded charging infrastructure. Consumer groups—such as The Utility Reform Network and California’s Office of Ratepayer Advocates—are worried that ratepayers will suffer and be charged higher rates if the utilities’ investments fail or do not meet expectations.

Given the urgent challenge posed by climate change and the need to cut greenhouse gas emissions from the U.S. transportation sector, it is important that utilities work with concerned stakeholders and state public utility commissions to develop a workable model for utility engagement in electric vehicle deployment. As providers of a service that reaches nearly every household and business, utilities have a unique reach into American communities. The Center for American Progress recommends that electric utilities do the following:

- Starting with pilot programs, invest in a public charging infrastructure in their service areas to complement the private sector’s investment in this area.
- Offer time-of-use rates to encourage electric vehicle owners to charge during low-demand times, and identify ways to offer electric vehicle owners electricity generated from renewable or zero-carbon energy sources.
- Expand charging access to low-income areas and multifamily residences, and encourage state policymakers to offer point-of-sale rebates for residents in these areas to make the cars a more affordable option.

By implementing these recommendations, utilities can encourage a large customer base to consider electric vehicle ownership, resulting in vast greenhouse gas emissions reductions from the transportation sector and a steady, sustainable demand for electricity. For customer who are already interested in electric vehicle ownership, utilities can increase access and affordability of cars and charging infrastructure.

Our Mission

The Center for American Progress is an independent, nonpartisan policy institute that is dedicated to improving the lives of all Americans, through bold, progressive ideas, as well as strong leadership and concerted action. Our aim is not just to change the conversation, but to change the country.

Our Values

As progressives, we believe America should be a land of boundless opportunity, where people can climb the ladder of economic mobility. We believe we owe it to future generations to protect the planet and promote peace and shared global prosperity.

And we believe an effective government can earn the trust of the American people, champion the common good over narrow self-interest, and harness the strength of our diversity.

Our Approach

We develop new policy ideas, challenge the media to cover the issues that truly matter, and shape the national debate. With policy teams in major issue areas, American Progress can think creatively at the cross-section of traditional boundaries to develop ideas for policymakers that lead to real change. By employing an extensive communications and outreach effort that we adapt to a rapidly changing media landscape, we move our ideas aggressively in the national policy debate.

