Leading the **Charge**

In 2009, the U.S. Department of Energy set out to answer some critical questions about plug-in electric vehicles and how and where plug-in electric vehicle owners charge these automobiles.

DOE launched The EV Project and ChargePoint America, which together formed the largest plug-in electric vehicle infrastructure demonstration in the world. A team of researchers led by Idaho National Laboratory collected and analyzed data from thousands of private vehicles and charging stations from around the country.

Here is a look at this massive project by the numbers:

THREE Number of years researchers collected data

8,300 Number of privately owned and fleet PEVs evaluated in the project

22 Number of cities in the country that participated

125 Million Driving miles evaluated during the project

6 Number of INL research partners—Blink Network, ChargePoint, General Motors, OnStar, Nissan North America and Car2Go

6 Million—Number of charging events evaluated

8,000

Nissan Leaf and Chevrolet Volt owners enrolled in the project and allowed researchers to observe how they drove and charged.

25%

Leaf and Volt drivers with access to workplace charging traveled about 25 percent more miles on electricity alone than the overall group in the project.

INL Idaho National Laboratory

Project **Highlights**

17,000

AC Level 2 charging stations installed

AC Level 2 and DC fast charging stations were installed in a wide variety of locations.

1/2

About half the project participants charged at home almost exclusively. Of those who charged away from home, the vast majority favored three or fewer away-from-home charging locations.

Results indicate that charging infrastructure should be focused at home, workplaces, and in public "hot spots" where demand for Level 2 or DC fast charging stations is high.

85.5%

Overall, Leaf and Volt drivers performed an average of 85.5 percent of their charging at home.

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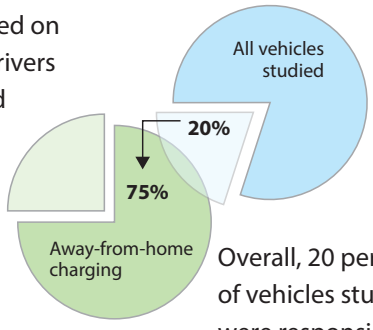
PEV drivers adjust their charging habits based on conditions, such as fees and rules for use. Drivers were less likely to plug in at work if they had to pay to charge or if they were required to move their vehicle after charging.



Overall, 20 percent of vehicles studied were responsible for 75 percent of the away-from-home charging.

THANK YOU...

PEV drivers charging at work were generally courteous and worked together. They used social media to communicate, moved their vehicles to allow others to charge, and even plugged in neighboring cars after they finished charging.

7-11

Popular public Level 2 sites saw very high usage. Well-designed charging sites, especially those serving multiple venues, demonstrated the potential to support from 7 to 11 charges per day.