



Mobile Electric Vehicle Charging



- AAA is launching a pilot program that will place in service roadside assistance vehicles with the ability to charge battery electric vehicles.
- The initial pilot program will place one mobile electric vehicle charging roadside assistance vehicle in six metropolitan areas—Portland (Ore.), Seattle, the San Francisco Bay area, Los Angeles, Knoxville (Tenn.) and the Tampa Bay area. AAA anticipates adding additional areas in the months following the initial deployment.
- The roadside assistance vehicles will begin a phased deployment later this summer that will continue into early fall.
- The pilot program will include roadside assistance vehicles equipped with different forms of technology used for EV mobile charging. This will allow AAA to evaluate multiple technologies in different environments.
- The EV mobile charging roadside assistance vehicle unveiled at the Plug-In 2011 Conference and Exposition is powered by a removable lithium battery. The power management of the system is computer controlled and developed by Green Charge Networks.
- Other AAA Roadside Assistance vehicles with EV mobile charging capability will utilize generators powered by alternative fuels and power sources.
- There are three charging levels for electric vehicles:
 - Level 1 is a standard 120-volt household outlet, which would take roughly 20 hours to fully charge a Nissan Leaf.
 - Level 2 is 240 volts AC (alternating current). This is commonly found in household electric clothes dryers and can charge a Nissan Leaf in approximately six hours.
 - Level 3 is DC (direct current) charging at high voltage—up to 500 volts DC. This allows a large amount of energy to be delivered to an electric vehicle in a very short period of time. A “depleted” Nissan Leaf could go to 80 percent state-of-charge in roughly 30 minutes with Level 3 charging.
- All AAA mobile EV charging roadside assistance vehicles can provide Level 3 (DC Fast Charging) and Level 2 (AC Quick Charging) to electric vehicles.
- AAA Roadside Assistance vehicles equipped with EV mobile charging capability also will provide traditional services for all members such as battery testing, jump start and replacement, tire change, fuel delivery and lockout service.



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- The AAA Mobile Electric Vehicle Charging program is designed to provide electric vehicle owners with a service similar to motorists with conventional internal combustion engines that run out of fuel. It will provide a limited amount of “fuel,” in the form of electric charge, to give the motorist enough additional driving range to safely get to a location where they can further charge their vehicle.
- AAA will provide 10 to 15 minutes of charge time to members with discharged electric vehicles. This will allow the vehicle to drive three to 15 miles to a charging station.
- AAA is enhancing its existing hybrid vehicle training to include Battery Electric Vehicles (BEV). AAA also is developing specific equipment training for technicians operating AAA Mobile Electric Vehicle Charging units.
- In President Obama’s State of the Union address in January, he outlined his Administration’s goal to have one million electric vehicles on the road by 2015.
- The first Nissan Leaf and Chevy Volt were delivered to customers in December 2010, and while sales through June of this year were a relatively small 6,600 vehicles, manufacturer estimated production by year-end is a combined 40,000 vehicles with an additional 145,000 planned for 2012.
- Current manufacturer projections have 1.2 million electric vehicles on the road by 2015.
- Recent Google studies highlight that, with advancements in battery technology, electric vehicles and hybrids could reach 90 percent market share of new vehicle sales in 2030.
- As part of this goal of one million electric vehicles by 2015, a number of policy initiatives have been instituted to encourage the introduction and sales of EVs. This includes a federal consumer tax credit through the American Recovery and Reinvestment Act of up to \$7,500.
- Nearly 40 states and DC have adopted measures to promote EV purchase and usage including HOV privileges, waived emissions inspections, as well and tax credits/rebates.

