

# The future is now for electric cars



## Automakers race to ready models for US market

By Matt Moore and George Frey, Associated Press | September 16, 2009

FRANKFURT - The race is on among the world's auto companies to make electric cars go farther on a single charge, bring the price down to compete with gas-powered vehicles, and give drivers more places to recharge them than just the family garage.

Electric is the big buzz at the 63d Frankfurt Auto Show this week, and nearly every major automaker has at least one on display. Renault introduced no fewer than four electric models, while Tesla, the only company producing and selling purely electric cars, handed over the keys to its 700th all-electric vehicle, a blue Roadster Sport, to a German buyer at the show.

If the models unveiled yesterday are any indication, the notion of electric cars as small, stunted boxes with little range is about to be junked.

"People have realized that . . . electric vehicles don't have to be golf carts," said Diarmuid O'Connell, vice president of business development for Tesla Motors Inc. "They don't have to be anemic little putt-putts."

The company's sleek, two-seat Roadster sells for \$101,500 and has a range of 244 miles on one charge. Its planned Model S, which will seat seven and has a 300-mile range, will sell for \$49,900.

Others automakers, including BMW, [General Motors](#), and Daimler are also developing electric-powered vehicles, including hybrid cars that boast a small gas or diesel engine backed up with an electrical motor, and say the prices will drop as bulky batteries become smaller, faster to charge, and easier to replace.

Daimler said it will put its first electricity generating fuel-cell car on the road by the end of this year, the B-Class F-Cell. It will also develop a high-performance electric sports car, its Mercedes-Benz SLS AMG.

[Volkswagen AG](#) will put its new E-Up! electric compact into production in 2013. VW did not disclose how much it will cost or when it might be available in the United States. It said the battery will give drivers a range of around 80 miles.

Analysts expect global production of purely electric cars to expand rapidly. IHS Global Insight forecast that it will grow from nearly 9,500 this year to more than 58,000 in 2011.

Electric cars generally run between 40 and 120 miles on a single charge, while taking anywhere from two to seven hours to fully recharge.

Analysts have long contended that a roadblock to the deployment of electric cars has been the lack of infrastructure to ensure they can be charged, whether at home, the office, or at stations in the city or along a highway. Building that infrastructure could cost billions of dollars.

Europe is likely to get charging networks faster because of its higher gasoline prices, greater population density, and compact size compared with the United States.

In the United States, Japan's [Nissan Motor Co.](#) has taken the lead, forming partnerships to bring electric vehicles and charging stations to Seattle, Tennessee, Oregon, and elsewhere. For example, Arizona's Electric Transportation Engineering Corp. recently struck a \$100 million deal to build charging stations for Nissan's planned Leaf electric car.

Elsewhere around the world, Renault Nissan has teamed up with Palo Alto, Calif.-based Better Place, which is building a network of charging stations and stands in Israel and Denmark and plans to do the same in Australia. Drivers will be able to plug their cars in or swap out their depleted batteries for freshly charged ones.

Better Place said the networks could operate like cellphone service, with customers buying a certain number of miles in advance or getting an unlimited amount for a set fee with a contract.

To help bring Germany up to speed, its government plans to spend some \$730 million on a plan that aims to put 1 million electric cars on the road by 2020.

Analysts say it will take at least a decade to see whether electric cars can keep pace with or surpass gas-powered automobiles. The massive, sensitive, costly, and fast-depleting batteries that take the place of internal combustion engines are expensive to produce, as well. ■

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