

Chevy Volt to Get 230 MPG Rating...Maybe

Published August 12, 2009

Associated Press

General Motors said Tuesday its Chevrolet Volt electric car could get 230 mpg in city driving, making it the first American vehicle to achieve triple-digit fuel economy if that figure is confirmed by federal regulators.

But when the four-door family sedan hits showrooms late next year, its efficiency will come with a steep sticker price: \$40,000.

Still, the Volt's fuel efficiency in the city would be four times more than the popular Toyota Prius hybrid, the most efficient car now sold in the U.S.

Most automakers are working on similar designs, but GM would offer the first mainstream plug-in with the Volt, which seats four and was introduced at the 2007 Detroit auto show.

The Volt will join a growing fleet of cars and trucks powered by systems other than internal combustion engines.

Unlike the Prius and other traditional hybrids, the Volt is powered by an electric motor and a battery pack with a 40-mile range. After that, a small internal combustion engine kicks in to generate electricity for a total range of 300 miles. The battery pack can be recharged from a standard home outlet.

Hybrids use a small internal combustion engine combined with a high-powered battery to boost fuel efficiency. Toyota's Prius — which starts at about \$22,000 — gets 51 mpg in the city and 48 mpg on the highway.

The number of all-electric vehicles available to U.S. consumers remains limited. The Tesla Roadster, a high-end sports car with a range of 224 miles, is perhaps the best known. But its \$100,000-plus price tag keeps it out of reach of all but the wealthiest drivers.

The company is working on an electric family sedan that will be priced considerably less.

Nissan Motor Co. unveiled its first electric car, the Leaf, earlier this month. Nissan said the vehicle will go on sale in Japan, the U.S. and Europe next year.

Edmunds.com, an auto Web site, cast doubt on whether drivers can expect 230 mpg from the Volt since fuel efficiency also depends on driving style.

Volt drivers who cruise sensibly on smooth roads without much cargo — and who avoid exceeding 20 or 30 miles between charges — might fill up only rarely. But "for most people, it is not realistic to expect that kind of mileage in real-world driving," said Michelle Krebs, a senior analyst with the Web site.

General Motors Co. is touting the 230 mpg figure following early tests that used draft guidelines from the Environmental Protection Agency for calculating the mileage of extended-range electric vehicles.

The EPA guidelines, developed with help from automakers, figure that cars such as the Volt will travel more on straight electricity in the city than on the highway. If drivers operate the Volt for less than 40 miles, in theory they could do so without using a drop of gasoline.

Highway mileage estimates for the Volt based on the EPA's methodology have yet to be released.

"We are confident the highway (mileage) will be a triple-digit," GM CEO Fritz Henderson said.

The EPA conducts testing to determine the mileage posted on new car stickers. The agency said in a statement Tuesday that it has not tested a Volt "and therefore cannot confirm the fuel economy values claimed by GM."

The EPA is working with the Society of Automotive Engineers and state and federal officials to develop testing procedures to measure the fuel efficiency of advanced vehicles, according to a draft outline of the proposal obtained by The Associated Press.

The plan could be released later this year.

It was not immediately clear how GM reached the 230 mpg in city driving, but industry officials estimated the automaker's calculation took into consideration the Volt traveling 40 miles on the electric battery and then achieving about 50 mpg when the engine kicked in.

Although Henderson would not give details on pricing, the first-generation Volt is expected to cost nearly \$40,000, making it cost-prohibitive to many people even if gasoline returns to \$4 per gallon.

The price of the sporty-looking sedan is expected to drop with future generations of the Volt, but GM has said government tax credits of up to \$7,500 and the savings on fuel could make it more affordable, especially at 230 mpg.

"We get a little cautious about trying to forecast what fuel prices will do," said Tony Posawatz, GM's vehicle line director for the Volt. "We achieved this number, and if fuel prices go up, it certainly does get more attractive even in the near-term generation."

The mileage figure could vary as the guidelines are refined and the Volt gets further along in the manufacturing process, Posawatz said.

Chrysler Group, Ford Motor Co. and Daimler AG are all developing plug-ins and electric cars, and Toyota Motor Corp. is working on a plug-in version of its gas-electric hybrid system.

GM has produced about 30 test Volts so far and is making 10 a week, Henderson said during a presentation at the company's technical center in the Detroit suburb of Warren.

Henderson said charging the Volt will cost about 40 cents a day, at about 5 cents per kilowatt hour.

GM is nearly halfway through building about 80 test Volts that will look and behave like the production model, and testing is running on schedule, Posawatz said.

Two critical areas — battery life and the electronic switching between battery and engine power — are still being refined, but the car is on schedule to reach showrooms late in 2010, he said.

GM is simulating tests to make sure the new lithium-ion batteries last 10 years, Posawatz said, as well as testing battery performance in extremely hot and cold climates.

"We're further along, but we're still quite a ways from home," he said. "We're developing quite a knowledge base on all this stuff. Our confidence is growing."

The other area of new technology, switching between battery and engine power, is proceeding well, he said, with engineers just fine-tuning the operations.

"We're very pleased with the transition from when it's driving EV (electric vehicle) to when the engine and generator kick in," he said.

GM also is finishing work on the power cord, which will be durable enough that it can survive being run over by the car. The Volt, he said, will have software on board so it can be programmed to begin and end charging during off-peak electrical use hours.

It will be easy for future Volt owners living in rural and suburban areas to plug in their cars at night, but even Henderson recognized the challenge urban, apartment dwellers, or those who park their cars on the street might have recharging the Volt. There could eventually be charging stations set up by a third-party to meet such a demand, Henderson said.

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