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Volt is sporty, fun in test spin

Electric Chevy has smooth, quiet power

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General Motors drove a stake through the notion that environmentally friendly electric cars can't also be fun and sporty in a brief test drive of the company's Chevrolet Volt powertrain Monday morning.

A fast, smooth blast from zero to 70 m.p.h. around the GM Tech Center in Warren proved the car can be electrifying as well as electric-powered.

The Volt is on schedule to go on sale in November 2010, GM Vice Chairman Bob Lutz said. GM has about 35 test vehicles on the road equipped with the electric motor and lithium-ion batteries that will power the Volt. Those cars have the body of the 2011 Chevrolet Cruze compact, which uses the same architecture as the Volt.

GM plans to put 80 Volts with the production car's sleek and futuristic body on the road beginning in June.

The test vehicle ran with smooth, quiet power, but driving it felt reassuringly like getting behind the wheel of any new car. That's a key goal for the Volt program, GM electric vehicle chief Frank Weber said.

"People must understand that you don't have to give anything up to drive an electric vehicle," Weber said. "This is something you will really like and enjoy."

The test car's electric motor provided immediate torque for acceleration most sporty small cars would envy.

The Volt is designed to cover about 40 miles on electricity stored in a lithium-ion battery pack that runs down the center of the car.

For longer trips, a 1.4-liter gasoline engine will kick in to sustain the batteries. Unlike hybrids, the engine never drives the wheels.

The onboard generator frees the Volt of the drawback that crippled previous electric cars: limited range.

While an electric vehicle without a generator has to stop for hours to recharge when the batteries run low, the Volt should be able to cover up to 400 miles on the combination of battery power and a single tank of gasoline.

The interior of the compact Cruze was as quiet as a big luxury sedan at around 70 m.p.h. thanks to the electric motor's near-silent operation

In fact, the Volt will be so quiet on the road that GM will install a driver-operated beeper to alert pedestrians to the car's presence, Weber said.

The big battery pack rides very low in the car's chassis, giving the vehicle a low center of gravity for a road-hugging feel.

The electric steering was responsive and well balanced, adding to the impression that the Volt will be a sporty little car that should appeal to enthusiasts as well as environmentalists.

Weber said the production Volt will be lighter and quicker than the cobbled-together engineering vehicle.

GM plans to build the Volt at its Detroit-Hamtramck assembly plant. Initial production numbers will be very small, maybe 10,000 in the first year.

GM expects to have second- and third-generation versions of the Volt's powertrain in production quickly. Production of more electrics should rise quickly.

GM hasn't said anything official about Volt prices, but the car is expected to retail for about \$40,000 and qualify for tax incentives of \$7,500 or so.

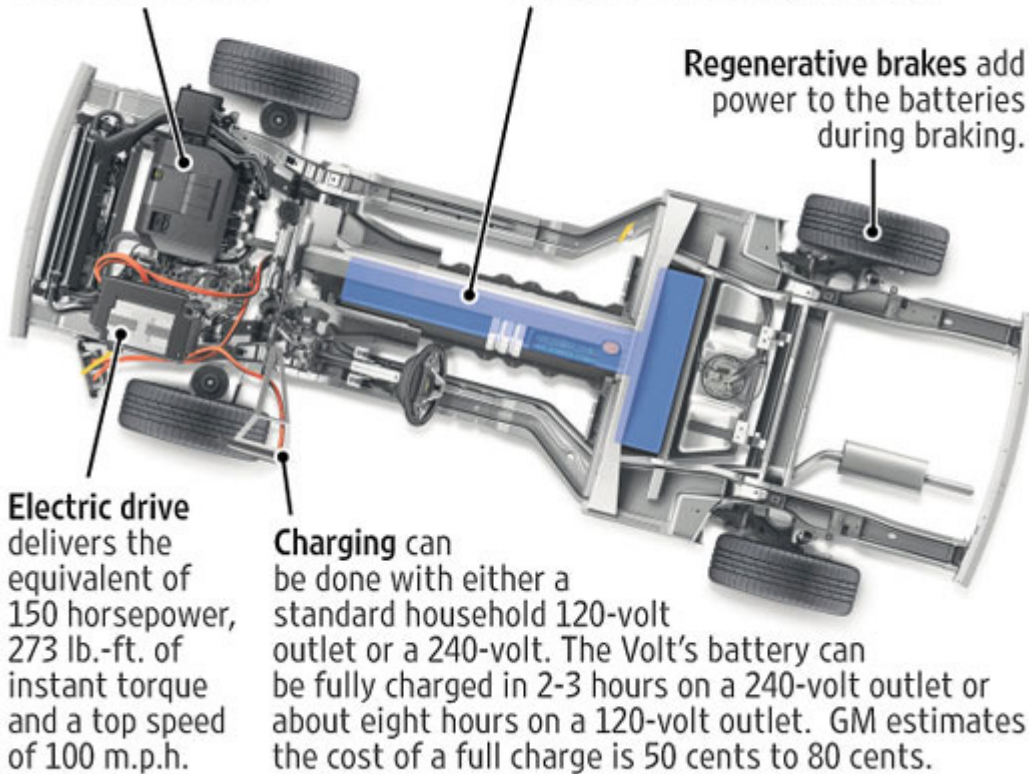
The electric drivetrain's price should fall rapidly as production volume rises and GM moves to the drivetrain's second and third generations, Lutz said.

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Inside the Volt

1.4-liter gas-powered engine kicks in after 40 miles of battery use. The engine turns just the generator to power the electric motor.

Lithium-ion battery provides power for trips up to 40 miles. With a smaller range than a fully electric car, it requires a lighter battery, therefore increasing efficiency.



Source: GM

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