

Spirited

And now on sale. by Joe Sage

By the time you see this, you should be seeing the new Chevrolet Bolt EV on the road. Its rolling introduction—based on EV adoption history, market mindset, charging infrastructure and dealer certification—started in California and Oregon, adding Arizona this summer.

The extended-range Chevrolet Volt (with a V)—the first car to combine pure plug-in power with a gasoline engine—has sold over 130,000 since late 2010. Chevrolet was plug-in and EV sales leader in 2016, with a huge increase over 2105. Volt is the top conquest Chevy, bringing more new buyers to the brand than even Corvette or Suburban.

EV owners and non-EV owners asked Chevy for four things in a new EV: [1] long range (200 miles); [2] affordability; [3] room for kids, cargo and sports gear; and [4] a fun driving experience (eco-efficient not meaning dull and boring).

Chevy assigned Bolt EV several goals in 2016: delivery by year's end; over 200 miles of range; a cost of \$30,000 or less; and 80 MPGe. They delivered on all, with 238 miles of range; a base price of \$37,495 (\$29,995 after tax credit); 580 sold by the end of 2016 (and 8200 through June in just the first couple of states); and fuel economy equivalent (33.7 kWh of electricity equal to one gallon of gas) of 128 MPGe city, 110 highway, 119 combined. And all in a useful and fun—even exhilarating—package. For as little as \$29,995, you get single-occupant HOV lane access, and your power

utility may offer preferential energy usage rates.

A 60 kWh lithium-ion battery pack has 288 cells in five modules—four front to rear, a fifth stacked below rear seats. Each mates to the chassis at two points, for easy build and easy service. Chevrolet has yet to replace a single battery pack for charge degradation over the Volt's seven-year history. The Bolt EV battery packs and propulsion system are warranted for eight years and 100,000 miles.

Most power in an EV goes to propulsion, HVAC and battery conditioning. Bolt EV's new highly efficient battery conditioning system draws almost no power even in extreme temperatures. While Volt's liquid coolant is circulated around each cell group, Bolt EV has new cell chemistry that allows a simple pan design to regulate from the bottom up.

A 110-volt power cord gives four miles of range for each hour plugged in (enough for many people's daily commute). A 240-volt AeroVironment Level 2 32-amp charger sold by Chevy dealers (\$699) gives 25 miles of range per hour, a full recharge easily overnight. (Third party solutions exist, too, though the GM unit can be added to your loan or lease.) DC Fast Charging, a \$750 option, charges the Bolt EV to 90 miles of range in just 30 minutes.

Mated to the battery pack is a single 150-kW electric motor, about a third larger than anything else in the segment, with 200 hp and 260 lb-ft of torque. Step on the pedal for full torque immediately, with a 0-to-60 time of about 6.5 seconds and a very spirited drive throughout its power curve.

An electronic precision gaset has two modes: Drive, using familiar accelerator and brake pedals; and Low, with regenerative braking bringing the vehicle to a complete stop without using the brake

pedal. You can amplify regenerative braking in either mode with a regen-on-demand paddle.

High-strength steel and the absence of a shifter create a large interior with extra storage, while reducing weight, also offset by all-aluminum doors, hood and tailgate. The battery pack provides 28 percent of the car's torsional rigidity, while allowing for excellent ingress/egress, a high greenhouse and ample interior space. A 10.2-inch center screen uses Apple/Android for navigation, and an 8-inch driver cluster is completely reconfigurable. A standard rear camera is upgraded in Premier trim to 360-degree surround vision, as well as a rear camera mirror with vision adjustable from 20 to 80 percent, removing occupants or cargo from your view.

The base Bolt EV LT at \$37,495 (\$29,995 after tax credits) has only two options: DC Fast Charge and a flat cargo panel. Premier trim, \$4285 higher, adds 360-degree surround vision, rear camera mirror, heated rear seats, fancier wheels, body-keyed door handles, luggage rails and such. Totally optioned, you can hit \$43,905 (\$36,405 after credits).

When Chevy brings the Bolt EV to consumer ride'n'drives, it develops a line three times as long as Camaro. The only thing that rivals the Bolt EV for consumer enthusiasm is the Corvette.

We drove the new Chevy Bolt EV at its launch last winter (see March/April). Chevy also brought us both trims for a drive to Saguaro Lake this summer, with wide open two-lanes and plenty of hills, twists and turns. Both times, we had a ball with its potent powertrain, planted chassis and electronic shift—especially that spirited one-pedal mode, which lets you power through hills and curves in a continuous arc of smooth power and release.

Few vehicles today make owners want to lift up the hood, show off to their friends and take them for a ride. The Chevy Bolt EV brings this back. ■

MAJOR AWARDS: Building on strong customer satisfaction metrics in recent years, current "real people, not actors" advertising highlights Chevrolet's status as the most awarded brand three years in a row. And Bolt EV is fast becoming the award-winningest, with more than 40 awards by the first half of the year, including: ▼ 2017 North American Car of the Year, praised for game-changing range and for making EVs more than a niche solution (the fourth NACTOY win for Chevrolet in four years, with Corvette Stingray and Silverado in 2014 and Chevy Colorado in 2015) ▼ *Motor Trend* 2017 Car of the Year ▼ 2017 *Car and Driver* 10Best Cars list ▼ *Green Car Journal* Green Car of the Year ▼ *Green Car Reports* Best New Car to Buy ▼ NWPAA Drive Revolution: Northwest Battery-Electric or Fuel Cell Vehicle of the Year

