

## Plenty of promise from EVs, but they haven't delivered -- yet

July 30 2012, By Mark Glover

California is the nation's electric vehicle capital, hands down.

<u>Californians</u> buy them: 4,645 electric car purchases in 2011, representing nearly 57 percent of the national total, according to Edmunds.com.

They build them: <u>Tesla</u>'s electric sedan, the Model S, is assembled in Fremont.

They're preparing for them: Electric charging stations are being built up and down the state, as are hydrogen fueling stations for fuel cell vehicles.

Despite that, <u>electric vehicles</u> -- EVs for short -- have not yet created a multibillion-dollar, job-filling juggernaut.

By most estimates, the industry has created a few thousand jobs statewide over the past decade, a drop in the bucket in a state that employs millions. And 4,645 EV sales in California last year represent a tiny percentage of nearly 1.3 million new vehicle sales in California in 2011.

Those immersed in the industry have a simple response: Just wait.

They point to an expected tripling in the number of EV models over the next decade, a built-out infrastructure of assembly plants and charging stations, a gradual reduction in prices for electric vehicles and, yes, a



huge public education process.

Industry proponents compare its current state to that of the mobilephone industry in the 1980s, when large, clunky phones first came on the market, looking like ultra-exotic devices to many consumers, and priced through the roof.

The proliferation of cellular towers, better phones and <u>public acceptance</u> changed all that: Worldwide mobile subscriptions went from about 12.5 million in 1990 to nearly 5.6 billion in 2011.

"I would say it's very much like what we went through with portable cellphones ... with the public not quite sure of what to make of things," said dealer John Driebe.

Driebe's Nissan dealership sells the Leaf, the all-electric, four-door, five-passenger vehicle that can go 70 to 80 miles when the lithium-ion battery is fully charged.

"I would say interest has been good. We continue to sell about four to five Leafs a month," he said.

Driebe said many customers don't know what to think about the Leaf on first inspection, but "we've found that once they get in and understand what they're all about, they're very enthusiastic."

Consumers are far more familiar with traditional gas-electric hybrids like the Toyota Prius, where an electric motor assists a gas-fueled engine. Californians bought 56,310 hybrids last year, nearly a quarter of all those sold in the United States, according to Edmunds.com.

But Driebe and others believe the Leaf, the Chevrolet Volt plug-in sedan and other all-<u>electric cars</u> will become more popular "as the price of the



batteries come down."

Lithium-ion technology continues to evolve, but right now batteries can add about \$10,000 to the price of an electric vehicle. A Leaf starts around \$35,000 to \$37,000.

Mike Tinskey, director of vehicle electrification and infrastructure for Ford Motor Co., also believes lower battery prices will be a gamechanger.

"We look at electrification as a marathon, not a sprint," Tinskey said. "A lot will depend on the cost of the battery. There will be more and more customers as we're able to reduce the price ... From generation to generation, we'll see how much expense we can take out."

California is key to Ford's electric car plans.

The Golden State is one of the rollout markets for the 2013 Ford Focus Electric, a five-passenger hatchback that is the automaker's first full-production, all-electric passenger vehicle. It has range of around 75 to 80 miles and starts around \$39,000.

Arguably, the most concrete public example of electric car potential opened in March -- in Oregon, just north of the California border.

Oregon, spending nearly \$1 million in federal stimulus funds, opened its "electric highway," a 200-mile stretch of Interstate 5 in southern Oregon, with chargers placed 25 miles apart. The quick-chargers can power up an EV in less than 30 minutes.

Oregon's highway is a preview of the future. <u>Charging stations</u> are being installed for what planners say eventually will be a 1,350-mile EV-ready stretch of I-5 from Baja to British Columbia.



Oregon has marketed being first to have such a highway, but industry watchers say the big test will be in California, as there are only about 1,100 electric vehicles in all of Oregon.

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