

Zero-Emission Hondas Hit the Road¹

By Tomoko A. Hosaka AP

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Honda has completed a handful of zero-emission hydrogen fuel cell cars. The FCX Clarity will only be available to customers in a few Southern California cities -- those with hydrogen filling stations. The Clarity boasts a range of 270 miles between fill-ups and a top speed of 100 miles per hour.

Honda's new zero-emission, hydrogen fuel cell car rolled off a Japanese production line Monday and is headed to Southern California, where Hollywood is already abuzz over the latest splash in green motoring.

The FCX Clarity, which runs on hydrogen and electricity, emits only water and none of the noxious fumes believed to induce global warming. It is also two times more energy efficient than a gas-electric hybrid and three times that of a standard gasoline-powered car, the company says.

Japan's third biggest automaker expects to lease out a "few dozen" units this year and about 200 units within three years. In California, a three-year lease will run US\$600 a month, which includes maintenance and collision coverage.

Among the first customers are actress Jamie Lee Curtis and filmmaker husband Christopher Guest, actress Laura Harris, film producer Ron Yerxa, as well as businessmen Jon Spallino and Jim Salomon.

"It's so smooth," said Harris, who played villainess Marie Warner on the hit TV show "24" and was flown over to Japan by Honda for the ceremony. "It's like a future machine, but it's not."

¹ Source: <http://www.technewsworld.com/story/63416.html>

Design Innovations

The FCX Clarity is an improvement of its previous-generation fuel cell vehicle, the FCX, introduced in 2005.

A breakthrough in the design of the fuel cell stack, which is the unit that powers the car's motor, allowed engineers to lighten the body, expand the interior and increase efficiency, Honda said.

The fuel cell draws on energy synthesized through a chemical reaction between hydrogen gas and oxygen in the air, and a lithium-ion battery pack provides supplemental power. The FCX Clarity has a range of about 270 miles per tank with hydrogen consumption equivalent to 74 miles per gallon, according to the carmaker.

The 3,600-pound vehicle can reach speeds up to 100 miles per hour.

'Mainstreaming of Fuel Cell Cars'

John Mendel, executive vice president of America Honda Motor, said at a morning ceremony it was "an especially significant day for American Honda as we plant firm footsteps toward the mainstreaming of fuel cell cars."

The biggest obstacles standing in the way of wider adoption of fuel cell vehicles are cost and the dearth of hydrogen fuel stations. For the Clarity's release in California, Honda said it received 50,000 applications through its Web site but could only consider those living near stations in Torrance, Santa Monica and Irvine.

Initially, however, the Clarity will go only to a chosen few starting July and then launch in Japan this fall.

California Gov. Arnold Schwarzenegger has called for a statewide network of hydrogen stations, but progress has been slow.

The state has also recently relaxed a mandate for the number of zero-emission cars it aims to have on roads. By 2014, automakers must now sell 7,500 electric and hydrogen fuel cell vehicles, a reduction of 70 percent.

Spallino, who currently drives Honda's older FCX and was also flown in for the ceremony, said he will use the Clarity to drive to and from work and for destinations within the Los Angeles area. The small number of hydrogen fuel stations is the "single limiting factor" for fuel cell vehicles, he said.

"It's more comfortable, and it handles well," said Spallino of Redondo Beach. "It's got everything. You're not sacrificing anything except range."

The Efficiency Market

The world's major automakers have been making heavy investments in fuel cells and other alternative fuel vehicles amid climbing oil prices and concerns about climate change.

Although Honda Motor was the first Japanese automaker to launch a gas-electric hybrid vehicle in the U.S. in 1999, it has been outpaced by the dominance of Toyota's popular Prius.

Toyota announced in May that it has sold more than 1 million Prius hybrids, while both the Honda Insight and the hybrid Accord have been discontinued due to poor sales

Honda also plans to launch a gas-electric hybrid-only model, as well as hybrid versions of the Civic, the sporty CR-Z and Fit subcompact.

Toyota has announced that it would launch a plug-in hybrid with next-generation lithium-ion batteries by 2010 and a hydrogen fuel cell vehicle later in Japan later this year.

U.S. carmaker General Motors (NYSE: GM) to introduce a Chevrolet Volt plug-in electric vehicle in 2010. It also introduced a test-fleet of hydrogen fuel cell Equinox SUVs.

Honda has no plans for a plug-in electric vehicle. President Takeo Fukui said he does not believe current battery technology is good enough to develop a feasible car.

The company has not revealed how much each car costs to make, and it is unclear when, or if, the car will be available for mass-market sales. Takeo has set a target for 2018, but meeting that goal will depend on whether Honda can significantly lower development and assembly costs as well as market reaction to fuel cells.