

## Toyota vows fuel cell model by 2015 in green push

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Toyota's FV2, left, and FCV concept cars are displayed at the media preview for the Tokyo Motor Show at the Tokyo Big Sight convention hall in Tokyo, Wednesday, Nov. 20, 2013. The biannual exhibition of vehicles in Japan runs for the public from Saturday, Nov. 23 through Dec. 1. (AP Photo/Shizuo Kambayashi)

Toyota is promising a mass-produced fuel cell car by 2015 in the latest ambitious push to go green by an industry long skeptical about the superclean technology that runs on hydrogen.



Satoshi Ogiso, the Toyota Motor Corp. executive in charge of fuel cells, said Wednesday the vehicle is not just for leasing to officials and celebrities but will be an everyday car for ordinary consumers, widely available at dealers.

"Development is going very smoothly," he told The Associated Press on the sidelines of the Tokyo Motor Show.

The car will go on sale in Japan in 2015 and within a year later in Europe and U.S.

Toyota's <u>fuel cell</u> car is on display as a "concept" model called FCV at the biannual show, where alternative fuel is grabbing the spotlight. The exhibition, drawing 32 automakers to Tokyo Big Sight convention hall, previewed to the media Wednesday. It opens to the public Saturday, and runs through Dec. 1.

The FCV looks ready to hit the streets, not all that different in exterior design from the Prius gas-electric hybrid, and in contrast to the other fun but outlandishly bizarre models at the show.

What's making the once space-age experiment more credible is the price that Toyota is promising: somewhere between 5 million yen (\$50,000) and 10 million yen (\$100,000), and as close to the lower figure as possible, Ogiso said.

Toyota's model will have plenty of competition.

Korean rival Hyundai Motor Co. said earlier this week it will start selling a Tucson SUV powered by a fuel cell next year, which if realized will be the first mass-market arrival of the technology.

Honda Motor Co., Japan's No. 3 automaker, which has leased a fuel cell



car since 2005, is scheduled to take the wraps off a next-generation version at the Los Angeles Auto Show later this week. Honda says the new system will be a big improvement from its predecessor.

All the major automakers, including General Motors Co. and Daimler, have been working on hydrogen power for decades. But the prospects of its becoming a commercial product have never been very real until recently.

The Japanese government, as well as the U.S. and parts of Europe, are getting serious in investing in hydrogen fueling-station infrastructure, which is a must before fuel cells can become practical.



A Toyota FCV concept car is displayed at the media preview for the Tokyo Motor Show at the Tokyo Big Sight convention hall in Tokyo, Wednesday, Nov. 20, 2013. The biannual exhibition of vehicles in Japan runs for the public from Saturday, Nov. 23 through Dec. 1. (AP Photo/Shizuo Kambayashi)



Skeptics say hydrogen-fueling stations are even more expensive to build than recharging stations for electric cars, partly because electricity is almost everywhere and new and safe ways for producing, storing and transferring hydrogen as fuel will be needed.

Carlos Ghosn, the chief executive of Nissan Motor Co., a Japanese automaker that's banking on a different kind of zero-emissions technology, electric vehicles, is one vocal skeptic.

"Having a prototype is easy. The challenge is mass-marketing," he told reporters. He said he did not see a mass-market fuel cell as viable before 2020.

Nissan's Leaf is the best-selling mass-produced pure electric vehicle, with cumulative sales totaling more than 83,000 around the world since going on sale three years ago.

But limited cruise range on a single charge—228 kilometers (142 miles) in Japan, and 73 miles (117 kilometers) in the U.S.—has been an obstacle. The lack of recharging stations has been another.

No one is going to want to run out of juice while driving. It's hardly a problem for standard cars because all you have to do is find a nearby gas station, Ghosn said. It won't be so easy for fuel cells, he said.

Hybrids, which switch back and forth between gasoline and electricity, and recharge as they move, have become more widespread, selling in the millions, largely because they have eliminated that fear.

Nissan stuck to its EV vision at the auto show, unveiling a rocket-like three-seat sportscar concept called BladeGlider.

Mitsubishi Motors Corp. General Manager Nobuo Momose also believes



the hybrid and plug-in are more realistic options.

"We have no plans for a fuel cell at the moment," he said.



A Toyota FV2 concept car is displayed at the media preview for the Tokyo Motor Show at the Tokyo Big Sight convention hall in Tokyo, Wednesday, Nov. 20, 2013. The biannual exhibition of vehicles in Japan runs for the public from Saturday, Nov. 23 through Dec. 1. (AP Photo/Shizuo Kambayashi)

Far more optimistic is Koichiro Imoto, an auto expert who writes for Japanese magazines.

"The big difference is that fuel cells are going to feel more like a regular car, except it's so quiet. It can be fueled in a short time, just like a gas car, and it's going to have a longer range than an electric car," he said.



Electric cars generally need hours for recharging.

Imoto believes automakers will compete in exterior design and other new areas with fuel cells, taking a departure from the past, when they competed in horsepower, driving feel and engine sound.

The fuel cell stack, which powers the vehicle by turning hydrogen fuel and oxygen in the air into water, works as the "heart" of the vehicle, said Ogiso.



Toyota Motor Corp. Executive Vice President Mitsuhisa Kato poses with a Toyota JPN Taxi concept car at the media preview for the Tokyo Motor Show at the Tokyo Big Sight convention hall in Tokyo, Wednesday, Nov. 20, 2013. The biannual exhibition of vehicles in Japan runs for the public from Saturday, Nov. 23 through Dec. 1. (AP Photo/Shizuo Kambayashi)



With more players throwing their hats into the ring, which automaker emerges the winner in fuel cells is still unclear.

"I am confident, although I should never get too confident," he said.

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