Ford, Daimler, Nissan to research hydrogen cars

TOM KRISHER - AP Auto Writer - Associated Press

Ford is joining with Daimler and Renault-Nissan to speed development of cars that run on hydrogen, with hopes of bringing a vehicle to market in as little as four years.

Hydrogen fuel cell vehicles generate electricity after a chemical reaction between hydrogen and oxygen. Hydrogen is stored in special high-pressure tanks, and the only emissions are water vapor and heat.

Under the alliance, each company will invest equally in the technology. They plan to develop a common fuel cell system that the companies will use to power their own vehicles. The companies also plan to take advantage of their combined size to reduce costs.

Many automakers have been testing the hydrogen fuel cell vehicles for years, but so far haven't been able to bring costs down enough to sell the vehicles in mass markets. The zero-emissions cars have great potential to cut pollution and reduce the world's reliance on oil for transportation.

"Working together will significantly help speed this technology to market at a more affordable cost to our customers," Raj Nair, Ford's group vice president for global product development, said in a statement issued Monday. "We will all benefit from this relationship, as the resulting solution will be better than any one company working alone."

The companies said that engineering work on the individual fuel cells and the overall hydrogen system will be done jointly by the companies at several locations around the world. They also are studying joint development of other parts for fuel-cell vehicles in an effort to bring down costs.

Work will be done at the site of a previous fuel cell joint venture between Ford and Daimler in Vancouver, British Columbia, as well as a Daimler facility in Nabern, Germany, and a Nissan operation in Oppama, Japan, Ford spokesman Alan Hall said. He was not aware of an executive being appointed to run the joint venture.

The automakers say that together they have 60 years of experience developing fuel cell vehicles. Their test vehicles have traveled more than 6.2 million miles.

The alliance between Ford Motor Co., of Dearborn, Mich.; Daimler AG of Germany, maker of Mercedes vehicles; and the joint operations of France's Renault SA and Japan's Nissan Motor Co., is another example of global automakers combining forces to develop engines and other new technology. The companies are trying to share expensive development costs, yet keep their products different.

Nissan and Renault have had combined operations for years. Toyota Motor Corp. and BMW AG said earlier this month that they are working together on next-generation batteries for green vehicles called "lithium-air." Their collaboration, first announced in late 2011, also is working on fuel cells with hopes of completing a vehicle by 2020.

French carmaker PSA Peugeot Citroen and General Motors Co. of the U.S. have a deal to share in purchases of parts and services to cut costs. Toyota already has a joint venture with Peugeot Citroen to make small cars in Europe.

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