

Could hydrogen vehicles take over as the 'green' car of choice?

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Now that car makers have demonstrated through hybrid vehicle success that consumers want less-polluting tailpipes, they are shifting even greener. In 2015, Toyota will roll out the first hydrogen fuel-cell car for personal use that emits only water. An article in *Chemical & Engineering News* (C&EN), the weekly newsmagazine of the American Chemical Society, explains how hydrogen could supplant hybrid and electric car technology—and someday, even spur the demise of the gasoline engine.

Melody M. Bomgardner, a senior editor at C&EN, notes that the first fuel-cell vehicles will be sold in Japan, then California to start. Although Toyota is the only one poised to sell fuel-cell vehicles very soon, other companies are also investing billions of dollars in the technology. Hyundai, General Motors, Honda and Daimler have all announced plans to offer their own hydrogen models in the near future. The first cars will set customers back about \$70,000, but this marks a 95 percent cut in system costs in less than 10 years. As they improve the technology further, car manufacturers expect that prices will come down to more affordable levels.

But does that translate into a practical edge for [consumers](#)? With a hydrogen vehicle, filling up only takes about three minutes, compared to an overnight charge for an all-electric car. Fuel-cell vehicles can go 400 miles on one fill-up, which is fewer than a hybrid but with no polluting emissions. Although electrics also boast zero tailpipe emissions, they will have a tough time competing with that kind of range. Given these advantages, some experts suggest hydrogen fuel cells could someday overtake hybrid, electric and even internal combustion technologies.

More information: "Fuel-Cell Cars Start to Arrive" - [cen.acs.org/articles/92/i46/Ma ... Vehicles-Almost.html](http://cen.acs.org/articles/92/i46/Ma..._Vehicles-Almost.html)

Provided by American Chemical Society

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