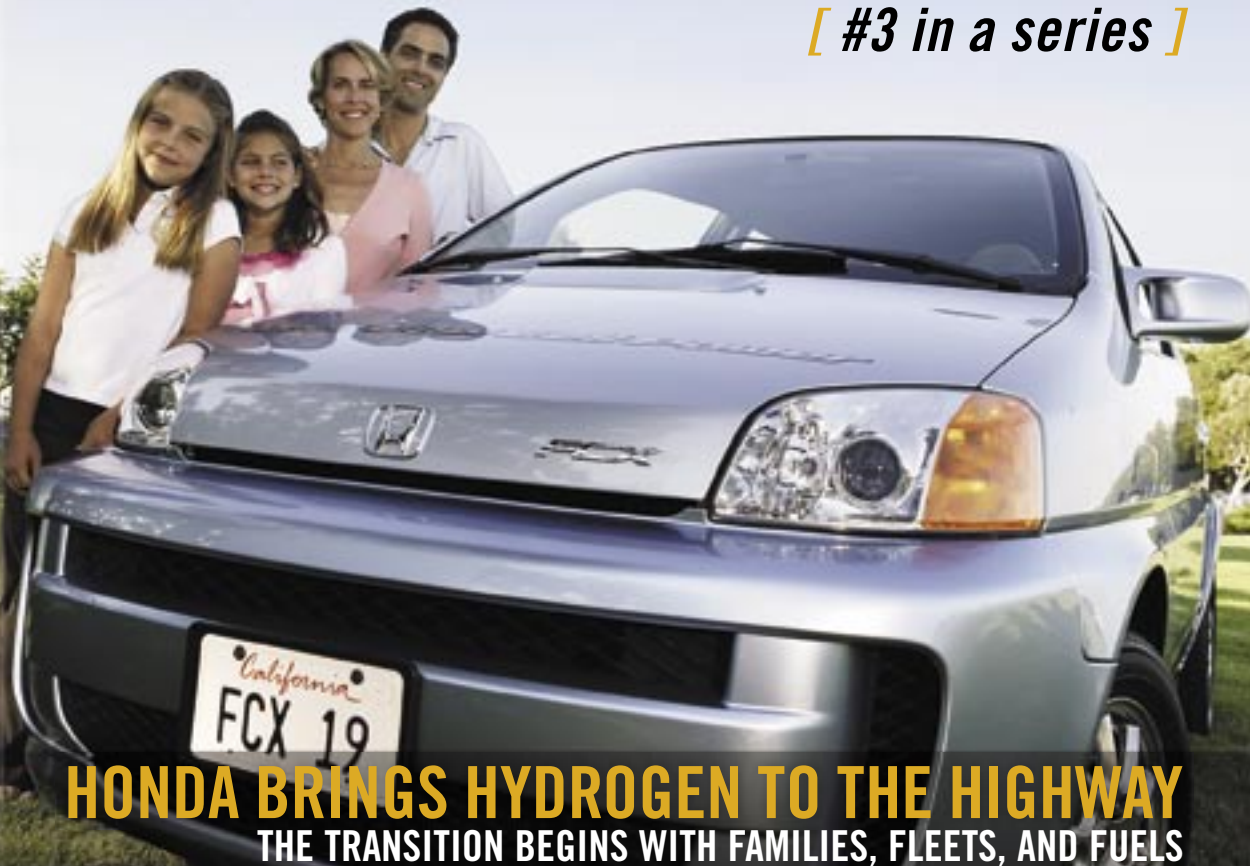


# CNG TO H2

[ #3 in a series ]



## HONDA BRINGS HYDROGEN TO THE HIGHWAY THE TRANSITION BEGINS WITH FAMILIES, FLEETS, AND FUELS



In the not-so-distant future, it's possible that our homes could make use of highly efficient solar panels to electrolyze water for producing hydrogen, a seamless way to supply this fuel for the zero-emission fuel cell vehicle in our garage. A home-use fuel cell would use this same hydrogen to supply household electricity. All of this would take place without generating CO<sub>2</sub>.

True, this scenario is not possible today. But this enlightened vision may well emerge from the activities being pursued now by Honda on the highway and in its labs, here and in Japan. Exploring the synergies between cars, energy, and environment is a focus at Honda, and a mission. Technologies developed through diverse Honda divisions and strategic partners are being applied to accomplish this vision a step at a time. While some goals will take longer than others, all are in motion, and some are becoming reality sooner than many had believed possible.

### FUEL CELLS IN THE HANDS OF CONSUMERS

Honda's FCX fuel cell vehicle is an excellent example. An evolutionary product of Honda's wide-ranging advanced technology vehicle efforts, the FCX is a direct descendant of the company's EV Plus electric vehicle development program. It benefits from the many breakthroughs that occurred through more than a decade of developing advanced technology products like compact and energy dense electric drive motors, sophisticated motor controllers, and advanced energy storage devices. The FCX also synthesizes technologies developed for Honda's gasoline-electric hybrid vehicles and, of course, the compressed natural gas Civic GX.

Like the Civic GX, real-world use in the controlled environment of fleet operations is part of the process that will lead to Honda bringing its fuel cell vehicles to the mass market. The Civic GX followed this pathway of fleet demonstrations followed by general sales for fleet use. These successful experiences have now led to consumer sales of the Civic GX, starting in California where the market is best poised to adopt advanced environmental technologies.

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For nearly three years, Honda has gained valuable experience in leasing the zero-emission FCX to fleets and monitoring their real-world use. This has provided Honda the confidence to take the next industry-leading step – the world's first lease of a fuel cell car to a retail customer. Doing so fulfills the promise made by Honda at the 2005 North American International Auto Show, where Mr. Takeo Fukui, Honda President and CEO, announced the company's intention to demonstrate that Honda's fuel cell technology is ready for real-world use. This two-year consumer lease represents an important step toward that goal.

With the delivery of this vehicle, Jon and Sandy Spallino of Redondo Beach, California, become the first consumers to lease a fuel cell vehicle. The Spallinos previously drove a Civic GX and were already quite comfortable with gaseous fuel vehicles, which made them ideal "apprentices" for the hydrogen FCX. This emphasizes the pathway that Honda has already identified: Become familiar with the user-friendly Civic GX and the transition to an FCX fuel cell vehicle is a natural.

## HIGHWAYS TO THE FUTURE

The Civic GX has been blazing the trail for the hydrogen fuel cell FCX for many years. A gaseous fuel vehicle that looks, feels, and drives just like its gasoline counterparts, the mission of the GX has been one of providing near-zero emission transportation using an alternative fuel abundantly available in this country. The messages are clear: You can drive clean without sacrificing comfort, function, or performance. There are options to gasoline. Automakers can move beyond traditional comfort zones by offering vehicles that not only speak to a driver's immediate needs, but to a future of more environmentally sustainable transportation as well.

In fact, this same vision is what drives Honda to offer such environmentally advanced vehicles as the Honda Insight, Accord Hybrid, and now the second generation Civic Hybrid. Coming to market five years ago with the highest EPA estimated fuel economy of any production vehicle ever, the Insight has led the way for gasoline-electric versions of Honda's high volume cars, which now offer a choice of traditional engines as well as the company's advanced Integrated Motor Assist hybrid system. The continuing evolution of these advanced vehicles and the technologies that power them have also influenced refinements in the fuel cell powered, electrically-driven FCX.

Along the way, enhancements to familiar systems and accessories are doing their part to pave the way for a transition to hydrogen fuel cell vehicles. For example, Honda's Satellite-Linked Navigation System (NAVI) not only aids FCX drivers with precise driving instructions and helpful travel information, but also helps a driver locate the nearest fueling opportunity. Using the navigation system's voice activation command, all a driver needs to say is, "find nearest hydrogen station," and the NAVI system does just that. Combining this capability with the distance-to-empty gauge in the FCX provides an additional measure of comfort for FCX drivers in these early years of hydrogen infrastructure development.

Honda's vision for the FCX and the fuel cell vehicles that follow goes beyond providing the expected. Along with the traditional hallmarks of comfort, performance, quality, and safety – as well as environmental compatibility, of course – this vision includes the convenience of home refueling. This is already evident with the introduction of Phill, Honda's home refueling appliance for the natural gas Civic GX. The next step is hydrogen home refueling, a feature being explored through a Home Energy Station (HES) developed by Honda and its partner, Plug Power, being tested in both New York and California. The HES uses a home's natural gas supply to create hydrogen for a fuel cell that powers your home, heats your home, and also provides convenient at-home refueling for your hydrogen fuel cell vehicle.

Today's full line of high efficiency, low emission Honda vehicles already sets a benchmark for the industry. Advanced models like Honda's gasoline-electric hybrids, the natural gas Civic GX, and ultimately the hydrogen fuel cell FCX raise the bar even farther. That's the Honda way.



*At-home CNG refueling with Phill.*



*Hydrogen stations are few, but growing.*



*Hydrogen Home Energy Station at Honda.*

**For more information about the FCX and the Civic GX, visit <http://world.honda.com/FuelCell> and [www.civicgx.com](http://www.civicgx.com) or call 1-800-33-HONDA.**