

Vehicles

The World's Cleanest Cars?

Jacqueline Mitchell, 07.30.08, 4:00 PM ET

Earlier this month, as oil prices rose and car buyers ignored big trucks and SUVs in favor of small cars, Texas billionaire [T. Boone Pickens](#) called on the [U.S. government](#) to chip away at the country's dependence on foreign oil, in part, by having America's cars run on compressed natural gas (CNG).

While Pickens is heavily invested in natural gas, and stands to gain from such a switch, it isn't just about money for him or for consumers. Although it's a lot cheaper to fill up the tank of a CNG vehicle, auto analysts say, CNG cars are much more environmentally friendly than gas-powered cars, as they can reduce carbon emissions by 10% to 20% (or more).

But is refueling your car at home by tapping into your house's existing natural gas line a mere pipe dream?

Not for some motorists in New York and California, the only two states where the CNG-powered [Honda Civic GX](#) is sold. The car costs about \$5,000 more than the gas-powered Civic but gets roughly the same mileage (28 mpg) on a fuel that costs significantly less than regular gas. That's on top of several thousand dollars in tax rebates granted buyers of the car (these are similar to the rebates provided to owners of fuel-efficient hybrids).

A GX driver who stops at a CNG-equipped gas station will pay roughly \$1 less per gallon of fuel. But the GX also comes with Phill, a home-refueling appliance that mounts on a garage wall and taps into the existing home gas supply line for significantly cheaper, overnight fill-ups. The GX can go about 200 to 225 miles before it needs refueling, according to Honda.

In a sense, the GX's appeal may signal a bit of history repeating. U.S. automakers, including General Motors and Ford Motor, actively produced CNG-powered cars for consumers--as well as buses, taxis and fleet vehicles--until the 1990s, when all but Honda pulled out of the market as oil prices plummeted. Even as prices rose above \$2 per gallon in early 2005, few stopped to think that there was an alternative to regular gas.

Honda only made the GX available to consumers two years ago, and even though the car is in high demand now (Honda can't build them fast enough), it's hard to say for certain that CNG cars could become common on American roads.

"We have become too comfortable driving on gasoline," says Ron Cogan, publisher of [Green Car Journal Online](#), which focuses on cars' environmental performance. "We need new answers because we are past the tipping point," he says, pointing to Ford's [recent announcement](#) that it is moving away from manufacturing large cars and bringing smaller models over from Europe. "Ford's accelerated program to make more small cars is not just about market share, it is a survival measure."

Europe: Ahead Of The Pace

Natural-gas vehicles (NGVs), while struggling to make headway in the U.S. market beyond California and New York, are popular in Europe, primarily in Italy and Germany, where car buyers have several models to choose from, such as the [Ford Focus](#) and [Opel Zafiria](#).

Ford of Europe builds a bi-fuel Ford Focus--available in Italy, Germany, Austria, the Netherlands and Sweden--that uses gasoline or diesel in one tank and CNG or liquefied petroleum gas in the other tank. (The LPG version is sold in the United Kingdom, Germany and Italy). There is a control on the instrument panel that allows drivers to switch between gasoline and natural gas. This car costs \$2,500 to \$3,000 more than the gas-powered Focus, but it has a driving range of 186.4 miles in CNG and 435 miles in gasoline.

Similarly, Mercedes-Benz makes a bi-fuel [B170 Blue Efficiency sedan](#) that it says reduces fuel cost per one kilometer (.62 miles) by 50%. It gets 186 miles on the NGV tank and a total of 621 miles when used in combination with the regular gas tank.

The key benefit from natural gas is that it burns cleaner and reduces oil dependency.

"But it is a niche solution," says Adrian Schmitz, a Ford of Europe spokesman based in Germany. "It is one part of a broad portfolio of solutions." Schmitz says 50% of vehicles sold in Europe are diesels, which offer the same environmental benefits as CNG.

Conversion kits, which can be bought for making a car a bi-fuel like the Focus or the Blue Efficiency, are available in Europe and other countries like Asia, but not in the U.S.--Honda's Civic GX is the only game in town.

Unfairly Ignored?

Despite the relative success of bi-fuel cars in Europe, it's tough to say that NGVs could break through in the U.S. There are plenty of skeptics.

"In the beauty pageant of alternative fuel, natural gas vehicles may have gotten Miss Congeniality in all of this. It just wasn't sexy and it might have been overlooked," says Bill Reinert, national manager of advanced technology vehicles for Toyota Motor Sales. Reinert, along with other skeptics of CNG, says a lot has to happen before automakers will begin to invest money and resources to develop new NGVs.

Among the biggest challenges is infrastructure. There are 800 to 1,000 natural-gas stations in the U.S., compared with 175,000 regular gas stations, points out Cogan. This makes it inconvenient--perhaps impossible--to refuel a CNG-powered car on a long trip. Also, a CNG tank and components require a larger area of a vehicle. Motorists will sacrifice trunk and interior seating space to accommodate the system.

Do you think natural gas is the future of American cars? Why or why not? Add your thoughts in the Reader Comments section below.

"Americans have not shown a willingness to give up anything for fuel economy," says Philip Gott, director of automotive consulting at market research company Global Insight. He points out that NGVs require a change in lifestyle, such as taking time to make sure the car is refueling overnight and giving up trunk space to get even better fuel economy--things that American drivers might not want to do.

Because of these factors, and despite the benefits, CNG-powered cars represent a mere ripple in global automotive sales. For 2008, Gott is forecasting 300,000 worldwide sales of CNG-powered passenger cars and light trucks, compared with 72 million regular vehicles. And the vast majority of those 300,000 NGVs use some combination of gasoline or diesel and CNG--only a handful of cars operate on pure CNG like the Civic GX.

While the future of NGVs, in particular, is uncertain for now, the search for better ways to power cars will undoubtedly continue.

"It's natural to look at natural gas as a viable alternative," says Cogan, but "we have not found that one solution, so we have to look at all options."