

# The Sensible Environmentalist

## Hydrogen Or Hybrids?

(NAPSA)—**DEAR DR. MOORE:**

**Which is better for the environment, hydrogen-powered cars or the new hybrids?**

In the near term, I'd have to say the hybrids—because they offer a way to reduce pollution now.

Promoters of a “hydrogen economy” say it's just around the corner;



Dr. Moore

that we'll soon begin work on a network of fueling stations for hydrogen-powered cars. Hydrogen doesn't result in harmful emissions, so the idea is that we'll drastically cut pollution (and greenhouse gases in particular) while reducing our dependence on fossil fuels.

It's an attractive vision. Hydrogen is the most abundant element in the universe and, in its pure form, burns absolutely clean. Unfortunately, there are some major technical problems to solve before we can say with certainty that this is the way to proceed.

The biggest barrier is how to source the hydrogen, because it always comes attached to something else. We could use electricity to split water into hydrogen and oxygen, but that would require a vast increase in electricity production. Or we can take the hydrogen out of oil and natural gas, but this still makes us dependent on fossil fuels.

For the hydrogen economy to be successful, we'll need to generate more than twice the electricity we do now and we'll need to do it all with non-fossil fuel energy. That means a dramatic increase in nuclear power plants, hydroelectric dams, solar cells, geother-

mal power, wind turbines, etc.—something society may not be willing to do, at least not yet.

Storage and transportation are other issues (hydrogen is bulky and corrosive), as is getting enough into a car to travel a reasonable distance. But automakers are experimenting with different options and may well find solutions.

Meanwhile, current hybrids use both an electric motor and gasoline engine, and are nearly twice as efficient as conventional vehicles. We're also starting to see modified versions, which have an additional power source that can be recharged at home—and are twice as efficient as the models available now. Modified hybrids aren't yet mass-produced (though some mechanically minded individuals have created their own), but should be on the market within a few years.

There's no question that our dependence on fossil fuels has to be reduced. In addition to the fact that it's polluting, oil is non-renewable and experts believe we'll soon hit peak production—after which the amount produced will steadily decline (as prices skyrocket). There's also the very real danger of sourcing oil from parts of the world that are politically unstable.

So, in balance, even though hydrogen offers great potential, it doesn't make sense to wait for the hydrogen economy to start dealing with the issue at hand—not when hybrid cars are here now and can make a very real difference.

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