utomotive Answer

Here Come The Hybrids

(NAPSA)—With gasoline prices continuing to fluctuate, the news has been full of reports about the improved fuel economy provided by hybrid vehicles. Nationwide, interest in hybrids continues to grow, and J.D. Power and Associates now predicts that, by 2005, there will be nearly 400,000 hybrid vehicles on the road.

So just what is a "hybrid vehicle"? It commonly refers to a vehicle that combines two power sources, usually an electric motor and a gasoline engine. But not always; even among gasoline-electric hybrids, not all models are created equal.

The purest form of hybrid, sometimes called a "full" hybrid, is capable of running solely on electric power in certain driving conditions. It may also operate on combined gasoline and electric power, or gasoline only. A good example is the Toyota Prius, featuring a newgeneration hybrid system called "Hybrid Synergy Drive."

The Prius was the world's first mass-market hybrid when it was introduced in 1997, and it is still the only one capable of operating on its electric motor alone. Owners often refer to this as running in "stealth mode" because of the quiet operation of the electric motor.

Other types of hybrids are either already on the market, or slated for introduction in the near future. Many will start out with the gasoline engine running and use the electric motor for assist. These are usually called "mild" hybrids.

One of the most important things to remember about any hybrid available for sale in the U.S. is that it never needs to be plugged in for recharging. In fact, they can't be plugged in. Batteries powering the electric motor are recharged while driving.

In most cases, hybrids also will shut down completely at a stoplight, saving fuel and cutting emissions. A "full" hybrid will pull away from the stop using only its electric motor. With a "mild"



Hybrid vehicles. which becoming more popular, offer fuel economy and clean emissions.

hybrid, a touch on the gas pedal will typically start the gasoline engine, similar to the technology used for golf carts.

Hybrids aren't just smaller cars anymore. The 2004 Prius has a completely redesigned exterior and a new, larger interior. Best of all, despite improvements in fuel economy (an estimated combined city/highway of 55 mpg, up from 48 mpg) and performance (more than two seconds quicker 0-60), the base price will be unchanged.

Uncle Sam is also supporting the hybrid market, offering a onetime \$2,000 tax deduction to hybrid buyers. The program is scheduled to phase out beginning in 2004 by dropping the deduction by \$500 a year through the end of 2006, but lawmakers are now reconsidering the phase-out. Currently only the Toyota Prius and the Honda Insight and Civic Hybrid qualify for the deduction.

Interested in a hybrid but need the capabilities of an SUV? Next year, a version of the Lexus RX 330, powered by the Hybrid Synergy Drive system will go on sale, providing the fuel economy of a four-cylinder engine and performance well beyond the typical sixcylinder engine, according to the company, which also says other hybrid models are on the way.

To learn more about hybrid technology, visit the Web site at www.toyota.com.