

What About Hybrids?

By John Vanek, Orinda Motors

With gas prices fast approaching \$5.00 per gallon we are all thinking about alternate vehicles that offer better fuel economy. Hybrid vehicles are a common topic of research and discussion these days. I have spoken to many of my customers who think that they may want one. I get a lot of questions on the subject. What is a hybrid? How does it work? Is it right for me?

A hybrid vehicle is a vehicle that uses two or more distinct power sources to propel the vehicle. For instance a moped is a hybrid because it uses a gas engine and pedal power to propel the "vehicle." Hybrid cars, which combine a gasoline engine with a battery-powered electric motor are good because they use less gas and produce less pollution. The hybrid system has a special high voltage battery system that runs an electric motor, which can actually power the car at low speeds and at idle. This means the gas engine is not running at idle or at low speeds, saving precious fuel. Most hybrids also use regenerative braking that uses the friction of stopping as a way to get an electrical current to the battery for recharging. The complete system is contained within the vehicle and it never has to be plugged in.

There are variations of the systems depending on the manufacturer, but the goal is the same with every system. The main advantage is at low speed driving. Since the system uses electrical power at low speeds, the city MPG will be much higher than what we are used to. The engine actually shuts off and automatically restarts when a certain speed is reached. For instance, if you sit in stop-and-go traffic every day or do a large amount of around town driving (under 45mph) then the hybrid system may be a good choice. On the other hand if you travel at higher speeds on a daily basis the hybrid may not be the best choice. Due to the cost of technology you can expect to pay about \$3000 over the cost of a normal gasoline-powered car of the



Jean-Pierre and Julia Giovanni of Moraga enjoying their new 2008 Highlander

same type. In many cases the overall fuel mileage of a hybrid is only marginally better than other top of the line economy cars. For example, a hybrid that gets 36 mpg and sells for \$22,500 while a non-hybrid car sells for \$19,500 at 29 miles to the gallon. So it could take many years of gas savings to pay back the extra money spent on the hybrid. Many of my customers that own hybrids report that they do not get the fuel mileage advertised by the manufacturer, but still enjoy fuel savings.

The original models that were the leaders of the hybrid surge were the Toyota Prius and the Honda Insight. Both of these were purpose built vehicles that had an emphasis on being lightweight, they also featured aerodynamic designs to help boost fuel economy at all speeds. These are entry-level cars and are not for everyone.

Over the years there have been more players in the hybrid game and we now have more choices. There are larger sedans, SUV'S and even luxury car offerings from companies like Lexus, Ford, Nissan, GM and Saturn. These choices offer improved fuel economy over the gas models while offering the space, features and performance that you may want. Keep in mind that you will not achieve the economy of a Prius but you will save on gas and help the environment

when driven under the appropriate conditions.

There will be more options in the future such as plug-in hybrids and electric cars when the technology is fully developed. There are other alternatives such as bicycles, carpools and BART. Another good idea is to make sure that your current vehicle is properly maintained and is as efficient as it could be. In fact poor maintenance is one of the chief causes of poor fuel mileage and excessive emissions. The most important thing to do when considering a hybrid is to consider the type of driving that you do and decide if a hybrid would be a good choice. Research the available vehicles and make an educated decision. Be a good consumer and always keep the environment in mind, it is the only one we have.

John's Top Ten Hybrid Picks

- 1) 2008 Toyota Highlander Hybrid
- 2) 2008 Ford Escape Hybrid
- 3) 2008 Toyota Prius
- 4) 2008 Toyota Camry Hybrid
- 5) 2008 Honda Civic Hybrid
- 6) 2009 Nissan Altima Hybrid
- 7) 2008 Saturn Vue Greenline
- 8) 2009 Chevy Tahoe Hybrid
- 9) 2010 Porsche Cayenne Hybrid
- 10) 2008 Lexus LS 600h Hybrid