

Straight Answers on Advanced Technologies

What are Hybrid Electric Vehicles?

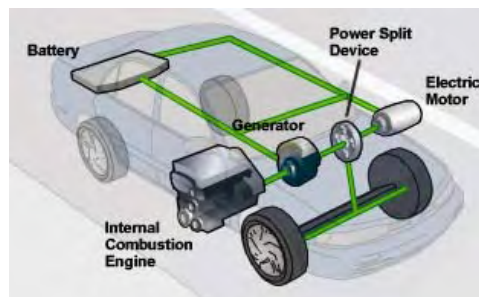
Hybrid electric vehicles (HEVs) combine the internal combustion engine of a conventional vehicle with the battery and electric motor of an electric vehicle. As a result, HEVs achieve much greater fuel economy than conventional vehicles. HEVs also have much lower emissions compared to conventional gasoline powered vehicles. In combination, these attributes offer consumers the extended range and rapid refueling they expect from a conventional vehicle, as well as much of the energy and environmental benefits of an electric vehicle. HEVs can be used in a wide range of applications — from personal transportation to commercial hauling.



What Are the Key Components of Hybrid Vehicles?



Hybrid-electric vehicles combine the benefits of internal combustion engines and electric motors and can provide improved fuel economy and reduced emissions or increased power depending on configuration details. These objectives are achieved by electric motor assist, regenerative braking and automatic start/stop capability. Electric motor assist refers to electric motors providing additional power to supplement the engine power in accelerating,



passing, or hill climbing. This allows a smaller, more efficient engine to be used. In some vehicles, the motor alone provides power for low-speed driving conditions where internal combustion engines are least efficient. Regenerative braking uses the energy from the vehicle wheels, which is stored in electrochemical batteries, to turn the electric motor as a generator, converting energy normally wasted during coasting and braking into electricity which is stored in a battery for later use. Automatic start/stop automatically shuts off the engine when the vehicle comes to a stop and restarts it when the accelerator is pressed. This prevents wasted energy from idling and also significantly reduces emissions.

What Vehicles Are Available?

Compact and Midsize Sedans

- Honda Accord
- Honda Civic
- Honda Insight
- Lexus GS 450h
- Toyota Camry
- Toyota Prius

SUVs and Minivans

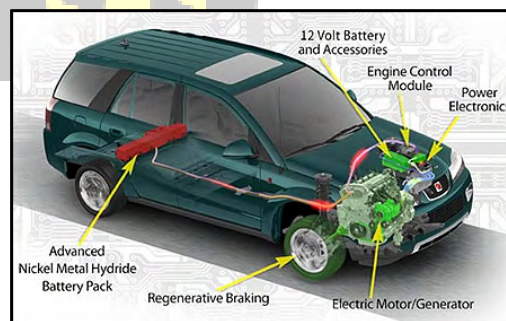
- Ford Escape
- Lexus RX400h
- Toyota Highlander
- Mercury Mariner
- Saturn Vue

Trucks

- Chevrolet Silverado and GMC Sierra

Coming Soon

- Honda Fit (2008)
- Hyundai Accent (2009)
- Nissan Altima (end of 2006)
- Chevrolet Tahoe (2007)
- Dodge Durango (2007)
- GMC Yukon (2007)
- Porsche Cayenne (2008)
- Toyota Sienna Minivan (2008)
- Dodge Ram Pickup (2007)



Why Should We Use Them?

Hybrid electric vehicles have several advantages compared to conventional gasoline vehicles.

- Greater operating efficiency because of regenerative braking use.
- Smaller and lighter engines because they can be sized to accommodate average load, not peak load.
- Greater fuel efficiency due to significantly smaller fuel consumption.
- Cleaner operation from lower fuel use, which also decreases our dependency on fossil fuels and helps ensure our national security.

Hybrid electric vehicles are cost-competitive with similar conventional vehicles, and any cost premium can be offset by fuel and maintenance savings and tax incentives. Today's HEVs match the performance and safety of conventional vehicles and have the same or greater range.

Where Can I Get It in Maryland?

Hybrid Electric Vehicles are available from Chevrolet, Ford, GMC, Honda, Lexus, Mercury, Saturn, and Toyota. For more information on specific models and for dealer locations in Maryland you can visit their websites listed below.

http://www.gm.com/company/gmability/adv_tech/300_hybrids

<http://www.fordvehicles.com/suvs/escapehybrid>

<http://www.mercuryvehicles.com/marinerhybrid>

<http://www.saturn.com/saturn/vehicles/vue/greenLine.jsp>

<http://automobiles.honda.com>

<http://www.lexus.com/models/hybrid>

<http://www.toyota.com/vehicles/minisite/hsd>

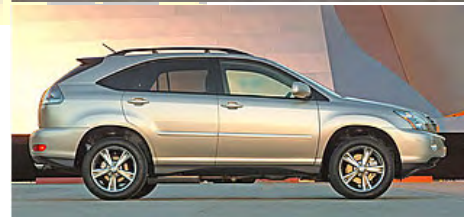
What is the State Doing for Hybrid Vehicle Use?

H.B. 61 exempts qualified hybrid electric vehicles from motor vehicle emissions testing requirements. Owners of hybrid cars will get discounts on parking at the 15 city-owned parking garages in Baltimore. Baltimore will limit participation to 200 vehicles and the program will apply only to monthly, contract parking. Drivers of the three most fuel-efficient models (Toyota Prius, Honda Insight and Honda Civic Hybrid) can apply for a decal that will let them park in designated spots in the city's garages. Baltimore is also considering reduced metered parking charges for hybrids.

What is the Federal Government Doing for HEV Use?

The Energy Policy Act of 2005 replaced the clean-fuel burning deduction with a tax credit. A tax credit is subtracted directly from the total amount of federal tax owed, thus reducing or even eliminating the taxpayer's tax obligation. The tax credit for hybrid vehicles applies to vehicles purchased or placed in service on or after January 1, 2006. The credit is only available to the original purchaser of a new, qualifying vehicle. If a qualifying vehicle is leased to a consumer, the leasing company may claim the credit.

Year	Make	Model	Credit
2005	Honda	Accord Hybrid AT	\$650
2005	Honda	Civic Hybrid CVT and MT	\$1,700
2005-06	Honda	Insight CVT	\$1,450
2005-07	Toyota	Prius	\$3,150
2006-07	Chevrolet	Silverado 2WD Hybrid	\$250
2006-07	Chevrolet	Silverado 4WD Hybrid	\$650
2006-07	Ford	Escape Hybrid 2WD	\$2,600
2006-07	Ford	Escape Hybrid 4WD	\$1,950
2006-07	GMC	Sierra 2WD Hybrid	\$250
2006-07	GMC	Sierra 4WD Hybrid	\$650
2006	Honda	Accord Hybrid AT	\$1,300
2006	Honda	Civic Hybrid CVT	\$2,100
2006-07	Lexus	RX400h 2&4WD	\$2,200
2006-07	Mercury	Mariner 4WD Hybrid	\$1,950
2006-07	Toyota	Highlander 2&4WD Hybrid	\$2,600
2007	Lexus	GS450h	\$1,550
2007	Saturn	Vue Green Line	\$650
2007	Toyota	Camry Hybrid	\$2,600



Where Can I Find More?

For more general information on hybrid vehicles, you can visit the manufacturer websites mentioned above.

For more information on the Maryland Clean Cities Program and how you can help:

<http://www.energy.state.md.us/programs/transportation/cleancities/index.html>

