

## HYBRID-ELECTRIC VEHICLES

It's no accident the most fuel-efficient vehicles in some classes for the 2006 model year are hybrid-electric vehicles (HEVs). Hybrids combine the best features of the internal combustion engine with an electric motor and can significantly improve fuel economy without sacrificing performance or driving range. HEVs may also be configured to provide increased performance or provide electrical power to auxiliary loads such as power tools.

HEVs are primarily propelled by an internal combustion engine (ICE), just like conventional vehicles. However, they also convert energy normally wasted during coasting and braking into electricity, which is stored in a battery until needed by the electric motor. The electric motor assists the engine when accelerating or hill climbing and at low speeds where internal combustion

engines are least efficient. Unlike all-electric vehicles, HEVs now being offered do not need to be plugged into an external source of electricity to be recharged; conventional gasoline and regenerative braking provide all the energy the vehicle needs.

Potential buyers should also be aware that the federal government is currently offering tax incentives for HEVs. Some states also offer incentives. Additional information on HEVs, including tax incentives, can be found at [www.fueleconomy.gov](http://www.fueleconomy.gov).

Annual fuel cost is estimated assuming 15,000 miles of travel each year (55% city and 45% highway) and a gasoline fuel cost of \$2.20 per gallon (regular unleaded).

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Battery Size / Type
<b>TWO SEATERS</b>					
<b>HONDA</b>					
Insight .....	AV .....	1.0/3	..57/56 .....	\$591 ...	144 V, Ni-MH
.....	M5 .....	1.0/3	..60/66 .....	\$525 ...	144 V, Ni-MH
<b>COMPACT CARS</b>					
<b>HONDA</b>					
Civic Hybrid .....	AV .....	1.3/4	..49/51 .....	\$660 ...	158 V, Ni-MH
<b>MIDSIZE CARS</b>					
<b>HONDA</b>					
Accord Hybrid .....	A-5 .....	3.0/6	..25/34 .....	\$1,178 ...	144 V, Ni-MH
<b>TOYOTA</b>					
Prius .....	AV .....	1.5/4	..60/51 .....	\$601 ...	202 V, Ni-MH
<b>STANDARD PICKUP TRUCKS 2WD</b>					
<b>CHEVROLET</b>					
C15 Silverado Hybrid 2WD	A-4 .....	5.3/8	..18/21 .....	\$1,736 ...	42V, Lead-acid
<b>GMC</b>					
C15 Sierra Hybrid 2WD .....	A-4 .....	5.3/8	..18/21 .....	\$1,736 ...	42V, Lead-acid
<b>STANDARD PICKUP TRUCKS 4WD</b>					
<b>CHEVROLET</b>					
K15 Silverado Hybrid 4WD.	A-4 .....	5.3/8	..17/19 .....	\$1,835 ...	42V, Lead-acid
<b>GMC</b>					
K15 Sierra Hybrid 4WD .....	A-4 .....	5.3/8	..17/19 .....	\$1,835 ...	42V, Lead-acid

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Battery Size / Type
<b>SPORT UTILITY VEHICLES 2WD</b>					
<b>FORD</b>					
Escape Hybrid 2WD .....	AV .....	2.3/4	..36/31 .....	\$1,000 ...	330 V, Ni-MH
<b>LEXUS</b>					
RX 400h 2WD .....	AV .....	3.3/6	..33/28 .....	\$1,099 ...	288 V, Ni-MH
<b>TOYOTA</b>					
Highlander Hybrid 2WD .....	AV .....	3.3/6	..33/28 .....	\$1,099 ...	288 V, Ni-MH
<b>SPORT UTILITY VEHICLES 4WD</b>					
<b>FORD</b>					
Escape Hybrid 4WD .....	AV .....	2.3/4	..33/29 .....	\$1,066 ...	330 V, Ni-MH
<b>LEXUS</b>					
RX 400h 4WD .....	AV .....	3.3/6	..31/27 .....	\$1,138 ...	288 V, Ni-MH
<b>MAZDA</b>					
Tribute Hybrid 4WD .....	AV .....	2.3/4	..33/29 .....	\$1,066 ...	330 V, Ni-MH
<b>MERCURY</b>					
Mariner Hybrid 4WD .....	AV .....	2.3/4	..33/29 .....	\$1,066 ...	330 V, Ni-MH
<b>TOYOTA</b>					
Highlander Hybrid 4WD .....	AV .....	3.3/6	..31/27 .....	\$1,138 ...	288 V, Ni-MH

## COMPRESSED NATURAL GAS VEHICLES

This section supplies the driving range and fuel economy values for vehicles that operate on compressed natural gas (CNG). CNG fuel is normally dispensed in "equivalent gallons," where one equivalent gallon is equal to 121.5 cubic feet of CNG. Therefore, the fuel economy values are shown in miles per gallon-equivalent. Annual fuel cost estimates are based on an average fuel price of \$1.25 per gasoline equivalent gallon of CNG.

The driving range is shown in miles and represents the distance the vehicle can travel on a full tank (or tanks) of fuel during combined city and highway driving (55% city and 45% highway).

At the time of printing there were no data available for compressed natural gas vehicles. Please check the Fuel Economy Guide's web site ([www.fueleconomy.gov](http://www.fueleconomy.gov)) for updates.

## ETHANOL FLEXIBLE-FUEL VEHICLES

This section contains the fuel economy and driving range values for ethanol flexible-fuel passenger cars and light trucks. These vehicles are designed to operate on gasoline, E85 (a mixture of 85% ethanol and 15% gasoline), or any mixture of the two fuels. Annual fuel cost is estimated assuming 15,000 miles of travel each year (55% city and 45% highway) and an average fuel cost of \$2.00 per gallon for E85, \$2.20 per gallon for regular unleaded gasoline, and \$2.40 per gallon for premium unleaded gasoline.

Fuel economy and driving range values are shown for both gasoline and E85. When operating your FFV on mixtures of gasoline and E85, such as when alternating between using these fuels, your driving range and fuel economy values will be somewhere between those listed for the two fuels, depending on the actual percentage of gasoline and E85 in the tank.

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range (miles)
<b>MIDSIZE CARS</b>						
<b>CHEVROLET</b>						
Monte Carlo .....	A-4 .....	3.5/6 ..	16/24 ....	\$1,578 ...	E85 .....	330
			21/31 ....	\$1,320 ...	Gas .....	430
<b>CHRYSLER</b>						
Sebring 4-door .....	A-4 .....	2.7/6 ..	15/20 ....	\$1,764 ...	E85 .....	270
			21/28 ....	\$1,376 ...	Gas .....	390
Sebring 4-door (2-Mode) .....	A-4 .....	2.7/6 ..	15/20 ....	\$1,764 ...	E85 .....	270
			21/28 ....	\$1,376 ...	Gas .....	390
<b>DODGE</b>						
Stratus 4-door .....	A-4 .....	2.7/6 ..	15/20 ....	\$1,764 ...	E85 .....	270
			21/28 ....	\$1,376 ...	Gas .....	390
Stratus 4-door (2-Mode) .....	A-4 .....	2.7/6 ..	15/20 ....	\$1,764 ...	E85 .....	270
			21/28 ....	\$1,376 ...	Gas .....	390
<b>LARGE CARS</b>						
<b>CHEVROLET</b>						
Impala .....	A-4 .....	3.5/6 ..	16/23 ....	\$1,578 ...	E85 .....	330
			21/31 ....	\$1,376 ...	Gas .....	410
<b>FORD</b>						
Crown Victoria .....	A-4 .....	4.6/8 ..	12/18 ....	\$2,142 ...	E85 .....	280
			17/25 ....	\$1,650 ...	Gas .....	370
Taurus .....	A-4 .....	3.0/6 ..	15/20 ....	\$1,764 ...	E85 .....	300
			19/27 ....	\$1,502 ...	Gas .....	400
<b>LINCOLN</b>						
Town Car .....	A-4 .....	4.6/8 ..	12/18 ....	\$2,142 ...	E85 .....	280
			17/25 ....	\$1,650 ...	Gas .....	370
<b>MERCURY</b>						
Grand Marquis .....	A-4 .....	4.6/8 ..	12/18 ....	\$2,142 ...	E85 .....	280
			17/25 ....	\$1,650 ...	Gas .....	370
<b>STANDARD PICKUP TRUCKS 2WD</b>						
<b>CHEVROLET</b>						
C1500 Silverado 2WD .....	A-4 .....	5.3/8 ..	12/16 ....	\$2,142 ...	E85 .....	310/480
			16/20 ....	\$1,835 ...	Gas .....	420/610
<b>DODGE</b>						
Ram 1500 Pickup 2WD .....	A-5 .....	4.7/8 ..	9/11 .....	\$3,000 ...	E85 .....	260
			12/15 ....	\$2,538 ...	Gas .....	340
<b>FORD</b>						
F-150 Pickup 2WD FFV .....	A-4 .....	5.4/8 ..	11/14 ....	\$2,499 ...	E85 .....	310
			14/19 ....	\$2,062 ...	Gas .....	420
<b>GMC</b>						
C1500 Sierra 2WD .....	A-4 .....	5.3/8 ..	12/16 ....	\$2,142 ...	E85 .....	310/480
			16/20 ....	\$1,835 ...	Gas .....	420/610
<b>NISSAN</b>						
Titan 2WD .....	A-5 .....	5.6/8 ..	10/14 ....	\$2,499 ...	E85 .....	310/330
			14/19 ....	\$2,062 ...	Gas .....	420/450
<b>STANDARD PICKUP TRUCKS 4WD</b>						
<b>CHEVROLET</b>						
K1500 Silverado 4WD .....	A-4 .....	5.3/8 ..	11/14 ....	\$2,307 ...	E85 .....	310/440
			15/19 ....	\$2,062 ...	Gas .....	420/580

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range (miles)
<b>DODGE</b>						
Ram 1500 Pickup 4WD .....	A-5 .....	4.7/8 ..	9/11 .....	\$3,000 ...	E85 .....	260
			12/15 ....	\$2,538 ...	Gas .....	340
<b>FORD</b>						
F-150 Pickup 4WD FFV .....	A-4 .....	5.4/8 ..	10/13 ....	\$2,727 ...	E85 .....	290
			14/18 ....	\$2,201 ...	Gas .....	390
<b>GMC</b>						
K1500 Sierra 4WD .....	A-4 .....	5.3/8 ..	11/14 ....	\$2,307 ...	E85 .....	310/440
			15/19 ....	\$2,062 ...	Gas .....	420/580
<b>NISSAN</b>						
Titan 4WD .....	A-5 .....	5.6/8 ..	10/13 ....	\$2,727 ...	E85 .....	310/330
			14/18 ....	\$2,201 ...	Gas .....	420/450
<b>MINIVANS 2WD</b>						
<b>DODGE</b>						
Caravan 2WD .....	A-4 .....	3.3/6 ..	13/17 ....	\$2,142 ...	E85 .....	280
			19/26 ....	\$1,571 ...	Gas .....	420
<b>SPORT UTILITY VEHICLES 2WD</b>						
<b>CHEVROLET</b>						
C1500 Avalanche 2WD .....	A-4 .....	5.3/8 ..	11/14 ....	\$2,499 ...	E85 .....	310/480
			14/19 ....	\$2,062 ...	Gas .....	420/610
C1500 Suburban 2WD .....	A-4 .....	5.3/8 ..	11/14 ....	\$2,499 ...	E85 .....	310/480
			14/19 ....	\$2,062 ...	Gas .....	420/610
C1500 Tahoe 2WD .....	A-4 .....	5.3/8 ..	11/15 ....	\$2,307 ...	E85 .....	310/480
			15/20 ....	\$1,940 ...	Gas .....	420/610
<b>DODGE</b>						
Durango 2WD .....	A-5 .....	4.7/8 ..	9/11 .....	\$3,000 ...	E85 .....	260
			12/15 ....	\$2,538 ...	Gas .....	340
<b>GMC</b>						
C1500 Yukon 2WD .....	A-4 .....	5.3/8 ..	11/15 ....	\$2,307 ...	E85 .....	310/480
			15/20 ....	\$1,940 ...	Gas .....	420/610
C1500 Yukon XL 2WD .....	A-4 .....	5.3/8 ..	11/14 ....	\$2,499 ...	E85 .....	310/480
			14/19 ....	\$2,062 ...	Gas .....	420/610
<b>SPORT UTILITY VEHICLES 4WD</b>						
<b>CHEVROLET</b>						
K1500 Avalanche 4WD .....	A-4 .....	5.3/8 ..	11/14 ....	\$2,499 ...	E85 .....	310/440
			14/18 ....	\$2,062 ...	Gas .....	420/580
K1500 Suburban 4WD .....	A-4 .....	5.3/8 ..	11/14 ....	\$2,499 ...	E85 .....	310/440
			14/18 ....	\$2,062 ...	Gas .....	420/580
K1500 Tahoe 4WD .....	A-4 .....	5.3/8 ..	11/14 ....	\$2,499 ...	E85 .....	310/440
			14/18 ....	\$2,062 ...	Gas .....	420/580
<b>DODGE</b>						
Durango 4WD .....	A-5 .....	4.7/8 ..	9/11 .....	\$3,000 ...	E85 .....	260
			12/15 ....	\$2,538 ...	Gas .....	340
<b>GMC</b>						
K1500 Yukon 4WD .....	A-4 .....	5.3/8 ..	11/14 ....	\$2,499 ...	E85 .....	310/440
			14/18 ....	\$2,062 ...	Gas .....	420/580
K1500 Yukon XL 4WD .....	A-4 .....	5.3/8 ..	11/14 ....	\$2,499 ...	E85 .....	310/440
			14/18 ....	\$2,062 ...	Gas .....	420/580

## FUEL CELL VEHICLES

Fuel cell vehicles (FCVs) may not reach the mass market for a decade or more, but a limited number will be available for sale or lease in 2005-06 to demonstration fleets in areas with a readily accessible hydrogen supply. FCVs are propelled by electric motors powered by fuel cells, which produce electricity from the chemical energy of hydrogen. Fuel cell technology is more efficient than internal combustion engines and environmentally cleaner—the only byproduct of a hydrogen fuel cell is water. However, many challenges must be overcome before FCVs are mass-marketed and sold at local dealerships. For more information about FCVs, visit [www.fueleconomy.gov](http://www.fueleconomy.gov) and the Hydrogen, Fuel Cells & Infrastructure Technologies Program Web site at [www.eere.energy.gov/hydrogenandfuelcells/](http://www.eere.energy.gov/hydrogenandfuelcells/).

Motor	Energy Storage Device	Fuel	Miles per Kilogram (City/Hwy)	Range (miles)	
<b>SUBCOMPACT CARS</b>					
<b>HONDA</b>					
FCX	80 kW DC Brushless	Ultra Capacitor, 9.2 Farad	Hydrogen	62/51	210
<b>MERCEDES-BENZ</b>					
F-Cell	65 kW Induction	200 V Ni-MH Battery	Hydrogen	57-58	100
<b>COMPACT CARS</b>					
<b>FORD</b>					
Focus FWD	65 kW AC Induction	216 V Ni-MH	Hydrogen	48/53	200

kw = kilowatts; DC = direct current; AC = alternating current

## DIESEL VEHICLES

Diesel-powered vehicles typically get 30-35% more miles per gallon than comparable vehicles powered by gasoline. Diesel engines are inherently more energy efficient, and diesel fuel contains 10% more energy per gallon than gasoline. In addition, new advances in diesel engine technology have improved performance, reduced engine noise and fuel odor, and decreased emissions of harmful air pollutants. New low-sulfur diesel fuels available beginning in 2006 will help reduce emissions from these vehicles even more.

Annual fuel costs below are estimated assuming 15,000 miles of travel each year (55% city and 45% highway) and a diesel fuel cost of \$2.05 per gallon.

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Notes / Abbreviations
<b>SUBCOMPACT CARS</b>					
<b>VOLKSWAGEN</b>					
New Beetle	M-5	1.9/4	37/44	\$769	T
	A-S6	1.9/4	35/42	\$809	T
<b>COMPACT CARS</b>					
<b>VOLKSWAGEN</b>					
Golf	M-5	1.9/4	37/44	\$769	T
	A-S5	1.9/4	33/44	\$830	T
Jetta	M-5	1.9/4	36/41	\$809	T
	A-S6	1.9/4	35/42	\$809	T

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Notes / Abbreviations
<b>MIDSIZE CARS</b>					
<b>MERCEDES-BENZ</b>					
E320 CDI	A-5	3.2/6	27/37	\$1,024	T
<b>SPORT UTILITY VEHICLES 4WD</b>					
<b>JEEP</b>					
Liberty/Cherokee 4WD	A-5	2.8/4	22/26	\$1,338	