

COMPRESSED NATURAL GAS VEHICLES

This section supplies the driving range and fuel economy values for vehicles designed to be operated on compressed natural gas (CNG). For bi-fuel vehicles, the values for both gasoline and CNG are shown. Bi-fuel vehicles are designed to be operated on either of two fuels, in separate tanks, and can switch between the two.

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 \$1.30 per gallon of CNG and \$1.55 per gallon of gasoline.

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).

	Trans Type / Speeds	Engine Size / Cylinders	MPG City/Hwy	Annual Fuel Cost	Fuel	Range
SUBCOMPACT CARS						
CHEVROLET						
Cavalier	A-L4 ...	2.2/4 ...	23/32 ...	\$751 ...	CNG	130**
			24/33 ...	\$830 ...	Gas	400**

	Trans Type / Speeds	Engine Size / Cylinders	MPG City/Hwy	Annual Fuel Cost	Fuel	Range
COMPACT CARS						
HONDA						
Civic (Nat'l Gas)	A-AV ...	1.7/4 ...	NA*	NA*	CNG	NA*

	Trans Type / Speeds	Engine Size / Cylinders	MPG City/Hwy	Annual Fuel Cost	Fuel	Range
LARGE CARS						
FORD						
Crown Victoria (Nat'l gas) ..	A-4	4.6/8 ...	NA*	NA*	CNG	NA*

	Trans Type / Speeds	Engine Size / Cylinders	MPG City/Hwy	Annual Fuel Cost	Fuel	Range
STANDARD PICKUP TRUCKS 2WD						
CHEVROLET						
C2500 Silverado 2WD	A-4	6.0/8 ..	10/12 ..	\$1,773 ...	CNG	180
			10/12 ..	\$2,113 ...	Gas	370
FORD						
F150 (Nat'l Gas)	A-4	5.4/8 ...	12/16 ..	\$1,392 ...	CNG	250
F150 Pickup 2WD (Bi-Fuel) ..	A-4	5.4/8 ...	NA*	NA*	CNG	NA*
			NA*	NA*	Gas	NA*

	Trans Type / Speeds	Engine Size / Cylinders	MPG City/Hwy	Annual Fuel Cost	Fuel	Range
STANDARD PICKUP TRUCKS 4WD						
FORD						
F150 Pickup 4WD (Bi-Fuel) ..	A-4	5.4/8 ...	NA*	NA*	CNG	NA*
			NA*	NA*	Gas	NA*

	Trans Type / Speeds	Engine Size / Cylinders	MPG City/Hwy	Annual Fuel Cost	Fuel	Range
VANS, CARGO TYPE						
DODGE						
Ram 2500 Van 2WD	A-L4 ...	5.2/8 ...	11/19 ..	\$1,392 ...	CNG	230

* The fuel economy (mpg) values and driving ranges are not available for some models as of press time. See www.fueleconomy.gov for updated information.

LIQUEFIED PETROLEUM GAS (PROPANE) VEHICLES

This section contains the estimated city and highway fuel economy values and the driving range for passenger cars and light trucks designed to be operated on liquefied petroleum gas (LPG), which is commonly known as propane. For bi-fuel vehicles, both the gasoline and the LPG mpg values and driving ranges are listed, if available. Bi-fuel LPG vehicles have two fuel tanks. Annual fuel cost estimates are based on an average fuel price of \$1.30 per gallon of LPG and \$1.55 per gallon of gasoline.

	Trans Type / Speeds	Engine Size / Cylinders	MPG City/Hwy	Annual Fuel Cost	Fuel	Range
STANDARD PICKUP TRUCKS 2WD						
FORD						
F150 Pickup 2WD (Bi-Fuel) ..	A-4	5.4/8 ...	11/15 ..	\$1,500 ...	LPG	270/240/340*
			14/19 ..	\$1,453 ...	Gas	480/400**
STANDARD PICKUP TRUCKS 4WD						
FORD						
F150 Pickup 4WD (Bi-Fuel) ..	A-4	5.4/8 ...	11/15 ..	\$1,500 ...	LPG	270/240/340*
			14/19 ..	\$1,453 ...	Gas	480/400**

* Driving ranges are shown for regular cab models, super cab models, and an optional fuel tank available for both models, respectively.

** Driving range shown for regular cab and super cab models, respectively.

ABBREVIATIONS:

A- Automatic Transmission
 A-S Special Automatic Transmission
 AV Continuously Variable Transmission
 City MPG on City Test Procedure

CNG Compressed Natural Gas
 Conv Convertible
 E85 85% Ethanol/15% Gasoline
 Eng Size Engine Volume in Liters
 FFV Flexible Fuel Vehicle

Hwy MPG on Highway Test Procedure
 LPG Liquefied Petroleum Gas
 M- Manual Transmission
 NA Not Available
 Trans Transmission Type

DIESEL VEHICLES

This section contains fuel economy values for diesel-fueled vehicles. Diesel fuel contains approximately 10% more energy per gallon than gasoline. In addition, diesel engines have higher compression ratios, run “lean,” and are unthrottled, giving them a substantial fuel economy advantage over gasoline engines. Annual fuel cost is estimated assuming 15,000 miles of travel each year (55% city and 45% highway) and a diesel fuel cost of \$1.40 per gallon.

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Notes / Abbreviations
SUBCOMPACT CARS					
VOLKSWAGEN					
New Beetle (diesel)	A-4	1.9/4 ..	34/44 ..	\$552	
.....	M-5	1.9/4 ..	42/49 ..	\$466	

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Notes / Abbreviations
SMALL STATION WAGONS					
VOLKSWAGEN					
Jetta Wagon (diesel)	A-4	1.9/4 ..	34/45 ..	\$552	
.....	M-5	1.9/4 ..	42/50 ..	\$466	

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Notes / Abbreviations
COMPACT CARS					
VOLKSWAGEN					
Golf (diesel)	A-4	1.9/4 ..	34/45 ..	\$552	
.....	M-5	1.9/4 ..	42/49 ..	\$466	
Jetta (diesel)	A-4	1.9/4 ..	34/45 ..	\$552	
.....	M-5	1.9/4 ..	42/49 ..	\$466	

ELECTRIC VEHICLES

This section contains the driving range and fuel economy values for fully electric-powered passenger vehicles. The fuel economy values for electric vehicles are shown in kilowatt-hours per 100 miles, instead of miles per gallon. **A lower number of kilowatt-hours means a more efficient vehicle.**

The driving range is shown in miles and represents the maximum distance the vehicle can travel under optimum conditions before the battery needs recharging. The actual energy consumption and range of the vehicle will vary depending on driving conditions, battery condition, and accessory usage, and is strongly affected by outside temperature and the use of heating and air conditioning. Fuel costs will vary considerably because of the differences in electricity costs across the United States.

You can calculate the fuel cost (in dollars) of driving your electric vehicle for a year by multiplying the energy consumption for the vehicle as listed below (in kilowatt-hours/100 miles) by your local electricity rate (in dollars per kilowatt-hour), multiplying that by the annual miles the vehicle will be driven, and dividing by 100.

Check with your dealer for availability, as some electric vehicles may be offered for sale or lease only in certain parts of the country.

	Battery	Motor	City/Hwy	Fuel	Range
SPORT UTILITY VEHICLE 2WD					
TOYOTA					
RAV4 EV	Nickel Metal Hydride	50 kW AC*	27/34	Elec	136

RAV4 electric vehicles are available to fleet buyers in Massachusetts, New York and Vermont, and to anyone in California.

* Kilowatts of alternating current

ABBREVIATIONS: A- Automatic Transmission A-S Special Automatic Transmission AV Continuously Variable Transmission City MPG on City Test Procedure	Conv Convertible D Diesel Elec Electric Vehicle Eng Size Engine Volume in Liters FFV Flexible Fuel Vehicle	Hwy MPG on Highway Test Procedure M- Manual Transmission NA Not Available T Turbocharger/Supercharger Trans Transmission Type
--	--	---

ETHANOL FLEXIBLE-FUEL VEHICLES

This section contains the driving range and fuel economy values for ethanol flexible-fuel passenger cars and light trucks. Ethanol flexible-fuel 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 \$1.80 per gallon of E85 and \$1.55 per gallon of gasoline.

The driving range and fuel economy 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.

COMPACT CARS

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
CHRYSLER						
Sebring Conv.	A-L4 ...	2.7/6.	21/28	\$1,011 ..	Gas ..	390
			16/20	\$1,588 ..	E85 ..	270

MIDSIZE CARS

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
CHRYSLER						
Sebring 4-DR	A-L4 ...	2.7/6.	21/28	\$1,011 ..	Gas ..	390
			16/20	\$1,588 ..	E85 ..	270

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
DODGE						
Stratus 4-DR	A-L4 ...	2.7/6.	21/28	\$1,011 ..	Gas ..	390
			16/20	\$1,588 ..	E85 ..	270

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
MERCURY						
Sable	A-L4 ...	3.0/6.	19/27	\$1,058 ..	Gas ..	400
			14/20	\$1,688 ..	E85 ..	290

LARGE CARS

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
FORD						
Taurus	A-L4 ...	3.0/6.	19/27	\$1,058 ..	Gas ..	400
			14/20	\$1,688 ..	E85 ..	290

MIDSIZE STATION WAGONS

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
FORD						
Taurus Wagon FFV	A-L4 ...	3.0/6.	19/26	\$1,107 ..	Gas ..	380
			14/19	\$1,688 ..	E85 ..	290

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
MERCURY						
Sable Wagon FFV	A-L4 ...	3.0/6.	19/26	\$1,107 ..	Gas ..	380
			14/19	\$1,688 ..	E85 ..	290

STANDARD PICKUP TRUCKS 2WD

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
CHEVROLET						
C1500 Silverado 2WD ..	A-L4 ...	5.3/8.	15/19	\$1,367 ..	Gas ..	420/560*
			11/14	\$2,249 ..	E85 ..	310/390*

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
FORD						
Ranger 2WD FFV	A-L5 ...	3.0/6.	17/21	\$1,223 ..	Gas ..	370
			13/16	\$1,928 ..	E85 ..	270

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
GMC						
C1500 Sierra 2WD	A-L4 ...	5.3/8.	15/19	\$1,367 ..	Gas ..	420/560*
			11/14	\$2,249 ..	E85 ..	310/390*

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
MAZDA						
B3000 2WD FFV	A-L5 ...	3.0/6.	17/21	\$1,223 ..	Gas ..	370
			13/16	\$1,928 ..	E85 ..	270

STANDARD PICKUP TRUCKS 4WD

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
CHEVROLET						
K1500 Silverado 4WD ..	A-L4 ...	5.3/8.	13/17	\$1,551 ..	Gas ..	380/510*
			10/12	\$2,454 ..	E85 ..	280/380*

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
GMC						
K1500 Sierra 4WD	A-L4 ...	5.3/8.	13/17	\$1,551 ..	Gas ..	380/510*
			10/12	\$2,454 ..	E85 ..	280/380*

* Driving ranges are shown for standard and optional fuel tanks.

MINIVANS 2WD

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
CHRYSLER						
Voyager 2WD	A-L4 ...	3.3/6.	20/26	\$1,058 ..	Gas ..	400
			13/17	\$1,928 ..	E85 ..	280
Voyager/Town&Country	A-L4 ...	3.3/6.	18/25	\$1,162 ..	Gas ..	400
			13/17	\$1,928 ..	E85 ..	280

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
DODGE						
Caravan 2WD	A-L4 ...	3.3/6.	19/26	\$1,058 ..	Gas ..	400
			13/17	\$1,928 ..	E85 ..	280

SPORT UTILITY VEHICLES 2WD

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
CHEVROLET						
C1500 Avalanche 2WD	A-L4 ...	5.3/8.	14/18	\$1,551 ..	Gas ..	420/560*
			10/13	\$2,249 ..	E85 ..	310/390*
C1500 Suburban 2WD	A-L4 ...	5.3/8.	14/18	\$1,551 ..	Gas ..	420/560*
			10/13	\$2,249 ..	E85 ..	310/390*
C1500 Tahoe 2WD	A-L4 ...	5.3/8.	14/19	\$1,453 ..	Gas ..	420/560*
			11/14	\$2,249 ..	E85 ..	310/390*

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
FORD						
Explorer 2WD FFV	A-L5 ...	4.0/6.	15/21	\$1,367 ..	Gas ..	300
			11/16	\$2,076 ..	E85 ..	230

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
GMC						
C1500 Yukon 2WD	A-L4 ...	5.3/8.	14/19	\$1,453 ..	Gas ..	420/560*
			11/14	\$2,249 ..	E85 ..	310/390*
C1500 Yukon XL 2WD ..	A-L4 ...	5.3/8.	14/18	\$1,551 ..	Gas ..	420/560*
			10/13	\$2,249 ..	E85 ..	310/390*

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
MERCURY						
Mountaineer 2WD FFV	A-L5 ...	4.0/6.	15/21	\$1,367 ..	Gas ..	380
			11/16	\$2,076 ..	E85 ..	290

SPORT UTILITY VEHICLES 4WD

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
CHEVROLET						
K1500 Avalanche 4WD	A-L4 ...	5.3/8.	14/18	\$1,453 ..	Gas ..	380/510*
			10/13	\$2,249 ..	E85 ..	280/380*
K1500 Avalanche AWD	A-L4 ...	5.3/8.	14/18	\$1,453 ..	Gas ..	380/510*
			10/13	\$2,249 ..	E85 ..	280/380*
K1500 Suburban 4WD	A-L4 ...	5.3/8.	14/18	\$1,453 ..	Gas ..	380/510*
			10/13	\$2,249 ..	E85 ..	280/380*
K1500 Suburban AWD	A-L4 ...	5.3/8.	14/18	\$1,453 ..	Gas ..	380/510*
			10/13	\$2,249 ..	E85 ..	280/380*
K1500 Tahoe 4WD	A-L4 ...	5.3/8.	14/18	\$1,453 ..	Gas ..	380/510*
			10/13	\$2,249 ..	E85 ..	280/380*
K1500 Tahoe AWD	A-L4 ...	5.3/8.	14/18	\$1,453 ..	Gas ..	380/510*
			10/13	\$2,249 ..	E85 ..	280/380*

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
FORD						
Explorer 4WD FFV	A-L5 ...	4.0/6.	15/21	\$1,367 ..	Gas ..	380
			11/15	\$2,249 ..	E85 ..	270

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
GMC						
K1500 Yukon 4WD	A-L4 ...	5.3/8.	14/18	\$1,453 ..	Gas ..	380/510*
			10/13	\$2,249 ..	E85 ..	280/380*
K1500 Yukon AWD	A-L4 ...	5.3/8.	14/18	\$1,453 ..	Gas ..	380/510*
			10/13	\$2,249 ..	E85 ..	280/380*
K1500 Yukon XL 4WD ..	A-L4 ...	5.3/8.	14/18	\$1,453 ..	Gas ..	380/510*
			10/13	\$2,249 ..	E85 ..	280/380*
K1500 Yukon XL AWD ..	A-L4 ...	5.3/8.	14/18	\$1,453 ..	Gas ..	380/510*
			10/13	\$2,249 ..	E85 ..	280/380*

	Trans Type / Speeds	Eng Size / Cylinders	MPG City / Hwy	Annual Fuel Cost	Fuel	Range
MERCURY						
Mountaineer 4WD FFV	A-L5 ...	4.0/6.	15/20	\$1,367 ..	Gas ..	380
			11/15	\$2,076 ..	E85 ..	290

ABBREVIATIONS:	City	MPG on City Test Procedure	Hwy	MPG on Highway Test Procedure
A-	Conv	Convertible	M-	Manual Transmission
A-S	E85	85% Ethanol/15% Gasoline	NA	Not Available
AV	Eng Size	Engine Volume in Liters	Trans	Transmission Type
	FFV	Flexible Fuel Vehicle		

FUEL CELL VEHICLES

ADVANCED TRANSPORTATION TECHNOLOGY

THE CHALLENGES AHEAD

Although fuel cell vehicles (FCVs) are not expected to reach the mass market before 2010, a limited number will be available for sale or lease to demonstration fleets in 2003-4. Vehicle availability will be restricted to drivers in certain parts of the country with a readily accessible hydrogen supply. The vehicle listed below is the first FCV to be emission-certified by EPA.

Much work remains before FCVs can be mass-marketed and sold at local dealerships. Significant research and development is required to reduce costs and improve performance in areas such as driving range, cold-weather operation, and durability. A new refueling infrastructure will be required to make hydrogen fuel widely available to consumers.

FCVs represent a radical departure from conventional vehicles with internal combustion engines. They use emerging technology with the potential to substantially reduce harmful emissions, as well as energy use and our dependence on foreign oil. Like battery-electric vehicles, FCVs are propelled by electric motors. The important difference, however, is that rather than storing electricity by recharging batteries, fuel cells produce electricity directly from the chemical energy of hydrogen fuel.

Automakers, fuel cell developers, component suppliers, government agencies, and others are working hard to accelerate the introduction of FCVs. In fact, partnerships such as the DOE-led FreedomCAR Initiative and the California Fuel Cell Partnership have been formed to encourage private companies and government agencies to work together to prove this technology's viability and move FCVs toward widespread commercialization. For more information about FCVs and links to fuel cell web sites, please visit www.fueleconomy.gov/feg/fuelcell.shtml.

FCVs are more efficient than vehicles with internal combustion engines, and the only by-product of a hydrogen fuel cell is water. Like hybrid-electric and battery-electric vehicles, FCVs may also incorporate other advanced automotive technologies to increase efficiency.

FCVs can store hydrogen on-board or can be equipped to produce hydrogen on-board from a liquid fuel like gasoline or alcohol; if hydrogen is stored on-board.

Fuel Cell	Motor	Miles per KG of Hydrogen City/Hwy	Energy Storage Device	Fuel	Range
COMPACT CAR					
HONDA					
FCX	Proton Exchange Membrane	60kW DC*	51/48	Ultra Capacitor	Hydrogen 170 miles

* Kilowatts of direct current

Availability: A limited number of 2003 Honda FCX fuel cell vehicles (approximately 10 vehicles) are expected to be available for lease to certain customers in the southern California area.