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## WHY BUY A FUEL-EFFICIENT VEHICLE?

By choosing the most fuel-efficient vehicle in a particular vehicle class, you could save yourself more than \$1,500 in fuel costs and prevent the release of roughly 15 tons of greenhouse gas pollution over the lifetime of the vehicle. Fuel-efficient models come in all shapes and sizes, so you need not sacrifice utility or size to make a difference. On page six you'll find fuel economy values for 2002 model year vehicles, a comprehensive list of the fuel economy of most vehicles on the market. As you browse through it, note the vehicles listed in bold face. These are the most fuel-efficient models of each class.

## MODEL YEAR 2002 FUEL ECONOMY LEADERS

Listed below are vehicles with the highest fuel economy in the most popular classes, including both vehicles with automatic and manual transmissions. Please note that many vehicle models come in a range of engine sizes and trim lines, resulting in different fuel economy values. Check the Fuel Economy Guide or the fuel economy sticker on new vehicles to find the values for each vehicle.

### TWO-SEATER CARS

Honda Insight (hybrid electric) .....	manual transmission .....	61/68
.....	automatic transmission .....	57/56

### MINICOMPACT CARS

Audi TT Coupe .....	manual transmission .....	23/31
Mitsubishi Eclipse Spyder .....	automatic transmission .....	20/26

### SUBCOMPACT CARS

Volkswagen New Beetle (diesel) .....	manual transmission .....	42/49
Honda Civic HX .....	automatic transmission .....	35/40

### COMPACT CARS

Toyota Prius (hybrid electric) .....	automatic transmission .....	52/45
Volkswagen Golf (diesel) .....	manual transmission .....	42/49
Volkswagen Jetta (diesel) .....	manual transmission .....	42/49

### MIDSIZE CARS

Honda Accord .....	manual transmission .....	26/32
Mazda 626 .....	manual transmission .....	26/32
Saturn L100/200 .....	automatic transmission .....	24/33

### LARGE CARS

Chevrolet Impala .....	automatic transmission .....	21/32
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### SMALL STATION WAGONS

Volkswagen Jetta Wagon (diesel) .....	manual transmission .....	42/50
.....	automatic transmission .....	34/45

### MIDSIZE STATION WAGONS

Ford Focus Station Wagon .....	manual transmission .....	28/36
.....	automatic transmission .....	26/32

### CARGO VANS

Chevrolet Astro 2WD .....	automatic transmission .....	17/22
GMC Safari 2WD .....	automatic transmission .....	17/22

### MINIVANS

Chevrolet Venture FWD .....	automatic transmission .....	19/26
Oldsmobile Silhouette FWD .....	automatic transmission .....	19/26
Pontiac Montana FWD .....	automatic transmission .....	19/26

### PASSENGER VANS

Chevrolet Astro 2WD .....	automatic transmission .....	15/20
GMC Safari 2WD .....	automatic transmission .....	15/20

### SUV

Toyota Rav4 .....	manual transmission .....	25/31
.....	automatic transmission .....	24/29

### SMALL PICKUP TRUCKS

Chevrolet S10 Picvkup 2WD FFV .....	manual transmission .....	22/28*
.....	automatic transmission .....	19/25
GMC Sonoma 2WD FFV .....	manual transmission .....	22/28*
.....	automatic transmission .....	19/25
Isuzu Hombre Pickup 2WD FFV .....	manual transmission .....	22/28*
.....	automatic transmission .....	19/25

### STANDARD PICKUP TRUCKS

Ford Ranger Pickup 2WD .....	manual transmission .....	24/28
Mazda B2300 2WD .....	manual transmission .....	24/28
Toyota Tacoma 2WD .....	automatic transmission .....	22/25

\* when operated on gasoline

## FUEL ECONOMY ESTIMATES

Fuel economy estimates are determined by averaging numbers gathered through tests conducted by the U.S. Environmental Protection Agency (EPA). Vehicles in each class are tested in a controlled setting, and the results are adjusted to suit real-world driving conditions. All vehicles are tested in the same manner so you can compare the results of each with confidence. The U.S. Department of Energy (DOE) prints this guide in an effort to aid consumers.

## WHY SOME VEHICLES ARE NOT IN THIS GUIDE

Some larger vans, pickup trucks, and sport utility vehicles (SUVs) belong in the heavy-duty vehicle category, which contains vehicles that weigh more than 8,500 lbs. gross vehicle weight (GVW). Fuel economy regulations do not apply to these types of vehicles. Therefore, fuel-economy labels are not posted in their windows and they are not covered in this guide. For more information on this type of vehicle class, please visit DOE's Office of Heavy Vehicle Technologies web site at [www.ott.doe.gov/ohvt/](http://www.ott.doe.gov/ohvt/).

## WHY YOUR FUEL ECONOMY CAN VARY

No test can simulate all possible combinations of conditions: traffic conditions, climate, driver behavior, and car-care habits. Actual fuel economy depends on how, when, and where a vehicle is driven. EPA has found that fuel economy obtained by most drivers will be within a few miles per gallon (mpg) of the estimates in this guide.

## THERE ARE TWO FUEL ECONOMY ESTIMATES FOR EACH VEHICLE

**City** represents urban driving where the vehicle is started in the morning after being parked all night and driven in stop-and-go rush-hour traffic.

**Highway** represents a mixture of rural and interstate highway driving in warmed-up vehicles typical for longer trips.

## VEHICLE CLASSES USED IN THIS GUIDE

### CARS

(based on interior passenger and cargo volume)

#### TWO-SEATER CARS

##### SEDANS

Minicompact

Subcompact

Compact

Midsize

Large

##### Passenger and Cargo Volume

Under 85 Cubic Feet

85 to 99 Cubic Feet

100 to 109 Cubic Feet

110 to 119 Cubic Feet

120 or More Cubic Feet

##### STATION WAGONS

Small

Midsize

Large

##### Passenger and Cargo Volume

Under 130 Cubic Feet

130 to 159 Cubic Feet

160 or More Cubic Feet

### TRUCKS

(based on body style and load-bearing capacity)

#### PICKUP TRUCKS

Small

2 Wheel Drive

4 Wheel Drive

Standard

2 Wheel Drive

4 Wheel Drive

#### Gross Vehicle Weight Rating

Under 4,500 Pounds

4,500 to 8,500 Pounds

#### VANS

Passenger

Cargo

Under 8,500 Pounds

#### SPECIAL PURPOSE VEHICLES

##### MINIVANS

2 Wheel Drive

4 Wheel Drive

Under 8,500 Pounds

##### SPORT UTILITY VEHICLES

2 Wheel Drive

4 Wheel Drive

Under 8,500 Pounds

## WWW.FUELECONOMY.GOV

Produced in partnership by DOE and EPA, the fuel economy web site, [www.fueleconomy.gov](http://www.fueleconomy.gov), allows users to conveniently locate the safest, cleanest, and most fuel-efficient vehicle to meet their needs. It has all of the information provided in the print edition of the Fuel Economy Guide, plus much more! Listed here are just a few of the site's many dynamic features.

- ◆ Find safety and emissions information in addition to fuel economy data for specific vehicles
- ◆ Search for specific vehicles by class, make, model, and gas mileage
- ◆ Compare up to three vehicles at one time
- ◆ Calculate annual fuel cost for new and used vehicles dating back to 1985
- ◆ Print the entire Fuel Economy Guide
- ◆ Link to car-buying web sites
- ◆ Use gasoline price page to find links to national and regional fuel price information
- ◆ Learn answers to frequently asked questions on fuel pricing
- ◆ Link to sites that will help you find the lowest gas prices in your city
- ◆ Learn tips for improving gas mileage
- ◆ Find consumer data that tracks where the money goes after you spend it at the pump
- ◆ Learn about alternative fuel vehicles and advanced technologies
- ◆ Learn about future technologies such as fuel cells, aerodynamic design, and lightweight materials
- ◆ Read about air pollution, global warming, and oil spills

## GAS GUZZLER TAX

The Gas Guzzler Tax which is marked with "Tax" in this guide applies to passenger cars of exceptionally low fuel economy. To discourage the production and sale of these cars, the government requires auto companies to pay a tax. The words "Gas Guzzler" and the amount of the tax are listed on the vehicle's fuel economy label. The gas guzzler tax does not apply to light trucks.

## TIPS FOR IMPROVING FUEL ECONOMY

- ◆ Combine errands into one trip.
- ◆ Avoid carrying excess weight.
- ◆ Obey posted speed limits. Traveling at 80 instead of 70 mph reduces your mileage by over 10%.
- ◆ Anticipate traffic situations -- avoid jackrabbit starts and unnecessary braking.
- ◆ Turn your engine off rather than letting it idle for more than a minute.
- ◆ Keep tires inflated to the manufacturer's recommended maximum pressure and the wheels properly aligned.
- ◆ Keep your engine tuned, your air filter clean, and use low-friction fuel-saver engine oils.
- ◆ Maintain adequate fluid levels.

## WHY FUEL ECONOMY IS IMPORTANT

### HOW FUEL ECONOMY AFFECTS OUR NATIONAL ENERGY SECURITY

Reducing our dependence on imported oil is crucial to strengthening our national energy security. Today the United States imports 54% of its oil—an all time high—and that percentage is expected to increase for years into the future, as worldwide demand for oil continues to grow.

What's more, transportation accounts for two-thirds of U.S. annual petroleum consumption, using four million more barrels a day than we produce. Our imported petroleum bill has reached \$2 billion dollars a week, mostly to satisfy our growing thirst for transportation fuel.

Buying a more fuel-efficient vehicle can help reduce U.S. petroleum dependence today and will help create incentives for carmakers to produce cleaner, more energy-efficient technologies in the future.

### HOW FUEL ECONOMY AFFECTS CLIMATE CHANGE

Burning fossil fuels such as gasoline or diesel adds greenhouse gases to the earth's atmosphere. Scientific evidence strongly suggests that the rapid buildup of greenhouse gases in the atmosphere is raising the earth's temperature and changing its climate leaving us vulnerable to many potentially serious consequences.

Vehicles with lower fuel economy create more carbon dioxide—the most important human-made greenhouse gas—than vehicles with higher fuel economy. **Every gallon of gasoline your vehicle burns puts 20 pounds of carbon dioxide into the atmosphere.**

One of the most important things you can do to reduce your contribution to global warming is buy a vehicle with higher fuel economy. Choosing a vehicle that gets 25 mpg rather than 20 mpg will prevent the release of roughly 15 tons of greenhouse gas pollution over the lifetime of your vehicle.

## HYBRID-ELECTRIC VEHICLES

It's no accident that this year, the three vehicles achieving the highest fuel economy are hybrid-electric vehicles. Hybrid electric vehicles combine the best features of internal combustion engines and electric motors.

In the Honda Insight models and Toyota Prius, both the engine and the electric motor are connected to the wheels by the same transmission. With the assistance of the the electric motor, the engine can be smaller.

Intelligent power electronics decide when to use the motor and engine and when to store electricity in advanced batteries for future use. The electric motor is used primarily for low speed cruising or to provide extra power for acceleration or hill climbing.

When braking or coasting to a stop, the hybrid uses its electric motor as a generator to produce electricity, which is then stored in its battery pack.

Unlike all electric vehicles, hybrid vehicles do not need to be plugged into an external source of electricity. Gasoline stored in a conventional fuel tank provides all the energy the hybrid-electric vehicle needs.

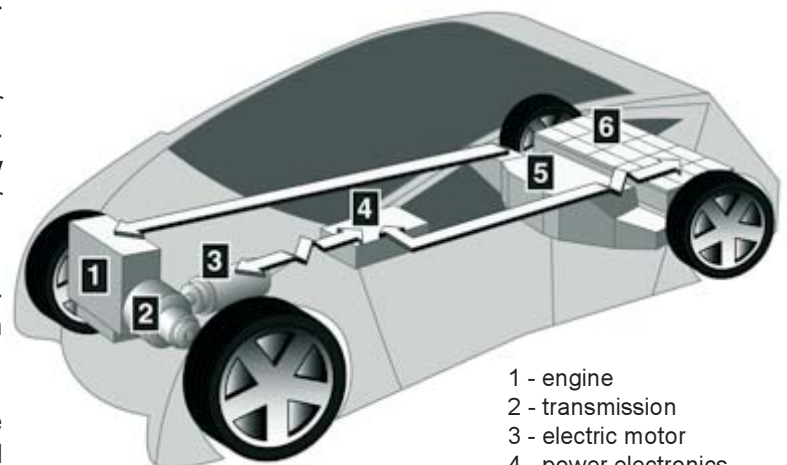
Additional information on hybrid electric vehicles may be found at these web sites:

[www.ott.doe.gov/hev/](http://www.ott.doe.gov/hev/)

[www.honda2001.com/models/insight/index.html?honda=intro](http://www.honda2001.com/models/insight/index.html?honda=intro)

[www.prius.toyota.com/](http://www.prius.toyota.com/)

[www.howstuffworks.com/hybrid-car.htm](http://www.howstuffworks.com/hybrid-car.htm)



- 1 - engine
- 2 - transmission
- 3 - electric motor
- 4 - power electronics
- 5 - fuel tank
- 6 - battery pack

## FUEL ECONOMY AND YOUR ANNUAL FUEL COSTS

Use this chart to compare estimated annual fuel costs among vehicles. This will allow you to get an idea of the money you can save each year by choosing a vehicle with better fuel economy. To estimate your annual fuel cost, based on driving 15,000 miles per year, look up the city fuel economy of the vehicle in the guide. Find that mpg in the left column of this chart and move across the line to find the estimated total annual fuel cost based on your fuel cost per gallon. If the vehicle listing indicates "P" for premium gasoline, be sure to use a higher cost per gallon than for vehicles using regular gasoline.

Consumers will find a fuel cost calculator and vehicle-specific annual fuel cost information at [www.fueleconomy.gov](http://www.fueleconomy.gov).

### ANNUAL FUEL COSTS BASED ON 15,000 MILES PER YEAR

mpg	Dollars per Gallon								
	\$2.80	\$2.60	\$2.40	\$2.20	\$2.00	\$1.80	\$1.60	\$1.40	\$1.20
70	\$600	\$557	\$514	\$471	\$429	\$386	\$343	\$300	\$257
65	\$646	\$600	\$554	\$508	\$462	\$415	\$369	\$323	\$277
60	\$700	\$650	\$600	\$550	\$500	\$450	\$400	\$350	\$300
55	\$764	\$709	\$655	\$600	\$545	\$491	\$436	\$382	\$327
50	\$840	\$780	\$720	\$660	\$600	\$540	\$480	\$420	\$360
45	\$933	\$867	\$800	\$733	\$667	\$600	\$533	\$467	\$400
40	\$1,050	\$975	\$900	\$825	\$750	\$675	\$600	\$525	\$450
39	\$1,077	\$1,000	\$923	\$846	\$769	\$692	\$615	\$538	\$462
38	\$1,105	\$1,026	\$947	\$868	\$789	\$711	\$632	\$553	\$474
37	\$1,135	\$1,054	\$973	\$892	\$811	\$730	\$649	\$568	\$486
36	\$1,167	\$1,083	\$1,000	\$917	\$833	\$750	\$667	\$583	\$500
35	\$1,200	\$1,114	\$1,029	\$943	\$857	\$771	\$686	\$600	\$514
34	\$1,235	\$1,147	\$1,059	\$971	\$882	\$794	\$706	\$618	\$529
33	\$1,273	\$1,182	\$1,091	\$1,000	\$909	\$818	\$727	\$636	\$545
32	\$1,313	\$1,219	\$1,125	\$1,031	\$938	\$844	\$750	\$656	\$563
31	\$1,355	\$1,258	\$1,161	\$1,065	\$968	\$871	\$774	\$677	\$581
30	\$1,400	\$1,300	\$1,200	\$1,100	\$1,000	\$900	\$800	\$700	\$600
29	\$1,448	\$1,345	\$1,241	\$1,138	\$1,034	\$931	\$828	\$724	\$621
28	\$1,500	\$1,393	\$1,286	\$1,179	\$1,071	\$964	\$857	\$750	\$643
27	\$1,556	\$1,444	\$1,333	\$1,222	\$1,111	\$1,000	\$889	\$778	\$667
26	\$1,615	\$1,500	\$1,385	\$1,269	\$1,154	\$1,038	\$923	\$808	\$692
25	\$1,680	\$1,560	\$1,440	\$1,320	\$1,200	\$1,080	\$960	\$840	\$720
24	\$1,750	\$1,625	\$1,500	\$1,375	\$1,250	\$1,125	\$1,000	\$875	\$750
23	\$1,826	\$1,696	\$1,565	\$1,435	\$1,304	\$1,174	\$1,043	\$913	\$783
22	\$1,909	\$1,773	\$1,636	\$1,500	\$1,364	\$1,227	\$1,091	\$955	\$818
21	\$2,000	\$1,857	\$1,714	\$1,571	\$1,429	\$1,286	\$1,143	\$1,000	\$857
20	\$2,100	\$1,950	\$1,800	\$1,650	\$1,500	\$1,350	\$1,200	\$1,050	\$900
19	\$2,211	\$2,053	\$1,895	\$1,737	\$1,579	\$1,421	\$1,263	\$1,105	\$947
18	\$2,333	\$2,167	\$2,000	\$1,833	\$1,667	\$1,500	\$1,333	\$1,167	\$1,000
17	\$2,471	\$2,294	\$2,118	\$1,941	\$1,765	\$1,588	\$1,412	\$1,235	\$1,059
16	\$2,625	\$2,438	\$2,250	\$2,063	\$1,875	\$1,688	\$1,500	\$1,313	\$1,125
15	\$2,800	\$2,600	\$2,400	\$2,200	\$2,000	\$1,800	\$1,600	\$1,400	\$1,200
14	\$3,000	\$2,786	\$2,571	\$2,357	\$2,143	\$1,929	\$1,714	\$1,500	\$1,286
13	\$3,231	\$3,000	\$2,769	\$2,538	\$2,308	\$2,077	\$1,846	\$1,615	\$1,385
12	\$3,500	\$3,250	\$3,000	\$2,750	\$2,500	\$2,250	\$2,000	\$1,750	\$1,500
11	\$3,818	\$3,545	\$3,273	\$3,000	\$2,727	\$2,455	\$2,182	\$1,909	\$1,636
10	\$4,200	\$3,900	\$3,600	\$3,300	\$3,000	\$2,700	\$2,400	\$2,100	\$1,800
9	\$4,667	\$4,333	\$4,000	\$3,667	\$3,333	\$3,000	\$2,667	\$2,333	\$2,000
8	\$5,250	\$4,875	\$4,500	\$4,125	\$3,750	\$3,375	\$3,000	\$2,625	\$2,250