

Clean Cities

2009 Vehicle Buyer's Guide

- Natural Gas
- Propane
- All Electric
- Hybrid Electric
- Ethanol
- Biodiesel

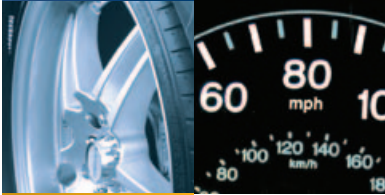


U.S. Department of Energy
**Energy Efficiency
and Renewable Energy**

Bringing you a prosperous future where energy
is clean, abundant, reliable, and affordable

November 2008

COMPRESSED
NATURAL GAS



E85
FLEX FUEL

ALL
ELECTRIC

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HYBRID
ELECTRIC

PROPANE



BIODIESEL

2009

Clean Cities Vehicle Buyer's Guide

Reducing the petroleum used in vehicles has gotten easier with the introduction of hybrid electric vehicles, flexible fuel vehicles, all-electrics, and CNG- and propane-powered vehicles. By selecting the vehicle and fuel that fit your needs and your location, you can help the United States achieve energy independence while you improve your own bottom line.



Introduction



Energy security is more critical than ever.

The year 2008 saw fluctuating oil prices reach \$140/barrel for the first time, driving home the economic impact and danger of our dependence on foreign oil. The good news is the expanding availability of advanced, efficient vehicles and cleaner domestic fuels, which support America's energy independence.

Alternative fuels and advanced vehicles, such as flexible fuel vehicles (FFVs), hybrids, electric vehicles, and others that can run on natural gas or propane, are available in the marketplace. You can choose a vehicle that sips rather than guzzles gas or one that uses a cleaner, domestically produced fuel without sacrificing performance.

Clean fuels and efficient vehicles are available today.

Consumers have more choices than ever. This year's Buyer's Guide includes 12 more FFVs, two new hybrids, and more diesel vehicles that run on biodiesel blends. This guide also provides a peek into the exciting future of plug-in hybrids, all-electric vehicles, and hydrogen fuel cell vehicles. Some of these advanced technology vehicles will hit showrooms soon.

As automakers produce more efficient vehicles and those that can operate on alternatives to petroleum, choosing among the options can be confusing. This Buyer's Guide will help you learn about available vehicles, features, costs, and information resources.

How to Use This Guide

The 2009 Buyer's Guide includes vehicle-specific information on fuel economy, emissions, vehicle specifications, estimated cost, and warranty. This booklet helps you compare similar vehicles to make an informed buying decision.



Fuel Economy

The 2009 Buyer's Guide includes the U.S. Environmental Protection Agency's (EPA) city and highway fuel economy numbers. The city fuel economy represents low-speed driving in traffic with considerable idling. EPA's highway fuel economy represents highway driving with no stops and little idling. Federal law requires manufacturers of light duty vehicles sold in the U.S. to inform customers about these EPA ratings.

Emissions

The Air Pollution Score

represents the amount of health-damaging, smog-forming pollutants emitted by a vehicle. Scores reflect tailpipe emissions, not lifecycle or carbon footprint impact. A five-star vehicle is among the cleanest on the road, while a one-star vehicle produces the highest tailpipe emissions. A three-star rating is the average rating for 2009 cars. Many automakers offer vehicles that are otherwise identical but have different air pollution scores, which vary depending on where they are sold.

Close to zero emissions	★ ★ ★ ★ ★
	★ ★ ★ ★
Average emissions	★ ★ ★
	★ ★
Highest emissions levels	★

Engine Size, Price, and Warranty

In most cases, information on engine size, manufacturer's suggested retail price (MSRP), and warranty information is provided by the vehicle manufacturer. The MSRP listed in this guide is subject to change by the OEM and does not include shipping or freight charges.

Compressed Natural Gas



Natural gas vehicles save money and emit less pollution.

Compressed natural gas (CNG) vehicles use the same fuel used for cooking or heating. Domestic natural gas supplies are plentiful and some locations are even developing renewable sources known as “biomethane.”

Consumers are interested in CNG vehicles because CNG is often less expensive than gasoline. CNG vehicles also emit fewer health-threatening and greenhouse gas pollutants.

Civic CNG Honda

- ▶ \$25,090 MSRP
- ▶ 24 mpg city, 36 mpg highway
- ▶ Range = 170 miles per fill
- ▶ 113 HP, 1.8L, I-4cyl engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★★★★★

Choose a factory-built vehicle or convert a gasoline vehicle.

New car buyers can choose the 2009 CNG Honda Civic GX for \$5,000 to \$7,000 more than the standard Civic. A federal tax credit of \$4,000 and fuel cost savings allow most motorists to recoup the extra cost within two to five years. Check with your tax advisor for more information.

Buyers also may convert some new or used vehicles from gasoline to CNG for a typical cost of \$8,000 to \$12,000. Vehicles converted to run on CNG exclusively are considered “dedicated” and are eligible for a federal tax credit. The EPA regulates conversion systems based on the vehicle make, model, and year.

Fuel availability may be the deciding factor.

Matching your vehicle choice with a readily available fuel is a smart move. If you are considering the purchase of a dedicated CNG vehicle or converting a conventional vehicle to run on CNG, contact your local Clean Cities coalition to learn more about available fueling options. One option is the FuelMaker “Phill,” which mounts in your garage to refuel your vehicle at home.

Propane



2008 model shown

Propane vehicles save money and emit fewer emissions.

Propane is a plentiful, clean-burning fuel that has been used as a commercial motor fuel for more than 80 years. The price of propane motor fuel is typically two-thirds that of gasoline, and the number of propane fueling sites is second only to gasoline. Besides burning cleaner than gasoline, propane is non-toxic and non-contaminating to the atmosphere.

F150 Pickup Roush Industries/Ford

- ▶ \$29,100 MSRP
- ▶ V8 5.4L engine
- ▶ Emissions: ★★★★★

Selected Ford and GM pickups may be converted to propane.

Buyers may purchase a Roush liquid injection propane F150 from selected Roush authorized Ford dealers. The option typically adds \$8,500 to the cost, but a federal tax credit is available that may substantially reduce the out-of-pocket expense. Because the fuel and maintenance costs of propane vehicles are lower, motorists typically can recover this extra cost within a few years of operation.

Other select gasoline models may be converted to run on propane including General Motors' medium-duty C4500–C8500 models with 8.1L engines. Converted propane vehicles are also eligible for a tax credit. Contact your local Clean Cities coalition to learn more about conversion options.

Federal tax credits make propane vehicles an attractive choice.

According to IRS Notice 2006-54, new or used gasoline and diesel vehicles converted to run on propane will qualify for federal tax credit as long as the conversion company has an EPA certificate of conformity. Vehicle tax credit for purchase or conversion is 50% of the incremental cost. Check with your tax advisor for more information.

Hybrid Electric



Hybrids save money by boosting fuel efficiency.

Today's hybrid electric vehicles (HEVs) are powered by an internal combustion engine combined with a battery-powered electric motor. HEVs run on gasoline and don't need to be plugged in to recharge the battery. The internal combustion engine is downsized for normal cruising, but the electric motor powered by the battery provides extra boost for acceleration. Hybrids are designed to recover energy during braking and gearing down and are able to store this energy in the battery pack.

Prius Toyota

- ▶ \$22,000 MSRP
- ▶ 48 mpg city, 45 mpg highway
- ▶ 4-cyl, Hybrid, 1.5L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★ ★ ★ ★

Hybrid configuration affects performance and price.

Currently, HEV buyers can choose between full hybrids, assist hybrids, and mild hybrids.

- ▶ Full hybrids can run on battery power at idle or low speeds. When speeds increase, the gasoline engine works with the electric motor to provide power. Full hybrids have a 25% to 40% fuel efficiency improvement. The Toyota Prius and Ford Escape Hybrid, Chevrolet Tahoe, Chrysler Aspen and others use the full hybrid system.
- ▶ Assist hybrids use the gasoline engine for primary power, while the electric motor provides variable added power as the driver "steps on the gas." Assist hybrids, like full hybrids, can provide significant gains in fuel efficiency. The Honda Civic Hybrid and others use this technology.
- ▶ Mild hybrids are essentially conventional vehicles with oversized starter motors, allowing the engine to automatically shut down whenever the car is coasting, braking, or stopped to idle. Fuel efficiency gains are in the 10% to 20% range. The Saturn Vue and the Chevrolet Malibu hybrid are mild hybrids.

Malibu Hybrid Chevrolet

- ▶ \$24,695 MSRP
- ▶ 26 mpg city, 34 mpg highway
- ▶ 4-cyl, Hybrid, 2.4L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★ ★ ★



Civic Hybrid Honda

- ▶ \$23,550 MSRP
- ▶ 40 mpg city, 45 mpg highway
- ▶ 4-cyl, Hybrid, 1.3L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★ ★ ★ ★ ★



Prius Toyota

- ▶ \$22,000 MSRP
- ▶ 48 mpg city, 45 mpg highway
- ▶ 4-cyl, Hybrid, 1.5L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★ ★ ★ ★ ★



Altima Hybrid Nissan

- ▶ \$26,650 MSRP
- ▶ 35 mpg city, 33 mpg highway
- ▶ 4-cyl, Hybrid, 2.5L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★ ★ ★ ★ ★
- ▶ Available in CARB states only



Camry Hybrid Toyota

- ▶ \$26,150 MSRP
- ▶ 33 mpg city, 34 mpg highway
- ▶ 4-cyl, Hybrid, 2.4L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★ ★ ★ ★



Aura Hybrid Saturn

- ▶ \$24,930 MSRP
- ▶ 26 mpg city, 34 mpg highway
- ▶ 4-cyl, Hybrid, 2.4L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★ ★ ★



Escape Hybrid FWD Ford

- ▶ \$29,305 MSRP
- ▶ 34 mpg city, 31 mpg highway
- ▶ 4-cyl, Hybrid, 2.5L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★ ★ ★ ★



Aspen Hybrid 4WD Chrysler

- ▶ \$44,770 MSRP
- ▶ 19 mpg city, 20 mpg highway
- ▶ V8, Hybrid, 5.7L engine
- ▶ Unlimited Yrs/Mileage Powertrain Warranty (non-transferable)
- ▶ Emissions: Not Available



Escalade Hybrid 2WD Cadillac

- ▶ \$70,685 MSRP
- ▶ 20 mpg city, 21 mpg highway
- ▶ V8, Hybrid, 6.0L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★ ★ ★



Tribute Touring Hybrid 2WD Mazda

- ▶ \$28,175 MSRP
- ▶ 34 mpg city, 31 mpg highway
- ▶ 4-cyl., Hybrid, 2.5L engine
- ▶ 5-yr, 36,000 mile powertrain warranty
- ▶ Emissions: ★ ★ ★ ★



Highlander Hybrid 4WD Toyota

- ▶ \$34,700 MSRP
- ▶ 27 mpg city, 25 mpg highway
- ▶ V6, Hybrid, 3.3L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★ ★ ★ ★



Vue FWD Hybrid Saturn

- ▶ \$26,955 MSRP
- ▶ 25 mpg city, 32 mpg highway
- ▶ 4-cyl., Hybrid, 2.4L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★ ★ ★ ★



Tahoe Hybrid 2WD Chevrolet
Yukon 1500 Hybrid 2WD GMC

- ▶ \$51,405 MSRP
- ▶ 21 mpg city, 22 mpg highway
- ▶ V8, Hybrid, 6.0L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★★ ★



Mariner Hybrid FWD Mercury

- ▶ \$29,750 MSRP
- ▶ 34 mpg city, 31 mpg highway
- ▶ 4-cyl, Hybrid, 2.5L engine
- ▶ 5-yr, 60,000 mile warranty
- ▶ Emissions: ★★ ★ ★



Silverado 1500 Crew Cab Hybrid 2WD Chevrolet

- ▶ MSRP N/A
- ▶ 21 mpg city, 22 mpg highway
- ▶ V8, Hybrid, 6.0L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★★ ★



Durango Limited Hybrid 4WD Dodge

- ▶ \$44,540 MSRP
- ▶ 19 mpg city, 20 mpg highway
- ▶ V8, Hybrid, 5.7L engine
- ▶ Lifetime Powertrain Limited Warranty (non-transferable)
- ▶ Emissions: Not Available



All Electric

GEM e4 Global Electric Motors

- ▶ \$9,695 MSRP
- ▶ 30-mile range per charge
- ▶ Charging time = 4-8 hours
- ▶ 7.0 HP heavy-duty DC motor
- ▶ 12-month warranty
- ▶ Emissions: ★★★★★



Several automakers are planning to produce new, highway-speed electric vehicles (EVs) within a few years, but today the only currently available EVs are the custom-built, highway-qualified electric Tesla Roadster, manufactured by Tesla Motors, and low-speed or neighborhood electric vehicles (NEVs). These EVs store electricity in an energy storage device such as a battery. The electricity powers the vehicle's wheels via an electric motor. The battery power is replenished by plugging the vehicle into a 110-volt outlet overnight. EVs are considered zero tailpipe emission vehicles because their motors produce no exhaust or emissions.

Low speed vehicles carry passengers and cargo in limited-access areas.

Manufacturers of NEVs include Global Electric Motors, ZAPP, ZENN, and Miles. These small vehicles are commonly used for neighborhood commuting, light hauling and local deliveries. By law, these vehicles can travel at no more than 25 mph, and their use is limited to areas with 35 mph speed limits.

Low-speed vehicles provide off-road service on college campuses, resort areas, airports, and other limited-access areas.

Their versatility in moving people or cargo through limited commute areas makes them useful in a variety of applications.



ZENN Car Zenn Motor Co., Ltd.

- ▶ \$13,625 MSRP
- ▶ 35-50 mile range per charge
- ▶ Charging time = 4-8 hours
- ▶ 12-month warranty on motor
- ▶ Emissions: ★★★★★



ZX40S Advanced Design Miles

- ▶ \$18,400 MSRP
- ▶ 50-60 mile range per charge
- ▶ Charging time = 4-6 hours
- ▶ Brushless 3-phase AC motor
- ▶ 18-month warranty on motor
- ▶ Emissions: ★★★★★

Ethanol



Flexible Fuel Vehicles can operate on regular gas or E85 Ethanol.

Flexible fuel vehicles (FFVs) provide motorists with the choice of running their vehicle on gasoline, E85, or any combination of both. In 2009, automakers are offering more than 40 FFV models, up from 31 in 2008. As of October 2008, there are more than 1,600 fueling stations offering E85 across the country, and the number is increasing monthly. To locate an E85 station near you, check the AFDC Web site at www.afdc.energy.gov/afdc/ethanol/stations.html.

E85 is a renewable fuel choice.

Ethanol is produced domestically from starchy feedstocks such as corn. E85 is a mix of 85% ethanol and 15% gasoline. According to EPA estimates today's FFVs get 20-25% lower fuel economy when running on E85 because ethanol contains less energy than gasoline per gallon, which translates into a reduction in fuel economy. The price of E85, which is typically 10% to 30% less than gasoline, can offset the loss in fuel economy. Fuel economy also varies by model and driving conditions.

E85 is a fuel for today—and the future.

Today most ethanol in the U.S. is made from corn and can displace up to 10% of the gasoline we use without affecting food supplies. In the near future, ethanol may be made from other renewable resources, including perennial grasses, crop residues, straw, fast growing trees, and even municipal waste. Ethanol from these materials and corn combined may eventually replace up to 40% of the gasoline we currently use.

Lucerne Buick

- ▶ \$28,415 MSRP
- ▶ 13 mpg city, 20 mpg highway (E85)
- ▶ 17 mpg city, 26 mpg highway (gasoline)
- ▶ V6, FFV, 3.9L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★★★★★

Impala Chevrolet

- ▶ \$23,045 MSRP
- ▶ 14 mpg city, 22 mpg highway (E85)
- ▶ 19 mpg city, 29 mpg highway (gasoline)
- ▶ V6, FFV, 3.5L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★★★★★



Crown Victoria Ford (fleet only)

- ▶ \$29,205 MSRP
- ▶ 12 mpg city, 17 mpg highway (E85)
- ▶ 16 mpg city, 24 mpg highway (gasoline)
- ▶ V8, FFV, 4.6L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★★★★★



Avenger SXT 2WD Dodge

- ▶ \$22,400 MSRP
- ▶ 13 mpg city, 20 mpg highway (E85)
- ▶ 19 mpg city, 27 mpg highway (gasoline)
- ▶ V6, FFV, 2.7L engine
- ▶ Unlimited years/miles on powertrain warranty (transferable)
- ▶ Emissions: ★★



C300 Sport Mercedes Benz

- ▶ \$33,850 MSRP
- ▶ 13 mpg city, 19 mpg highway (E85)
- ▶ 18 mpg city, 25 mpg highway (premium)
- ▶ 6 cyl, FFV, 3.0L engine
- ▶ 4-yr, 50,000 mile powertrain warranty
- ▶ Emissions: ★★★★★



Sebring Chrysler

- ▶ \$20,705 MSRP
- ▶ 13 city mpg, 20 mpg highway (E85)
- ▶ 19 mpg city, 27 mpg highway (gasoline)
- ▶ V6, FFV, 2.7L engine
- ▶ Lifetime Powertrain Limited Warranty (non-transferable)
- ▶ Emissions: ★★



Town Car Lincoln

- ▶ \$45,815 MSRP
- ▶ 12 city mpg, 17 mpg highway (E85)
- ▶ 16 mpg city, 24 mpg highway (gasoline)
- ▶ V8, FFV, 4.6L engine
- ▶ 6-yr, 70,000 mile powertrain warranty
- ▶ Emissions: ★★★★★



Lucerne Buick

- ▶ \$28,415 MSRP
- ▶ 13 mpg city, 20 mpg highway (E85)
- ▶ 17 mpg city, 26 mpg highway (gasoline)
- ▶ V6, FFV, 3.9L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★★★★★



HHR FWD Chevrolet

- ▶ \$17,930 MSRP
- ▶ 16 mpg city, 23 mpg highway (E85)
- ▶ 22 mpg city, 32 mpg highway (gasoline)
- ▶ 4-cyl., FFV, 2.2L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★★★★★



Durango Dodge

- ▶ \$30,910 MSRP
- ▶ 9 mpg city, 13 mpg highway (E85)
- ▶ 14 mpg city, 19 mpg highway (gasoline)
- ▶ V8, FFV, 4.7L engine
- ▶ Lifetime Powertrain Limited Warranty (non-transferable)
- ▶ Emissions: ★★ ★



Grand Cherokee Limited 2WD Jeep

- ▶ \$37,145 MSRP
- ▶ 9 mpg city, 13 mpg highway (E85)
- ▶ 14 mpg city, 19 mpg highway (gasoline)
- ▶ V8, FFV, 4.7L engine
- ▶ Unlimited yrs/miles powertrain warranty (transferable)
- ▶ Emissions: N/A



Expedition 2WD Ford

- ▶ \$36,345 MSRP
- ▶ 10 mpg city, 14 mpg highway (E85)
- ▶ 14 mpg city, 20 mpg highway (gasoline)
- ▶ V8, FFV, 5.4L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★★ ★★ ★



Aspen FFV 2WD Chrysler

- ▶ \$35,000 MSRP
- ▶ 9 city mpg, 13 mpg highway (E85)
- ▶ 14 mpg city, 19 mpg highway (gasoline)
- ▶ V8, FFV, 4.7L engine
- ▶ Lifetime Powertrain Limited Warranty (non-transferable)
- ▶ Emissions: ★★ ★★ ★



Avalanche LT1 2WD Chevrolet

- ▶ \$34,255 MSRP
- ▶ 10 mpg city, 15 mpg highway (E85)
- ▶ 14 mpg city, 20 mpg highway (gasoline)
- ▶ V8, FFV, 5.3L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★★★★★



Tahoe LT1 2WD Chevrolet
Yukon 1500 2WD GMC

- ▶ \$38,080 MSRP
- ▶ 10 mpg city, 15 mpg highway (E85)
- ▶ 14 mpg city, 20 mpg highway (gasoline)
- ▶ V8, FFV, 5.3L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★★★★★



Escalade 2WD Cadillac

- ▶ \$59,755 MSRP
- ▶ 10 mpg city, 14 mpg highway (E85)
- ▶ 12 mpg city, 19 mpg highway (gasoline)
- ▶ V8, FFV, 6.2L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★★★★★



Commander 2WD Jeep

- ▶ \$32,000 MSRP
- ▶ 9 mpg city, 13 mpg highway (E85)
- ▶ 14 mpg city, 19 mpg highway (gasoline)
- ▶ V8, FFV, 4.7L engine
- ▶ Unlimited years/miles on powertrain warranty (transferable)
- ▶ Emissions: ★★★



Navigator 2WD Lincoln

- ▶ \$51,130 MSRP
- ▶ 10 mpg city, 14 mpg highway (E85)
- ▶ 14 mpg city, 20 mpg highway (gasoline)
- ▶ V8, FFV, 5.4L engine
- ▶ 6-yr, 70,000 mile powertrain warranty
- ▶ Emissions: ★★ ★



Hummer H2 General Motors

- ▶ \$68,575 MSRP
- ▶ N/A city, N/A highway (E85)
- ▶ N/A city, N/A highway (gasoline)
- ▶ FFV, 6.2L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★★ ★



Silverado 1500 2WD Chevrolet **Sierra 1500 2WD** GMC

- ▶ \$19,590 – \$25,760 MSRP
- ▶ 11 mpg city, 15 mpg highway (E85)
- ▶ 14 mpg city, 20 mpg highway (gasoline)
- ▶ V8, FFV, 5.3L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★★ ★★



Armada 2WD Nissan

- ▶ \$37,210 MSRP
- ▶ 9 mpg city, 13 mpg highway (E85)
- ▶ 12 mpg city, 18 mpg highway (gasoline)
- ▶ V8, FFV, 5.6L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★★ ★



Town & Country LX Chrysler
Dodge Caravan Chrysler

- ▶ \$26,500 MSRP
- ▶ 11 mpg city, 16 mpg highway (E85)
- ▶ 17 mpg city, 24 mpg highway (gasoline)
- ▶ V6, FFV, 3.3L engine
- ▶ Lifetime Powertrain Limited Warranty (non-transferable)
- ▶ Emissions: ★★ ★



Tundra 4WD Toyota

- ▶ \$36,000 MSRP
- ▶ 10 mpg city, 13 mpg highway (E85)
- ▶ 13 mpg city, 17 mpg highway (gasoline)
- ▶ V8, FFV, 5.7L engine
- ▶ 5 yr, 60,000-mile powertrain warranty
- ▶ Emissions: ★★ ★



F150 2WD Ford

- ▶ \$20,345 MSRP
- ▶ 10 mpg city, 14 mpg highway (E85)
- ▶ 14 mpg city, 20 mpg highway (gasoline)
- ▶ V8, FFV, 5.4L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★★ ★



Raider Pickup 2WD Mitsubishi

- ▶ \$20,665 MSRP
- ▶ 9 mpg city, 13 mpg highway (E85)
- ▶ 14 mpg city, 19 mpg highway (gasoline)
- ▶ V8, FFV, 4.7L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★★ ★



Suburban LTZ 1500 4WD Chevrolet

- ▶ \$52,155 MSRP
- ▶ 10 mpg city, 15 mpg highway (E85)
- ▶ 14 mpg city, 20 mpg highway (gasoline)
- ▶ V8, FFV, 5.3L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★★★★★
- ▶ 4x4 also available



Titan 2WD Nissan

- ▶ \$26,150 MSRP
- ▶ 9 mpg city, 13 mpg highway (E85)
- ▶ 13 mpg city, 18 mpg highway (gasoline)
- ▶ V8, FFV, 5.6L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★★★★★



Express 1500 Passenger Van 2WD Chevrolet
Savana 1500 Passenger Van 2WD GMC

- ▶ \$28,790 MSRP
- ▶ 9 mpg city, 12 mpg highway (E85)
- ▶ 12 mpg city, 16 mpg highway (gasoline)
- ▶ V8, FFV, 5.3L engine
- ▶ 5-yr, 100,000 mile powertrain warranty
- ▶ Emissions: ★★★★★



E-Series E150 Van Ford

- ▶ \$25,060 MSRP
- ▶ N/A mpg city, N/A mpg highway (E85)
- ▶ 15 mpg city, 19 mpg highway (gasoline)
- ▶ V8, FFV, 4.6L engine
- ▶ 5-yr, 60,000 mile powertrain warranty
- ▶ Emissions: ★★



Biodiesel



Biodiesel is a clean, renewable American fuel.

Biodiesel is a renewable fuel produced from a wide range of vegetable oils and animal fats. Pure biodiesel is labeled B100, but consumers typically buy biodiesel blends ranging from B2 (2% biodiesel, 98% petroleum diesel) to B20 (20% biodiesel, 80% petroleum diesel). In 2008 ASTM published a new standard (D7467-08) for biodiesel blends ranging from B6 to B20. Many retailers offer B20 because it performs well—even in cold weather and in older engines.

Grand Cherokee Overland 2WD Jeep

- ▶ \$40,610 MSRP
- ▶ 18 mpg city/23 mpg highway
- ▶ Approved for B5 use
- ▶ V6 3.0L engine diesel/biodiesel optional engine
- ▶ Unlimited years/miles warranty (transferable)

Biodiesel is different from plain vegetable oil.

Biodiesel is made by refining any fat or oil (such as soybean oil) using a catalyst to react the oil with an alcohol to remove glycerin. Biodiesel (B100) must be produced to strict specifications (ASTM D6751) to ensure proper performance. Unprocessed vegetable oil has different chemical properties than biodiesel, and engine manufacturers do not recommend its use in diesel engines.

Biodiesel is good for your vehicle and the environment.

Almost 5 million diesel cars, pickups, and SUVs are on U.S. roads today, and the number is expected to grow rapidly. Diesel vehicles typically get about 20% to 30% more miles per gallon than a comparable gasoline engine.

Biodiesel performs much like petroleum diesel in most engines. It reduces engine wear and cleans out deposits to help engines run more efficiently. It also significantly curbs most tailpipe emissions and reduces greenhouse gases.

Ram 2500/3500 4WD Quad Cab Dodge

- ▶ \$47,425 MSRP
- ▶ 12 mpg city, 17 mpg highway
- ▶ Approved for B20 use
- ▶ I-6 6.7L Turbo Diesel
- ▶ Unlimited years/miles warranty (transferable)



Grand Cherokee Overland 2WD Jeep

- ▶ \$40,610 MSRP
- ▶ 18 mpg city/23 mpg highway
- ▶ Approved for B5 use
- ▶ V6 3.0L engine diesel/biodiesel optional engine
- ▶ Unlimited years/miles warranty (transferable)



F-250 Super Duty Crew Cab 4WD Ford

- ▶ \$44,235 MSRP
- ▶ 12 mpg city, 16 mpg highway
- ▶ Approved for B5 use
- ▶ V8, 6.4L Turbo Diesel
- ▶ 5 yr, 100,000-mile powertrain warranty



Silverado 2500 HD 2WD Chevrolet

- ▶ \$32,640 MSRP
- ▶ 13 mpg city, 18 mpg highway
- ▶ Approved for B5 use; B20 approved with Special Equipment Option
- ▶ V8 6.6L Turbo Diesel
- ▶ 5 yr, 60,000-mile powertrain warranty



Exciting Vehicles On the Horizon

Chevrolet Volt



Automotive technology is advancing rapidly. Vehicles that were talked about only a few years ago are now involved in real-world testing and will soon be appearing in showrooms.

High-Speed, Advanced All-Electric Cars

Original equipment manufacturers including Chrysler and Nissan, as well as several NEV manufacturers such as Miles, ZAP, ZENN, and Phoenix Motorcars, expect to produce zero-emission all-electric vehicles that can travel at highway speeds up to 80 mph by 2011. Look for all-electric cars to be smaller sedans or sports cars with a range of 150 to 200 miles. Recharging will be via a standard 110-volt wall outlet.

Plug-In Hybrid Electric Vehicles

Plug-in hybrid electric vehicles (PHEVs) combine electric power for 40 miles of operation with a liquid fuel option to take you farther than the all-electric limited range and allow time for recharging. Operating on a combination of electric power and fuel (gasoline, diesel, or ethanol), PHEVs are a follow-on to available hybrid electrics like the Toyota Prius and the Ford Escape Hybrid. It is expected that battery technologies and all-electric driving ranges will vary significantly among PHEV models. PHEVs are not yet in production but several manufacturers have announced their intention to introduce production PHEV automobiles in the 2010-2011 time frame.



For those who don't want to wait for PHEVs to hit the market, services are available to convert production-model hybrid vehicles to plug-ins. Most PHEVs on U.S. roads are conversions of 2004 or later Toyota Prius or Ford Escape models, which have had plug-in charging added and their electric-only range extended.



Ford Escape

Hydrogen Fuel Cell Car

The interest in hydrogen as an alternative transportation fuel stems from its clean-burning qualities, its potential for domestic production, and the fuel cell vehicle's potential for high efficiency, which can be two to three times more than gasoline vehicles.

Honda rolled out its FCX Clarity in 2008 and leased 200 vehicles for three years to drivers in Southern California to collect real-world driving data. Honda's fuel cell vehicle is powered by a motor running on electricity generated by a hydrogen-powered fuel cell stack. The compact, high-efficiency lithium-ion battery pack is used as a supplemental power source capturing lost energy during deceleration and braking. The ultimate viability of a fuel cell fleet will be based on the vehicle's ability to efficiently use and economically produce and store hydrogen fuel and the willingness of car owners to fuel with hydrogen.



Honda FCX Clarity



Fuel Conservation



Most of this guide focuses on new vehicles that use more efficient technologies or alternative fuels. But whether or not you are buying a new car, there are many ways to save money and fuel—by making your vehicle operate more efficiently and making choices that reduce your need to drive. Consider the following fuel saving suggestions.

Reduce miles traveled.

The most obvious way to conserve fuel is to reduce the miles you drive. Many commuters opt for public transit to save money and reduce driving stress.

Car or van pools are another alternative for people on a regular work schedule. Many communities offer van-pool matching programs or support to help people get them started.

Telecommuting is another possibility. Many companies as well as municipal and state governments offer employees the opportunity to work from home for at least part of the week.

Adopt good driving habits.

Jack-rabbit starts, hard braking, aggressive, high-speed driving, and excessive idling all waste fuel. By accelerating gradually, easing into traffic, and trimming five miles per hour from your speed, you can save fuel. Calculate your miles-per-gallon based on your current driving habits, and then make some changes. Reduce your highway driving speed to 60 mph, accelerate gradually from stops, and avoid hard braking. Reduce idling as much as possible. When you anticipate waiting for more than a minute, turn off your engine if it's safe to do so. Compare your mileage after one tank and you will see that more moderate driving habits can pay real dividends.



Use fuel saving techniques with your vehicle.

Around town, turn your air conditioner off and roll down the windows. At speeds of 40 mph or more, roll up your windows and turn on the air conditioner or use the fan.

Use four-wheel drive only when necessary. Engaging all four wheels makes the engine work harder and increases crankcase losses.

Inflate your tires to the recommended pressure. Remind yourself to check tire pressure at least once per month.



EPA Fuel Economy Estimates

EPA estimate methods now provide a more accurate prediction of real-world fuel economy.

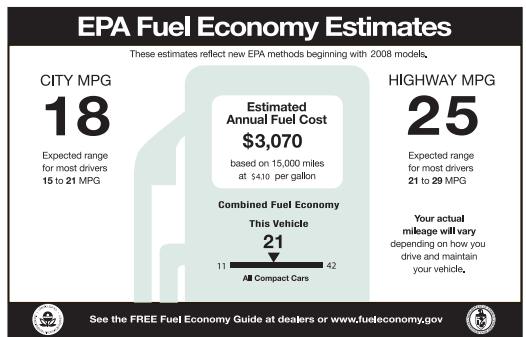
In 2008, EPA revised its methods for estimating miles per gallon to better represent current real-world driving conditions. City and highway estimates now account for more aggressive driving (higher speeds and faster acceleration), air conditioner use, and cold-temperature operation. A combined fuel economy number is also displayed on the window sticker indicating a miles-per-gallon average for the vehicle and the estimated annual fuel cost based on 15,000 miles and an average dollar amount per gallon of E85 and unleaded gasoline.

The city estimate is based on urban driving in which a vehicle is parked all night, started in the morning, and driven in stop-and-go traffic. The highway estimate represents a mixture of free-flowing rural and interstate highway driving in a warmed-up vehicle typical of longer trips.

Your mileage will vary.

The test methods cause miles-per-gallon estimates for both 2008 and 2009 year vehicles to be noticeably lower, though more realistic, than those for previous years. This makes it difficult to directly compare 2009 model year vehicles with older models. However, a tool for fuel efficiency comparisons is available at www.fueleconomy.gov.

Even with improved test methods, your vehicle's fuel economy will likely vary because conditions differ based on where you drive, how you drive, whether you drive a two-wheel or four-wheel-drive vehicle and other factors.





U.S. Department of Energy

The mission of the Clean Cities Program is to advance the nation's economic, environmental, and energy security by supporting local decisions to adopt practices that contribute to the reduction of petroleum consumption. Clean Cities carries out this mission through a network of more than 85 volunteer coalitions, which develop public/private partnerships to promote alternative fuels and vehicles, fuel blends, fuel economy, hybrid vehicles, and idle reduction. To find your local coalition, please visit www.eere.energy.gov/cleancities/.

Clean Cities Coalitions





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