Back in 2000, Toyota released the Prius, a gasoline-electric hybrid, in the United States. That year, the average price of gas was just $1.49, yet here was a quirky little car that touted 40-plus mpg. A 2004 redesign gave the Prius even better mpg and its iconic shape, and it became so popular Toyota couldn’t keep up with demand. Today, the Prius is the most successful hybrid by far and has basically come to define “green car.” It’s no surprise, then, that the Prius is back among the annual Mother Earth News Best Green Cars.

Have you ever wondered what the heck “Prius” actually means? It’s a Latin word meaning “to go before.” Toyota chose it to signify that the car and its hybrid technology would be a precursor of the energy-efficient cars of the future—which has certainly proved true, given the numerous hybrids released by Toyota and others.

However, it’s the two all-electric cars on our 2011 list that herald the next revolution in green transportation.

Yes, practical and accessible electric cars from major automakers are finally here. Neither electric car is perfect, but the Prius wasn’t either back in 2000. Of the many features that make the Chevrolet Volt and Nissan Leaf compelling, their driving range and cost to own are what may make them most appealing. The Leaf has a range of about 100 miles, depending on driving conditions. The Volt has a shorter all-electric range, but uses a gas engine to power its two electric motors when needed for a total range of about 375 miles.

Sick of paying about $50 to fill the tank of your gas car? How does $2 to $3 sound? Given the national average cost of electricity (11 cents per kilowatt-hour), that’s about what you would pay to “fill up” an electric car by recharging it overnight. And if you’re curious about the environmental costs of gasoline versus fossil fuel electricity, see “Why Electric Cars Are Cleaner” at bit.ly/evclean. In short, while there is regional variability, electric cars are cleaner than gas cars. That said, the ultimate solution is to recharge with renewable energy.

The three other vehicles that make up our 2011 Best Green Cars are revolutionary in their own right: The Ford Fiesta has the best blend of affordability and efficiency; the Honda CR-Z proves that hybrids can be fun to drive; and the Jetta TDI is the best example of clean diesel’s efficiency and workhorse longevity.

Whether you own one of these six cars now, later or never, you’ll benefit from them. They’re making mobility greener, reducing our dependence on oil, and instigating more innovation in the auto industry. In this new era of green car competition, we’re all winners.

**Best Green Cars: Keys to the Data and the Experts**

- **Base Price**: the manufacturer’s suggested retail price + destination fee
- **EPA Gas Mileage**: official fuel economy estimates (your mileage may vary)
- **Annual Fuel Cost**: assumes $3.75/gallon regular gasoline; $3.95/gallon premium gasoline; $3.97/gallon diesel; $0.11 per kilowatt-hour of electricity; 15,000 miles driven annually at 55% city, 45% highway
- **Air Pollution Score**: from the EPA; zero = most tailpipe emissions, 10 = least
- **Greenhouse Gas Score**: from the EPA; zero = most greenhouse gas emissions, 10 = least
- **ACEEE Green Score**: from the American Council for an Energy-Efficient Economy; the higher the score, the better; best 2011 score is 54; see www.GreenerCars.org
- **Brad Berman**: founder and editor, HybridCars.com and PluginCars.com
- **Terry Penney**: program manager for advanced vehicle technologies at the National Renewable Energy Laboratory
- **Ron Cogan**: editor and publisher, Green Car Journal
- **Todd Kaho**: executive editor, Green Car Journal and editor of www.FrugalDriver.com
- **Chelsea Sexton**: founder, Lightning Rod Foundation; electric car advocate
- **James Kilicsch**: research director for the clean vehicles program at the Union of Concerned Scientists
- **Jim Motavalli**: author of High Voltage: The Fast Track to Plug in the Auto Industry

**• The hybrid car that changed the world • The electric cars that will change the world • $1,000s in rebates and incentives • 40 mpg for the long haul • All-electric daily driving • 38 mpg with smiles • $2.75 to recharge • No range anxiety • 35 mpg with zip**
**EXPERTS SAY**

- “The Volt is the best of all worlds, hybrid and electric.” — Ron Cogan
- “It’s a breakthrough electric car.” — Brad Berman
- “Nissan nailed the ride and handling qualities of the Leaf. You’ll never feel compromised for the choice to go electric.” — Todd Kaho
- “The Leaf’s one flaw is that its range can be reduced in cold weather because the heater is a big energy user.” — Jim Motavalli
- “Don’t get too hung up on the range of the Leaf (or the Volt). Most people drive less than 50 miles a day. Electric cars aren’t meant to replace the family sedan for cross-country trips. Think of them as another tool in the inventory of transportation options.” — Terry Penney

**VERDICT**

The Volt may have the most-complicated-to-explain car technology ever, but that technology may also make it the easiest electric car to own and drive, ever. Think of it as a smarter (meaning nearly all-electric) hybrid car, or an electric car with a safety net (the gas engine). The Volt represents a new breed of green car—made in the United States—and that’s something to be proud of, even if you never own one.

Chevrolet Volt (extended-range electric; sedan/hatchback)

- **Base Price:** $41,000
- **EPA Gas Mileage Equivalent:** 95 city, 90 hwy, 93 overall (electric only); 35 city, 40 hwy, 37 overall (with gas only)
- **Annual Fuel Cost:** $594 electric only; $1,601 gas only
- **Electric Range:** 25 to 50 miles; 375 total via the gas engine
- **Recharge Time:** 4 hours on 240-volt; 10 hours on 120-volt
- **Air Pollution Score:** 6; **Greenhouse Gas Score:** 8; **ACEEE Green Score:** 48

**PROs**

- Enough electric range to cover the daily driving needs of most people. Easy to recharge. Drives seamlessly, like a conventional car.
- No need for “range anxiety” (the fear of losing battery power) thanks to the gas engine “range extender.”
- Many Volt drivers will need no more than 9.3 gallons of gas per year (the car uses at least one tank’s worth to keep the engine fresh).
- Federal tax credit of $7,500; 2012 model may be eligible for some state-based rebates and tax credits of about $5,000.
- Warranty on the lithium-ion batteries: eight years/100,000 miles.

**CONs**

- Sticker price of $41,000 ($33,500 after federal tax credit). Not eligible for California’s $5,000 rebate at this time.
- Currently only available in six states (CA, CT, MI, NJ, NY, TX) and Washington, D.C. Nationwide availability will begin in late 2011.
- Gasoline-powered range extender requires premium gas, which costs about 20 cents more per gallon than regular unleaded.

Nissan Leaf (all-electric; sedan/hatchback)

- **Base Price:** $33,630
- **EPA Gas Mileage Equivalent:** 106 city, 92 hwy, 99 overall
- **Annual Fuel Cost:** $561
- **Electric Range:** 62 to 138 miles
- **Recharge Time:** 7 hours on 220-volt; 20 hours on 120-volt
- **Air Pollution Score:** 10; **Greenhouse Gas Score:** 10; **ACEEE Green Score:** 54

**PROs**

- Never needs gas! Its range covers most people’s daily driving needs.
- The average cost for a “tank” of energy to “refuel” a Leaf: $2.75.
- No need for oil changes, etc. According to Automobile magazine, Leaf owners—compared with Prius owners—will save $1,360 on maintenance over three years.
- Federal tax credit of $7,500. Six states (CA, CO, GA, HI, IL, MD) have tax credits or rebates of $2,000 to $6,000. If you can combine state and federal incentives, the Leaf can be less expensive than the Prius.
- Warranty on the lithium-ion batteries: eight years/100,000 miles.
- Vast passenger room (can fit three child seats in the back).
- If you can recharge your cell phone, you can recharge the Leaf.
- Will be built in Tennessee in 2012 to meet nationwide availability.

**CONs**

- Sticker price of $33,630; $26,130 after the federal tax credit.
- Not ideal for those who drive more than 60 miles a day, depending on the driving conditions (unless you can recharge at work).

**EXPERTS SAY**

- “Don’t get too hung up on the range of the Leaf (or the Volt). Most people drive less than 50 miles a day. Electric cars aren’t meant to replace the family sedan for cross-country trips. Think of them as another tool in the inventory of transportation options.” — Terry Penney

**VERDICT**

The Leaf is the most exciting thing to happen to cars since, well, the Volt. Like the Volt, the Leaf is the real deal—this isn’t a PR gimmick or science experiment. Unlike the Volt, the Leaf never uses gasoline. The positive of that is obvious. The negative is not having another power source as a backup. Do you have renewable energy at home or through your utility? Drive the Leaf and you can drive energy independence!
Toyota Prius  (gasoline-electric hybrid; sedan/hatchback)

Base Price: $24,280
EPA Gas Mileage: 51 city, 48 hwy, 50 overall
Annual Fuel Cost: $1,125
Air Pollution Score: 7; Greenhouse Gas Score: 10; ACEEE Green Score: 52

PROs
- 50 mpg with room for five. Enough said?
- With more than 1 million Prii (yes, that’s the official plural of Prius) sold in the United States, it’s the most proven and safest bet among green cars.
- Consistently earns high marks for safety and mechanical reliability from Consumer Reports, the Insurance Institute for Highway Safety and J.D. Power and Associates.
- Warranty on hybrid battery system: 8 years/100,000 miles.
- No need to plug it in to recharge.

CONs
- Still using nickel metal hydride batteries instead of the more advanced lithium-ion batteries used by all-electric cars.
- Can’t plug in to recharge. That is, until the plug-in version is available in 2012.
- If you’re considering a Prius, it may be best to wait because you’ll have more options soon. The Prius V, a station wagon-esque version, goes on sale this summer. For early 2012, Toyota promises the Prius C—a smaller, less expensive and even more fuel-efficient version of the traditional hybrid.

EXPERTS SAY
- “By far the leading hybrid—no competitor comes close, or is able to offer the Prius’ level of utility and 50 mpg.” — Jim Motavalli
- “The most fuel-efficient car available today from Toyota came out 10 years ago. It’s long past time to start expecting better from Toyota.” — Chelsea Sexton
- “The Prius now competes with the Nissan Leaf and Chevy Volt. Those cars use lithium-ion batteries, while the Prius sticks with nickel metal hydride. Yet, by next year, the plug-in Prius will have lithium batteries, which will push its mpg to 70 or higher.” — Brad Berman

VERDICT
After more than a decade of success, the Prius has changed the world. It’s the standard by which all other high-mpg cars are judged, but it has also become much more than just a green car. The Prius is simply a practical, reliable and fuel-efficient family car, period. But with new and unprecedented competition, will the Prius remain the No. 1 green car? Only time will tell, but given the Prius’ history, it’s hard not to have high expectations.

Ford Fiesta  (gasoline; subcompact sedan or hatchback)

Base Price: $15,090 for the sedan S trim; $16,890 for the hatchback SE trim
EPA Gas Mileage: 29 city, 38 hwy, 33 overall
Annual Fuel Cost: $1,705
Air Pollution Score: 6; Greenhouse Gas Score: 8; ACEEE Green Score: 49

PROs
- If your drive to work has speed limits between 40 and 60 mph, the Fiesta can consistently deliver about 40 mpg.
- While this Fiesta is new to the United States, it’s actually the sixth-generation version of the car, and it has been a best-seller around the world.
- Simple but highly useful real-time gas mileage display directly in front of the driver.
- Fun, unique and sporty looks that belie its price. Guaranteed to turn heads and produce smiles.
- The first minicar to receive a Top Safety Pick designation from the Insurance Institute for Highway Safety. It earned top ratings in front, side, rollover and rear crash safety evaluations.

CONs
- Uncomfortable interior, front and back. Back seat riders may experience claustrophobia.
- The “super fuel economy” option (an extra $395 in the hatchback, $695 in the sedan) may sound appealing, but it only adds 2 mpg on the highway.
- The Fiesta’s precise handling and tight turning may require some getting used to on turns and high-speed curves.

EXPERTS SAY
- “An excellent small car that proves that hybridization isn’t the only route to good fuel economy.” — Jim Motavalli
- “A smart design using an improved engine, transmission and aerodynamics cuts the Fiesta’s emissions and saves money at the pump.” — James Klesch
- “The Fiesta is the European-inspired small car from Ford we have been waiting for. It’s the right size for commuting and most missions, yet is quite frugal and fun to drive.” — Todd Kaho

VERDICT
If you’re looking for the best mpg bang for the least bucks, then the Fiesta is your party. Among budget-priced, gas-only cars, the Fiesta beats the competition (the Chevrolet Cruze, Honda Fit, Nissan Versa and Toyota Yaris) for the best combination of gas mileage and affordable price. If all other things are equal for you, go with the stylish hatchback version over the sedan.
Honda CR-Z (gasoline-electric hybrid; two-seater)
Base Price: $20,745 (automatic transmission)
EPA Gas Mileage: 35 city, 39 hwy, 37 overall
Annual Fuel Cost: $1,520
Air Pollution Score: 8; Greenhouse Gas Score: 8; ACEEE Green Score: 48

PROs
- Nimble, quick and sheer fun to drive. With its cozy interior, electrically assisted acceleration and different driving modes, you’ll feel like a kid in a cockpit.
- The three driving modes—economy, normal and sport—give the CR-Z yoga-like flexibility for any driving situation and give the driver significant control over mpg.
- The real-time efficiency feedback display is informative and easy to take advantage of without being distracted from driving.
- It’s even more fun to drive the version with a six-speed manual transmission. The CR-Z is the only hybrid available with a stick shift.
- Has a surprising amount of storage space for such a small car.

CONs
- There’s only room for two: a driver and a passenger. That said, credit Honda for not creating a back seat only contortionists could enjoy.
- The small and horizontally split rear window offers very limited visibility. Keep your head on a swivel.
- The official gas mileage estimates are disappointingly low for a hybrid.
- Has an identity crisis between sports car and fuel-efficient hybrid. If you’re expecting a sports car, you’ll be disappointed. If you’re expecting 60 mpg, you’ll be disappointed.

EXPERTS SAY
- “Many drivers will do better than the EPA’s estimated mpg while driving in economy and normal modes.” — Ron Cogan
- “The CR-Z is a blast to drive when the road throws twists and turns your way.” — Todd Kaho
- “The CR-Z brings the idea of the iconic CR-X of the ’80s into the current era. CR-X fans have fond memories of that little, fuel-efficient racer, but by today’s standards it’s small and slow. The CR-Z is more refined and powerful, with one of the best mpg numbers available today.” — Brad Berman

VERDICT
Among hybrids, the Honda CR-Z is the most fun to drive by a mile, at least. It’s ideal for highway commuters or drivers who regularly only need room for themselves and, at most, one other person. Don’t be too bummed by its official mpg estimate. Use the different driving modes wisely and you’ll see 40-plus mpg.

Volkswagen Jetta TDI (diesel; sedan)
Base Price: $24,865
EPA Gas Mileage: 30 city, 42 hwy, 34 overall
Annual Fuel Cost: $1,751
Air Pollution Score: 5; Greenhouse Gas Score: 7; ACEEE Green Score: 48

PROs
- The diesel Jetta gets great highway fuel economy and is ideal for road trips given its range (500 miles or more), which Automoblie magazine describes as akin to that of a nuclear submarine.
- Redesigned to be slightly larger and lighter than the diesel Jetta that won the 2009 Green Car of the Year award from Green Car Journal, but with the same strong mpg rating.
- Capable of using B5 biodiesel (5 percent biodiesel, 95 percent petrodiesel), and doing so doesn’t void the warranty.
- Diesel engines routinely last longer than gasoline engines. 250,000 to 300,000 miles (or even more) is fair to expect.
- Many drivers report better-than-the-rating fuel economy results. You can see real-world examples at tdi.vw.com/leaderboard.

CONs
- Diesel fuel generally costs about 15 to 30 cents more per gallon than regular gasoline. The DOE projects that diesel fuel will average $3.81 in 2011.
- Compared with the Prius, the diesel Jetta is more expensive and has lower fuel economy.
- The $1,300 tax credit from Uncle Sam for clean diesel cars from Volkswagen has expired.

EXPERTS SAY
- “Diesel technology is underappreciated in the United States. The Jetta TDI shows that today’s diesel isn’t smelly, slow or wreathed in black smoke as were the diesels of the 1980s.” — Jim Motavalli
- “While cars like the Jetta TDI are a huge improvement over their diesel ancestors, they don’t yet meet the cleanest tailpipe emissions standards regularly met by most hybrids.” — James Kliesch
- “Clean diesel is a fuel-saving, carbon-reducing technology that is here today and requires no new infrastructure. The fact that abundant torque makes TDI cars great fun to drive is icing on the cake.” — Todd Kaho

VERDICT
The Jetta TDI is at the top of the new class of diesel cars, and proves that clean diesel deserves a place in the lineup of green car options. If you’re looking for long-term value, high-mpg (especially on the highway) and more oomph than you get with most hybrids, the Jetta may be the right car for you.