

What is a plug-in car?

Plug-in cars use clean, affordable, domestic electricity for some or all of their energy. All-electric vehicles (EVs) store 100% of their energy in battery packs. Plug-in hybrids (PHEVs) store some energy in their battery packs and also have gas engines to extend range. Conventional hybrids have batteries but all their energy comes from gasoline; lacking plugs, they cannot plug into cleaner, cheaper power!

Sounds great! Can I get one?

YES! Carmakers are beginning to offer Americans the choice of electric cars and plug-in hybrids. Production all-electric vehicles were first introduced in California in the 1990s in small numbers. In 2008, Tesla Motors came out with the Tesla Roadster and showed the world that there is demand for a high-performance all-electric sports car. In 2011 the major automakers began producing plug-in electric vehicles for the mass market, including the all-electric Nissan LEAF and the plug-in hybrid Chevy Volt. Many more models are expected to enter the market over the next few years.

Plug In America is working with automakers and policymakers to ensure that affordable plug-in vehicles continue to be available in volume.

Plug-in Vehicle Tracker: What's Coming and When

Virtually every major automaker and several smaller companies are developing plug-in vehicles. Plug In America tracks their progress. Our online Plug-in Vehicle Tracker is updated regularly and includes highway-capable cars and trucks, as well as two and three-wheeled vehicles.

www.pluginamerica.org/vehicles

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Plug-in car resources

WHO WE ARE:

Plug In America is a coalition of plug-in vehicle drivers and advocates of energy independence and clean air. Plug In America was formed when the big automakers began taking back and crushing our electric cars in California in the early 2000's. We successfully saved hundreds of great electric cars, many of which are still on the road today. We continued working to demonstrate to the big automakers that there is a market for electric cars. We worked with the federal government to enact plug-in vehicle tax incentives that are both substantial (up to \$7,500) and effective in leveling the playing field against the heavily subsidized oil industry. We continue to promote plug-in vehicles with automakers, government agencies, charging site owners, and consumers. **Our Mission** is to accelerate the shift to plug-in vehicles powered by clean, affordable, domestic electricity to reduce our nation's dependence on petroleum, use our fuel dollars to support domestic jobs, and improve the global environment. Join us!

Online Resources:

Plug In America:

www.pluginamerica.org

Plug-In Vehicle Tracker:

www.pluginamerica.org/vehicles

Electric Auto Association:

www.electrcauto.org

Must-see Documentaries:

Who Killed the Electric Car?

www.whokilledtheelectriccar.com

Revenge of the Electric Car:

www.revengeoftheelectriccar.com

What is the Electric Car?

www.WhatIsTheElectricCar.com

Charged up and Ready to Roll: The Definitive Guide to Plug-In Electric Vehicles: www.pluginamerica.org/guide

Plug In
America

We drive electric. You can too.



2012 Nissan Leaf

Plug In America



2012 Chevy Volt

WE DRIVE ELECTRIC. YOU CAN TOO.

EV Myths:

MYTH: EVs don't have enough range and drivers will be stranded when their charge runs out.

FACT: Most Americans drive less than 40 miles per day according to the U.S. Dept. of Transportation. Most new battery electric vehicles have a range of at least double that and can be recharged at any ordinary electrical outlet (120V) or public charging station.

MYTH: EVs simply replace the tailpipe with a smokestack.

FACT: Even today, with 45.3% of U.S. electricity generated by coal-fired power plants, plug-in cars reduce emissions of greenhouse gases and most other pollutants compared with conventional gasoline or hybrid vehicles. This is because EVs are three to five times more efficient than internal combustion vehicles. PHEVs reduce greenhouse gases and other emissions even if the source of electricity is mostly coal. Plug-ins can run on renewable electricity from sources such as sun, wind, hydro and geothermal. Regardless of its source, electricity is domestically produced, avoiding the extraction, processing and shipping of oil across the globe to finally end up at your local gas pump.

MYTH: EVs take too long to charge.

FACT: The most convenient place and time to charge is at home while you sleep. Even using the slowest 120V outlet, charging overnight, an electric car will replenish 40 miles or more of range. Most new BEVs and PHEVs are capable of 240V charging to full in 3 to 8 hours. Public DC Fast Chargers will provide an 80% charge in about half an hour.

MYTH: The grid will crash if millions of plug-ins charge at once.

FACT: The vast majority of charging happens during off-peak hours. Off-peak electricity production and transmission capacity could fuel the daily commutes of 73% of all cars, light trucks, SUVs, and vans on the road, according to a 2007 study by Pacific Northwest National Laboratory. Utilities are upgrading local distribution systems to accommodate plug-ins, just as they do when residents add air conditioners and TVs.

MYTH: EVs are a new, untested technology.

FACT: At the turn of the 20th century, electric cars were more common than gas cars. Electric cars made another debut in

limited numbers in the 1990s. Many of those cars remain on the road today. As the age of cheap oil ends, the electric pendulum is swinging back.

MYTH: Electric cars are glorified golf carts.

FACT: This misperception is dying a well-deserved death. Americans have been told for nearly a century that electric cars belong on the golf course. However, the highway-capable electric cars that are rolling off production lines and onto the highway today are quietly upending this urban legend. Take a look at Plug In America's online Vehicle Tracker. The long list of plug-in cars coming to market in the next few years should dispel any lingering golf cart notions. In fact, the quality and capabilities of new era EVs are on par with or surpass many high-end gas cars.

NISSAN LEAF

All Electric
For Sale Now



All-Electric Range: 75–100 miles
Top Speed: 90 mph
Weight: 3,354 pounds
Motor: 107 hp (80 kW)
Charger: Level 1 (120V); Level 2 (240V) 12 miles of range per hour, expected to double in 2012; DC quick charge 0-80% in under 30 minutes.
Battery Capacity: 24 kWh



TESLA MODEL S

All Electric
Available: 2012

Varies by Model

All-Electric Range: 160, 230, or 300 miles
Top Speed: 110 to 130 mph
Acceleration: 0-60 mph in 4.4 to 6.5 seconds
Weight: just over 4,000 pounds
Motor: Up to 435 hp (324 kW)
Charger: Level 2 (240V) up to 32 or 62 miles of range per hour; Supercharger support is 160 miles in 30 minutes
Battery Capacity: 40, 60, or 85 kWh

CHEVROLET VOLT

Plug-In Hybrid
For Sale Now



All-Electric Range: 25–50 miles
Total Range: 300 miles
Top Speed: 100 mph
Weight: 3,520 pounds
Motor: 149 hp (111 kW)
Charger: Level 1 (120V); Level 2 (240V) 12 miles of range per hour
Battery Capacity: 16 kWh
I.C. Engine: 1.4 L Gas



FORD FOCUS ELECTRIC

All Electric
Available 2012

Prerelease projections

All-Electric Range: 75 - 100 miles
Top Speed: 84 mph
Acceleration: 0-60 mph in 5.6 seconds.
Weight: 3,624 pounds
Motor: 141 hp (107kW)
Charger: Level 1 (120V); Level 2 (240V)
25 miles of range per hour
Battery Capacity: 23 kWh

What can I do?

- Stay informed and support our efforts to enable and promote electric vehicles by joining Plug In America www.pluginamerica.org/join
- Support local efforts to enable electric vehicle use. Require wiring for EV charging for new construction of multi-family dwellings. Let your auto dealer know your next car must have a plug and enough electric range to meet your daily driving needs. Support businesses that install charging stations.
- Share what you have learned with your family and friends. Encourage them to see the film *Revenge of the Electric Car*. www.revengeoftheelectriccar.com