www.DriveElectricFlorida.org
www.FPL.com/electricvehicles

Get Charged Up!

About plug-in electric vehicle cost, environmental and energy-security benefits

Today's plug-in electric vehicles (PEVs) offer a number of benefits for both consumers and fleet managers – providing environmental, cost and energy security benefits that far exceed those of traditional gas-powered cars. The outlook is even brighter in the Sunshine State, where electricity costs are lower than the national average. Some key benefits include:

1. Save Money – On Fuel and Maintenance:

Fuel Savings – the equivalent of 100 miles per gallon: Dependent on a driver's usage patterns, some battery electric vehicles (BEVs) today are rated at the equivalent of about 100 miles per gallon (100 MPGe)[1] – which is essentially equal to fueling up for a few cents per mile. Compare this to a gas-powered car, which costs an average of 14 cents per mile to drive. Traveling 15,000 miles per year in a battery-electric vehicle (BEV), or PEV in all-electric mode, could save owners more than $1,700 in annual fuel costs.

Maintenance and Operating Savings: Driving an all-electric vehicle means that the owner no longer has to worry about oil changes, maintenance on exhaust and transmission systems, and repair work on many of the other moving parts contained within a conventional vehicle. It's estimated that over conventional vehicles, BEVs will save:

- 35 percent on scheduled maintenance.[2]
- 30 percent on repairs.[3]

Additionally, with regenerative braking, brake systems in PEVs will often last longer than those in traditional vehicles.[3]

2. Reduce Emissions – For a Brighter Future

Even when emissions from electricity-producing power plants are taken into consideration, BEVs contribute to significantly less greenhouse gasses than gas-powered vehicles. The stats are impressive:

- PEVs powered by FPL's electricity have 70 percent fewer emissions than gas-powered vehicles – making them an especially feel-good option for car buyers in the region.
- Electric vehicles could reduce greenhouse gas emissions by more than 450 million metric tons annually in 2050 – that's the equivalent of taking 82.5 million passenger cars off the road.[4]

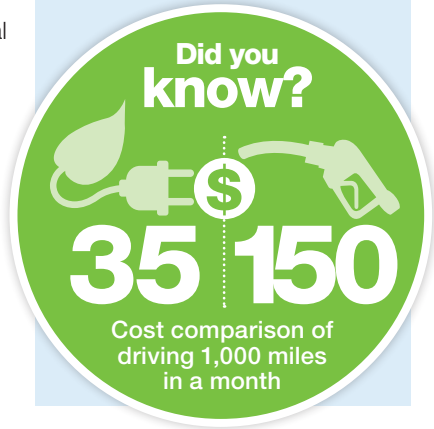
Quick guide to PEV types:

PEV: Plug-in electric vehicles get all or part of their power from the electric grid and include BEVs, PHEVs, and EREVs.

BEV: Battery-electric vehicles (BEV) run entirely on grid-charged batteries.

PHEV: Plug-in hybrid electric vehicles have batteries recharged from the electric grid, and also contain internal combustion engines fueled by gasoline.

EREV: Extended-range electric vehicles (EREVs) also have gas engines that power electric generators for several hundred additional miles after car batteries are fully discharged.



Did you know?

Most people drive less than 40 miles per day – well within the range of today's electric vehicles.

3. Lower Your Fossil-Fuel Reliance: For Greater Energy Independence and Security

Today, the U.S. imports more than 60 percent of the petroleum it consumes; two-thirds of those imports are used for the transportation sector.[5] By electrifying the nation's light-duty vehicle fleet, which accounts for roughly 45 percent of total U.S. oil consumption,[6] the U.S. would reduce oil imports by more than three million barrels per day in 2030.[7]

4. Enjoy Cutting-Edge Technology, Safety and Reliability

The fun factor: PEVs provide drivers with significant fun – offering cutting-edge technologies, quick and smooth acceleration, advanced displays and sophisticated mobile applications that provide drivers with more information and control. Plus, the satisfaction of knowing they are among the first to adopt this exciting new technology.

Advanced safety: PEVs produced by major auto manufacturers are held to the same safety standards as conventional vehicles set by the National Highway Traffic and Safety Administration (NHTSA). Additionally, PEVs must also meet the electrical and safety standards set by the Society of Automotive Engineers, the National Electric Vehicle Infrastructure Working Council and others, while charging equipment must be tested by independent and certified labs – such as Underwriters Laboratories, CSA International and Edison Testing Laboratories.

5. Experience Greater Convenience

PEVs offer owners a number of improved conveniences over traditional vehicles, including:

- Less regularly scheduled maintenance.
- The benefit of home charging – often while PEV owners are asleep – meaning they can avoid additional stops on their commute for refueling at a gas station.
- In the future, PEV owners may also enjoy the added benefit of back-up power from their charged batteries during a blackout or power outage to help them keep important electronic devices – like refrigerators and household lighting – operating until utility power is restored.

A Number of PEV Models to Choose From

As PEVs grow in popularity, more choices will be available for consumers. At the end of 2012, there were 14 PEVs available in the U.S. market, including:

- 10 BEV models.
- Three PHEV models and one extended-range model.

Automakers have announced that 25 additional PEVs will be available by 2015; and of these, nine are BEVs and 16 are PHEVs. These include sports cars, family sedans, SUVs, crossovers, etc.

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1 DOE. "Plug-In Electric Vehicle Handbook for Consumers."
2 www.plugincars.com/study-electrics-35-less-costly-maintain-comparible-ice-vehicles-125775.html
3 GE Capital data and PRTM estimates. Cited in figure 3M, "% Improvement over ICE Maintenance and Repair Costs," p. 104. "Fleet Electrification Roadmap," Electrification Coalition, November 2010.
4 DOE. "Plug-In Electric Vehicle Handbook for Consumers."
5 Electric Power Research Institute, Natural Resources Defense Council & Charles Clark Group, Environmental Assessment of Plug-in-Hybrid Electric Vehicles, Volume 1: Nationwide Greenhouse Gas Emissions. July 2007.
6 DOE. "Plug-In Electric Vehicle Handbook for Consumers."
7 US Department of Energy, Energy Information Administration.
8 Inter-Industry Forecasting Project at the University of MD, Keybridge Research LLC & Electrification Coalition. Economic Impacts of the Electrification Roadmap. April 2010

Questions? For additional information and resources on vehicle siting, please visit:
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