

Price: Gasoline vs EV power

Since much of our oil is imported, your gasoline money goes pretty far – overseas, that is. Electricity is produced within the US, rarely imported, improving balance of trade and jobs in our local economies.

Gasoline-Power	vs	EV Power
Sample Vehicles	Miles/Gallon	¢/Mile (\$4.04/gal ⁷)
Full size SUV	10	36¢
Mid-Size SUV	18	22¢
Mid-Size Sedan	23	18¢
Compact Sedan	30	13¢
Conventional Hybrid	45	9¢
Rav4-EV (miles for \$4.04)	153⁸	<3¢ (\$0.06/ kWh ⁹)
Nissan LEAF (miles for \$4.04)	232¹⁰	<2¢ (\$0.06/ kWh ⁹)

Most EVs are charged using surplus electricity available at night. With an overnight charge cost of \$1.44, a Nissan Leaf can travel 80 miles (2¢/mile^{9,10})!

At \$4.04/gallon⁷ for gasoline, EV fuel savings are dramatic. The Nissan LEAF is 85% cheaper than a compact sedan and 91% cheaper than a mid-sized sedan. The Rav4 EV is 86% cheaper than a mid-sized SUV.

Even using the more expensive daytime rate for electricity¹¹, the LEAF fuel cost per mile (\$0.03½/mile) beats *all* gas-powered vehicles by a wide margin.



About the Electric Auto Association

The Electric Auto Association (EAA) is a non-profit educational organization founded in 1967 to promote the advancement and widespread adoption of Electric Vehicles.

The EAA's mission is to act as a public source of information about developments in electric vehicle technology, to encourage experimentation in the building of electric vehicles, and to organize public exhibits and events of electric vehicles to educate the public on the progress and benefits of electric vehicle technology.

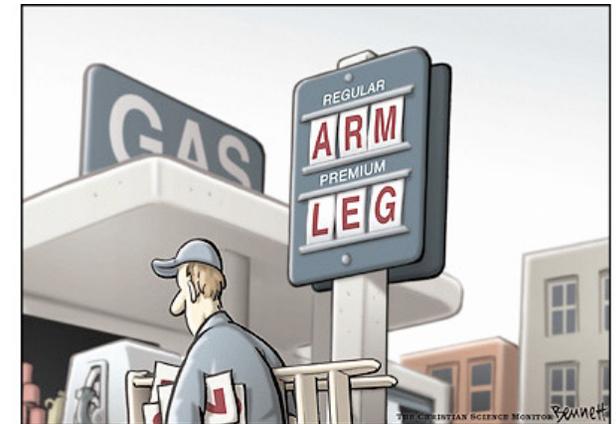
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Electric Auto Association / Sacramento EV
electricauto.org / SacEV.org
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7. American Auto Ass. 2012 Average California Price Gas
8. www.fueleconomy.gov Rav4-EV 0.44 kWh/mile
9. EV electricity rates from SMUD. Off peak rate ~\$0.06/kWh as most EVs charge overnight.
10. EPA DOT Fuel Economy and Environment window sticker for 2013 Nissan LEAF: 29 kWh/100 miles (0.29 kWh/mile)
11. Average US daytime electrical rate is \$0.12 per kWh.

Sacto Gas Prices Got You Down?



Is There Any Alternative To Gasoline?



Sacramento Electric Vehicle Association

What choices do I have?

Avoid the cost and headaches of rising gasoline prices by driving an electric vehicle (EV). EVs refuel at home. You simply plug it in, and charge using the low-cost, surplus electricity available while you sleep. Kits and conversion companies are also available to transform nearly gasoline powered cars into EVs.

Another choice is a plug-in hybrid (PHEV), sometimes called an “Extended Range” EV. A PHEV is like a conventional hybrid, but with larger batteries and a plug to charge the batteries from a standard household circuit. Most PHEVs rely on the battery until empty, then automatically switch to gasoline.

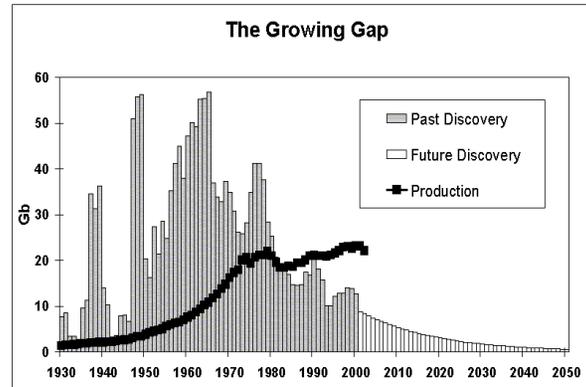


PHEVs are typically recharged every night, enabling the driver to go days, weeks, or even months without using gasoline, but the gasoline is there if extra distance is required. PHEVs vary widely in the miles they can travel on battery power only.

See the “Plug-In Vehicle Tracker” at Plug In America¹ for more information about the variety of plug-in vehicles. Tell car dealers, “**no-plug, no-deal**” when it’s time to purchase your next car.

Gasoline is a finite resource

Global demand for oil is increasing, primarily driven by growth in developing countries. Because the global market determines oil prices³, worldwide demand is keeping gasoline prices high here in the United States.



In 2012 US oil production increased a record 14%, US oil imports fell, and US demand for gasoline decreased to the lowest level since 2001, yet prices rose to a record \$4.04 per gallon average and are poised to increase further.

Meanwhile, national oil companies and unstable regions of the world now control most of the world’s oil supply, and spare capacity is shrinking. These issues make it more likely that any market disruption will cause oil prices to skyrocket.



Real price of gasoline

In the US, 2012 marked the highest gasoline price in history (adjusted for inflation).

Gasoline Price History ⁴		
Year	\$/gal (U.S. average)	\$/gal (2012 dollars)
1976	\$0.59	\$2.40
1990	\$1.13	\$1.98
2005	\$2.27	\$2.67
2013	\$4.04	\$4.04

It’s estimated that if US government subsidies were removed, the price for gasoline in the US would be between \$5.60 and \$15.14 per gallon⁵. Future price increases are inevitable, since the demand is rapidly outpacing the world supply.

In contrast to the price of gasoline, the price for electricity has not *drastically* changed in the past 18 years⁶. The U.S. average cost is about \$0.12/kWh.

