Plug-In Electric Vehicles: Fueled by Affordable, Diverse, Domestic Energy

Americans spent more than $480 billion on gasoline last year, paying an average of more than $3.50 per gallon—both record amounts, according to the Oil Price Information Service. With today’s gasoline prices averaging more than $4 per gallon in many areas of the country, individuals are increasingly considering alternative-fueled vehicles, such as plug-in electric vehicles (PEVs).

PEVs are an emerging electric technology that provide customers with an economical alternative to “filling up” gasoline-dependent vehicles—and will help boost our nation’s energy security by reducing our dependence on foreign oil. Like current hybrids, PEVs use battery power in addition to an internal combustion engine. However, unlike traditional hybrids, PEVs do not depend on gasoline to recharge their batteries. Instead, PEVs are plugged in to the existing electricity system, using a standard electrical outlet to recharge the car batteries. Owners can recharge their batteries overnight, using lower-cost, off-peak electricity. Under this scenario, the cost of an equivalent electric-gallon of gasoline could be less than $1.00. Utilizing electricity as a transportation fuel will enhance our nation’s economic security and transform our transportation sector.

Electricity Prices Remain an Excellent Value Compared to Gasoline Prices

Historically, the real price for gasoline has been more volatile than the real price of electricity. The main reason for high gasoline prices is the high cost of a barrel of oil. In part, this is because the price for oil is more affected by global markets than the price of electricity. Electricity is produced in the United States using a diverse supply of energy resources, which contributes to its greater price stability. Nationwide, less than one percent of electricity is generated from fuel oil.
Electricity Is a Transportation Fuel Generated by a Diverse Fuel Mix

America’s electric companies rely on a variety of fuels to generate electricity. While the electric generation mix varies by region, electricity is generated in the United States and, to a much lesser extent, Canada or Mexico. Nationwide, coal comprises about 45 percent of our electricity, natural gas supplies about 24 percent, nuclear fuel produces about 20 percent, and renewable energy sources, including hydropower, generate 10 percent.

Fuel diversity helps to protect electric companies and their customers from fuel unavailability, fuel price fluctuations, and changes in regulatory practices that can drive up the cost of a particular fuel. Fuel diversity also helps to ensure stability and reliability in electricity supply.

Importantly, as electric companies continue to replace older generation facilities with cleaner generation sources, emissions from electric generation continue to fall.

PEVs are available in many markets today, and will continue to be rolled out across the country in the next few years.

The electric power industry is committed to making PEVs a success by addressing the infrastructure needed for widespread deployment of PEVs and educating consumers about their charging options.

Using electricity generated domestically to fuel a range of both on-road and off-road transportation uses—such as cars, light-duty trucks, forklifts, and cranes—has the potential to transform our nation’s transportation fleet and strengthen our nation’s energy and economic security by helping to reduce our dependence on foreign oil. Electrifying our transportation system also will help create new, high-quality jobs in many states.

For more information about electric transportation and PEVs, visit EEI’s Web site, www.eei.org.

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