Electric Vehicle Overview

Driving toward a clean energy future.
Partnering for a clean energy economy.

PLUG-IN ELECTRIC VEHICLES

Plug-in hybrid electric vehicles (PHEVs) and all-electric vehicles (EVs)—also called electric drive vehicles collectively—use electricity either as their primary fuel source or to improve the efficiency of conventional vehicles.

PLUG-IN HYBRID ELECTRIC VEHICLES

PHEVs are powered by an internal combustion engine that can run on conventional or alternative fuel and an electric motor that uses energy stored in a battery. The vehicle can be plugged into an electric power source to charge the battery.

ALL-ELECTRIC VEHICLES

EVs use a battery to store the electric energy that powers the motor. EV batteries are charged by plugging the vehicle into an electric outlet.

CHARGING

- **Level 1.** Charging through a standard 110/120V outlet provides 2-5 miles of range per 1 hour of charging.
- **Level 2.** Charging through a 220/240V outlet similar to one used for clothes dryers. Provides 10-20 miles of range per 1 hour of charging.
- **Level 3.** (DC fast charging) requires a 3 phase input and the EV must be equipped with DC fast charge capability. 50-70 miles of range per 20 minutes of charging.

FUEL ECONOMY

PHEVs and EVs can reduce fuel costs dramatically because of the low cost of electricity relative to conventional fuel. Because they rely in whole or part on electric power, their fuel economy is measured differently than in conventional vehicles. Miles per gallon of gasoline equivalent (mpge) and kilowatt-hours (kWh) per 100 miles are common metrics. Depending on how they're driven, today's light-duty EVs (or PHEVs in electric mode) can exceed 100 mpge and can drive 100 miles consuming only 25-40 kWh. Assuming an average rate of 11 cents/kWh this equals $4.40 for every 100 miles driven.

RANGE

Most Americans drive about 35 miles a day. According to the manufacturers, EVs such as the Nissan Leaf and BMW i3 can have an average range of greater than 100 miles. Battery technology continues to improve in this area with many manufacturers coming out with EVs that have a 200 plus all-electric battery range. The range on a PHEV, such as the Chevy Volt, is 53 pure electric miles and up to 420 miles with a full tank of gas.

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EMISSIONS

Plug-in electric vehicles can have significant emissions benefits over conventional vehicles. All-electric vehicles produce zero tailpipe emissions, and PHEVs produce no tailpipe emissions when in all-electric mode.

COSTS

Although fuel costs for electric vehicles are generally lower than for similar conventional vehicles, purchase prices can be significantly higher. Prices are likely to decrease as production volumes increase and initial costs can be offset by fuel cost savings and a federal tax credit.

TAX CREDITS AND INCENTIVES

Plug-in hybrids and all-electric vehicles qualify for a $2,500 to $7,500 federal tax credit.

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plug in here

Santa Fe
Genoveva Chavez
Community Center
3221 Rodeo Road

Silver City
Tourism and Visitors Center
201 N. Hudson Street

As the "fuel" provider for EVs, PNM plays an important role as an ambassador for plug-in technologies with our customers.

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