

Driving Change: How Electric Vehicles Benefit Pennsylvania

EVs can save Pennsylvanians up to \$27,600 compared to gasoline vehicles over 10 years.

January 2024

The values below represent the savings over the first 10 years for popular EV models compared to similar gasoline vehicles.

SAVINGS
\$27,600



▶ Ford F-150 Lightning

SAVINGS
\$17,400



▶ Chevy Bolt EUV

SAVINGS
\$9,000



▶ Ford Mustang Mach-E

SAVINGS
\$6,200



▶ Tesla Model 3

SAVINGS
\$4,000



▶ Chevy Equinox EV

▶ There are also used EV models that will save Pennsylvanians money.

EVs provide Pennsylvanians with more options

42

EV models available for less than the average new vehicle purchase price of \$48,000



12

EV models available for less than \$35,000



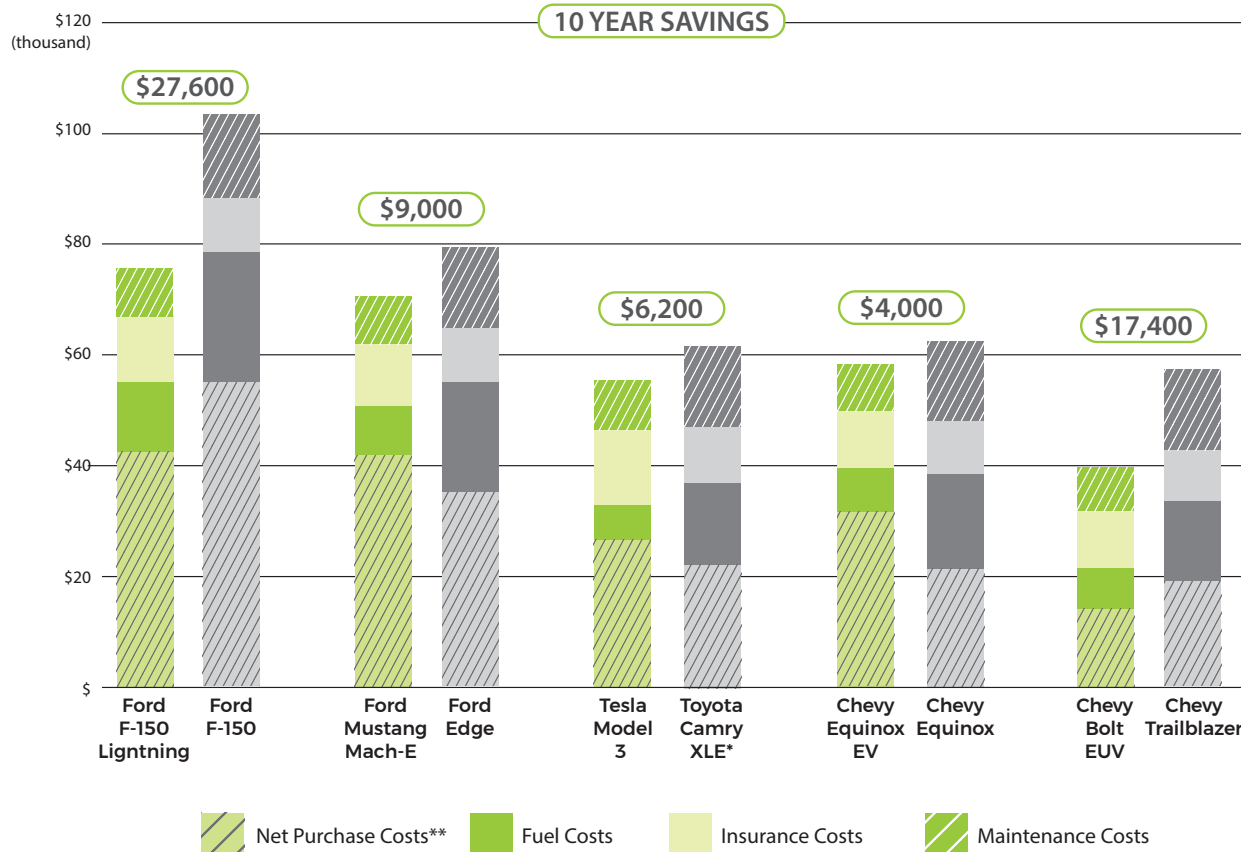
▶ Includes battery electric and plug-in hybrid models

**Some new jobs already exist at manufacturing facilities that are operating, others are based on company announcements and have yet to be created.*

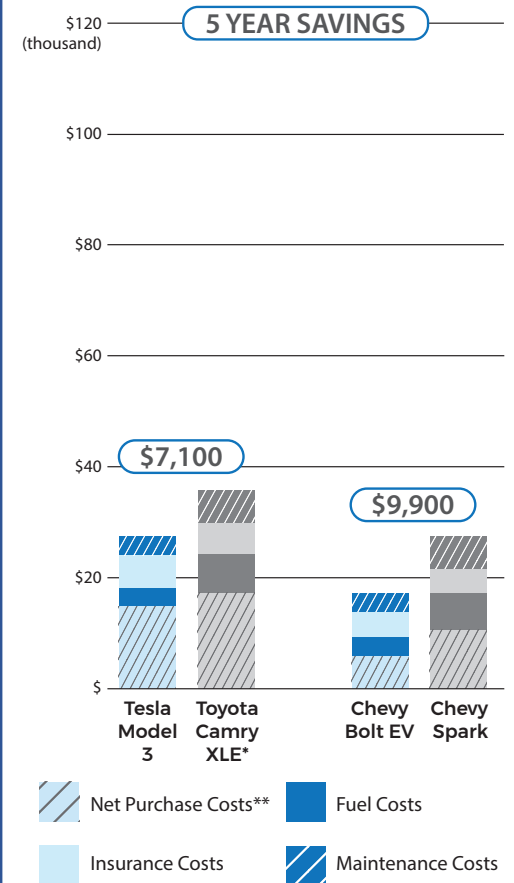


Lifetime Cost Comparison of Electric and Gasoline Vehicles

NEW VEHICLES



2019 USED VEHICLES



*Includes optional panoramic glass roof and navigation upgrade package, for equivalent features to Tesla Model 3.

** The Net Purchase Cost includes the MSRP, sales tax, trade in value, IRA and state tax credits, financing costs, vehicle registrations, and a home L2 charger (for EVs).

METHODOLOGY

This analysis compares the life-time cost of buying and operating an electric vehicle to the cost of buying and operating a comparable gasoline vehicle. The analyzed costs include the vehicle purchase, financing, and registration costs, net of state and federal EV incentives (tax credits), the cost of a Level 2 home charger installation (for EVs), and the ongoing annual cost of registration fees, insurance, fuel, and scheduled maintenance over 10 years for new vehicles or over 5 years for used vehicles. The analysis assumes that all new vehicles will be financed with a 60-month new car loan, and that used vehicles will be financed with a 36-month used car loan. For new vehicles the financed amount is assumed to be the manufacturer's suggested retail price (MSRP) plus applicable state taxes, less the trade-in value of a 5-year-old version of the gasoline vehicle. For used vehicles the financed amount is assumed to be the Kelley Blue Book private sale value for a vehicle in good condition with 60,000 miles, plus applicable state taxes, less the trade-in value of a 10-year-old version of the gasoline vehicle. Trade-in values are from Kelley Blue Book, for 5-year old vehicles with 60,000 miles in good condition or 10-year old vehicles with 120,000 miles in good condition. MSRPs are from "Build and Price" tools on manufacturer websites and are for the mid-level trim of each model. Total estimated life-time costs for EVs are also net of all applicable federal and state EV purchase and home charger purchase tax credits. To estimate fuel and maintenance costs, assumed annual driving distance is based on responses to the 2017 National Household Travel Survey and varies by state. For EVs the analysis assumes a combination of home and public charging. Public charging costs (\$/kWh) are based on published prices for Electrify America, EVGo and Tesla charging stations. Electricity costs (for home charging) and gasoline costs are from the US Energy Information Administration Annual Energy Outlook 2023, reference case; these assumed costs also vary by state. Insurance costs are from the Edmunds TCO Tool, and they vary by vehicle model and state. For more information on methodology and assumptions, see Electric Vehicle Total Cost of Ownership Analysis Summary Report. The manufacturing investment and employment numbers are taken from EDF's August 2023 publication U.S. Electric Vehicle Manufacturing Investments and Jobs, Characterizing the Impacts of the Inflation Reduction Act after 1 Year. The number of EV models available with net purchase price below the average new vehicle purchase price of \$48,000, and below \$35,000 was identified through a review of MSRP and relevant federal and incentive programs in each state; net purchase price is net of federal and state tax incentives and does not include sales tax (<https://www.consumerreports.org/cars/buying-a-car/people-spending-more-on-new-cars-but-prices-not-necessarily-rising-a3134608893/>). Federal EV tax credit qualification is current as of January 9, 2024. Several manufacturers have indicated they expect additional models to qualify for half or all of the federal tax credit soon, including models included in this analysis. The rest of the data used for this analysis are current as of December 15, 2023.