

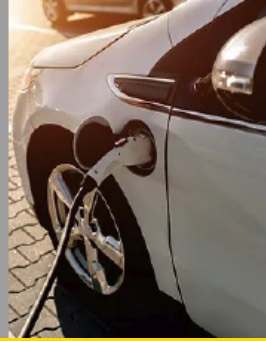
Guide to **Electric Vehicles**



Electric Vehicles
The Benefits - The Costs - Tax Credits
US Charging Station Locations

Electric Vehicles

BENEFITS



Charging
Station
Locations



TAX CREDIT

Electric Vehicles are becoming more and more prominent in our area and across the nation. We've compiled a stack of information to help you, our members, learn more about EVs and to help you make informed buying decisions if you choose to cruise down the electric highway.



The appeal of electric vehicles (EV) is gaining momentum as range is expanding. EV owners can confidently drive nearly everywhere with a bit of planning. The Chevrolet Bolt, Hyundai Kona, & Tesla Model 3, all shown here, are popular EV choices among consumers.



The Ford F150 Lightning

Potential Costs - Potential Savings

The State of Texas offers a \$2,500 rebate for buying an electric car. Texas EV Rebate Program (2,000 applications accepted per year). The US Federal tax credit is up to \$7,500 for an buying electric car. Federal Tax Credit (200,000 vehicles per manufacturer). Electric vehicle drivers save \$500-\$1500 per year in refueling costs compared to gasoline. Auto manufacturers are estimating a 40% reduction in maintenance costs over the life of electric vehicles. Many electric utility providers offer reduced rate plans for nighttime hours (this is when you should charge your car). Rebates exist for the installation of charging stations at homes and businesses (check with your local utility provider).

*Information from the Texas Department of Transportation <https://www.txdot.gov/driver/travel/ev-tips.html>

Click on this link to be taken to the US Department of Energy's Electric Vehicle Cost Calculator, as seen in the screen capture below.

The screenshot shows the 'Alternative Fuels Data Center' website. At the top, there is a navigation bar with 'ENERGY' and 'Energy Efficiency & Renewable Energy' logos. Below this is a search bar for the AFDC. The main content area features a 'Vehicle Cost Calculator' section with a blue car icon and a description: 'This tool uses basic information about your driving habits to calculate total cost of ownership and emissions for makes and models of most vehicles, including alternative fuel and advanced technology vehicles. Also see the cost calculator widget.' There is an 'ASSUMPTIONS' button. Below this is a section titled 'Choose vehicles to compare' with instructions to 'Select up to eight vehicles to compare from the makes and models below or create your own custom vehicle.' It includes dropdown menus for 'Year' (set to 2023), 'Make', and 'Model', and an 'ADD >>' button. A 'Create Custom Vehicle' link is also present. The next section is 'Tell us how you use your car', with a note: 'Because vehicle efficiencies vary depending on how you use your car, this information allows the tool to more accurately calculate fuel usage.' It is divided into 'Normal Daily Use' and 'Other Trips'. Under 'Normal Daily Use', there are input fields for 'Average daily driving distance' (34 miles), 'Days per week' (5), 'Weeks per year' (40), and 'Percent highway' (45). Under 'Other Trips', there are input fields for 'Annual mileage' (3588 miles) and 'Percent highway' (80). At the bottom, a summary shows: 'Annual Driving Distance: 11926 miles', 'City Distance: 5301 miles', and 'Highway Distance: 6625 miles'. A 'GET RESULTS' button is at the bottom left.

How to Charge

Level 1



Standardized connector

At home using a normal wall outlet (cable included with the car)

Slow charge rate (3-5 miles per hour)

Useful for drivers traveling 40 miles or less daily
(Level 2 preferred if available)

Level 2

Standardized connector

At home using a dedicated charging station

Medium charge rate (15-30 miles per hour)

Useful for drivers traveling 100+ miles daily



DC Fast Charging

Three connector types (CCS, CHAdeMO, Tesla)
Just off the highway using dedicated high power stations

Fast charge rate (150-400 miles per hour)

Useful for long-distance driving 300+ miles daily



When to Charge

All Electric Vehicles have timers that let you set when the car charges.

The best time to charge your Electric Vehicle is between 10 pm and 6 am. This is when renewable wind power peaks and there is typically more capacity in the Texas grid. You want to avoid charging late afternoons (4 pm to 7 pm) when there is typically less capacity in the Texas grid.



Where to Charge

There are over 2,000 charging stations (and growing) in Texas and many stations charge multiple vehicles at a time. For daily driving, most charging will occur overnight at home or throughout the day at Level 2 & DC Fast Charge stations. Stations are usually located at offices, shopping malls, restaurants, and hotels. For highway driving, charging will happen at dedicated DC Fast Charging stations located along main highways. Drivers can choose from multiple networks based on the fast charging connector on their vehicle (most networks support multiple connector types at each station.) Common networks include Electrify America, Tesla, EVgo, & ChargePoint. Be sure to plan ahead for any trips. Charging stations are connected to the web with apps that display station status, occupancy, cost, & charge rates.

Helpful charging station maps & route planners for EV drivers:

[A Better Route Planner](#)

[Alternative Fuels Data Center](#)

[Click on the map below to find an EV charging station near you.](#)

