



**DRIVE CLEAN
COLORADO**

Guide to EV Charging in Colorado

JANUARY 2026



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OVERVIEW

Electric Vehicles (EVs) offer a cost-effective, reliable, and environmentally friendly way to get around. EV charging can be confusing, so this guide serves as a resource to understand the ins and outs of EV charging, answering your most pressing questions.

This Guide was put together by **Drive Clean Colorado**, **CLEER**, and **4CORE** as a public resource for consumers to learn about EV charging in Colorado. You will be able to find information about the different types of chargers, charging at home, work, and publicly, and other related topics.



For an updated list on Colorado's Recharge Coaches, visit:
<https://energyoffice.colorado.gov/transportation/ev-education-resources/recharge-colorado>

|| GLOSSARY OF TERMS AND ACRONYMS

Electric Vehicle (EV) - A vehicle for on-road use that is primarily powered by an electric motor.

Plug-In Hybrid Vehicle (PHEV) - A vehicle with a rechargeable battery and an electric motor with a range of 20–50 miles before switching to the gasoline engine.

Hybrid Electric Vehicle (HEV) - A vehicle that is powered by an internal combustion engine and one or more self-charging electric motors, assisting the gasoline engine to achieve 40-50 mpg.

Internal Combustion Engine (ICE) - A standard gas or diesel-powered vehicle generates power by burning fuel inside the engine, converting chemical energy into heat and then mechanical motion.

EV Supply Equipment (EVSE) - An EV charging system or device that is used to provide electricity to a plug-in EV or plug-in hybrid EV, not hybrid vehicles. It is designed to ensure that a safe connection has been made between the electrical grid and the vehicle and is able to communicate with the vehicle's control system so that electricity flows at an appropriate voltage and current level (i.e. charging stations).

DCFC - Direct Current Fast Charging (Level 3 charger)

Electrical Capacity - The maximum amount of electricity a system can handle before it malfunctions or becomes unsafe.



INTRODUCTION

What is an EV Charging Station?

Let's start with the basics. EV charging involves transferring electrical energy from the grid to your vehicle's battery. The charger regulates this process, ensuring a safe and efficient flow of electricity. When you plug your EV into a charger, the charger communicates with the vehicle to determine the appropriate voltage and current. It then delivers electricity to the battery, which stores the energy for later use. EV charging is compatible with fully electric vehicles and plug-in hybrid electric vehicles (PHEVs), but not with traditional hybrid electric vehicles (HEVs), as they do not have a charging port.

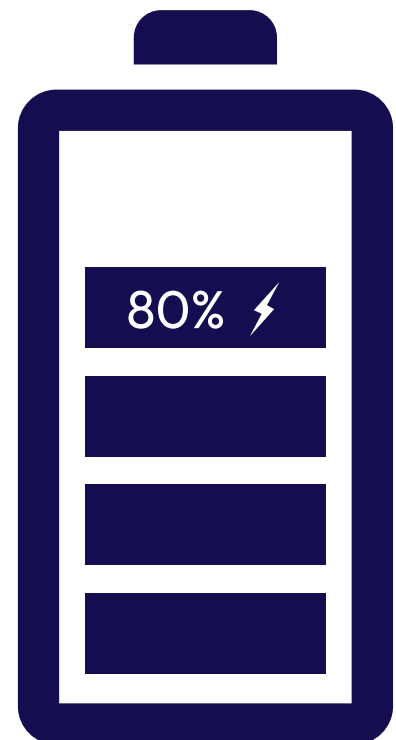
Charging stations can operate on a networked or non-networked server. Networked EV chargers are connected to the internet, enabling remote management, data collection, and features such as dynamic pricing. Non-networked EV chargers are stand-alone units for simple charging, typically used for private or personal use because of their inexpensive installation.

Battery Basics

Most EVs use Lithium-Ion batteries, and for this type of battery, it is best to keep the charge within the 'sweet spot' of about 20-80%. Staying in this mid-range over thousands of charging cycles can significantly slow long-term battery aging.

Operating an EV below ~20%: The battery voltage gets low, which stresses the cells.

Charging an EV above ~80%: Voltage gets high, which accelerates degradation.



|| UNDERSTANDING EV CHARGING

Charger Types and Prices

With EV charging, there are three types: Level 1, Level 2, and Level 3 (DCFC). Each of these charger types has different characteristics, prices, and uses. Below highlights the three types of charging and their capabilities.

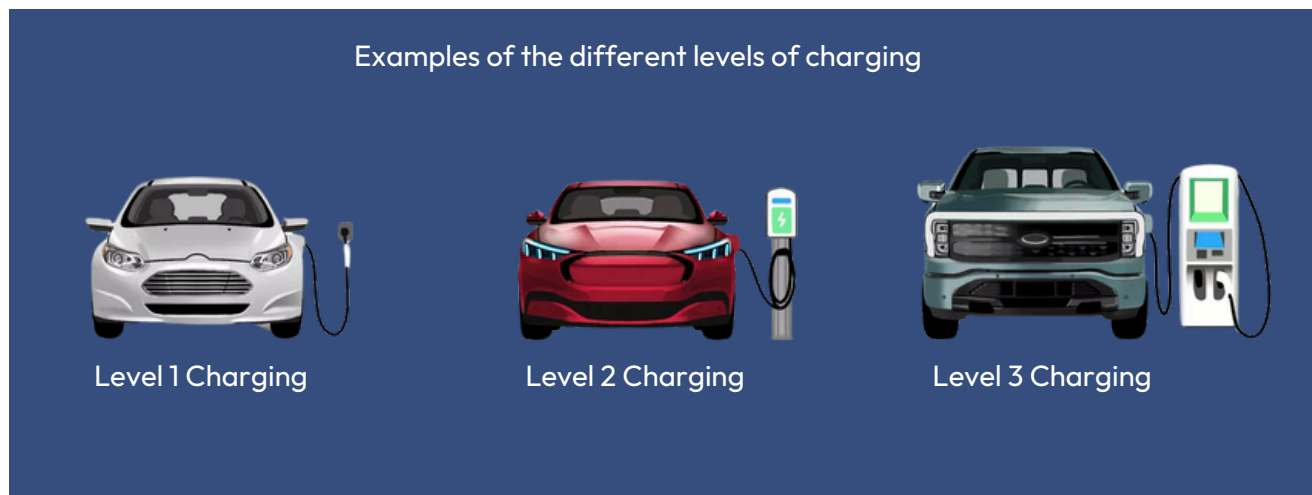


Photo source: [Lifewire](#)

Charger Port Types

In addition to the different types of charging, there are different types of ports, or plugs. These are the physical connectors on your vehicle—similar to the charging port on your phone. Most vehicles come equipped with charging capabilities using J1772 and CCS1 port types (see next page). NACS is a part of the Tesla network, which is available for Tesla cars and certain car brands that have adapters. Many original equipment manufacturers (OEMs) are making adapters, so it is recommended to use the adapter from your OEM, rather than one found online.

It is important to understand the different port types, so you can quickly and easily find a charging station that is right for you. As time goes on, EV charging ports have become more standardized and more accessible.

Charger Port Types



Photo source: ChargePoint

Where can I charge? How much does it cost?

Charging your EV in Colorado is accessible, with options to charge at home, your workplace, or in public places. Each charging location has different characteristics and benefits.

The cost of charging your EV can vary in price depending on where you plug in. **Home charging** is usually the cheapest, since you're just paying your local electricity rate (about \$0.10–\$0.30 per kWh).

Public charging typically costs more because companies need to cover equipment, installation, and service fees, although you can find free charging at certain locations. Public Level 2 chargers typically average \$0.20–\$0.26 per kWh, while Public Level 3 or DC fast chargers average about \$0.35–\$0.50 per kWh.

Utilities also play a role, with many offering **time-of-use pricing** that makes electricity cheaper overnight and more expensive during peak hours. Planning your charging around these rates can help keep costs down, especially if you mostly charge at home. Networks like ChargePoint, EVgo, and Electrify America may also add session or idle fees.

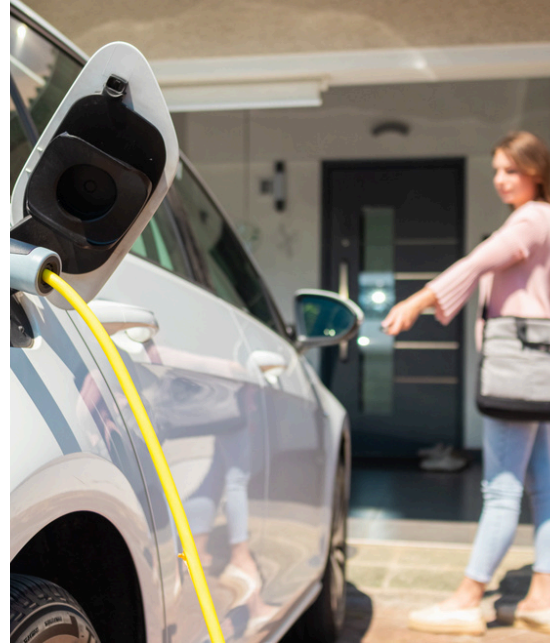
Types of Chargers Overview

	Level 1 (AC)	Level 2 (AC)	Level 3 (DC)
Voltage (approx.)	120V	208V - 240V	480V
kW Power (approx.)	1.4kW	7 - 19 kW	20+ kW
Speed of Charge	Slow	Medium	Fast
Typical Range Added Per Hour	2 - 5 miles	10 - 20 miles	20 - 80+ miles
Estimated Time to Full Charge	24+ hours	6 - 8 hours	30 - 90 minutes
Average costs*	\$0.10-\$0.30/kWh \$0.21 per hour	\$0.20-\$0.26/kWh \$0.73 per hour	\$0.35-\$0.50/kWh \$20 per 30 minutes
Best for	Plug-In Hybrids. Very long dwell times. Low vehicle utilization.	Extended or overnight dwell times. Fleet vehicles.	High vehicle utilization. Public and emergency applications.
Common Locations	Homes, multi-family units with garages, workplaces, parking near outlets.	Homes, multi-family units, workplaces, fleet depots, parking structures.	Gas stations / rest stops, businesses near highways, public fast-charging stations, fleet depots, businesses with short customer dwell times.
Installation & Potential Electrical Upgrades	Easy installation with no upgrades usually necessary. Plugs into a standard 120V outlet.	Requires an electrician to install a dedicated circuit. Panel upgrades may be required..	Requires significant panel / service upgrades.

*all costs are approximate; Level 1 and 2 costs are based on the CO state average of \$0.11 per kWh; DC Fast Charging is based on \$0.40 per kWh

Charging at Home

Approximately 80% of all EV charging takes place at home. Charging your car at home is as simple as charging your phone; just plug it into a 120V outlet (any 3-prong outlet). You can also have a level 2 charger (240V) installed that charges faster than a traditional 120V outlet. This is perfect for people who drive longer distances more frequently. Expect ~24 hours for a full charge on Level 1, or 6-8 hours with Level 2 charging.



Home Charging Costs

While the cost of charging an EV at home using a Level 1 (L1) or Level (L2) charger is typically lower than fueling a car with gasoline, electricity costs can vary by time-of-use. Home charging is usually the cheapest, since you're just paying your local electricity rate (about \$0.10–\$0.30 per kWh).

Costs of EV Charging vs. Price of Gas

<p style="text-align: center;">Electricity Rates</p> <p>The cost of electricity varies by region, but on average, the cost per kilowatt-hour (kWh) in the United States is about \$0.13.</p>	<p style="text-align: center;">Gasoline Prices</p> <p>The average price of gasoline in the United States is around \$3.50 per gallon (prices can vary widely based on location and market conditions).</p>
<p style="text-align: center;">Energy Consumption</p> <p>Most EVs consume about 30 kWh per 100 miles. Therefore, if you drive 1,000 miles per month, you'll use approximately 300 kWh.</p>	<p style="text-align: center;">Fuel Efficiency</p> <p>A typical gas-powered car gets about 25 miles per gallon.</p>
<p style="text-align: center;">Monthly Cost</p> <p>At \$0.13 per kWh, charging your EV for 1,000 miles would cost about \$39 per month (300 kWh \$0.13/kWh).</p>	<p style="text-align: center;">Monthly Cost</p> <p>For 1,000 miles of driving, you'll need 40 gallons of gas. At \$3.50 per gallon, this equates to \$140 per month (40 gallons \$3.50/gallon).</p>

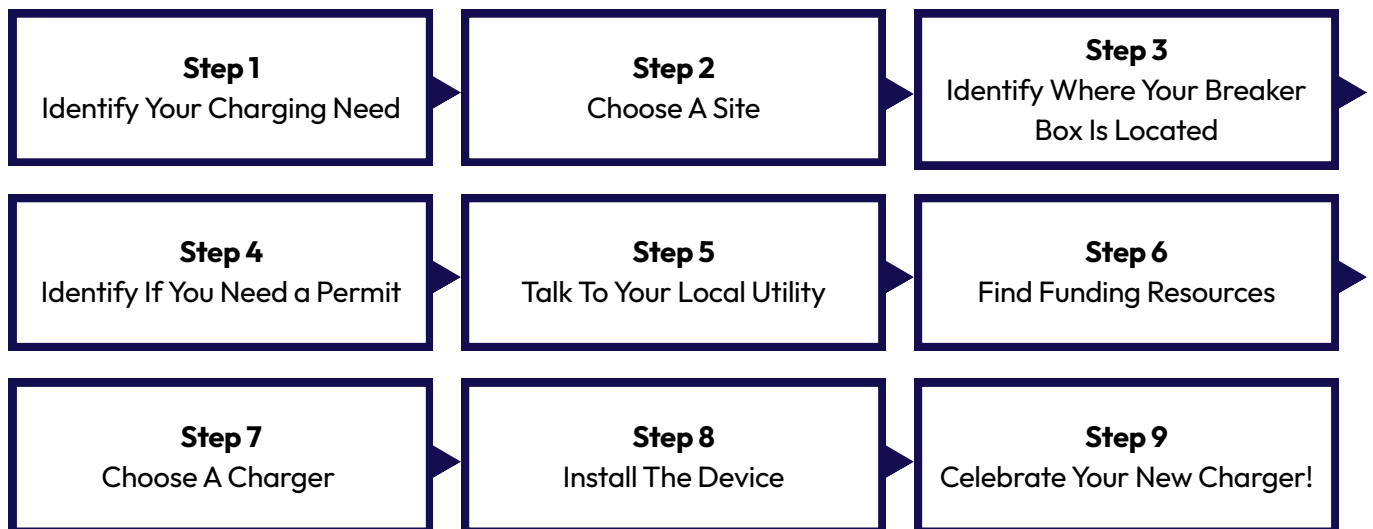
Installing Level 2 Charging at Home

To install a Level 2 charger at home, you'll need to hire a licensed electrician to ensure safety and compliance with local codes. The charger requires a dedicated 240V circuit, typically a NEMA 14-50 outlet or a hardwired connection, and it's important to check your electrical panel capacity since older homes may need upgrades to handle the additional load. Installation costs usually range from \$500 to \$2,000, depending on wiring, permits, and the charger model.

Below outlines the nine steps to installing a Level 2 charger at home.



Level 2 Charging Station in Home.



For more information on installing a Level 2 charger at home, you can check out Drive Clean Colorado's FREE Residential Electric Vehicle (EVomg) Charging Installation Guide.

Charging at Work

Businesses can offer Level 2 chargers for employees, and many universities offer charging for students, staff, and visitors.

Workplace Charging Costs

Workplace charging can be strategic and convenient to avoid peak time-of-use rates later in the evening, and can ease range anxiety. Public workplace Level 2 charging averages **\$0.20–\$0.40 per kWh**, though many employers offer discounted or free charging.



Photo courtesy of the Colorado Energy Office



Workplace Charging In Action

On November 7, 2024, Ready Foods hosted a ribbon-cutting ceremony celebrating the installation of three new electric vehicle (EV) charging stations. This offers a total of six charging ports at their workplace—a significant milestone in their commitment to sustainable transportation and workplace charging for employees.

Looking for Workplace Charging Where You Work?

Drive Clean Colorado is committed to ensuring the benefits of electrification are distributed equitably. Through our Workplace Charging Initiative, called Watts@Work (W@W), we aim to help workplaces in Colorado lower the barriers to electric vehicle adoption by increasing the number of employers currently offering workplace charging to their employees.

Charging Publicly

There are over 5,000 public chargers across Colorado, and more are being added every day. You can find these chargers using tools like Google Maps, PlugShare, Chargehub, A Better Route Planner (ABRP), and more! Some stations charge a fee for electricity consumed, so be sure to double-check.

Public Charging Costs

While home charging is typically cheaper, you may occasionally use public charging stations, which can be more expensive. Here's what to consider:

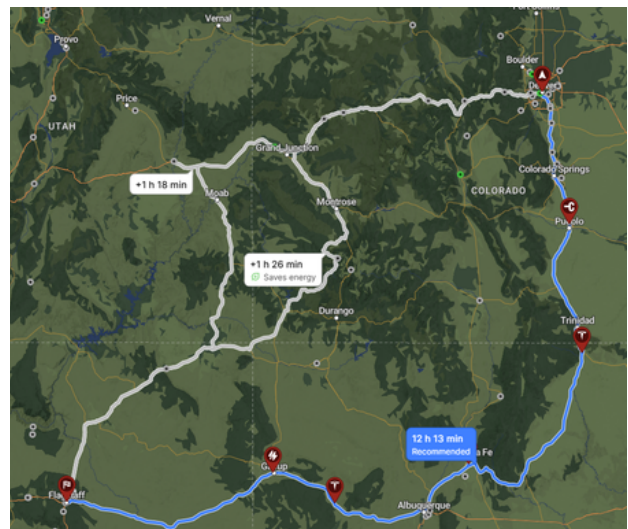
1. Pricing Models: Public chargers often have different pricing models, such as per minute or per kWh. Prices can range from **\$0.20 to \$0.60 per kWh**.
2. Membership Programs: Many public charging networks offer membership programs that provide discounts on charging rates.



Planning A Road Trip

Charging tools, such as A Better Route Planner (ABRP), can help you navigate your EV charging needs across states and countries. Your vehicle's built-in navigation system can also guide you to nearby public charging stations and plan charging stops along your route.

The image to your right shows one example route you could take from Denver, Colorado, to Flagstaff, Arizona, using public charging stations.



A Better Routeplanner (ABRP) Road Trip

Charge West

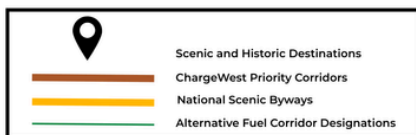
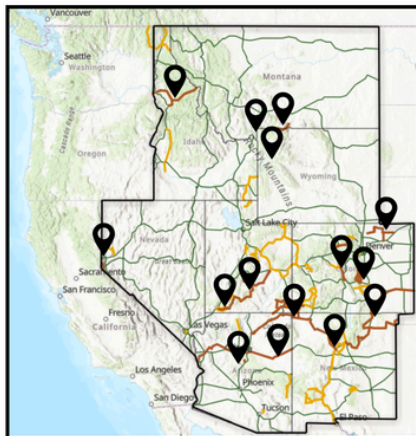
Concerned about charging along Colorado mountain corridors?

ChargeWest is an EV corridor collaborative across eight states in the Intermountain West region, committed to improving Electric Corridors throughout rural gateway communities, state and national parks, and scenic byways. The states involved are Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.



“With our four National Parks and extensive rural corridors, this initiative is vital for reducing emissions along routes to our parks, supporting local communities, and preserving our state's pristine landscapes for generations to come.”

– Bonnie Trowbridge
Executive Director of Drive Clean Colorado



- Northwest Passage - ID
- Beartooth Highway - MT/WY
- Lake Tahoe Scenic Byway - NV
- Route 66 - AZ
- Red Rock Scenic Byway - AZ
- Zion Mt. Carmel Scenic Byway - UT
- Journey Through Time Byway - UT
- Trail of the Ancients - UT/CO/NM
- Jemez Mtn. Trail Byway - NM
- Santa Fe Trail Byway - CO
- Pawnee Pioneer Trail - CO



- Grand Teton National Park
- Yellowstone National Park
- Zion National Park
- Bryce Canyon National Park
- Capitol Reef National Park
- Mesa Verde National Park
- Grand Canyon National Park

In Summer and Fall 2025, Drive Clean Colorado traveled along Colorado’s Scenic and Historic Byways and through dozens of cities and towns as part of the **Keep Going: Drive Clean Colorado Tour**. This tour accelerated the adoption of clean transportation by connecting directly with communities across Colorado.

At each stop, we met with community leaders, fleets, transit providers, local businesses, utilities, fuel providers, nonprofits, and residents to learn about local challenges, regional needs and opportunities.

TESTIMONIALS FROM COLORADO EV OWNERS

“ I recently moved and don't have access to home charging, so we use the Level 2 chargers down the street. We plug in, walk home, and once the car is fully charged, walk back to move it —it's actually been very easy. ”

“ My apartment complex has 5 chargers and 10 ports. They are 7kw level 2 chargers which takes 6-8 hours to get a full charge but is ideal for overnight charging. The cost of charging averages around \$5. I've only encountered a couple times where all chargers were taken and I had to wait to charge ”

“ I work from home and usually drive less than 30 miles a day, so a standard wall outlet works perfectly for me. I plug in at night, charge throughout the day, and I'm ready to go whenever I need. It's an ideal fit for my lifestyle. ”

|| ASK FOR HELP: COACHING

As you can see from the information outlined in this document, there are many different moving pieces in an EV charging project and a variety of different ways of approaching them. There are unique strategies for public use, workplace, multi-family unit, and fleet-dedicated charging projects.

ReCharge Coaches at the Colorado Energy Office provide coaching services for electric vehicles (EVs) and charging infrastructure in every county in Colorado. They are experts in the field and are here to help. Reach out using the contact information below to talk through different scenarios, use cases, best practices, incentives, case studies, and more.

In addition, they can connect you with a wide network of industry professionals who will serve as an invaluable resource throughout your EV charging journey. For more information and to reach a ReCharge Coach in your region, please access the **Colorado Energy Office ReCharge page!** You can also learn more by accessing the various organization websites in Colorado related to the different ReCharge coaches: **Drive Clean Colorado**, **CLEER**, and **4CORE**.

West Central | CLEER | Dova Castañeda Zilly: dcastanedazilly@cleanenergyeconomy.net

Northern Colorado | Drive Clean Colorado | Desiree Moore: desiree@drivecleanco.org

Denver Metro West | Drive Clean Colorado | Jenna Wyatt: jenna@drivecleanco.org

Denver Metro East | Drive Clean Colorado | Jake Bergen: jake@drivecleanco.org

Southeast | Drive Clean Colorado | A.J. Samora: AJ@drivecleanco.org

East Central | Drive Clean Colorado | Mikey Guanipa: mikey@drivecleanco.org

Southwest | 4CORE | Chris Cottrell: chris@fourcore.org



FREQUENTLY ASKED QUESTIONS

Have a question? Take a look below to find the answer. If you don't find what you're looking for, contact your region's recharge coach from the list above, and we'll get in touch!

1. How will I charge my car if the power goes out?

Just like you would with any vehicle, before winter storms or severe weather, be sure to charge up. It is recommended to always keep your vehicle charged to at least 40% during stormy or winter months, to handle any outages. In comparison to internal combustion engine vehicles, if the power goes out, gas pumps do not work either.

2. What happens if I run out of charge?

If you run out of charge, a tow car can be dispatched to take you to the nearest charging station. AAA also has a fleet of roadside recharging trucks equipped with fast chargers to help stranded drivers.



Photo Source: AAA

Running out of charge is rare but can happen if you misjudge distance or encounter unavailable chargers. Unlike gas cars, you can't just walk to a station with a fuel can. Instead, roadside assistance services are evolving to meet EV needs, offering mobile charging or towing. Planning ahead with apps and keeping a buffer charge greatly reduces the risk. As a best practice, treat your EV like a gas car and don't let it run "on empty."

FREQUENTLY ASKED QUESTIONS

3. What is the difference between a hybrid and a plug-in hybrid (PHEV)?

Hybrid (HEV): Uses a gasoline engine plus a small battery, which charges itself through regenerative braking—no plug required. Most modern HEVs offer 40-50 mpg.

Plug-in Hybrid (PHEV): Has a larger battery that can be charged via an outlet or charging station. Offers 20-50 miles of electric-only driving before switching to gas.

In summary, a hybrid charges itself and uses electricity mainly for efficiency, while a plug-in hybrid can be charged externally and can drive significant miles on electricity alone.

4. How much does it cost to replace the battery in my EV?

Compared to internal combustion engine vehicles, EVs have lower maintenance costs, and their batteries have a lifespan of ~20 years. EV batteries are designed to last 150,000-300,000 miles, with many manufacturers offering an 8-10 year warranty. With the lifespan of these vehicles and manufacturer warranties, used vehicles are usually covered as well.

Battery replacement is rare, but sometimes it is necessary. Typically, the vehicle's warranty will cover the cost of the battery; if it does not, repairs/replacements typically cost \$5,000+. As technology improves, individual cells of the batteries can be replaced for much less than the cost of the whole battery, similar to LEGO pieces.



Photo Source: RMI

To protect battery health and prevent battery degradation, Level 1 and 2 charging is recommended for daily use. It is best to use DCFC / Fast Charging only when needed on long road trips or a quick top off.

FREQUENTLY ASKED QUESTIONS

5. How do I install a Level 2 charger (240V outlet) at home?

A Level 2 charger is the most practical way to keep your EV ready for daily use, providing 25–40 miles of range per hour compared to just 3–5 miles with a standard Level 1 outlet.

To install one, you'll need to hire a licensed electrician to ensure safety and compliance with local codes. The charger requires a dedicated 240V circuit, typically a NEMA 14-50 outlet or a hardwired connection, and it's important to check your electrical panel capacity since older homes may need upgrades to handle the additional load. Installation costs usually range from \$500 to \$2,000, depending on wiring, permits, and the charger model. Many modern chargers are “smart,” allowing you to track energy use, schedule charging during off-peak hours, and even integrate with solar panels or home battery systems.

For more information on installing a Level 2 charger at home, you can check out Drive Clean Colorado's FREE [Residential Electric Vehicle \(EV\) Charging Installation Guide](#).

IMPORTANT NOTE

This guide was prepared in good faith by Drive Clean Colorado to share an example of how electric vehicle charging has been implemented through turn-key solutions and at a trusted community location. The information presented is intended for informational purposes only and is not a recommendation, guarantee, or prediction of outcomes for any specific community.

Local conditions, costs, usage, and results may vary based on location, site selection, travel patterns, and operational decisions. Communities considering electric vehicle charging should evaluate their own needs, constraints, and goals and consult appropriate technical, financial, and legal resources before making decisions.