

NRECA Electric Vehicle Resources for Cooperatives

As the nation's transportation sector transitions to electric power, success will hinge on the buildout of robust electric vehicle (EV) charging infrastructure nationwide, including rural America. This will require creative tools and resources to help cooperatives better prepare for this transition.

NRECA has a variety of electric vehicle (EV) resources and engagement opportunities available for members to gain an understanding of the electrification trends in our industry and take steps to advance EV readiness.

The following list provides a summary of resources currently available and the corresponding website links. Visit [cooperative.com](https://www.cooperative.com) for more information and updates.

Overarching Efforts

[NRECA Research](#)

NRECA Research, a not-for-profit entity, was established in 2019 to complement the resources and services provided by NRECA to address the needs of electric cooperatives. Through NRECA Research, our members can leverage extensive internal expertise and established industry partnerships to develop and demonstrate new technical capabilities that directly address challenges and opportunities of the future electric grid.

[EV Topic Webpage on cooperative.com](#)

Developing an EV Strategy

By actively engaging in the following steps, cooperatives can help ensure reliable and efficient electric service for their members while supporting the transition to electric vehicles and the broader goals of reliability and affordability. NRECA Research is here to help co-ops with our [Electric Vehicle Strategy Services](#).

1. Start Collecting Data

- a. Identify EV ownership within the membership.
- b. Track when and where charging occurs.
- c. Establish baseline loadings and analyze transformer and lateral loading data.
- d. Review EV customer load profiles pre- and post-purchase.

2. Work Holistically as a Cooperative

- a. Collaborate across departments: Communication, Engineering, Member Services, Operations, Key Accounts, Finance/Accounting, and Legal.

- b. Develop a member engagement/communication plan for EVs and Electric Vehicle Supply Equipment (EVSE).
- c. Understand EVSE providers/operators, utility interactions, and EV charging management strategies.
- d. Track member behaviors, rate and program effectiveness, and revenue and usage stats from EV charging stations.

3. Reassess Planning Criteria

- a. Consider EV impacts in load forecasts, Comprehensive Work Plans (CWP), and Long-Range Plans (LRP).
- b. Evaluate planning schedule and be flexible in execution.

For consideration, these principles can be incorporated with basic EV strategies:



Engagement and Learning Opportunities

- **Cooperative Approach for Vehicle Electrification (CAVE) Consortium**
 For more information and resources on electric vehicles (EVs), cooperatives are encouraged to join the [\(CAVE\) Consortium](#), a network of electric cooperatives that have implemented or are planning to implement a variety of electric transportation programs.
- **NRECA Directors Course**
[\(965.1\) Electric Vehicles: Strategy and Policy Considerations \(Directors Course\)](#)
- **Podcasts**
[Along Those Lines: Powering Electric School Buses in Rural America](#)
[Along Those Lines: EV Uptake in Rural America](#)
- **NRECA Business and Technology Strategies Reports**
[Electric Vehicle Rate and Program Design for Electric Cooperatives](#)
[Here Comes the \(Electric\) School Bus! Early Experience at Electric Co-ops](#)
[A Guide to Adopting Plug-in Electric Vehicles to Your Fleet](#)
- **Fact Sheets**
[Electric Vehicles and EV Deployment](#) (A resource for policymakers)
[Cultivating Partnerships to Prepare for Transportation Electrification](#) (A resource for cooperatives)

Common Electric Vehicle Industry Terms

- **Battery Electric Vehicle (BEV):** An all-electric vehicle that uses electricity from an onboard battery to power its motor. Typically referred to as an Electric Vehicle, EV.
- **Direct-current Fast Charging (DC Fast Charging or DCFC):** Fast charging equipment that supplies EV batteries with Direct Current instead of the electric grid's Alternating Current.
- **Electric Vehicle Supply Equipment (EVSE):** Special equipment that takes energy from the grid and supplies electricity to electric vehicles. Commonly called charging stations, charging docks, or referred to by their ports.
- **Internal Combustion Engine (ICE):** An engine that generates motive power by combusting gasoline, oil, or other fuel.
- **Level 1 Charging (Level 1):** Charging equipment that provides charging through a standard household outlet, 120V AC plug.
- **Level 2 Charging (Level 2):** Charging equipment that provides charging through 240V (typical in residential applications) or 208V (typical in commercial applications) electrical service.
- **Plug-in Hybrid Electric Vehicle (PHEV):** A vehicle that is powered by an internal combustion engine and an electric motor that uses energy stored in a small battery.
- **Time of Use Rate (TOU Rate):** Utility rate structures that adjust the rate you pay for electricity over the course of the day.
- **Vehicle to Grid (V2G):** A technology that enables energy to be pushed back to the power grid from the battery of an electric car.

Additional Resources

- DOE Resources:
 - [Alternative Fueling Station Locator](#)
 - [DOE Alternative Fuels Data Center's Federal and State Laws and Incentives Database.](#)
 - [Electric Vehicle Infrastructure Projection Tool \(EVI-Pro\) Lite](#)
 - [EVs@Scale Research Consortia](#)
 - [Federal Tax Credits for New All-Electric and Plug-in Hybrid Vehicles](#)
 - [Public Electric Vehicle \(EV\) Charging Infrastructure Playbook](#)
 - [U.S. National Blueprint for Transportation Decarbonization](#)
 - [Workplace Charging Employer Workshop Toolkit](#)

- DOT Resources:
 - [Charging Forward: A Toolkit for Planning and Funding Rural Electric Mobility Infrastructure](#)
- Electrification Coalition Resources:
 - [EV Funding Finder](#)
 - [V2X Implementation Guide](#)
- Energetic's [EV Watts Vehicle Dashboard](#)
- EPA Resources:
 - [Clean School Bus Program](#)
 - [Clean School Bus Case Studies](#)
 - [Coordinating with Electric Utility Partners Resource](#) (School District Resource)
 - [Final Rule: Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles – Phase 3](#)
 - [Final Rule: Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles](#)
- EPRI's [EVs2Scale Resources](#)
- EZMT [The Energy Zones Mapping Tool](#)
- Federal Highway Administration Resources:
 - [National Electric Vehicle Infrastructure Standards and Requirements](#)
- ICCT Resources:
 - Briefing: [Home Charging Access and The Implications For Charging Infrastructure Costs In The United States](#)
 - White Paper: [Emerging Best Practices for Electric Vehicle Charging Infrastructure](#)
- IEEE Spectrum's [The EV Transition Explained](#)
- INL's [Caldera EV Simulation Platform](#)
- Joint Office of Energy & Transportation Resources:
 - [Cold Weather Impacts on Electric School Buses](#)
 - [Community Charging: Emerging Multifamily, Curbside, and Multimodal Practices](#)
 - [Community Engagement Tips for EV Infrastructure Deployment](#)
 - [Electric Vehicle Charging Analytics and Reporting Tool \(EV-ChART\)](#)
 - [National Zero-Emission Freight Corridor Strategy](#)
 - NEVI [U-Finder \(Utility Finder\)](#)
 - [Public EV Charging Station Site Selection Checklist](#)
 - [Technical Assistance 101 – How Can the Joint Office Support You?](#)

- NASEO Resources:
 - [Electric Vehicle Charging Needs Assessment](#)
 - [Southeast Regional Electric Vehicle Information Exchange \(SE REVI\)](#)
- NREL Resources:
 - [Challenges and Opportunities of Integrating Electric Vehicles in Electricity Distribution Systems](#)
 - [The 2030 National Charging Network: Estimating U.S. Light-Duty Demand for Electric Vehicle Charging Infrastructure](#)
- Touchstone Energy's [EV Resources \(Members Only\)](#)
- UC Davis Electric Vehicle Research Center's [National EV Toolbox](#)
- U.S. Access Board's [Design Recommendations for Accessible Electric Vehicle Charging Stations](#)

Contact for Questions

Jennah Denney

EV Strategies & Solution Manager

(501) 400-5548

Jennah.denney@nreca.coop