NRECA Electric Vehicle Resources for Cooperatives

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 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

This NRECA website page provides information and links to a variety of resources and engagement opportunities regarding EVs and is regularly updated with content. Members are encouraged to visit this page often.

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 & Technology Strategies Reports**

  Electric Vehicle Rate and Program Design for Electric Cooperatives (2023)

  Here Comes the (Electric) School Bus! Early Experience at Electric Co-ops (2021)

- **Fact Sheets**

  Electric Vehicles and EV Deployment (A resource for policymakers) (2023)

  Cultivating Partnerships to Prepare for Transportation Electrification (A resource for cooperatives) (2023)

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 (DC) instead of the electric grid's Alternating Current (AC).
- **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:
  - EVs@Scale Research Consortia
  - U.S. National Blueprint for Transportation Decarbonization
  - Joint Office of Energy & Transportation's Electric Vehicle Charging Analytics and Reporting Tool (EV-ChART)
  - EV U-Finder (Utility Finder)
  - Caldera EV Simulation Platform
- Electrification Coalition Resources:
  - EV Funding Finder
  - V2X Implementation Guide
- Energetic's EV Watts Vehicle Dashboard
- EPRI's EVs2Scale Resources
- EZMT The Energy Zones Mapping Tool
- Federal Highway Administration Resources:
  - National Electric Vehicle Infrastructure Standards and Requirements
  - Waiver of Buy America Requirements for Electric Vehicle Chargers
- 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
- 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

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NRECA
America's Electric Cooperatives