



FLEET ELECTRIFICATION

Customizable, industry-leading research and applications to enable the future of transportation

For more than thirty years, the Electric Power Research Institute (EPRI) has led research and development to advance the decarbonization of the transportation industry. The institute's Electric Transportation program helps utilities design, test, and implement customized, cost-effective, and grid-friendly fleet electrification programs in the U.S. and abroad.

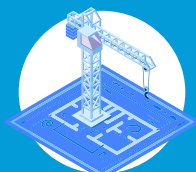
Rising consumer demand and the need for massive infrastructure development can make electrification a complex challenge for utilities. EPRI's research can accurately forecast and guide utilities to plan for the creation, integration, and growth of programs of all kind.

Focus Areas



Grid Impacts and Opportunities

Understanding the short- and long-term impacts of fleet electrification to grid operations, EPRI research identifies cost-effective pathways to achieve program goals to meet customer needs and energy demands of today and tomorrow. Infrastructure assessments identify technology and equipment, process evolutions, engineering timeframes, and other key information to help inform utility decision-making.



Strategic Planning and Roadmap Development

EPRI's trusted reputation and deep relationships enable collaboration from stakeholders across the sector. This enables comprehensive, holistic assessments which include environmental and economic benefits, market evaluation for charging sites, recommendations on customer and utility planning tools, and other key insights needed to develop successful program roadmaps.



Program Modeling, Piloting, and Scaling

EPRI's unique capabilities include customizable modeling and piloting to test strategies in a cost-effective, scientific manner. These findings inform implementation plans to identify route optimization opportunities, financial incentives, and scaling pathways that serve customers and support the overarching utility operation and goals.



Customer and Community Engagement

EPRI research provides insight to support commercial and customer fleet adoption through consumer education and outreach, fleet ownership and incentive programs, and technology assessments for charging deployment and grid optimization strategies. Innovations include the Open Vehicle-Grid Integration Platform which adjusts charging rates to meet grid needs.

Research and Applications

EPRI research and applications support the development and scaling of customized electric transportation programs in any region through collaborative, industry-wide engagement.

Strategic Planning and Development

Customer Journey and Experience

Charging Corridors and Flexible Loads

Cost Assessment and Timeline Considerations

Customer Connection Processes

EV and Non-Road Charging Infrastructure

Grid Impact and Load Assessment

Equipment Evaluation and Training

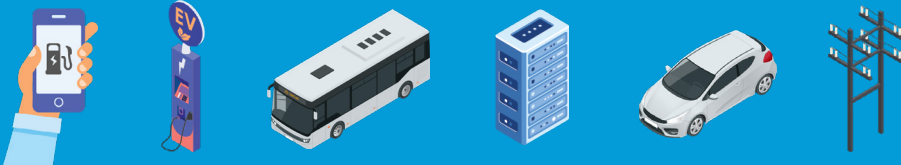
Open Platform PEVs – DR and DSM

Infrastructure Architecture, Design, Evaluation and Operation

Fleet Performance and Optimization

On-Route and Extreme Fast Charging

Vehicle-to-Grid



Learn more at

www.EPRI.com/electrictransportation



Electric Transportation Research Program (Program 18):

Thirty years of in-depth research collaboration with multiple utilities on timely issues and emerging technology within the electric transportation field. Program findings help utilities develop and expedite EV-related goals while collaborating with automakers, charging infrastructure manufacturers, and stakeholders.

Distribution and Operations Planning (Program 200):

In a joint collaboration with the Electric Transportation program (P18), research explores vehicle needs in tandem with grid capabilities, challenges, and opportunities. [Fleet Electrification Planning and Assessment](#) supplemental explores uncertainties with grid demand and distribution needs.

Fleet Electrification Planning and Assessment:

Preparing for the transition to electric transportation for freight and delivery companies, buses and taxi operations, and residential vehicles, this research explores where demand on the grid for fleet charging will be, what these needs look like, and how a utility can proactively prepare to support its customers and the grid.

Electric Transportation Infrastructure Program Support (ETIPS):

Tailored support to develop customized EV infrastructure programs through research to determine EV charging network and hardware, engineering, procurement, and construction.

Industry Resources: Electric Vehicle Consumer Guide Consumer Guide to Commercial and Industrial On-Road Electric Vehicles

Commercial and Industrial Report for Electric Transportation

North American Utility Electric Transportation Charging Infrastructure: Program Overview