

Powering Progress: Advancing Transportation Electrification in Rural Southeastern Communities

July 2024



This guide is a resource for rural Southeast communities that are beginning or continuing their journeys toward widespread adoption of electric vehicles (EVs) and complements our 2022 report, [Electric Vehicles in Rural Communities](#). It addresses common roadblocks that rural Southeast communities could face while pursuing the electrification of transportation, referencing case studies of communities that have effectively solved them. The information compiled for this guide was collected from a series of roundtables hosted by the Electrification Coalition (EC) in the Southeast. Rural communities are especially vulnerable to the effects of an oil-dominated transportation system and have the most to gain from transitioning to one powered by electricity.

Rural Southeast communities that act now will ensure they are well-positioned to seize the benefits of an electrified future.

The Rural Benefits of Electric Transportation

The adoption of EVs and the development of EV charging infrastructure has accelerated at a remarkable pace in recent years as communities across the country seek to take advantage of the many benefits of this new transportation technology. Consumers, businesses, vehicle manufacturers, fleets, utilities, public health advocates, policymakers, and other stakeholders are working together to bring about a new era of transportation that supports economic growth, improves our national security, reduces harmful emissions, and strengthens energy security. So far, much of the progress in this transformation has taken place in densely populated urban centers whose high concentrations of resources and people made them practical proving grounds during the early stages of EV deployment and adoption. But rural communities also have much to gain from an electrified transportation system, and recent improvements in battery technology and market offerings make these vehicles well-suited to the needs of rural drivers and fleets than they were just a couple of years ago.

EVs offer cost savings for consumers and fleet operators, improved air quality, economic development opportunities, job creation, improved national security, and lower greenhouse gas emissions. Given the longer distances that rural drivers travel on everyday routes, in many instances rural communities will see even greater benefits from electrification than urban areas. Rural America is home to [20%](#) of Americans but almost [70%](#) of America's lane miles. Rural residents also [drive more](#) than urban residents, [spend an average of 44%](#) more on vehicle fuel and maintenance, and are often more reliant on passenger cars than urban residents because of the lack of public transit investments. The sooner that communities engage in the necessary planning and implementation work, the sooner they will be able to reap the benefits that EVs offer.

The Role of Local Governments in the Rural Southeast

Local governments in the rural Southeast are essential to the efficient, effective, and equitable deployment of electric vehicle charging infrastructure across the U.S., as they are key implementors of federally funded projects and local private investment. Local governments also have the deepest level of engagement with their communities and can facilitate meaningful stakeholder engagement processes.

Effective stakeholder engagement is vital to the success of EV charging projects, especially for low-income and historically underserved communities that are disproportionately impacted by transportation-related pollution. Most federally funded programs already require following [Justice40 goals](#), which mandate that at least 40% of the benefits of certain federal investments flow to disadvantaged communities to ensure equitable and community-centric planning. Local groups can better help identify areas of greatest need and opportunity, help fill funding gaps, and ensure that deployment brings economic development opportunities to disadvantaged communities. Ultimately, charging infrastructure built around a community's specific mobility needs will aid at-scale deployment and transportation-related equity concerns. Important stakeholder groups to involve in the process can include, but are not limited to, community-based nonprofit organizations, equity partners, state agencies, utilities, and private industry partners.



Key opportunities to prioritize at the local level include:

- creating an EV roadmap or otherwise outlining deployment goals;
- budgeting investments in charging infrastructure and EVs for the municipal fleet;
- creating public campaigns to educate the community about EVs and charging opportunities in the community;
- and passing EV-ready building codes or parking ordinances

To learn more about specific policy recommendations for local governments, check out our [Local Government Playbook](#).

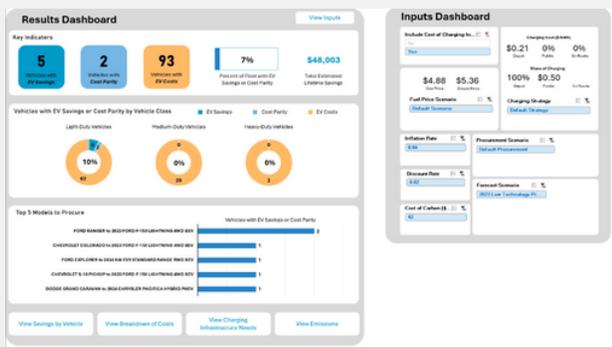
Cost Savings

EVs are often thought of as being too expensive because of higher upfront purchase prices relative to gasoline or diesel vehicles, which can prevent drivers from considering them. However, rapidly declining battery costs and growing economies of scale have led economic analysts, including [Bloomberg New Energy Finance \(BNEF\)](#) and McKinsey, to forecast that the upfront prices of light-duty EVs will reach parity with conventional vehicles in 2024, and that the purchase prices of medium- and heavy-duty EVs could be comparable with those of conventional alternatives as soon as 2027. This near-term upfront cost parity combined with EVs' already lower fuel and maintenance costs will translate to significant cost savings for consumers and fleets. In the meantime, EV purchase incentives at the federal, state, and local levels help to address higher purchase prices. A recent [study](#) showed that EVs will save rural drivers even more than urban drivers. Depending on the type of EV, the cost of gasoline, and the cost of electricity, annual savings for rural drivers can range [from \\$1,900–2,800](#), while urban drivers will see annual savings ranging from \$1,500–2,000.

DRVE Tool

The EC offers the [Dashboard for Rapid Vehicle Electrification](#) (DRVE Tool), a turnkey total cost of ownership fleet analysis application. Since its creation, it has analyzed over 850,000 vehicles, helping municipal and state fleet managers make the case to electrify their fleets.

The DRVE Tool can demonstrate the cost savings associated with transitioning a fleet or individual vehicles to electric alternatives. The EC and its developer, Atlas Public Policy, have undergone development to incorporate user feedback in its newest version.



New feature highlights include:

- A new user interface
- More medium- and heavy-duty vehicle options
- More flexible inputs for EV and charging incentives
- A new charging infrastructure feature

All that is needed to run a preliminary DRVE Tool analysis are the following datapoints:

- Vehicle Identification Number (VIN)
- Vehicle Miles Traveled (VMT, or annual mileage)
- Years of use
- Fuel costs (diesel, gasoline, and electricity)



The DRVE tool has analyzed thousands of fleets, totaling to over one million vehicles assessed for electrification nationwide. Recently, the DRVE tool was utilized on a sample of the Florida state fleet; the [report](#) found the state could save \$277 million by considering the total cost of ownership in vehicle procurement decisions (compared to the current practice of only considering the purchase price). The report, a joint effort between Advanced Energy United and the EC with support from Atlas Public Policy, highlights the lower lifetime maintenance costs that ultimately make an electric fleet significantly more affordable for the state.

Among the report's key findings are:

- Electric vehicles are more cost effective in terms of maintenance and fuel expenses, providing net savings compared to equivalent internal combustion engine vehicles in the state fleet in as little as five years.
- Switching 88% of the state fleet made up of light-duty vehicles like pickups, sedans, SUVs and vans to EVs could save an average of over \$18,000 per vehicle over 15 years.
- Total savings from a full transition to electric vehicles would result in extrapolated savings of \$277 million over that same period.

As part of the EC's contracted fleet analysis services, the DRVE Tool is used to leverage cost savings from transitioning vehicles to electric models. With the newest version of the tool, users can also estimate the cost and benefits of having charging infrastructure at each fleet depot location.

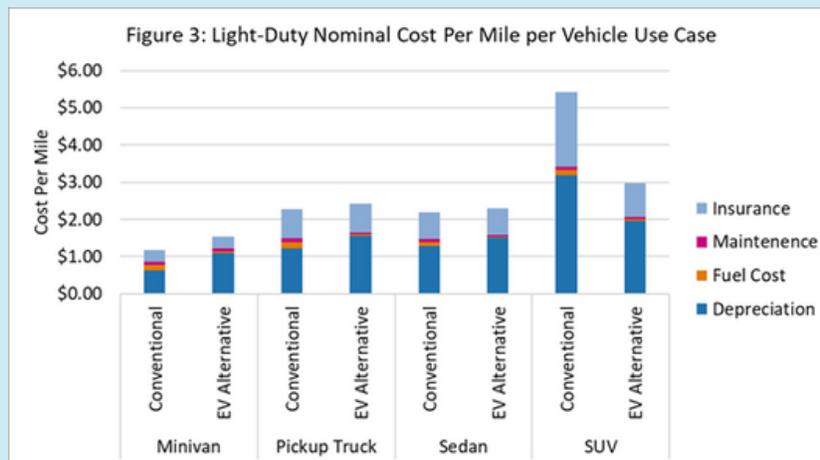
Other contracted work includes:

- A strategic fleet transition plan
- Workforce training and education on EVs, charging infrastructure, and other related topics
- Charging infrastructure siting recommendations
- Other tailored recommendations

The EC offers technical support for DRVE Tool analyses. If interested in learning more, please reach out to EVfleets@electrificationcoalition.org.

Case Study: Leon County, Florida

Working with Leon County, FL, the EC performed a DRVE Tool analysis of its light-duty fleet, which consists of minivans, pickup trucks, sedans, and sport utility vehicles (SUVs). By switching to EVs, Leon County would see an average cost of \$0.97 per mile, offering lifetime savings of over \$2,000 per vehicle. With SUVs as the most common vehicle in the fleet, savings from electrification increase the more the fleet is utilized. While ICE vehicles often accrue costly maintenance costs over time, EVs offer higher savings the longer they are kept in the fleet.



Workforce

With monumental investment in the southeastern U.S. into the EV sector comes a need for new workers to build vehicles, chargers, and parts. Across the Southeast, there have been [almost 70,000](#) new jobs promised to the region. Given that almost the entire EV supply chain—from mining raw materials to parts manufacturing, vehicle assembly, and recycling—exists in the Southeast region, these roles will span all of these industries, plus charger and vehicle maintenance. EV-only manufacturers starting up in the Southeast (like Rivian and Scout Motors) will be important players in this new reindustrialization, providing construction jobs to build manufacturing facilities, as well as jobs needed to manufacture the vehicles themselves.

Some stakeholders have expressed concerns around the transition to this EV workforce and how these workers will be trained. In response, state governments and original equipment manufacturers (OEMs) in the Southeast have created robust partnerships with universities, technical colleges, and high schools in their areas. A [report](#) commissioned by the South Carolina Department of Employment and Workforce identified two interventions that would accelerate the development of a robust workforce: the development of clear and comprehensive career pathways, and the promotion of work-based learning opportunities and apprenticeship programs. Many students are unaware of the career opportunities that will be available in the next five years, and oftentimes technical programs and certifications do not have standardized curriculum, leading to confusion over qualifications for a role. Funding at the state level should be allocated to state and technical colleges to promote business partnerships with colleges and universities, as well as to standardize training programs and certifications.

Workforce Development Partnerships and Investments

- Savannah Technical College partnered with Hyundai to offer a new EV professional certificate beginning in 2023. Students at the Savannah and Liberty campuses can now obtain the Hybrid/EV Repair Technician certificate.
- The University of Georgia announced a campus-wide Electric Mobility Initiative with the goal of enhancing research, education, and outreach opportunities in the high-growth, high-tech commercial sector.
- UGA will invest \$1 million in funding over the next five years to initiate new projects, including the development of educational programs such as the E-Mobility Certificate and research activities in battery re-use and recycling. Some of the funds will be used to build a laboratory that will be housed in the new Interdisciplinary STEM Research Complex.
- Siemens is partnering with the Electric Vehicle Infrastructure Training Program (EVITP) and Gwinnett Technical College to develop a curriculum to ensure a skilled talent pipeline of American EV charger installation workers.
- Indian River State College announced a three-year, \$2,735,771 award from the National Science Foundation (NSF) to establish the National Electric Vehicle Consortium (NEVC). The NEVC promotes the interaction of a critical mass of academic, agency, and industry experts across all EV disciplines to help secure the nation's EV workforce pipeline.

In 2024, Duke [released a study](#) in partnership with the National Association of State Energy Officials (NASEO) and the American Association of State Highway and Transportation Officials (AASHTO) to assess the readiness of postsecondary institutions in the Southeast to meet the demand of the EV transition. The report found that 34 institutions already have EV workforce development consortiums or special programs, 17 institutions have EV manufacturing training programs or courses, and 28 institutions have EV maintenance and service training programs or courses. The report also details which institutions could modify existing courses and training programs to include EV curriculum.

Utility/Rural Electric Co-Op Engagement

Electric utilities, both investor-owned and electric cooperatives (co-ops), emerge as the third-largest investor in transportation electrification, with over \$5 billion approved for transportation electrification – a portion of which supports public EV charging. Electric co-ops, specifically in rural communities, play an important role in this transition and meeting demand for EV charging, as much of the rural Southeast is

served by cooperatives. Given that they are often working with more limited resources than large investor-owned utilities, co-ops have been eager to work with communities to find charging solutions that work for the co-op and the consumer, such as incentivizing charging at night in off-peak hours when there's excess power on the grid.

In South Carolina, [Lauren's Electric Cooperative](#) offers a \$600 rebate for members interested in purchasing Level 2 charging stations and an extra \$30 for participating in peak load management efforts. In Florida, [West Florida Electric](#) and [Gulf Coast Electric Cooperative](#) offer members a \$100 all-electric vehicle registration rebate to manage long-term infrastructure and efficient rate planning, and [SECO Energy](#) offers members a monthly incentive for charging EVs during off-peak hours. In Georgia, [Carroll Electric Membership Cooperative's](#) Drive Free for a Year program offers members a monthly credit of \$30 on their power bill to cover EV charging expenses for one year. This comes in addition to the co-op's Home Charger Rebate program which saves \$250 for members installing new Level 2 chargers.

Utility investment in charging infrastructure is pivotal for strategically deploying charging stations and integrating them into the grid to optimize energy usage and enhance grid stability. Utilities implement smart charging solutions, demand response programs, and equitable deployment strategies to address concerns about accessibility and promote transportation equity. Favorable rate structures and regulatory mechanisms further incentivize EV adoption and support charging infrastructure growth.

Utility and cooperative partnerships also provide a range of benefits including formal funding agreements, informal marketing, and consumer rebates to promote EV adoption programs. Besides financial support, utilities also offer access to energy usage and efficiency data, technical expertise and support for energy management strategies, and support for the development of a clean energy workforce. Utilities can also benefit from these partnerships. Local outreach programs allow for greater participation and energy savings, improve customer satisfaction, and gain new community allies.

Utilities in rural Southeast areas are integral advocates for residential needs. They are able to collect information on resident's wants and concerns and inform policy development. Where state policy permits, local governments can work with electric co-ops to incorporate EV adoption and incentive programs through franchise and municipal aggregation agreements.

Tactics for Local Government-Utility Partnerships to Support EV Adoption

Limited	Supportive	Robust
<ul style="list-style-type: none"> Retrofit particular sites and install EV infrastructure Initiate challenge programs and competitions for households, businesses, and industries 	<ul style="list-style-type: none"> Market utility programs through local networks and information channels Engage in neighborhood-based targeted outreach Identify a pipeline of ready-to-go projects 	<ul style="list-style-type: none"> Create a one-stop shop for technical services coupled with utility incentives

Case Study: Orlando, Florida

- The [Orlando Utilities Commission \(OUC\)](#) is the municipal utility of Orlando, Florida. The OUC has been involved in transportation electrification since the early 1990s and is migrating EVs into its vehicle fleet. The OUC is also building out charging infrastructure and supporting the electrification of public transportation across Central Florida.
- As an electric utility, the OUC is encouraging commercial fleets to transition to EVs, engaging the community through webinar series, on-site facility visits, and ride and drive events.
- The OUC Fleet Electrification Program provides office hours to fleets, giving them with the opportunity to review critical electrification planning and fleet analysis. Attendees were also invited on a walking tour of the city's fleet depot for a firsthand view of the city's operations.
- The program series ended with the "Central Florida Ride and Drive" event in November 2023 with over 100 participants present. Throughout the program, the OUC recorded triple-digit attendance at their educational events, with multiple fleets moving forward and successfully electrifying their operations.

Case Study: Randolph County, North Carolina

- In North Carolina, the Randolph County Electric Municipal Cooperative (REMC) Electric Vehicle Utility Program ([REVUP](#)) offers members of the electric co-op a \$500 rebate incentive towards the purchase of a Level 2 charging station and time of use (TOU) savings rates to encourage off-peak charging.
- REVUP was initially limited to the first 25 REMC members to sign up but was expanded to the first 50 signups after early success and high demand.
- The electric co-op TOU savings rates can be applied to all residential electric usage, not just when charging an EV. This increases systemwide peak shaving and load management, saving all customers money and reducing strain on the grid.

Resilience and Emergency Management

Emergency preparedness and resilience are important measures for the Southeast, particularly if they experience frequent natural disasters. Prioritizing resilience in EV infrastructure not only ensures continued mobility during emergencies but also contributes to overall energy sustainability and disaster preparedness efforts. Factors such as strategic charger placement, backup power availability, and redundancy are crucial for ensuring uninterrupted charging services—especially during emergencies when conventional fuel options might be unavailable due to grid outages, access issues caused by flooding, or [electric vehicle supply equipment \(EVSE\) affected by extreme cold temperatures](#).

In the Southeast, where hurricanes pose a persistent risk, ensuring resilience in EVSE infrastructure is paramount. In 2021, the Florida Department of Transportation developed an [EV master plan](#) specifically addressing emergency preparedness for EV charging infrastructure. This plan emphasizes the importance of incorporating redundant power feeds and backup power generation to bolster the resilience of the charging network. Additionally, emergency charging locations and regions that experience extreme cold weather are recommended to install multiple chargers and plugs in the same place to mitigate potential operational disruptions.

The National Electric Vehicle Infrastructure ([NEVI](#)) program also plays a crucial role in emergency management and preparedness for EV drivers. With requirements to build out fast charging stations every 50 miles, no more than a mile from the designated interstate, this program will ensure that there is a reliable charging network across the state-designated alternative fuel corridors. Another key requirement for receiving NEVI funds is that each port must exceed 97% annual uptime. This stringent standard ensures that consumers can reliably access and utilize the charging infrastructure whenever they need it.

Beyond charger-specific factors affecting uptime, charging infrastructure's reliance on the grid creates a need to address grid instabilities; this is where integrating distributed energy resources becomes vital. By combining EV charging stations with on-site solar panels, battery backups, or microgrid controls, site hosts can enhance reliability and resilience, creating a sustainable energy system that supports widespread EV adoption.

The importance of resilient EV infrastructure is underscored by the growing frequency and intensity of natural disasters. The [Alternative Fuel Infrastructure Resilience Model \(AFIRM\)](#) serves as a valuable tool for planners and utilities, simulating various EV infrastructure scenarios under different evacuation conditions. AFIRM enables proactive planning to tackle challenges associated with EV adoption, ensuring continued functionality even during emergencies.

Vehicle to Grid (V2G)/Bidirectional Opportunities

To ensure that rural Southeast communities are prepared to support transportation electrification in the face of increasingly dangerous natural disasters and cybersecurity risks, it is important that critical infrastructure resilience and reliability is strengthened and supported. There is a clear tie between the realm of emergency management and transportation electrification in terms of resiliency efforts and plans.

Bidirectional charging—charging where electricity can flow both ways and be sent back to the grid when needed—can serve as a valuable grid asset to enhance resilience at critical facilities during emergency situations, enhancing U.S. energy and national security. Bidirectional charging is often called vehicle-to-grid (V2G) or vehicle-to-everything (V2X) charging. Electric school buses (ESBs) are equipped with V2X or bidirectional charging capabilities, providing not only cleaner rides for children, but also vital support in emergency response scenarios.

ESBs possess large batteries and often remain inactive for extended periods of time, making them ideal candidates to be used as "mobile power units." Leveraging V2X technology, these buses can significantly enhance infrastructure resilience and support emergency planning, preparedness, and response efforts. V2G capabilities enhance power reliability and resilience for the electric grid, emergency shelters, critical facilities, and residential and commercial buildings during power outages caused by extreme weather events. By serving as a "power bank on wheels" or "mobile battery," EVs reduce or eliminate the need to deploy backup generators or separate energy storage systems.

Underserved communities in the Southeast, often disproportionately affected by extreme weather events, stand to benefit significantly from the deployment of mobile power units during outages. [Equity-focused V2X policies and projects](#) play a crucial role in expanding such deployments and enhancing resilience in vulnerable areas.

To bolster resilience, it's essential to integrate V2G capabilities into emergency planning, preparedness, and response efforts such as FEMA Hazard Mitigation Plans; state emergency preparedness and response plans; and relevant federal, state, and local emergency management documents. Priority should be given to deploying bidirectional charging equipment at critical facilities.

Case Study: Florida and Kentucky

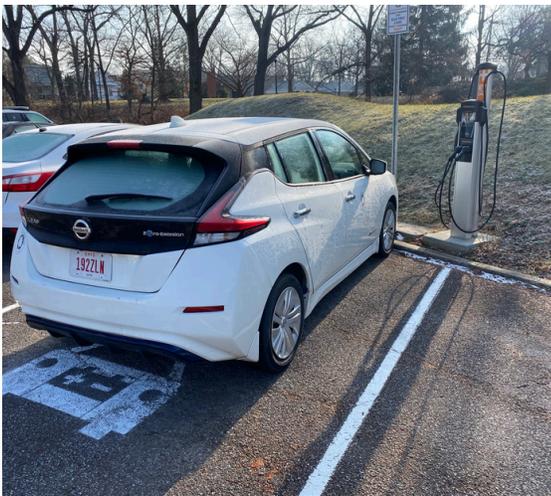
V2G technology has already become a critical piece of emergency planning and recovery, having been used in several natural disasters and working to assist rescue and relief operations.

In November 2022, when Hurricane Nicole hit Florida, families with V2G-capable Ford F-150 Lightnings were able to run essential appliances like refrigerators or window air conditioning units by running extension cords [from vehicles into the owners homes](#) as well as their neighbors. Ford even offers an ["Intelligent Backup Power" package](#), where you can power your entire home from your vehicle's battery. If managing power correctly and only using essential functions, an F-150 Lightning can power a home for up to 10 days.

Additionally, in July 2022, Ford sent two F-150 Lightning vehicles to Kentucky during a [thousand-year flooding event](#) that killed 37 and left tens of thousands of residents stranded without power. The all-electric rescue effort was able to save many people stranded without power, assisting in getting 10-15 families back home per day and delivering critical supplies.

Model EV Building Codes and Permitting

Model EV-readiness building codes and permitting policies are emerging as crucial tools for rural areas in the U.S. to navigate the burgeoning demand for EV infrastructure while also fostering economic growth. These policies are designed to seamlessly integrate EV charging stations into rural communities, ensuring they remain competitive in the transition to electric transportation. By incorporating [guidelines for EV charging infrastructure](#) into building codes and streamlining permitting processes, these initiatives aim to reduce barriers for property owners and developers, promoting sustainable transportation options while attracting investment and fostering local businesses.



In Southeast regions where access to EV infrastructure may be limited, these policies serve as essential frameworks for advancing EV adoption. They encourage the deployment of charging stations along highways, in remote areas, and at key destinations, enhancing the accessibility of EVs for residents and visitors alike. Moreover, incentives such as grants, tax credits, or financial assistance programs stimulate investment in EV infrastructure within rural communities, contributing to their economic development. By integrating EV-readiness into building regulations and permitting procedures, rural areas can embrace sustainable transportation solutions and contribute to a broader transition to a low-carbon future.

Model EV-readiness building codes and permitting policies in rural areas also demonstrate a strategic approach to fostering economic growth and innovation. Empowering businesses and property developers with clear guidelines for integrating EV charging infrastructure into their projects positions rural communities as hubs of innovation and sustainability. Streamlined permitting processes further incentivize investment in EV charging stations, enhancing the overall attractiveness of rural areas for both residents and tourists. As more charging station companies and national scale fuel retailers look to expand charging deployments across the U.S., they will likely begin with projects in advantageous or streamlined permitting environments.

Designating an "[EV-readiness ombudsperson](#)" from existing local government staff can further facilitate coordination between stakeholders, eliminating bureaucratic hurdles and accelerating the implementation of EV infrastructure projects by providing a single, trusted point-of-contact and source-of-truth on EV-readiness building codes and permitting. Ultimately, embracing EV-readiness and streamlined permitting practices enables rural communities to unlock economic opportunities and drive sustainable growth without straining limited budgets, showcasing a commitment to fostering innovation and prosperity.

In North Carolina, the City of Boone has taken steps to centralize and streamline their permitting process to speed up the rate chargers can be approved and installed. They released [an EV-Ready Handbook](#) that outlines all of the requirements needed to apply for a permit, clear definitions of what kind of permit to apply for, and contact information for staff that can assist with permitting questions. Additionally, as of Spring 2024, they are in the process of making their application process digital by including online payment and inspection portals.

State Supplemental Funding

Federal funding opportunities from the Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA) are providing significant support to advance EV adoption and charging infrastructure deployment. However, state governments in the Southeast can play an important role in the planning and implementation of EVs and charging infrastructure through state supplemental funding. While federal programs can cover the bulk of upfront costs for EVs and charging stations, oftentimes rural governments and school districts do not factor upfront investments into budget cycles. It can often be the last few thousand dollars of a project that can lead to funding being returned or not even applied for.



State-based supplemental funding can close the gap for disadvantaged applicants and give them the same competitive advantage as larger cities. Michigan and Texas, for example, have established state-funded programs that complement the EPA Clean School Bus (CSB) program, alongside other previous federal incentives from the Diesel Emissions Reduction Act and the Volkswagen Environmental Mitigation Trust. This model can be applied to school bus programs in other states, purchase incentives, or charging infrastructure incentives.

With bipartisan support, Michigan's Governor Gretchen Whitmer passed the state's 2023 annual budget which included [a historic \\$125 million in funding to establish the Michigan Clean School Bus program](#) and help school districts across the state bring the benefits of zero-tailpipe-emissions ESBs to their communities. The program is administered by the Michigan Department of Environment, Great Lakes and Energy and the Michigan Department of Education. Although Michigan school districts have received over \$67 million in funding from the first and second rounds of the EPA CSB program, the awards represent only a small fraction of what's needed to transition the nearly 17,000 diesel-powered school buses to electric models. The MI CSB program will help change that, and follows EPA CSB program guidelines in ensuring the transition is equitable, with funding prioritizing school districts in low-income and rural areas that are most affected by air pollution and other environmental justice factors. The program expects to open its first notice of funding opportunity in the Summer of 2024.

Texas established the [Texas Clean School Bus \(TCSB\) Program](#) in 2005, and in February 2024 it issued its 19th round of awards with an estimated \$13.5 million in grant funding. The program is administered by the Texas Commission on Environmental Quality (TCEQ) and funded under the [Texas Emission Reduction Plan](#). The program aims to help school districts replace or retrofit their buses to electric or other alternative fuels. The state covers up to five projects for each district, including 100% reimbursement for retrofitting projects and up to 80% reimbursement for new school buses. Since 2008, the program has allowed more than 200 Texas school districts to retrofit or replace 8,000 buses. The program has been popular; according to TCEQ officials, there is more demand than the state has allocated money to meet, operating on a first-come, first-serve basis. Texas has nearly 50,000 school buses that transport more than 1.3 million students daily—about 25% of all students enrolled in the state's public schools. Federal funding awards from the first and second rounds of the EPA CSB program, for which Texas has received over \$76 million, in conjunction with the TCSB program, are helping reduce emissions and improve air quality for Texas school district students and surrounding communities at a quicker pace.

Leveraging Federal Funding

The Charging and Fueling Infrastructure (CFI) Program, the Federal Highway Administration (FHWA)'s competitive grant program, offers \$2.5 billion over five years to supplement NEVI charging deployment and give communities opportunities to boost access to EV charging infrastructure, with a focus on their rural and disadvantaged communities.



Based on the projects awarded in round one of this funding program, applicants saw great success through regional approaches, collaborating with municipalities and other local and state government agencies to cover a larger geographic area in their project scope. The intentional placement of chargers in publicly available, geographically accessible locations for rural communities is a simple and effective way to ensure rural communities are not excluded from the charging benefits the rest of the state receives. Kings Mountain, North Carolina, which was awarded just under a million dollars in their Fiscal Year 2023 application, exemplified this through its selection of public facilities within its rural communities that are still easily accessible for major cities via nearby interstates.

IRA Tax Credits

Under provisions within the IRA, tax-exempt entities are eligible to claim tax credits related to the clean energy transition via [elective pay](#). Of the twelve types of credits, two are related to electrification transition. The Commercial Clean Vehicle Tax Credit (45W), provides \$7,500 back for a light-duty electric vehicle and up to \$40,000 back for a medium-heavy-duty vehicle based on weight. The Alternative Fuel Vehicle Refueling Property Credit (30C), provides up to 6% of the price of electric vehicle charging infrastructure installed in low-income and non-urban areas defined by [this](#) map. The credit can increase to 30% if certain prevailing wage and apprenticeship requirements are met, not to exceed \$100,000. These credits are noncompetitive and uncapped, so they are a potentially significant source of funding. Check out the EC's [resource page](#) for more information.

An important partner in obtaining these tax credits will be the local car dealerships where local governments are purchasing these vehicles. Because the 45W tax credit can be claimed as a point-of-sale credit, meaning the purchaser can receive the immediate benefit of the credit rather than waiting until the next time they file taxes, dealer education and partnerships will be critical to ensure that IRS paperwork is filed correctly and maximum financial benefits are received, both for local governments and individual buyers.

Maximizing Private Investment

Over the past five years, [private investment in public EV charging infrastructure](#) has skyrocketed, climbing from less than \$200 million in 2017 to nearly \$13 billion by early 2023. This surge positions the private sector as the primary investor in charging infrastructure deployment, with substantial contributions from leading charging companies and corporate giants like General Motors and Daimler. Following closely behind the private sector, government entities have committed over \$6 billion to deploying charging stations. [State funding for public EV charging stations](#) has surged significantly, rising from around \$300 million in 2018 to over \$1.6 billion by early 2023.



Private sector investment plays a crucial role in advancing EV adoption and expanding charging infrastructure availability. Companies investing in charging infrastructure often forge partnerships and collaborations with stakeholders like automakers, utilities, and government agencies. These collaborations enable knowledge sharing, resource leveraging, and streamlined efforts to build comprehensive charging networks that cater to the needs of EV drivers.

- Giant Food and Volta have partnered to install EV charging at 40 locations in three states and Washington, D.C.
- Hertz and BP announced that they would be building an EV charging network across locations in the U.S. The charging hubs will serve rideshare and taxi drivers, car rental customers, and the public at high-demand locations such as airports.
- ABB E-Mobility commenced production of DC fast chargers from its new facility in Columbia, South Carolina. This \$4-million investment follows previous commitments to add 125 jobs across its operations at its Sugarland, Texas training center and Southern California product development and research facility.
- Siemens has expanded its EV charging manufacturing footprint with the recent selection of Carrollton, Texas to serve as its second U.S. EV charger manufacturing hub. As mentioned above, Siemens is also partnering with the Electric Vehicle Infrastructure Training Program (EVITP) by developing curriculum to ensure a skilled talent pipeline of American EV charger installation workers at Gwinnett Technical College.
- Circle K has made a significant stride in the realm of EV infrastructure by committing to installing ABB E-mobility Terra 184 chargers at their locations. These chargers deliver 180 KW of fast, reliable, high-current charging to EV drivers. Circle K has committed to establishing 200 sites across North America. ABB introduced a new manufacturing facility in South Carolina, which will support the build-out of charging stations at Circle K locations across the Southeast.
- RaceTrac has formed a strategic alliance with Atlanta-based EV charging provider EnviroSpark to implement charging at its locations in Alabama. EnviroSpark and RaceTrac are continuing to collaborate on further locations across the Southeast to install charging infrastructure.

How is this working in communities?

While many rural communities have struggled to get transportation electrification projects off the ground, that experience is not universal. Orangeburg, South Carolina is a great example of a community looking to revitalize and seize the opportunity to be a leader in this movement. Orangeburg City Administrator Sidney Evering recognized that the city needed a jumpstart, both for tourists passing through and its own residents. Orangeburg is considered a “persistent poverty community” and is located along interstates 95 and 26, exposing it to higher levels of air pollution. Local officials see transportation electrification as an economic development and revitalization opportunity, rather than just changing vehicles.

Recognizing its proximity to major interstates, the town installed two Tesla supercharger sites along the major routes, with a third on I-95 being built soon. Orangeburg was also awarded a [\\$23 million RAISE grant](#) for a new multi-modal transit hub, including EV charging and e-bikes. This serves its downtown business district, both colleges in the town, and a new public-private redevelopment site. The goal is to revitalize the downtown area, making it a place where locals and travelers can stop to eat, rest, recharge, and experience the local culture. The town has prioritized clean transportation for its community, understanding that along with it comes better health outcomes, more stable fuel pricing, lower total cost of ownership for local drivers, and increased revenue from out-of-town EV drivers that stop to charge.





What's Next?

Rural communities have the opportunity to capitalize on the massive transportation transition that is underway in the U.S. They are well-positioned to take advantage of federal funding and initiate complementary programs through partnerships with local utilities, economic development agencies, and the like. The case studies and recommendations provided in this document represent only a handful of the opportunities available, demonstrating the widespread benefits of transportation electrification. To learn more and to get support for your programs, please contact the Electrification Coalition at info@electrificationcoalition.org.

About the Electrification Coalition

The Electrification Coalition is a nonpartisan, nonprofit organization that advances policies and actions to facilitate widespread deployment and adoption of electric vehicles in order to reduce the economic, public health and national security risks caused by America's dependence on oil. For more information, visit electrificationcoalition.org.