

ELECTRIC TRANSPORTATION

TOOLKIT FOR LOCAL GOVERNMENTS TO ACCELERATE ELECTRIC VEHICLES

In 2024, the Southeast saw a 38% annual growth in electric vehicle sales. Currently, one out of every 14 cars sold in the Southeast is electric. As more consumers move to electric vehicles and local governments continue to electrify their fleets, there is a growing need to plan for this influx of electric vehicles.

The Electrify the South (ETS) Toolkit is a guide showing practical steps that help local governments prepare for transportation electrification and prepare their communities to capture transportation electrification opportunities. It curates best practices highlighting real-world examples of successful local government EV strategies, policies and actions from around the country. The Toolkit highlights local governments from rural areas to large cities that are implementing cost-effective, sustainable, and equitable solutions to accelerate electric transportation and how the initiatives are being funded.

How to Use the Toolkit

The ETS Toolkit is arranged as an outline of eight "big ideas". Each section is ordered starting with foundational steps and adds up to a comprehensive transportation electrification plan. For local governments that lack capacity to develop a comprehensive plan, the toolkit provides stand-alone actionable items, which can be taken individually or in combination. Either way, the Toolkit will help local governments achieve an equitable transition to electric transportation, leading to cleaner air, healthier communities, and a more sustainable future.

Organization of the Document

Within each "big idea" section, there are objectives. Each objective has specific actions for interested parties to learn more about best practices with examples from other local governments, tools, and resources. For example, in the big idea section "Outreach", there are objectives like "Education, Partnerships and Engagement". Within the 'Education' objective, you will find the action "Educate municipal leadership and key staff on the basics, benefits and trends of electric transportation" (highlighted and bolded). Finally, there are enumerated best practices, including links to examples and resources.

OUTREACH: ENGAGEMENT ← Big Idea Educational opportunities for municipal staff and public citizens can increase understanding of the economic, public health, and environmental benefits of electric vehicles including the cost savings to taxpayers. Municipalities with the most success have an internal EV champion and recognize the need for a team approach with clearly identified roles and responsibilities. They also prioritize outreach to the community with intentional engagement and leverage partnerships with key community stakeholders. Through the strategies outlined below, local governments can create robust community outreach and partnerships and provide critical education. ← Objective Internal Education Educate municipal leadership and key staff on the basics, benefits and trends of Action electric transportation. 1. Educate municipal leadership and key staff on the basics of electric vehicle ← Best Practice transportation. Southern Alliance for Clean Energy | Electric Transportation Basics and Benefits Linked Examples EVgo | EV Charging Basics and Resources

Where to Start

One precursor to taking action is getting buy-in from local leaders and stakeholders. Educational opportunities for municipal staff can increase understanding of the public health, air quality, emissions, and economic benefits of electric vehicles, as well as issues surrounding charging and cost savings to taxpayers.

One way local governments have been able to test the technology is by creating a pilot program. For example, Savannah began adding electric vehicles to the code enforcement department through leasing rather than purchasing the vehicles. It allowed city officials to test the vehicle performance and plan for infrastructure to support the vehicles.

Why EV-Friendly Policies and Regulations Are Important

Adopting EV-friendly policies benefits the entire community. The economic, public health and environmental benefits of electric transportation are well documented. Regulations can streamline and accelerate EV charging infrastructure deployment. Clearly established accessibility and safety design standards can ensure access to EV charging stations for all members of the community.

Why Centering Equity & Economic Development at Every Step of the Way is Critical

When transportation policies are centered around accessibility and equity, they reduce barriers and increase opportunities, making the benefits of electric transportation more accessible and affordable for all community members. Policies and strategies to advance

equitable transportation should center on diversity and equity from the outset, be grounded in engagement with diverse communities and incorporate community needs and wants. Black, Indigenous, and People of Color (BIPOC) communities have a 66% higher exposure to transportation-related air pollution than white communities, and equitable transportation policy can redress this public health burden.



The importance of taking equity into consideration from the first step and at every subsequent step of transitioning to electric transportation cannot be overstated. Throughout this document, we highlight ways to achieve this within the recommended steps outlined, and specific references to equity considerations are marked with a scale icon and a yellow outline, These are not intended to be an exhaustive list of equity opportunities and needs, but are meant to serve as examples and spur further thought.

Additional equity-focused electric transportation resources:

- EV Hybrid Noire | E-Mobility Public Policy Toolkit
- Union of Concerned Scientists | <u>Inequitable Exposure to Air Pollution from Vehicles</u>
- Greenlining Institute | Clean Mobility Equity: A Playbook Lessons From California's Clean Transportation Programs
- American Lung Association | The Road to Clean Air
- California's Low Carbon Transportation Equity Programs

Transportation policy delivers the economic development benefits of electrifying transportation to the local economy, benefiting local businesses and consumers alike. Manufacturing, sales, and utility and government investment bring needed money into local circulation, and tax dollars saved operating electric public fleets can be invested in other areas. As consumers save \$1,000+/year on reduced fuel and maintenance costs with EVs, they can enjoy increased spending power. In addition, communities experience a reduction in the need for spending on public health dollars thanks to reduced air pollution, leading to reduced disease and ER visits (and increased productivity). Purchasing "local" electricity instead of out-of-state gas keeps transportation dollars circulating in local economies. Electricity is intrinsically more price-stable than gas or diesel, allowing for improved fleet fuel budgeting, and increased spending on electricity for transportation puts downward pressure on electricity rates for all ratepayers, creating a positive reinforcing system.



Through smart policy and strategic decision-making, communities can take full advantage of these economic development opportunities as they transition to electric transportation. Those benefits can be maximized through strategic partnerships that highlight the value the city places on advanced technology solutions. As with equity, it is imperative to consider the local economic implications of each step of the transition. Throughout this document, we highlight local economic development considerations. They are marked with a dollar sign icon and a green outline. These are not intended to be an exhaustive list of economic development opportunities and needs, but are meant to serve as examples and spur further thought.

Additional economic development-focused electric transportation resources:

- Southern Alliance for Clean Energy | <u>Transportation Electrification in the Southeast</u>
- Southern Alliance for Clean Energy | <u>Retained Transportation Fuel Spending in the Southeast</u>

The Toolkit is a living document that is updated biannually to keep pace with the rapidly expanding EV market. Latest update: July 21, 2025.

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FUNDING

The past several years have seen unprecedented federal funds made available to municipalities for both vehicle purchase and fleet transition as well as developing charging infrastructure that generated a forward momentum for local governments. While there is uncertainty surrounding some of the funding streams, progress can be maintained through other financing options. Incentives (like tax credits) remain for charging infrastructure as well as the opportunity for public/private programs, to reduce or cover upfront costs. Each opportunity requires a careful examination of the resources needed to apply for and implement the funding.

Funding these projects will require coordination across a multitude of departments that have not traditionally been involved in purchasing decisions. For example, in working out the charging infrastructure: the public services department may be involved in engaging with the local utility; the public works department may help decide where to site the equipment; the finance department may handle the purchase of the units, and the information technology department may handle the wifi and software.

Identify and Utilize Funding for Vehicles

Identify and utilize funding for vehicles.

- State funding and financing for electric vehicle procurement. Examples:
 - VW Settlement Tennessee (settlement)
 Resources:
 - Alternative Fuels Data Center Incentives allows you to select a state and find state incentives.

- North Carolina NC Clean Energy Technology Center | <u>Electric School Bus</u>
 <u>Funding Braiding Factsheet</u> This fact sheet explains these funding sources, and
 is supported <u>by a spreadsheet</u> you may download and use to create your own
 draft budget.
- 2. Local and utility funding and financing for electric vehicle procurement. Examples:
 - Duke Energy North Carolina | Park and Plug Program (School Buses)
- 3. Explore green banks for financing.

Examples:

- North and South Carolina | <u>Clean Energy Fund</u>
- Georgia | Freedman Green Bank and Trust
- Georgia | <u>Invest Atlanta</u>
- Florida | Solar Energy Loan Fund

Identify and Utilize Funding for Charging Infrastructure

Identify and utilize funding for charging infrastructure.

1. Federal incentives for charging infrastructure procurement.

Federal Programs:

• Internal Revenue Service | <u>Alternative Fuel Infrastructure Tax Credit</u> Register for IRS direct payment on the <u>Registration Portal</u>. Visualize qualifying census tracts on the <u>30C Tax Credit Eligibility Locator</u>.

Resources:

- Electrification Coalition | <u>Elective Pay Guide for Municipalities</u>
- 2. State incentives for charging infrastructure procurement.

Examples:

- Georgia | Electric Vehicle Supply Equipment Tax Credit
- Tennessee | Vehicle Emissions Reduction and Electric Vehicle Supply Equipment Project Funding

Resource:

- <u>Alternative Fuels Data Center Incentives</u> allows you to select a state and find state incentives.
- 3. Local incentives for charging infrastructure procurement.

Examples:

- Boynton Beach, FL | Energy Edge Rebate Program
- Sarasota County, FL | Charge Up! Program
- 4. Utility incentives for charging infrastructure procurement or installation.

Resource:

Alternative Fuels Data Center Incentives allows you to select a state and find utility incentives.

Examples:

- Duke Energy North Carolina | Park and Plug Program (School Bus Infrastructure)
- Duke Energy North Carolina | <u>Charger Solution Program</u>
- Duke Energy North Carolina | Commercial Prep Credit Program
- Duke Energy South Carolina | Commercial Prep Credit Program
- Duke Energy Florida | Commercial Prep Credit Program

- North and South Carolina | <u>Clean Energy Fund</u>
- Georgia | Freedman Green Bank and Trust
- Georgia | <u>Invest Atlanta</u>
- Florida | Solar Energy Loan Fund

Incentivize EVSE

Facilitate use of incentive programs for EVSE.

- 1. Provide information on incentives and grants to the community:

 Federal tax credits for EVSE | Federal incentives | State incentives
- 2. Provide local financial incentives/development incentives for EVSE to support charging at workplaces, multi-family dwellings, and other priority locations.
- 3. Provide financial incentives to residents to purchase EVSE. Examples:
 - Boynton Beach Energy Edge Green Building Program:
 - · Ordinance for program The Green Building Fee can be found in Paragraph E.
 - Website for residents
 - Dunedin Resiliency & Sustainability Rebate Program
 - Website





OUTREACH EDUCATION, PARTNERSHIPS, AND ENGAGEMENT

Educational opportunities for municipal staff and public citizens can increase understanding of the economic, public health, and environmental benefits of electric vehicles including the cost savings to taxpayers. Municipalities with the most success have an internal EV champion and recognize the need for a team approach with clearly identified roles and responsibilities. They also prioritize outreach to the community with intentional engagement and leverage partnerships with key community stakeholders. Through the strategies outlined below, local governments can create robust community outreach and partnerships and provide critical education.

Internal Education

Educate municipal leadership and key staff on the basics, benefits and trends of electric transportation.

1. Educate municipal leadership and key staff on the basics of electric vehicle transportation.

Resources:

- Southern Alliance for Clean Energy | <u>Electric Transportation Basics and Benefits</u>
- EVgo | EV Charging Basics
- Highlight the economic, health and environmental benefits of electric transportation to municipal leadership and key staff.
 Resources:
 - Dominion Energy | Benefits of Light Duty Fleets
 - Rocky Mountain Institute | <u>Total Cost of Ownership Scenarios</u>

- American Lung Association | <u>Electric Vehicle Reports</u>
- Department of Energy | <u>Emissions Calculator</u>
- 3. Invite stakeholders like nonprofits and the local utility to present current data on the transportation electrification market and trends.

Create a team of internal stakeholders.

- 1. Identify an EV champion on staff who is responsible for EV education, coordination, and planning.
- 2. Create an EV working group of staff that meets to discuss a holistic approach to electric transportation. The team should include: sustainability staff, fleet manager, facilities manager, energy manager, engineering, planning staff and communications staff. Other stakeholders could include: budget and procurement specialists, information technology staff and grant manager.

Community Education

Educate the public to support EVs and encourage EV adoption.

- Leverage nonprofit groups, local volunteer groups, and citizen commissions to educate the community about EVs and EVSEs through demonstrations, presentations or other community events. Invite the utility. Examples:
 - · Capitol Electric Transportation Day Atlanta, GA
 - National Drive Electric Week
 - Drive Electric Earth Month
- 2. Introduce the municipal EV fleet at community events, or support other events that engage and educate residents on EVs.
- 3. Communicate public health, equity, climate, and energy outcomes and benefits from EV readiness to the community.

Examples:

- · Raleigh, NC
- Drawdown Georgia Website
- 4. Provide consumer resources on EVs and EVSE, to help residents make informed purchasing decisions.

Example:

• Plug in America | PlugStar Program

Community Partnerships

Promote Community Partnerships

- 1. Engage and educate local EV dealers in EV planning and programs.
- 2. Support development of (EVSE) at nonprofit or community facilities through fee waivers, technical assistance or connections to other forms of support.
- 3. Collaborate with other local governments to advance EV planning and charging

access.

Example:

SACE and SSDN | Electrify The South Collaborative

Increase opportunities for diverse EV drivership and ridership in the community.

1. Partner with a community development organization to develop an EV car share pilot.

Examples:

- · Charlotte, NC | Carolina Carshare
 - FAQ sheet
 - Flver
- FORTH | Community Electric Vehicle (CEV) Project
- 2. Support access to charging for shared EVs and shared ride programs using EVs. Example:
 - Green Cars 4 Kids
- 3. Partner to offer carbon-free last mile programs using electric shuttles and buses, EV micro-mobility, as well as active transportation and transit options.
 - Atlanta Regional Commission, GA | E-bike rebate program

Assist in developing EV and EVSE markets.

1. Engage economic development offices to cultivate public-partnerships to accelerate EV market development.

Example:

- Hertz Electrifies Atlanta As part of the partnership, Hertz aims to bring up to an additional 4,000 rental EVs to Atlanta - including models from GM, Tesla and Polestar – for availability to leisure and business customers as well as rideshare drivers.
- 2. Engage regional businesses and entrepreneurs and to identify demonstration and collaboration opportunities for workforce development.

Examples:

- Miami-Dade College | Tesla START program. More about the START program
- NC A&T University | <u>STEPSs4GROWTH Program</u>
- 3. Engage local banks, credit unions, foundations and/or community funds to support favorable lending for EVs and EVSE.

Community Engagement

Create and host EV information on the municipal website.

- 1. Communicate electric transportation commitment and actions to constituents. Example:
 - Savannah, GA
- 2. Promote access to EVs and electric vehicle supply equipment (EVSE) to residents and visitors through apps, online resources, publications, and other community





marketing.

Examples:

- <u>Cape Canaveral, FL</u>: education about public charging rates and resident discount scroll down on the page to the "Public Electric Vehicle Charging Stations" dropdown
- <u>Largo, FL</u>: information about EV benefits, FAQs, installer information, public charging location finder
- Orlando Utility Commission:, FL ride along video series, why drive EV and charging information

Prioritize engaging authentically with diverse communities.

1. Fund and prioritize education and outreach efforts with diverse and underserved communities.

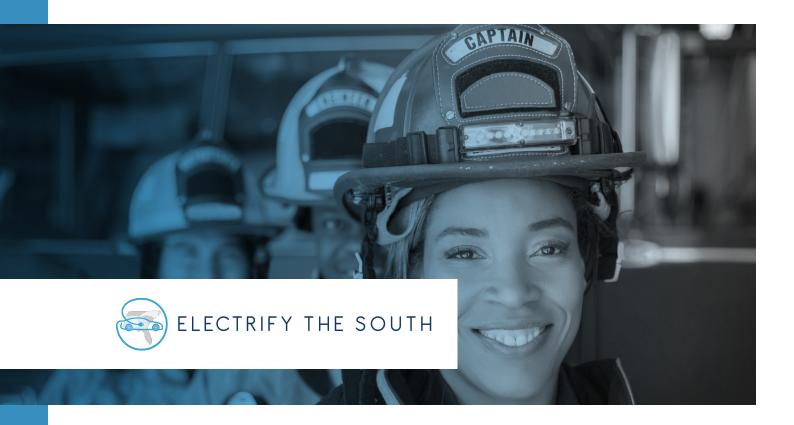
Example:

- Electric Black Futures in Georgia
- 2. Ensure inputs from diverse communities are incorporated as every phase of transportation electrification program decisions are being made including planning, implementation and evaluation.

Example:

City of Atlanta | <u>EV Readiness Day</u>





OUTREACH: SAFETY

Educational opportunities for municipal staff and public citizens can increase understanding that electric vehicles are generally as safe, or even safer, than traditional gasoline-powered cars. They are designed with safety features that shut down the electrical system in case of a collision or short circuit and with a low center of gravity are less likely to rollover. There are, however, some specific safety considerations for EVs, particularly regarding charging, battery handling, fire prevention and emergency preparedness.

Through the strategies outlined below, local governments can create robust internal education and training as well as community education, and they can develop policy that is data-driven.

Develop and Promote EV and EVSE Safety and Training

Educate leadership on safety of electric vehicles and charging infrastructure.

- Provide educational material on the safety of electric vehicles.
 Resources:
 - ZETA | <u>Safety Resources</u>
 - Veloz | <u>EV Emergency Fact Sheet</u>
 - NFPA | <u>Electric Vehicle Safety</u>

Develop policy to advance safety.

1. Consider adopting policies to ensure EV and EVSE safety are implemented uniformly.

Example:

- Atlanta, GA | Comprehensive EV Charging Readiness Policy Resource:
- Georgia Network for Electric Mobility UGA | 2025 Georgia EV Fire Safety Brief: Bridging Local Policy in Atlanta with a Call for a Universal Global Standard

Support public safety staff and first responders in safely managing incidents involving EVs and EVSE.

1. Provide professional awareness training of EVs and EVSE for first responders and public safety personnel.

Resources:

- U.S. Department of Energy's Alternative Fuels Data Center (AFDC) | <u>EV Safety</u> <u>Training Resources for First and Second Responders</u>
- National Fire Protection Association (NFPA) | <u>Alternative Fuel Vehicles Training</u>
 <u>Program for Emergency Responders Online Training</u>
- Energy Security Agency (ESA) | <u>Hybrid/EV Responder Awareness Level</u>
- AFV Educate | Firefighter Electric Vehicle Safety Training
- Australian Department of Defense <u>EV Fire Safe</u>
- 2. Provide professional hands-on training of EVs and EVSE for appropriate first responders and public safety personnel.

Resource:

- AVI | Firefighter Safety Training for EVs
- 3. Equip first responders with on-vehicle **Emergency Guides for EVs**.
- 4. Adopt draft standard operating procedures for emergency incidents involving EVs and EVSE.

Resource:

- San Diego Fire-Rescue Department
- 5. Advise local tow truck operators/storage facility owners to be trained on safety requirements for loading, hauling, and storage of EVs, post incident. Resources:
 - NFPA | Electric Vehicle Safety Online Training: Tow and Salvage Edition
 - AFV | Tow Truck Operator Training
 - West Virginia University | Towing and Roadside Assistance Personnel Training

Integrate transportation electrification considerations into community safety plans.

Provide EV and EVSE safety information to consumers.

Resources:

- ZETA | EV Safety Resources
- Veloz | <u>EV Emergency Fact Sheet</u>



COMMUNITY PLANNING

Integrating EV and EVSE adoption into relevant local plans, such as strategic plans, energy, climate, and/or comprehensive plans create alignment of EV priorities in all of your municipalities planning documents. Including goals, quantifiable metrics and/or specific actions help reinforce measures and create a durable, long-term approach. EV friendly planning with stakeholders from other jurisdictions at the regional, state and national level can create opportunities and reduce expenses.

Incorporate EVs and EVSE in Community Planning

Commit to EV preparedness

- 1. Make a public statement in support of EVs and charging infrastructure.
- 2. Identify resources for municipalities to support EVs and charging infrastructure. Resources:
 - Department of Energy AFDC | <u>State and Local Planning for EV Charging Infrastructure</u>
 - Electrification Coalition | <u>Electrifying Transportation in Municipalities</u>
- 3. Report baseline metrics, including power level and quantity of publicly accessible and municipally owned EVSEs; number of municipal EVs; and registered constituent-owned EVs.
- 4. Establish a process for tracking and reporting meaningful EV and EVSE metrics over time.

Become a participant in EV preparedness programs.

1. Participate in an established program that permits the municipality to be designated and recognized as EV prepared.

Resources:

- ICMA and IREC | Charging Smart Program
 Charging Smart offers free technical assistance to help local governments adopt policies, practices, and incentives that exemplify recognized best practices for enabling efficient EV charger expansion. Local governments that earn designations, providing national recognition of their status as an EV-friendly Community.
- Metropolitan Mayors Caucus | <u>EV Readiness Program</u>
 The EV Readiness Program was created to help local governments follow a pathway toward EV Ready Bronze, Silver or Gold by completing a number of fundamental tasks presented in the EV Readiness Checklist.

Incorporate EVs and charging infrastructure in your community planning documents.

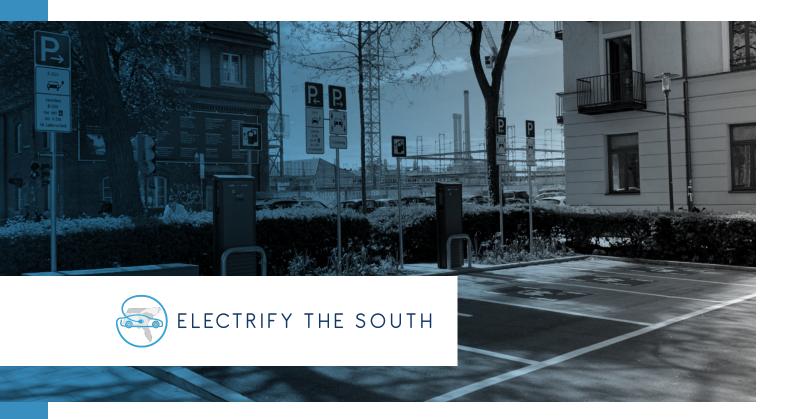
- 1. Define EVSE policy as a public benefit.
- Integrate EV and EVSE adoption into relevant local plans, such as strategic plans, energy, climate, and/or comprehensive plans. Include goals, quantifiable metrics and/or specific actions. Communicate plans with the utility. Examples:
 - Charlotte, NC | 100% zero-carbon fleet by 2030
 - <u>Broward County, FL</u> | purchase of only zero-emissions electric fleet and transit vehicles by 2030.

Resources:

- US Department of Transportation | <u>Charging Forward: A Toolkit for Planning and Funding Rural Electric Mobility Infrastructure</u>
- 3. Integrate EVs and EVSE in public facility planning.
- 4. Incorporate electric transportation in resilience planning.

Plan, collaborate and engage with multiple stakeholders for a robust and strategic network of EV charging.

- Plan with and provide guidance to the private sector entities (property developers, private charging companies and charging installers) on charging station preparation, installation and management goals and compliance.
 - **Examples of EVSE Installation Guidelines and Best Practices:**
 - Atlanta, GA | <u>City of Atlanta EV Readiness Workbook</u>
 - · Orlando, FL | Orlando EV Readiness Guide
 - Raleigh, NC | Raleigh EV Ready Playbook
 - Chicago, IL | Multi-Unit Dwelling EV Charger Installation Guide
- 2. Engage with regional organizations and other strategic partners to advance best practices and policies for EV readiness and sustainable transportation overall.
- 3. Integrate EVSE sighting with regional priorities such as mass transit systems, airports, freight, transit-oriented development (TOD), and proximity and accessibility to main thoroughfares and designated alternate fuel corridors.
- 4. Engage with state, federal, and utility initiatives that support EV adoption.



REGULATION: ZONING

Local governments can establish safe and equitable charging infrastructure regulations and enforcement procedures to promote growth in EV adoption. Through EV-friendly regulations, government agencies have the potential to:

- Promote EV adoption by streamlining and accelerating EV charging infrastructure deployment
- · Provide consistency for installers and users of the equipment
- · Establish parking policies and enforcement
- Establish accessibility and safety design standards for EV charging stations, including the equipment and parking spaces

This section explores the benefits of taking a proactive approach to regulating zoning regulations and requirements for EV charging stations. Modifying zoning regulations, and establishing EV Ready policy can expand equitable access to EV charging station infrastructure for all community members. When building out EV charging infrastructure, a key consideration is where chargers are located and whether the distribution is accessible to all community members.

Develop Zoning Regulations and Requirements

Evaluate zoning code to identify any barriers to safe, expedient EVSE development.

Clearly classify EVSE in zoning regulations.

1. When EV charging is not the primary use of the site, classify the EV charging station as an accessory use.

2. When EV charging is the primary use of the site, establish new classification of retail EV charging facility or articulate suitable existing classification.

Establish zoning regulations to facilitate EVSE installation and clearly communicate rules.

Resources:

- Department of Energy | <u>Electric Vehicle Charging for Residential and Commercial Energy Codes</u> Technical Brief
- Great Plains Institute | <u>Summary of Best Practices in Electric Vehicle Ordinances</u> a guide to EV and EV charger ordinances in the US.
- 1. Define transportation electrification technologies (EVs, EVSEs) to be considered.
- 2. Establish zoning regulations to facilitate EVSE installation, assuring it is no more difficult to site EVSE than any other equipment or use; clearly communicate rules.
- 3. For EV charging stations that are the primary use of the site, update zoning code to allow these in most or all districts.
- 4. Establish new or articulate existing regulations for whether and under what conditions EV charging stations are allowed in the right of way.

 Resource:
 - UC Berkeley Law | <u>City Policies Enabling Cords in the Public Right-of-Way</u> **Examples**:
 - New Orleans, LA | On-Street Electric Vehicle Charging Resources
 - Seattle, WA | EV Charging in the Public Right-of-Way
- 5. Establish new or articulate existing regulations for the appearance of public EVSE.
- 6. Educate on protective State rules regarding Homeowner Associations preventing installing a charging station in their common element parking area.

 Examples:
 - Florida State Statute
 - Virginia Statute



REGULATION: EV READY

Local governments can establish safe and equitable charging infrastructure regulations and enforcement procedures to promote growth in EV adoption. Through EV-friendly regulations, government agencies have the potential to:

- Promote EV adoption by streamlining and accelerating EV charging infrastructure deployment
- Provide consistency for installers and users of the equipment
- · Establish parking policies and enforcement
- Establish accessibility and safety design standards for EV charging stations, including the equipment and parking spaces

Establishing EV Ready policy can expand equitable access to EV charging station infrastructure for all community members. When building out EV charging infrastructure, a key consideration is where chargers are located and whether the distribution is accessible to all community members.

Adopt EV Ready Policy for New Construction and Significant Remodels

Establish targets and timelines for making all new construction EV Capable, EV Ready and/or EVSE Installed, as applicable. Tailor targets for single-family residential, multi-family residential and commercial construction. Though some state legislatures have recently taken action to prevent municipalities from adopting or enforcing EV-ready ordinances, some municipalities have already placed EV-ready ordinances in effect, which serve as examples for local governments that are not restricted by their states.

Examples:

- Atlanta, GA: 2025, First US ordinance that ties both EV readiness and site-level fire safety requirements into one policy
- Charlotte, NC Article 19.3
- Boca Raton, FL (Preempted)
- Coral Gables, FL (Preempted)
- Orlando, FL (Preempted)
- Miami-Dade County, FL (Preempted)
- Leon County, FL (Preempted)
- Miami, FL (Preempted)

Resources:

- Southwest Energy Efficiency Project | <u>Guide to EV Infrastructure Building Codes</u>
- Chicago, IL | Multi-Unit Dwelling EV Charger Installation Guide

Incentivize and/or encourage EV readiness for new construction.

- 1. Single-family residential development to be EV Ready and/or EVSE Installed.
- 2. Multi-family residential development. Target a proportion of parking spaces to be EV Ready and/or EVSE Installed. Establish requirements for maximum electrical amperage for each parking space and power capacity for electrical panels.
- 3. Commercial development. Target a proportion of parking spaces to be EV Capable, EV Ready and/or EVSE Installed. Establish requirements for maximum electrical amperage for each parking space and power capacity for electrical panels.
- 4. Encourage commercial developers to provide EV charging capacity and support their plans to electrify their own fleets/operations.

Codify requirements for new construction to be EV Capable, EV Ready and/or EVSE Installed.

- 1. Codify requirements for new single-family residential development to be EV Ready and/or EVSE Installed.
- 2. Codify requirements for new multi-family residential development. Target a proportion of parking spaces to be EV Ready and/or EVSE Installed. Establish requirements for maximum electrical amperage for each parking space and power capacity for electrical panels.
- Codify requirements for new commercial development. Require a proportion
 of parking spaces to be EV Capable, EV Ready and/or EVSE Installed. Establish
 requirements for L2 and DCFCs, maximum electrical amperage for each parking
 space and power capacity for electrical panels.

Establish requirements or incentives and provide guidance for renovation/retrofit construction to be EV Capable, EV Ready and/or EVSE Installed.

1. Collaborate with businesses, organizations, and institutions to advance EV readiness and access to charging.







Example:

• City of Atlanta | EV Readiness Workbook

Advocate for new construction EV readiness at the state or federal level.

Make public properties EV Capable or EV Ready during new construction and renovations.

Want to Go Deeper on EV-Ready Policy?

There are different tiers of EV-ready policy. EV Capable means installing enough electrical capacity at the panel to support future EV parking spots and raceway to the parking spots. EV Ready includes all the components of EV capable plus adds in a requirement for wiring and a junction box or 240 outlet. EVSE installed means there is a fully functional charging station installed. EV-readiness policy requires a percentage of parking spaces built to include electrical infrastructure that enables future EV charging. Requiring EV infrastructure to be planned for at the time of new construction is one of the most impactful, cost-effective actions a city can take to facilitate the adoption of EVs. It dramatically reduces the cost to install infrastructure post construction.



REGULATION: PERMITTING & INSPECTION

Local governments can establish safe and equitable charging infrastructure regulations and enforcement procedures to promote growth in EV adoption. Through EV-friendly regulations, government agencies have the potential to:

- Promote EV adoption by streamlining and accelerating EV charging infrastructure deployment
- Provide consistency for installers and users of the equipment
- Establish parking policies and enforcement
- Establish accessibility and safety design standards for EV charging stations, including the equipment and parking spaces

By streamlining the permitting process, local governments support private investment in fleet, workplace, and public charging infrastructure. Having clear permitting and inspection processes in place lower the soft costs associated with charging infrastructure installation and provide support to developers and charging provider companies looking to install infrastructure.

Develop Permitting and Inspection Protocols

Develop clear and code-compliant standard permitting and inspection processes for EVSE, which ensure health and safety, based on occupancy type, zoning classification, charging level, and project complexity.

- 1. Develop a clear and code-compliant standard permitting and inspection process for single family residential EVSE.
- 2. Develop a clear and code-compliant standard permitting and inspection process

for multiple family and commercial EVSEs.

- 3. Provide clear direction on the utility right-of-way permit process and incorporate it into the application process.
- 4. Post standard EVSE checklist, permitting forms, and approval requirements online.

Example:

- City of Chicago | Online Permitting Process
- 5. Provide a list of applicable local, state, and federal codes, laws, regulations, and suggested best practices for EVSEs to assist developers and installers.

Establish fair and expedient permitting and inspection processes.

- Process EVSE standard permit application approvals in no more than 10 business days.
- 2. Complete EVSE standard inspection in no more than 5 business days after installation completion/contractor request.
- 3. Establish reasonable standard permitting and inspection fee structures.
- 4. Exempt or waive fees for residential EVSE permitting applications.

Example:

- Miami Beach, FL
- Anaheim, CA
- 5. Create an online EVSE permit approval process.

Establish registration & licensing requirements/process for qualified EVSE installers.

Train staff on municipal EVSE permitting and inspection procedures.

Establish clear rules and enforcement policies for EV charging.

- 1. Establish new or articulate existing rules, enforcement policies, and fees for non-permitted work or non-compliant EVSE installations.
- 2. Establish new or articulate existing rules, enforcement policies, and fees for non-compliant operation and maintenance.
- 3. Monitor operation of publicly accessible EVSE with periodic inspection and recertification.

Make permit data open and accessible to facilitate regional charging networks, partnerships, and information sharing among local government departments.



REGULATION: PARKING & ENFORCEMENT

Local governments can establish safe and equitable charging infrastructure regulations and enforcement procedures to promote growth in EV adoption. Through EV-friendly regulations, government agencies have the potential to:

- Promote EV adoption by streamlining and accelerating EV charging infrastructure deployment
- Provide consistency for installers and users of the equipment
- Establish parking policies and enforcement
- Establish accessibility and safety design standards for EV charging stations, including the equipment and parking spaces

Parking and enforcement is more complex with charging station spaces compared to regular parking spaces because access to charging is often critical. If a gas car parks in a charging station it's like parking at a gas station. Additionally, fees need to be set to a level that will be mutually beneficial to the parking lot owner and EV driver for utilization to occur.

Establish EV Public Parking and Enforcement Policies

Establish public parking policies to balance constituent needs and support growth in EV adoption.

- 1. Establish whether and under what conditions public electrical outlets may be used for Level 1 EV charging.
- 2. Adopt NEVI ADA requirements to allow both disabled and non-disabled patrons to equitably access EV charging spaces.



Resource:

- The U.S. Access Board | <u>Design Recommendations for Accessible Electric Vehicle Charging Stations</u>
- 3. Allow reasonable public access to EV charging on municipally owned and other public properties.
- 4. Conduct a parking study to balance constituent needs and support growth in EV preparedness.

Establish fair and enforceable fee structure for charging at municipally owned parking areas.

Examples:

- 1. Free parking and free charging
 - Coral Gables, FL provides free parking and EV charging
 - Nashville, TN provides free parking and EC charging
- 2. Pay for parking but charging is free
 - · Savannah, GA parking is paid but charging is free
- 3. Varying rates for charging between residents and non-residents
 - <u>Cape Canaveral, FL</u> (scroll to "Public Electric Vehicle Charging Stations" dropdown)
- 4. Pay for parking and charging
 - · Miami Beach, FL pay to park and charge
 - · <u>Clearwater, FL</u> pay to park and charge

Design parking rules to safely and equitably allow access, while matching charging type, physical space, land use, occupancy type, and type of parking.

Require EVSE owners to properly maintain equipment, monitor for security, and manage risks.

Establish and communicate parking enforcement policies and procedures.

 Communicate provisions of State Code and/or local parking code regarding unauthorized use of EV-only parking by non-EVs at both public and private properties.

Examples:

- Miami-Dade County, FL | Ordinance
- Florida | <u>State Statute</u>
- North Carolina | HB 255 An Act to Regulate Electric Vehicle Charging Stations
- Colorado | State Statute
- 2. Establish and communicate parking enforcement policies not addressed in State Code, such as ticketing and towing of EVs.

Resource:

- Advanced Energy Parking Enforcement Guide
- 3. Tailor parking rules to match EVSE power level, such as shorter turnover times for DCFC.



REGULATION: SIGNAGE

Local governments can establish safe and equitable charging infrastructure regulations and enforcement procedures to promote growth in EV adoption. Through EV-friendly regulations, government agencies have the potential to:

- Promote EV adoption by streamlining and accelerating EV charging infrastructure deployment
- Provide consistency for installers and users of the equipment
- · Establish parking policies and enforcement
- Establish accessibility and safety design standards for EV charging stations, including the equipment and parking spaces

For EV drivers finding community charging is a different experience than finding a fueling retailer. Charging stations are often tucked away in a parking lot or garage and lack obvious signage like a gas station. Thus developing consistent EV parking signage and requirements will help EV drivers identify and utilize charging stations more efficiently.

Wayfinding and Informational Signage

Clearly identify and promote EVSE with wayfinding and informational signage.

- Provide wayfinding signage where helpful to direct EV drivers to EVSE. Resources:
 - USDOT FHWA | Manual on Uniform Traffic Control Devices for Streets and Highways
 - Alternative Fuel Data Center | Wayfinding Signage
 - USDOT FHWA | Signing for Designated Alternative Fuels Corridors

- 2. Clearly identify EV parking spaces and post parking rules at EVSE locations. Resource:
 - USDOT FHWA | Regulatory Signs for EV Charging and Parking
- 3. Require registration on digital charging station locating tools to help EV drivers find charging stations.

Resource:

Alternative Fuel Data Center | <u>Alternative Fueling Station Locator</u>



REGULATION: STANDARDS

Local governments can establish safe and equitable charging infrastructure regulations and enforcement procedures to promote growth in EV adoption. Through EV-friendly regulations, government agencies have the potential to:

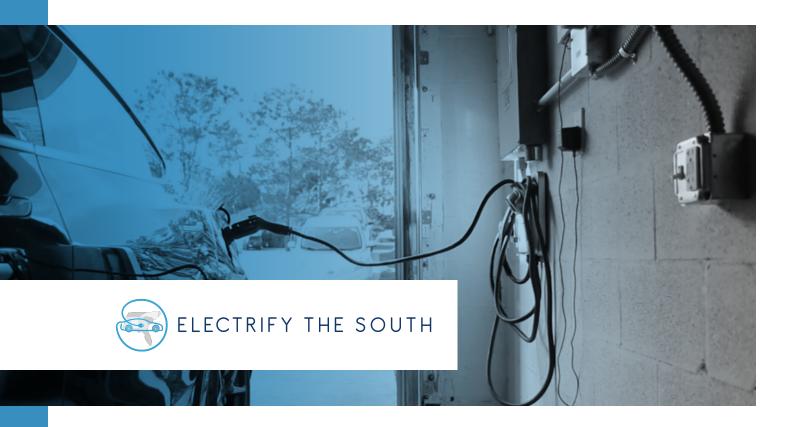
- Promote EV adoption by streamlining and accelerating EV charging infrastructure deployment
- Provide consistency for installers and users of the equipment
- · Establish parking policies and enforcement
- Establish accessibility and safety design standards for EV charging stations, including the equipment and parking spaces

Having standards for publicly funded charging stations create conformity among installations and a more streamlined approach.

Standards for Publicly Funded EVSE

Establish standards for publicly funded EVSE.

- 1. Adopt NEVI regulations for availability (uptime) of public EVSE.
- 2. Adopt NEVI interoperability and open standards regulations for public EVSE. Resource:
 - Electric Power Research Institute | <u>Interoperability of Public Electric Vehicle Charging Infrastructure</u> paper that details the issue.
- 3. Adopt NEVI ADA requirements to allow both disabled and non-disabled patrons to equitably access EV charging equipment.



RESIDENTIAL CHARGING

Approximately 80% of EV charging happens at home. For residents with off-street parking, charging infrastructure installations are largely addressed by the homeowner or landlord. However, many areas are experiencing increasing multi-unit housing stock. Residents living in multifamily housing may lack access to home charging and therefore overly rely on public charging stations (such as fast chargers or curbside level-2 charging stations), workplace charging stations, or a combination. This lack of access to reliable and convenient residential charging for all is a community need that local governments can help meet.

This section outlines how local governments can support residential charging, and it explores innovative solutions to encourage private investment in multi-unit charging infrastructure.

GO DEEPER ON INFRASTRUCTURE

Learn more about the different levels of charging infrastructure and the different applications.

Residential Charging

Support residential charging infrastructure in the community.

 Evaluate community charging needs and equitable access based on both the types of charging (e.g., single-family homes with and without off-street parking, multifamily dwellings, workplace, public) and the geographic locations of chargers.

Examples:

 Alternative Fuels Data Center | <u>Electric Vehicle Infrastructure Projection Tool</u> (EVI-Pro) Lite

Determines the amount of charging needed from the Alternative Fuels Data Center, U.S. Department of Energy.

Resources:

JOET | <u>Public Electric Vehicle Charging Infrastructure Playbook</u>
 This guidebook provides interactive resources to help communities plan and build the infrastructure needed to support a zero-emission transportation system.

Implement policies to support residential charging infrastructure in the community.

- 1. Streamline permitting for single family and multifamily residential EVSE.
- Establish new or articulate existing regulations for whether and under what conditions EV charging stations are allowed in the right of way.Resource:
 - UC Berkeley Law | <u>City Policies Enabling Cords in the Public Right-of-Way</u> **Examples**:
 - New Orleans, LA | <u>On-Street Electric Vehicle Charging Resources</u>
 - Seattle, WA | <u>EV Charging in the Public Right-of-Way</u>

Implement policies specific to multifamily charging infrastructure in the community.

- 1. Incentivize and/or encourage EV readiness for new construction. Target a proportion to be EV Ready and/or EVSE Installed.
- 2. Expedite permitting for multi-unit developments.

 Resources:
 - JOET | Community Charging: Emerging Multifamily, Curbside, and Multimodal Practices
 - This white paper coalesces emerging practices and technologies that can bring the benefits of electric mobility infrastructure to residents in multifamily housing, residents dependent on curbside or on-street parking, and those without access to privately owned electric vehicles (EVs).
 - Plug In America | <u>Solutions for Multifamily Housing Residents</u>
 This toolkit contains 20 case studies of companies and organizations working to improve charging access. It also includes data analysis and a map of charging solutions, culminating in a list of best practices and recommendations for communities looking to improve charging access for all residents.
 - Energy Institute | <u>State of Multifamily Housing</u>
 This analysis ranks the best and worst cities for EV drivers living in multifamily housing and offers policy recommendations for improvement.

Encourage participation in utility programs to offset project costs.

- Educate developers and homeowner associations on utility programs that can offset the cost of installing charging equipment.
 Examples:
 - Georgia Power | Make Ready Infrastructure Program
 - Duke Energy North Carolina | <u>Utility-Make-Ready Credit Program</u>
 - Duke Energy South Carolina | Commercial Prep Credit Program
 - Duke Energy Florida | Commercial Prep Credit Program



PUBLIC CHARGING

Public and workplace charging create opportunities to support EV drivers throughout the community by increasing access to charging stations. Residents living in multifamily housing might not be able to charge at home and therefore need access to public charging stations, workplace charging stations, or a combination. Additionally, EV charging stations near amenities such as retail and food services promote local economic business development.

This section outlines the need for and steps to plan for and implement public charging, and it explores innovative solutions to encourage private investment in public charging infrastructure

GO DEEPER ON INFRASTRUCTURE

Learn more about the different levels of charging infrastructure and the different applications.

Public Charging

Support publicly available charging infrastructure in the community.

- Evaluate EVSE community needs, gaps, and prioritize EVSE for equity and access to charging based on occupancy types (e.g., multi-family dwelling, workplace, residential) and locations in the community.
 Examples:
 - Alternative Fuels Data Center | Electric Vehicle Infrastructure Projection Tool

(EVI-Pro) Lite

Determines the amount of charging needed from the Alternative Fuels Data Center, U.S. Department of Energy.

Raleigh, NC | <u>Charging Station Suitability Analysis</u>
 GIS tool developed by the city of Raleigh to visualize suitable EV charging station locations that has been adapted by Knoxville and Orange County, NC.

Resources:

- JOET | <u>Public Electric Vehicle Charging Infrastructure Playbook</u>
 This guidebook provides interactive resources to help communities plan and build the infrastructure needed to support a zero-emission transportation system.
- JOET | <u>Public EV Charging Station Site Selection Checklist</u>
 This document is a checklist to assist with site selection for publicly available EV charging stations.
- DOE | <u>Procurement and Installation for EV Charging Infrastructure</u> Provides key considerations for developing robust strategies that support state and local planning efforts for EV charging station development.
- JOET | Community Charging: Emerging Multifamily, Curbside, and Multimodal Practices

This white paper coalesces emerging practices and technologies that can bring the benefits of electric mobility infrastructure to residents in multifamily housing, residents dependent on curbside or on-street parking, and those without access to privately owned electric vehicles (EVs).

- Plug In America | <u>Solutions for Multifamily Housing Residents</u>
 This toolkit contains 20 case studies of companies and organizations working to improve charging access. It also includes data analysis and a map of charging solutions, culminating in a list of best practices and recommendations for communities looking to improve charging access for all residents.
- Energy Institute | <u>State of Multifamily Housing</u>
 This analysis ranks the best and worst cities for EV drivers living in multifamily housing and offers policy recommendations for improvement.

Identify the partners in public charging and models for ownership.

- Decide what model of ownership is desired. With public charging, there are several potential partners including the local government, charging station owner, charging station operator, utility provider and the consumer. Examples:
 - <u>City of Coral Gables</u>: Public charging stations owned, operated and maintained by the local government on public land.
 - <u>City of Clearwater</u>: Cost, revenue and responsibilities of public charging stations shared with the charging company.
 - <u>City of Boston</u>: Testing differing models of providing EV charging: some will be owned and run by the City, and others by private companies at no cost to the City.

Resource:

 University of Georgia | EV 101: A GEORGIA GUIDE FOR PUBLIC CHARGER SUCCESS

Support equitable charging infrastructure.

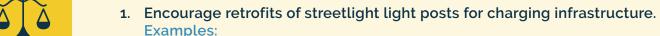
 Partner to provide equitable access to EVSE through innovative policies and programs.



Examples:

- Duke Pilot Florida 10% Requirement for Income-dependent Communities
- EV-ready building codes
- Workplace Charging for City and County Employees

Support innovative charging solutions.



- Charlotte Street Light Charging PoleVolt: pioneering EV charging infrastructure technology that could provide a solution for people that lack the off-street parking needed for home charging systems. The new solution, PoleVolt, uses existing streetlight infrastructure to slash the costs associated with installing charging stations by as much as 50%.
- Los Angeles, CA: The Bureau of Street Lighting has installed Level 2 electric vehicle charging stations on 284 of the streetlights in the City of Los Angeles.

Create community awareness by including charging stations on charging locator maps.

1. Register and promote EVSE by sharing digital EVSE locating tools to help EV drivers find charging stations.

Resource:

Alternative Fuel Data Center | Alternative Fueling Station Locator

Encourage participation in utility programs to offset project costs.

1. Educate public charging hosts on utility programs that can offset the cost of installing charging equipment.

Examples:

- Georgia Power | Make Ready Infrastructure Program
- Duke Energy North Carolina | <u>Utility-Make-Ready Credit Program</u>
- Duke Energy South Carolina | Commercial Prep Credit Program
- Duke Energy Florida | Commercial Prep Credit Program





WORKPLACE CHARGING

Public and workplace charging create opportunities to support EV drivers throughout the community by increasing access to charging stations. Residents living in multifamily housing might not be able to charge at home and therefore need access to public charging stations, workplace charging stations, or a combination. Additionally, EV charging stations near amenities such as retail and food services promote local economic business development.

This section outlines the need for and steps to plan for and implement workplace charging. It also identifies how local governments can support workplace charging in the community for private fleets.

Workplace Charging Initiatives

Support workplace charging initiatives for municipal employees.

- Implement a workplace charging program to support equitable access to EV workplace charging for municipal employees.
 Resources:
 - EMPOWER (Equitable Mobility Powering Opportunities for Workplace Electrification Readiness) | A government-funded national initiative that promotes workplace charging for electric vehicles (EVs) while prioritizing equity and inclusivity
 - <u>Charge@Work</u> | DOE funded, national initiative that helps workplaces, workers, public officials, and community leaders plan and implement workplace electric vehicle (EV) charging programs



- <u>EVAL (Electric Vehicle Adoption Leadership)</u> | a national workplace charging certification program that provides recognition and technical assistance to organizations supporting the adoption of clean employee transportation options
- Plug-in America | Workplace Charging Resources
- Alternative Fuels Data Center | Workplace Charging for Plug-In Electric Vehicles
- Department of Energy | Federal Workplace Charging Program Guide
- Dominion Energy | <u>EV Workplace Charging Policies Factsheet</u>

Support workplace charging initiatives in the community.

- Encourage property owners, managers and employers to support access to EV workplace charging, including for municipal employees.
 Example:
 - MetLife

Encourage participation in utility programs to offset project costs.

- Educate workplace charging hosts on utility programs that can offset the cost of installing charging equipment.
 Examples:
 - Georgia Power | Make Ready Infrastructure Program
 - Duke Energy North Carolina | <u>Utility-Make-Ready Credit Program</u>
 - Duke Energy South Carolina | Commercial Prep Credit Program
 - Duke Energy Florida | Commercial Prep Credit Program



MUNICIPAL FLEETS

Local leaders can establish goals as well as adjust procurement policy to electrify their fleets, saving taxpayer dollars, reducing pollution and providing healthier outcomes for their citizens and the environment. The economic benefits of transitioning to electric fleets is an increasingly compelling reason for many municipal leaders. EVs provide an overall reduction in fuel costs and maintenance requirements so their total cost of ownership is frequently lower than traditional internal combustion vehicles. Additionally, the ability to pair charging with solar spur on another clean energy sector and can enable cascading economic development benefits.

Integrating EVs Into Municipal Fleets

Evaluate the feasibility of integrating EVs into municipal fleets.

Overall fleet electrification process:

US Federal Energy Management Program (FEMP) | Federal Fleet ZEV Ready
 <u>Center</u> provides a process and guide to help federal fleet and facility managers
 select and acquire zero-emission vehicles (ZEVs) and electric vehicle supply
 equipment (EVSE)—or electric vehicle (EV) charging stations—for their fleet.

Tools for Fleet Evaluation:

Argonne National Laboratory | <u>Alternative Fuel Life-Cycle Environmental</u>
 and <u>Economic Transportation (AFLEET) Tool</u> and <u>AFLEET Online Tool</u> The
 tool examines both the environmental and economic costs and benefits of
 alternative fuel and advanced vehicles (AFVs). It estimates petroleum use,
 greenhouse gas (GHG) emissions, air pollutant emissions, and cost of ownership
 of light-duty and heavy-duty vehicles.

Atlas Public Policy/Electrification Coalition | <u>DRVE Fleet Procurement Analysis</u>
 Tool

Tools for Charging Infrastructure Deployment Evaluation:

 NREL | <u>EVI-LOCATE</u> The Electric Vehicle Infrastructure - Locally Optimized Charging Assessment Tool and Estimator (EVI-LOCATE) is a comprehensive design tool that helps you create an electric vehicle charging station deployment plan, from layout to cost estimates.

Medium and Heavy-Duty Guide:

• Environmental Defense Fund (EDF) | Fleet Electrification Solution Center

Electric School Bus Guide:

World Resource Institute (WRI) | <u>Step-by-Step Guide for School Bus Electrification</u>

EVSE Resource:

- Electric Power Research Institute (EPRI) | Vetted Product List
- 1. Understand the opportunities and barriers to electrified fleets.

Resource for Light-Duty Fleets:

Dominion Energy | <u>Light Duty Fleets Factsheet</u>

Resource for Medium and Heavy-Duty Vehicles:

 ZETA | Medium- and HeavyDuty Electrification: Weighing the Opportunities and Barriers to Zero Emission Fleets

Resources for School Buses:

- World Resources Institute | Electric School Bus Initiative
- World Resources Institute | All About Electric School Buses Series
- Alliance for Electric School Buses | Resources
- Environmental Protection Agency | Clean School Bus Program

Resources for Transit Buses:

- NREL | Financial Analysis of Battery Electric Transit Buses
- EDF | Accelerating to 100% Clean: Zero Emitting Vehicles Save Lives, Advance Justice, Create Jobs
- UCSUSA | Electric vs. Diesel vs. Natural Gas: Which Bus is Best for the Climate?
- 2. Assess municipal fleet to understand current operational requirements and usage characteristics, and to identify suitable applications for EVs and EVSE equipment.
- Identify EVs to suit fleet needs. Compile information on vehicle requirements, operating and capital costs, and warranty and maintenance information. Investigate upcoming EV models.

Tool for Medium and Heavy-Duty:

- CALSTART | <u>Drive to Zero's Zero-emission Technology Inventory (ZETI) Tool</u> **Tool for School Buses**:
- World Resources Institute | <u>Electric School Bus U.S. Market Study and Buyer's Guide: A Resource for School Bus Operators Pursuing Fleet Electrification</u>
- 4. Assess fleet charging needs, including physical and operational requirements, projected daily energy requirements, EVSE, and associated investment. Engage the utility early in the process.
- 5. Forecast return on investment.
- 6. Estimate and report environmental and community benefits metrics from the electric fleet, including greenhouse gas and pollution reduction, and economic benefits.

Example:

- Broward County Resolution
- 7. Provide fleet operators and maintenance staff with resources and opportunities to test EVs.

Example:

• <u>DRIVING ON SUNSHINE</u> Program with SACE

Prioritize funding and routes that serve diverse communities.

- School districts and transit agencies should prioritize and fund electric buses for communities exposed to the greatest amount of pollution first.
 Resource:
 - Inequity in consumption of goods and services adds to racial-ethnic disparities in air pollution exposure



Research processes that can be used for EVs and charging infrastructure.

Resource:

Department of Energy | Federal Fleet ZEV Ready Center
 The Federal Energy Management Program's (FEMP's) Federal Fleet ZEV Ready
 Center provides a process and guide to help federal fleet and facility managers
 select and acquire zero-emission vehicles (ZEVs) and electric vehicle supply
 equipment (EVSE)—or electric vehicle (EV) charging stations—for their fleet.

Develop fleet transition and implementation plan for EVs and EVSE.

Examples of Light-Duty Transition Plans:

- Charlotte, NC | <u>Sustainable and Resilient Fleet Policy</u>
- Atlanta, GA | EV Conversion Plan
- Ann Arbor, MI | Fleet Policy
- Seattle, WA | Green Fleet Action Plan, Resolution

Example Implementation Plan

· Raleigh, NC | EV Implementation Strategy Rollout

Example Transit Transition Plan:

- King County, WA
- 1. Create multi-year purchasing plans that include right-sizing vehicles, current and future EV availability, vehicle retirement, and budgetary constraints.
- Specify the use of clean fuel vehicles and equipment in requests for proposals (RFPs) and contracts for vendors supplying services to the municipality (e.g., waste haulers).
- In concert with the utility, evaluate potential locations for EVSE based on operational suitability, access, short- and long-term power capacities, and retrofits or new construction required.
- 4. Consider managed and leasing fleet solutions for the vehicles.
- 5. Evaluate charging as a service, where a third party owns, operates and maintains charging infrastructure.
 Example:





Resources:

- Chargepoint
- EV Connect
- Siemens
- Spark Charge
- Shell Recharge
- 6. Train appropriate in-house staff to operate EVs and EVSE.
- 7. Train in-house staff to maintain EVs.
- 8. Evaluate sharing municipal EVSE with the public.

Procure Electric Vehicles and EVSE

Procure and operate electric vehicles in the municipal fleet.

Examples of electric light-duty fleet:

- Coral Gables, FL 71 EVs, 12% of fleet electric
- · Charlotte, NC EV fleet
- Largo, FL electric police motorcycles
- Weaverville, NC electric police fleet

Example of medium-duty fleet:

• Ocala, FL Garbage truck pilot

Examples of school bus fleets:

- WV Settlement Funding 218 Electric Buses in Florida
- EPA Clean School Bus Rebate Program Districts in Georgia
- North Carolina's Eastern Band of Cherokee Indians
- Virginia Dominion School Bus Pilot

Examples of transit fleets:

- Greensboro, NC
- Pinellas Suncoast Transit Authority, FL
- Raleigh-Durham National Airport, NC
- Knoxville Area Transit, TN
- Leverage procurement expertise and other benefits by purchasing EVs and EVSE through cooperative procurement

Resource:

- Drive EV Fleets | <u>Purchasing Collaborative</u>
- Track fleet EV metrics over time, such as hours in use; vehicle miles traveled; number of charging events; comparative fuel and maintenance costs; and greenhouse gas and other pollution avoided.
- 3. Install EVSE for public use on municipal land.

Examples:

- Coral Gables, FL
- Fort Lauderdale, FL
- · Miami Beach, FL
- 4. Evaluate pairing EVSE with renewable energy (solar + battery storage) for resilience and to provide off-grid charging where grid interconnection is an issue.



Examples:

- Stuart, FL: 150 car solar canopy parking lot with EV charging stations
- · ARC Solar arrays in North Carolina: solar with battery storage not grid tied

Want to Go Deeper on Medium and Heavy Duty Trucks?

Medium and heavy-duty electric trucks make up only 8% of on-road vehicles, but these trucks are responsible for approximately 32% climate pollution emissions and 63% of tailpipe pollution emissions. This underscores the impacts of transitioning them to electric and why truck electrification should be a policy priority.

Want to Go Deeper on Electric Transit Buses?

Transit buses are typically driven year round and as such can significantly reduce both fuel costs (up to 75% because of their high fuel efficiency) and climate emissions. Every zero emission bus is able to eliminate 1,690 tons of CO2 over its lifespan. In our region, an electric bus provides CO2 emissions benefits similar to a diesel bus getting 11-15 MPG. For reference, the typical transit bus achieves 4.8 MPG. Lifetime costs to own are similar to a diesel bus when factoring fuel and maintenance savings over the lifespan of the bus. Federal cost-share funding for transit buses efficiently leverages local funding.

Want to Go Deeper on Electric School Buses?

The US school bus fleet is the nation's largest public transportation fleet, moving more than 25 million children on 480,000 buses each school day. One major benefit of electrifying our school buses is a significant reduction of children's exposure to tailpipe pollution in diesel exhaust from conventional buses. School buses have predictable schedules and large energy storage capacity, opening up opportunities for partnerships with local utilities and making them ideal for electric "Vehicle to Grid" technology. Vehicle to Grid technology enables bus batteries to provide power to the electricity grid while not running, helping to offset demand during peak hours, and increasing resiliency by acting as a stored-energy source during an emergency.

Additionally, school districts can electrify their light-duty vehicle fleet and provide workplace charging in their parking lots.



UTILITY ENGAGEMENT COLLABORATION, PROGRAMS, AND RATES

Local electrical utilities are essential partners, providing the electricity for your project. Because of their role, engaging with your local utilities should begin early in the process. Clear communication with your utility provider about goals and long-term plans can identify where power load exists, prevent delays and cost overruns, and get you in the queue at the appropriate time. Local utilities can be partners in increasing EV adoption rates. They can offer EV-friendly rates where it is cheaper to charge an EV at low-use times of the day and can install charging infrastructure through pilot programs.

Municipalities can partner with local utilities to create education and outreach events and programs. Cities and counties that have municipal utilities have a unique opportunity to work closely with their electricity provider to develop pilot programs and provide strategic direction. Local governments should understand the value of stored energy in EV batteries that can serve the grid to meet peak-demand needs and resilience during an emergency.

Use the <u>U-finder tool</u> from the Department of Energy to search for and find utility partners that can help with the installation of EV chargers.

Collaborate to Increase Outcomes

Collaborate to promote transportation electrification.

- 1. Communicate large-scale private and public EVSE project plans in the community to the utility.
- 2. Participate in beneficial electrification programs, such as solar PV, energy storage, EV charging, managed charging and Vehicle-grid integration (VGI) or Vehicle-to-Grid (V2G) integration.

Example:

- Florida Power and Light and West Palm Beach | West Palm Beach-FPL Electric School Buses
- 3. Collaborate with the utility to install public EVSE.

Resource:

- Georgia Power | <u>Make Ready Infrastructure Program</u>
- 4. Engage with Public Utility Commissions to further goals around electric transportation.

Resource:

National Council on Electricity Policy | <u>Local Government Engagement with Public Utility Commissions</u>

Educate EV Users about Utility Incentives and Programs

Educate consumers about utility incentives and programs.

1. Some utility companies offer incentives for either purchasing the charging equipment or an electric vehicle.

Examples:

- Orlando Utilities Commission, Florida | EV Rebate
- Orlando Utilities Commission, Florida | Chargelt OwnIt Program
- Duke Energy North Carolina | <u>Electric School Bus Program</u>

Resource:

- Alternative Fuels Data Center Incentives
- 2. Utilities programs focus on supporting the market through initiatives such as rate design, utility-owned charging infrastructure, rebates to customers for the installation of non-utility-owned chargers, and vehicle pilots. Examples:
 - Florida Power and Light | <u>EVolution Program</u>
 - Tennessee TVA/TDEC | TN Corridor Fast Charging Network
 - Orlando, FL OUC | Chargit Ownit Program
 - Savannah, GA and Georgia Power | Georgia Make Ready
 - Georgia Power | Make Ready Infrastructure Program
 - Duke North Carolina | Utility-Make-Ready Credit Program
 - Duke Energy North Carolina | <u>Charger Solution Program</u>
 - Duke Energy South Carolina | Commercial Prep Credit Program
 - Duke Energy Florida | Commercial Prep Credit Program
 - Duke Energy Florida | <u>Fleet Advisory Service Program</u>
 - Santee Cooper | Commercial Grant Program (through August 15, 2025)

Educate about Utility EV-Friendly Rates

Many utilities offer dynamic rates that encourage EV drivers to charge during the time of day when the utility has surplus energy. Others are piloting rates to stabilize pricing for DCFC.

Examples:

- Georgia Power | Overnight Advantage
- Florida Power & Light | tariff pilot DCFC



COMPREHENSIVE PLANNING

Developing and implementing a Transportation Electrification Plan is a foundational action for systematically transitioning our transportation systems to electrification. This comprehensive approach incorporates all the previous components already discussed in the Toolkit. For holistic examples, see the following transportation electrification plans.

Develop and host a transportation electrification plan on the municipal website.

Examples:

- Orlando, FL
- · Raleigh, NC
- San Antonio, TX
- Seattle, WA
- · Columbus, OH

Want to Go Deeper?

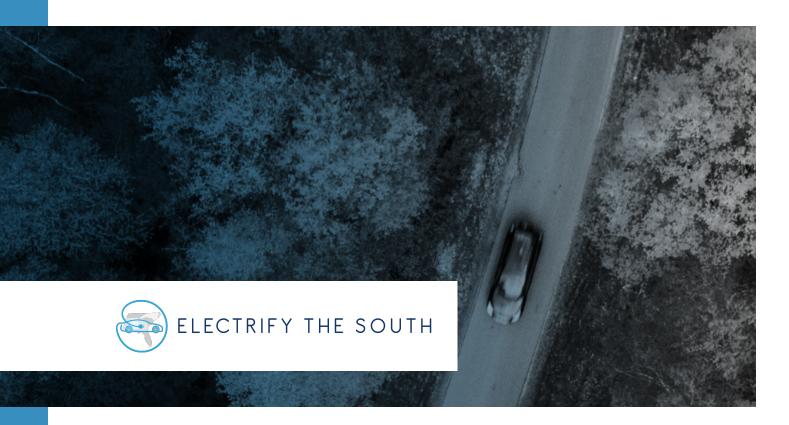
Transportation electrification plans provide a framework and roadmap for community-wide EV adoption. Effective plans incorporate different elements from each of the categories below — and more — and support long-term community engagement, fleet procurement, finance, and technology decision-making.

Transportation electrification plans articulate priorities, align strategies, and build capacity, all of which can be leveraged to pursue federal and state grants and rebates to support the shift to EVs. State and federal transportation electrification grants are often very competitive and having a strategic plan in place strengthens your proposal.

The planning process itself can help build your city's electrification capacity. Transitioning city fleet vehicles and supporting the broader community-wide shift to EVs requires coordination across a multitude of departments. It is good to create a team composed of leaders from all the departments that will impact and be impacted by transportation electrification. This team will be positioned to identify opportunities and challenges, and by working together on the planning, will foster internal support. Some departments to consider including from the beginning (no order of importance, not comprehensive):

- Sustainability: big picture thinkers, is responsible for advancing sustainability and climate goals, connected to a network of thought and implementation leader
- Transportation, Motor Pool and Parking: leads planning for and manages vehicles and vehicle parking, engages across departments and with the community, has access to telematic, transportation flows, and other important data
- Planning and Zoning: administer the development review process, maintain the comprehensive plan, and administer and maintain the zoning code
- Information Technology: understands value and use of 'big data', responsible for digital security, well positioned to interact with charging station network providers
- **Development Services**: leads long-term planning for and manages physical spaces, oversees permitting and inspections, understands the interface between vehicles and the built environment
- Transit: works to reduce vehicle miles traveled and enhance mobility options for all, coordination will ensure converting to electric buses is explored and broad transportation electrification goals support and address mass transit goals and challenges
- Budget and Finance: oversees fiscal integrity and long term financial planning, influence procurement policy, often provide creative ways to evaluate costs and benefits of new technology
- Economic Development: works with the community, businesses and institutions to build shared prosperity, opens valuable public-private partnership opportunities, connects to workforce development
- Communications: responsible for internal education and external communication and marketing, positioned to increase knowledge and awareness about values of transportation electrification.

Additionally, it is critical to engage your electric utility at the beginning of the planning process to understand and potentially integrate with the local utility's transportation electrification plan. Hopefully, your local utility already has a plan and forming a partnership could inform and support each other's implementation success.



STATE ACTIONS

States have critical roles to play including planning for and overseeing the deployment of charging infrastructure, establishing supportive infrastructure and vehicle policies and procedures, and ensuring equitable access to the benefits of electric transportation. Local governments can lean into advocating for state policies and programs that will support goals, including access to federal funding flowing through state agencies.

State Actions: Governor's Office

Electrify State Agency Fleets

Electrify state agency fleets.

- Develop and implement a state fleet transition plan. Example:
 - NC DOA Motor Fleet ZEV Plan
- 2. Utilize IRA tax credits (see funding section) to advance state fleet electrification.
- 3. Regularly add EV models onto state purchasing lists that agencies can procure from.

Support Workforce Development

Support workforce development by creating statewide multi-stakeholder working groups including government, industries, electric utilities, nonprofits, and other relevant stakeholders.

Examples:

- Georgia Governor Kemp | Georgia Electric Mobility and Innovation Alliance
- North Carolina Governor Cooper | <u>EVeryone Charging Forward™ Program</u>
- South Carolina Governor McMaster | Executive Order 2022-31
- South Carolina | ET website

State Actions: State Legislators

EV Policies for Consumers

Enact supportive policies for consumers transitioning to electrification.

1. Support consumers' freedom to buy the vehicles of their choice by modernizing auto dealer franchise laws.

Resource:

- Electrification Coalition | Freedom to Buy Vehicles in North Carolina
- 2. Adopt state EV building codes.

Resources:

- Southwest Energy Efficiency Project | Guide to EV Infrastructure Building Codes
- International Code Council | Electric Vehicles and Building Codes: A Strategy for Greenhouse Gas Reductions
- 3. Regulate parking at EV chargers to support drivers.
 - Examples:
 - North Carolina | HB 255 An Act to Regulate Electric Vehicle Charging Stations
 - Florida | State Statute 366.94 Electric vehicle charging stations

EV Policies for Buses

Enact supportive policies for transit agencies and school districts transitioning to electrification.

Resource:

- Driving Change: A State Policy Playbook for Equitable Electric School Bus Policy
- 1. Leverage state funds to support federal funds to advance bus electrification. Example:
 - North Carolina NC Clean Energy Technology Center | Electric School Bus Funding Braiding Factsheet

State Actions: State Electric Utility Regulators

With the expected increase in EV adoption, especially light, medium and heavy-duty fleets that will likely require megawatts of depot and on-route charging capacity, regulators should consider requiring utilities to produce transportation electrification plans (TEPs). TEPs provide pathways for stakeholders and industry experts to engage with utilities and regulators to analyze and identify distribution system needs and opportunities, as well as customer incentives and charging infrastructure gaps. TEPs can be rolled up into Integrated Resource Plans and Ten Year Site Plans, ensuring that utilities will be able to meet electric transportation capacity needs in ways that deliver grid benefits, put downward pressure on electricity rates, and avoid utilities becoming EV adoption bottlenecks.

Resources:

- Atlas Public Policy and SACE | <u>Transportation Electrification in the Southeast</u>
- National Association of Regulatory Utility Commissioners | <u>Electric Vehicles: Key Trends, Issues, and Considerations for State Regulators</u>
- National Council on Electricity Policy | <u>Mini Guide on Transportation Electrification:</u>
 State-Level Roles and Collaboration among Public Utility Commissions, State

 Energy Offices, and Departments of Transportation

Utility Infrastructure Build-out

Support utility infrastructure build-out through ET programs.

Examples:

- Florida | Florida Power & Light EVolution Program Public Chargers
- Florida | <u>Duke Energy Park and Plug Program</u>
- North Carolina | Duke Energy Park and Plug

Vehicle Pilots

Support utility investment in vehicle pilot programs.

Examples:

- North Carolina | <u>Duke School Bus Program</u>
- Florida | Florida Power & Light Vehicle to Grid (V2G) Program

Incentivize Consumer Behavior

Incentivize consumer behavior through rate design and programs.

Examples:

- Florida | <u>Duke Energy Residential Off-Peak Charging Credit Program</u>
- Florida | Duke Energy Commercial Charger Rebate Program
- Florida | Florida Power & Light DCFC Demand Limiter Public Charging Tariff Pilot
- Florida | Florida Power & Light EVolution Program Residential Chargers
- Georgia | Georgia Power Make Ready Infrastructure Program
- North Carolina | Duke Energy Charger Prep Credit
 - Residential
 - Commercial
- North Carolina | Duke Energy Charger Solution Program
 - Residential
 - Commercial

State Actions: State Agencies

State Transportation Electrification Planning

Develop and implement state transportation electrification planning.

Examples:

- Alabama EV Infrastructure Plan
- Florida Energy Office EV Roadmap
- Florida EV Infrastructure Master Plan
- North Carolina Clean Transportation Plan
- · South Carolina EV Stakeholder Initiative Report
- Drive Electric Tennessee EV Roadmap

Support National Electric Vehicle Infrastructure (NEVI) Efforts

Engage National Electric Vehicle Infrastructure (NEVI) stakeholders to create and implement their NEVI plan effectively and equitably.

Resource:

- National Association of State Energy Officials (NASEO) and American Association of State Highway and Transportation Officials (AASHTO) | <u>Models for Interagency</u> <u>Collaboration on Electric Vehicle (EV) Infrastructure Programs</u>
- 1. Links to State NEVI plans:
- All State Plans
- Florida
- Georgia
- North Carolina
- South Carolina
- <u>Tennessee</u>
- 2. Implementation: Links to State NEVI Requests for Proposals (RFPs)
- Georgia
- North Carolina
- Tennessee

EV Policies for Local Municipalities

Enact supportive policies for local municipalities transitioning to electrification.

- 1. Regularly add EV models onto state purchasing lists that local governments can procure from.
- 2. Implement uniform signage for a consistent design across the state to make compliance easier for local governments to enforce.

Resources:

- USDOT FHWA | Signing for Designated Alternative Fuels Corridors
- South Carolina Pavement Markings and Parking Signage Guide