

ELECTRIC TRANSPORTATION TOOLKIT FOR LOCAL GOVERNMENTS TO ACCELERATE ELECTRIC VEHICLES

Electric vehicles (EVs) save money by reducing operating and maintenence costs, while at the same time improving public health and addressing climate change by drastically reducing emissions. Today, there are light, medium and heavy duty EV options for fleets and consumers.

The Electrify the South Toolkit helps decision makers identify cost-effective, sustainable, and equitable solutions to accelerate electric transportation. The Toolkit curates best-practices highlighting real-world examples of successful local government EV strategies, policies and actions from around the country. The Toolkit is a guide showing practical steps that local governments can take to smoothly and effectively transition to electrified transportation systems and culminates with examples of transportation electrification plans. However, a comprehensive implementation approach may not be a viable option for every local government. So, the toolkit provides stand-alone actionable items, arranged by topic areas as well, which can be taken piecemeal or in combination.

Transportation creates tailpipe pollution, which comprises air pollution that we breathe and undermines public health, and climate pollution which contributes to global warming.

If you are new to EVs and need a better understanding of the technology and terminology, we recommend you **start here first**.

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Centering Equity & Economic Development at Every Step of the Way

Our goal of achieving a clean transportation future depends on diversity, equity, and inclusion playing central roles in the strategies and policies used to realize that future. Communities of color, rural, and Low/Moderate Income communities are impacted first and worst by air pollution, climate change, and other negative impacts of our current transportation system. In addition, communities with physical and cognitive disabilities already face unique and serious challenges navigating the existing transportation system, and the shift to a clean transportation future must address those challenges, rather than ignoring or exacerbating them. Furthermore, it is underserved communities that have the most to gain from electrifying all forms of transportation and from the increase of safer, more accessible zero-emission multimodal transportation options – but only if these solutions are advanced in ways that authentically involve and engage these communities.

"Equitable transportation electrification ensures that all communities, regardless of race, ethnicity, location, and income level, have increasing opportunities to access and benefit from e-mobility solutions." EVHYBRIDNOIRE PUBLIC POLICY TOOLKIT When transportation policies are centered around 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 onset, be grounded in engagement with diverse communities and should incorporate community needs and wants. Equitable transportation policy can redress public health burden, like the 66% higher exposure to transportation-related air pollution among Black, Indigenous, and People of Color (BIPOC) communities than white communities.



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 are highlighting some ways that this can be achieved within the recommended steps we outline, and these specific references to equity considerations are **marked with a scale icon and 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:

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

Equitable transportation policy also 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 reduction in 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 are highlighting some ways that this can be achieved within the recommended steps we outline, and these specific references to equity considerations are **marked with a dollar sign icon and 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:

- Transportation Electrification in the Southeast report
- <u>Retained Transportation Fuel Spending in the Southeast</u>

The remainder of the Toolkit is organized as an outline of steps that local governments can take individually or in combination to achieve and support an equitable transition to electric transportation that takes full advantage of the local economic development opportunities and leads to cleaner air, healthier communities, and a more sustainable future. Each section contains examples for interested parties to learn more about best practices and case studies.

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I. CHAMPION COMMUNITY ENGAGEMENT, PARTNERSHIPS, EDUCATION, INCENTIVES AND SAFETY

Educational opportunities for municipal staff and public citizens can increase understanding of the public health, environmental, and economic benefits of electric vehicles, as well as issues surrounding charging and cost savings to taxpayers. Examples include having EV information on your municipal website; providing presentations on EVs; and hosting outreach activities such as "ride and drives" at which staff and citizens can ride or drive in electric vehicles.Through the strategies outlined below, local governments can support robust community engagement and partnerships and provide critical education and incentives.

A. COMMUNITY ENGAGEMENT

Create and host EV information on the municipal website.

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

Examples: Cape Canaveral, FL | Largo, FL | Orlando, FL Utility Commission

Prioritize engaging authentically with diverse communities.

- Fund and prioritize education and outreach efforts with diverse communities.
 Example: <u>EVHybridNoire/Duke MLK EV Event</u>
- Ensure inputs from diverse communities are incorporated as every phase of transportation electrification program decisions are being made including planning, implementation and evaluation.
 Example: Mother Clara Hale Bus Depot, NYC

B. COMMUNITY PARTNERSHIPS

Promote Community Partnerships.

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

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

- Partner with a community development organization to develop an EV car share pilot. Examples: Affordable Mobility Platform Charlotte, NC | Forth Community EV Project
- Support access to charging for shared EVs and shared ride programs using EVs. Example: Green Cars 4 Kids
- Partner to offer carbon-free last mile programs using electric shuttles and buses, EV micro-mobility, as well as active transportation and transit options.
 - Example: Atlanta, GA | E-bike rebate program



Assist in developing EV and EVSE markets.

- Engage economic development offices to cultivate public-partnerships to accelerate EV market development.
 - Example: Hertz Electrifies Atlanta
- 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 STEPS4GROWTH Program
- Engage local banks, credit unions, foundations and/or community funds to support favorable lending for EVs and EVSE.

C. COMMUNITY EDUCATION

Create and host EV information on the municipal website.

- 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: <u>Capitol Electric Transportation Day Atlanta, GA</u> | <u>National Drive Electric Week</u> | <u>Drive Electric Earth Day</u> | <u>GO DEEPER ON DRIVING ON SUNSHINE</u>
- Introduce the municipal EV fleet at community events, or support other events that engage and educate residents on EVs.
- Communicate public health, equity, climate, and energy outcomes and benefits from EV readiness to the community.
 - Examples: Raleigh, NC | Drawdown Georgia Website
- Provide consumer resources on EVs and EVSE, to help residents make informed purchasing decisions.
 Example: <u>PlugStar Program</u>

D. INCENTIVIZE EVs AND EVSE

Facilitate use of incentive programs for EVs and EVSE.

- Provide information on incentives and grants to the community: <u>Federal tax credits for vehicles</u> | <u>Federal tax credits for used vehicles</u> | <u>Federal tax credits</u> <u>for commercial vehicles</u> | <u>Federal tax credits for EVSE</u> | <u>Federal incentives</u> | <u>State Incentives</u>
- Provide local financial incentives/development incentives for EVSE to support charging at workplaces, multi-family dwellings, and other priority locations.

Resources: Federal tax credits for EVSE | Federal Tax Credits for Builders of Energy Efficient Homes (Includes EVSE) | Federal tax credits for Energy Efficient Commercial Buildings (includes EVSE)

• Provide financial incentives to residents to purchase EVs and/or EVCS.

E. DEVELOP AND PROMOTE EV AND EVSE SAFETY AND TRAINING

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

- Provide professional awareness training of EVs and EVSE for first responders and public safety personnel.
- Provide professional hands-on training of EVs and EVSE for appropriate first responders and public safety personnel.
- Equip first responders with on-vehicle Emergency Guides for EVs.
- · Adopt draft standard operating procedures for emergency incidents involving EVs and EVSE.
- Advise local tow truck operators/storage facility owners to be trained on safety requirements for loading, hauling, and storage of EVs, post incident.

Integrate transportation electrification considerations into community safety plans. Provide EV and EVSE safety information to consumers.

Resource: <u>ZETA – EV Safety Resources</u>

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II. IDENTIFY FUNDING FOR VEHICLES AND CHARGING INFRASTRUCTURE

New federal legislations offer funding opportunities previously inaccessible for municipalities to utilize for both vehicle purchase and fleet transition as well as developing charging infrastructure. Financing options, incentives (like rebates and tax credits) and public/private programs, as well as grants and vouchers, have all been used 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.

BIPARTISAN INFRASTRUCTURE LAW (BIL)

In November 2021, the Bipartisan Infrastructure Law was signed codifying the Infrastructure and Investment Jobs Act (IIJA). Consequently, the Joint Office of Energy and Transportation was created to facilitate collaboration between the U.S. Department of Energy and the U.S. Department of Transportation. The Joint Office will align resources and expertise across the two departments and will help with implementation of programs that seek to deploy a network of electric vehicle chargers and zero-emission transit and school buses.

RESOURCES:

Bipartisan Infrastructure Law Guidebook: contains information about all the programs included in the BIL-including several other electric transportation-related programs.

Announced Bipartisan Infrastructure Law Funding: track the funding that has been announced and view selected, awarded funding locations and projects.

INFLATION REDUCTION ACT (IRA)

The Inflation Reduction Act was signed into law on October 16, 2022, and is the federal government's most significant investment in clean energy and transportation.

RESOURCES:

IRA Guidebook: contains information about all the programs included in the IRA-including many electric transportation-related funding mechanisms.

IRA Tracker – Columbia Law School's Sabin Center for Climate Change Law and

Environmental Defense Fund: The IRA Database compiles information about IRA's climate changerelated provisions. Actions taken by federal agencies to implement those provisions are recorded in the IRA Tracker.

IRA Tracker | E2: IRA tracker can be sorted by state, project type and sector.

A. IDENTIFY AND UTILIZE FUNDING FOR VEHICLES

Identify and utilize funding for vehicles.

Federal funding and financing for EV procurement

EXAMPLES:

Internal Revenue Service | Commercial Vehicles Tax Credit: IRA created a new credit that a city, town, or village could utilize as a direct pay tax credit of up to 30 percent when they purchase a qualifying commercial vehicle. Register for IRS direct payment on the <u>Registration Portal</u> Environmental Protection Agency | Clean School Bus Program: With BIL funding, EPA's new Clean School Bus Program provides \$5 billion (FY 2022-2026) to replace existing school buses with zero-emission and low-emission models. The program will alternate between a rebate and a grant structure.

Environmental Protection Agency | Clean Heavy-Duty Vehicle Program: IRA invests \$1 billion to replace dirty class 6 & 7 heavy-duty vehicles with clean, zero-emission vehicles, support zero-emission vehicle infrastructure, and to train and develop workers.

Department of Transportation | Low or No Emission Grant Program: BIL funding for \$1.5 billion

(FY2024) to support state and local efforts to buy or modernize buses, improve bus facilities, and support workforce development.

Joint Office of Energy and Transportation | Clean Bus Planning Awards: Through National Renewable Energy Laboratory provides school and transit bus fleets with free technical assistance to develop comprehensive and customized fleet electrification transition plans.

ADDITIONAL RESOURCES:

American Climate Cities Challenge | Federal Funding Opportunities for Local Decarbonization (FFOLD) This tool helps local governments prioritize and leverage existing federal funding to advance system-wide energy transition goals—from block grants and technical assistance to competitive grants, loans, and revolving loan funds.

US Department of Transportation | Urban Electric Mobility Infrastructure Funding Table

This matrix is a list of Federal programs that can fund electric vehicles and infrastructure, sorted alphabetically by agency. The matrix notes the type of EV activities that are eligible for funding under different programs, as well as the eligible entities.

World Resource Institute | How to Help Your Community Fund Electric School Buses in the US <u>SSDN | Grant Database</u> This funding database has a timeline for anticipating upcoming funding opportunities. Note it is not limited to ET funding. (See the bottom tabs of the spreadsheet).

- State funding and financing for electric vehicle procurement.
 - EXAMPLES:

North Carolina Department of Public Instruction Funding

VW Settlement Florida (settlement)

ADDITIONAL RESOURCES:

Alternative Fuels Data Center Incentives allows you to select a state and find state incentives. North Carolina NC Clean Energy Technology Center — Electric School Bus Funding Braiding Factsheet: This fact sheet explains these funding sources, and is supported by a spreadsheet you may download and use to create your own draft budget.

• Local and utility funding and financing for electric vehicle procurement.

EXAMPLES:

Orlando-LYNX-OUC: With Orlando's assistance, LYNX applied for funding from a Low or No Emission (Low-No) Grant from the Federal Transit Administration (FTA) to purchase seven battery electric buses. Orlando Utilities Commission assisted in the procurement of charging stations and batteries to help LYNX successfully deploy the project.

West Palm Beach and FPL

Duke NC School Bus Program

B. IDENTIFY AND UTILIZE FUNDING FOR CHARGING INFRASTRUCTURE

Identify and utilize funding for charging infrastructure.

Federal incentives for charging infrastructure procurement.

FEDERAL PROGRAMS:

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

Department Of Transportation | The National Electric Vehicle Formula Program will fund \$5 billion for new EV charging along Alternative Fuel Corridors across the country. **The Joint Office** of Energy and Transportation (Joint Office) provides technical assistance to community stakeholders implementing charging and fueling infrastructure projects.

Department Of Transportation | The Charging and Fueling Infrastructure Grant Program

is a competitive program that provides \$2.5 billion through two \$1.25 billion discretionary grant programs to support EV charger deployment. The Corridor Charging Grant Program (\$1.25 billion) will strategically deploy publicly accessible EV charging infrastructure along designated Alternative Fuel Corridors. The Community Charging Grant Program \$1.25 billion will strategically deploy publicly accessible EV charging infrastructure in communities. Both the Community and Corridor Programs have an 80% cost share, meaning awardees must match the remaining 20% of the project. <u>Recording of FHWA CFI Webinar</u> held 3.22.23 Passcode: i#I2b6UV. <u>Slides from the webinar</u> RESOURCES:

US Department of Transportation | Funding Matrix This matrix is a list of Federal programs that can fund electric vehicles and infrastructure, sorted alphabetically by agency. The matrix notes the type of EV activities that are eligible for funding under different programs, as well as the eligible entities.

US Department of Transportation | Overview of Federal Funding and Financing Programs The following provides a description of each relevant agency and how its mission relates to EV infrastructure.

<u>SSDN | Grant Database</u> This funding database has a timeline for anticipating upcoming funding opportunities. Note it is not limited to ET funding. (See the bottom tabs of the spreadsheet).

• State incentives for charging infrastructure procurement.

EXAMPLES:

<u>Georgia: Electric Vehicle Supply Equipment Tax Credit</u> <u>Tennessee: Vehicle Emissions Reduction and Electric</u> <u>Vehicle Supply Equipment Project Funding</u>

RESOURCE:

<u>Alternative Fuels Data Center Incentives</u> allows you to select a state and find state incentives.

• Local incentives for charging infrastructure procurement.

EXAMPLES:

Boynton Beach, FL Energy Edge Rebate Program

Sarasota County, FL Charge Up! Program

RESOURCE:

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



III. PLANNING, ZONING, EV READY AND PERMITTING

Adopting planning measures, modifying zoning regulations, establishing EV Ready policy, and clarifying permitting will support private investment in fleet, workplace, and public charging infrastructure.

A. INCORPORATE EVs AND EVSE IN COMMUNITY PLANNING

Commit to EV preparedness

- Make a public statement in support of EV readiness.
- Report baseline metrics, including power level and quantity of publicly accessible and municipally owned EVSEs; number of municipal EVs; and registered constituent-owned EVs.
- Establish a process for tracking and reporting meaningful EV and EVSE metrics over time.

Plan for community EV preparedness

- 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:

<u>Charlotte, NC – 100% zero-carbon fleet by 2030</u>

Broward County, FL purchase of only zero-emissions electric fleet

and transit vehicles by 2030

RESOURCES:

<u>US Department of Transportation | Charging Forward:</u> A Toolkit for Planning and Funding Urban Electric Mobility Infrastructure

<u>US Department of Transportation | Charging Forward:</u> A Toolkit for Planning and Funding Rural Electric Mobility Infrastructure

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 EV Charging Station Suitability Analysis 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.

- Integrate EVs and EVSE in public facility planning.
- Incorporate electric transportation in resilience planning.

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

- Engage with regional organizations and other strategic partners to advance best practices and policies for EV readiness and sustainable transportation overall.
- Integrate EVSE siting with regional priorities such as mass transit systems, airports, freight, transitoriented development (TOD), and proximity and accessibility to main thoroughfares and designated alternate fuel corridors.
- Engage with state, federal, and utility initiatives that support EV adoption.

B. DEVELOP ZONING REGULATIONS AND REQUIREMENTS

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

Clearly classify EVSE in zoning regulations.

- When EV charging is not the primary use of the site, classify the EV charging station as an accessory use.
- 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 | Electric Vehicle Charging for Residential and Commercial Energy Codes Technical Brief Great Plains Institute | Summary of Best Practices in Electric Vehicle Ordinances a guide to EV and EV charger ordinances in the US County of Santa Clara, CA Office of Sustainability | Best Practices Guide

- Define transportation electrification technologies (EVs, EVSEs) to be considered.
- Establish zoning regulations to facilitate EVCS installation, assuring it is no more difficult to site EVSE than any other equipment or use; clearly communicate rules.
- For EV charging stations that are the primary use of the site, update zoning code to allow these in most or all districts.
- Establish new or articulate existing regulations for whether and under what conditions EV charging stations are allowed in the right of way.
 EXAMPLES:

<u>New Orleans, LA- On-Street Electric Vehicle Charging Resources</u> <u>Seattle, WA</u> <u>Plug In America/Sierra Club | Template Ordinance</u>

- · Establish new or articulate existing regulations for the appearance of public EVSE.
- 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



C. 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.

EXAMPLE EV READY POLICIES: <u>Boca Raton, FL</u> <u>Charlotte, NC</u> <u>Coral Gables, FL</u> <u>Orlando, FL</u> <u>Miami-Dade County, FL</u> <u>Leon County, FL</u> <u>Miami, FL</u> <u>Atlanta, GA</u>

RESOURCES:

Southwest Energy Efficiency Project | Guide to EV Infrastructure Building Codes Chicago, IL | Multi-Unit Dwelling EV Charger Installation Guide Santa Clara County | Plug-in EV Best Practices Compendium

Incentivize and/or encourage EV readiness for new construction.

- Single-family residential development to be EV Ready and/or EVSE Installed.
- 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.
- 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.
- 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.

- Codify requirements for new single-family residential development to be EV Ready and/or EVSE Installed.
- 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.

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

INFORMATION FOR DEVELOPERS: Atlanta, GA Orlando, FL

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.

D. 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.

- Develop a clear and code-compliant standard permitting and inspection process for single family residential EVSE.
- Develop a clear and code-compliant standard permitting and inspection process for multiple family and commercial EVCSs.
- Provide clear direction on the utility right-of-way permit process and incorporate it into the application process.
- Post standard EVSE checklist, permitting forms, and approval requirements online. EXAMPLE:

City of Chicago, IL Online Permitting Process

• Provide a list of applicable local, state, and federal codes, laws, regulations, and suggested best practices for EVCSs to assist developers and installers.

Establish fair and expedient permitting and inspection processes.

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

Miami Beac

Miami Beach, FL

<u>Anaheim, CA</u>

Create an online EVCS permit approval process.

Establish registration & licensing requirements/process for qualified EVCS installers. Train staff on municipal EVCS permitting and inspection procedures. Establish clear rules and enforcement policies for EV charging.

EXAMPLES OF EVSE INSTALLATION GUIDELINES AND BEST PRACTICES:

Atlanta, GA EV Readiness Workbook

Orlando, FL: EV Ready Guide

City of Raleigh EV Installation Guidebook

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

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

IV. CHARGING INFRASTRUCTURE: PARKING, SIGNAGE, STANDARDS, WORKPLACE AND INNOVATIVE SOLUTIONS

Local governments can establish safe and equitable charging infrastructure policies and enforcement procedures to promote growth in EV adoption. This section explores why taking a proactive approach to public EV parking policies and enforcement, developing EV parking signage, and having standards for publicly funded charging stations create consistency among installations and a more streamlined approach. It also identifies how local governments can support workplace charging and explores innovative solutions to encourage private investment in fleet, workplace and public charging infrastructure.

A. ESTABLISH PUBLIC PARKING POLICIES

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

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

The U.S. Access Board | Design Recommendations for Accessible Electric Vehicle Charging Stations

- Allow reasonable public access to EV charging on municipally owned and other public properties.
- Conduct a parking study to balance constituent needs and support growth in EV preparedness.

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

EXAMPLES:

Free parking and free charging

<u>Coral Gables, FL provides free parking and EV charging</u> <u>Nashville, TN provides free parking and EC charging</u>

Pay for parking but charging is free

Savannah, GA parking is paid but charging is free

Varying rates for charging between residents and non-residents

Cape Canaveral, FL (scroll to Public Electric Vehicle Charging Stations" dropdown)

Pay for parking and charging

Miami Beach, FL pay to park and charge

Clearwater, FL 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.

B. ESTABLISH AND COMMUNICATE PARKING ENFORCEMENT POLICIES AND PROCEDURES

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:

<u>Miami-Dade County, FL Ordinance</u> <u>Florida State Statute</u> <u>North Carolina | HB 255 An Act to Regulate Electric Vehicle Charging Stations</u> <u>Colorado State Statute</u>

• Establish and communicate parking enforcement policies not addressed in State Code, such as ticketing and towing of EVs.

RESOURCE:

Advanced Energy Parking Enforcement Guide

• Tailor parking rules to match EVSE power level, such as shorter turnover times for DCFC.



C. EQUITABLE CHARGING INFRASTRUCTURE

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 (see section F below)

D. 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:**

<u>USDOT FHWA | Manual on Uniform Traffic Control Devices for Streets and Highways</u> <u>Alternative Fuel Data Center | Wayfinding Signage</u>

USDOT FHWA | Signing for Designated Alternative Fuels Corridors

Clearly identify EV parking spaces and post parking rules at EVSE locations.
 RESOURCE:

USDOT FHWA Regulatory Signs for EV Charging and Parking

- Recommend registration of public EVSE on websites such as the Alternative Fuels Data Center to help EV drivers find EVSE.
- Identify and promote EVSE by sharing digital EVSE locating tools.
 RESOURCE:

Alternative Fuel Data Center | Alternative Fueling Station Locator

E. STANDARDS FOR PUBLICLY FUNDED EVSE

Establish standards for publicly funded EVSE.

- · Adopt NEVI regulations for availability (uptime) of public EVSE.
- Adopt NEVI interoperability and open standards regulations for public EVSE.
 RESOURCE:

Electric Power Research Institute | Interoperability of Public Electric Vehicle Charging Infrastructure paper that details the issue.

 Adopt NEVI ADA requirements to allow both disabled and non-disabled patrons to equitably access EV charging equipment.

F. WORKPLACE CHARGING INITIATIVES

Support workplace charging initiatives.

 Encourage property owners, managers and employers to support easy and equitable access to EV workplace charging, including for municipal employees.
 EXAMPLES:

<u>MetLife</u> <u>TECO</u>

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. **Charge@Work** | DOE funded, national initiative that helps workplaces, workers, public officials, and community leaders plan and implement workplace electric vehicle (EV) charging programs. **EVAL (Electric Vehicle Adoption Leadership)** | 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



G. INNOVATIVE CHARGING SOLUTIONS

Support innovative charging solutions.

• Encourage retrofits of streetlight light posts for charging infrastructure. EXAMPLES:

<u>Charlotte Street Light Charging PoleVolt</u>- 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 fifty percent. <u>Additional information</u>. <u>Los Angeles, CA</u> - The Bureau of Street Lighting has installed Level 2 electric vehicle charging stations on 284 of the streetlights in the City of Los Angeles.

<u>GO DEEPER ON INFRASTRUCTURE</u> | Learn more about the different levels of charging infrastructure and the different applications.



V. EVALUATE, PLAN AND PROCURE LIGHT-, MEDIUM-, AND HEAVY-DUTY 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.

A. INTEGRATING EVS INTO MUNICIPAL FLEETS

Evaluate the feasibility of integrating EVs into municipal fleets.

TOOLS FOR FLEET EVALUATION:

Atlas Public Policy/Electrification Coalition | DRVE Fleet Procurement Analysis Tool Argonne National Laboratory | Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool SLOPE DOE Scenario Planning Tool

MEDIUM & HEAVY-DUTY GUIDE: <u>Environmental Defense Fund | Fleet Electrification Solution Center</u>

ELECTRIC SCHOOL BUS GUIDE:

World Resource Institute (WRI) | Step-by-Step Guide for School Bus Electrification

EVSE RESOURCE:

Electric power Research Institute (EPRI) | Vetted Product List

JOINT OFFICE OF ENERGY AND TRANSPORTATION: Clean Bus Planning Awards

Understand the opportunities and barriers to electrified fleets. RESOURCE FOR MEDIUM AND HEAVY-DUTY VEHICLES:

> ZETA | Medium- and HeavyDuty Electrification: Weighing the Opportunities and Barriers to ZeroEmission 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 | Electric 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?

- 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 | Drive to Zero's Zero-emission Technology Inventory (ZETI) Tool

TOOL FOR SCHOOL BUSES:

<u>Electric School Bus U.S. Market Study and Buyer's Guide: A Resource</u> for School Bus Operators Pursuing Fleet Electrification

- Assess fleet charging needs, including physical and operational requirements, projected daily energy requirements, EVSE, and associated investment. Engage the utility early in the process.
- Forecast return on investment.
- 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

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

B. DEVELOP A FLEET TRANSITION PLAN

Develop a fleet transition plan for EVs and EVSE.

EXAMPLES OF LIGHT-DUTY TRANSITION PLANS: Charlotte, NC | Sustainable and Resilient Fleet Policy Atlanta, GA | EV Conversion Plan

Ann Arbor, MI | Fleet Policy

Seattle, WA | Green Fleet Action Plan

EXAMPLE TRANSIT TRANSITION PLAN: King County, WA

- 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.
- Consider managed and leasing fleet solutions for the vehicles.

• Evaluate charging as a service, where a third party owns, operates and maintains charging infrastructure. EXAMPLE:

Pinellas Suncoast Transit Authority, FL

RESOURCES:

<u>Shell Recharge Charging as a Service</u> <u>EV Direct | A Duke Energy Non-Regulated Company</u> <u>elQMobility | A Nextera Non-Regulated Company</u> <u>Electric Vehicle Supply Equipment Incentives - OBE Power</u>

- Train appropriate in-house staff to operate EVs and EVSE.
- Train in-house staff to maintain EVs.
- Evaluate sharing municipal EVSE with the public.

C. PROCURE ELECTRIC VEHICLES AND EVSE

Procure and operate electric vehicles in the municipal fleet.

EXAMPLES OF LIGHT-DUTY FLEET:

<u>Coral Gables, FL 71 EVs, 12% of fleet electric</u> <u>Charlotte, NC EV fleet</u> <u>Largo, FL electric police motorcycles</u> <u>Weaverville, NC electric police fleet</u>

EXAMPLE OF MEDIUM-DUTY FLEET: Ocala, FL Garbage truck pilot

EXAMPLES OF SCHOOL BUS FLEETS:

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

EXAMPLES OF TRANSIT FLEETS:

<u>Greensboro, NC</u> <u>Miami-Dade, FL</u> <u>Pinellas Suncoast Transit Authority, FL</u> <u>Raleigh-Durham National Airport, North Carolina</u> <u>Knoxville Area Transit, TN</u>

 Leverage procurement expertise and other benefits by purchasing EVs and EVSE through cooperative procurement RESOURCE:

Climate Mayors | Purchasing Collaborative

- 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.
- Install EVSE for public use on municipal land.

EXAMPLES:

<u>Coral Gables, FL</u> <u>Fort Lauderdale, FL</u> <u>Miami Beach, FL</u> Evaluate pairing EVSE with renewable energy (solar + battery storage) for resilience and to provide offgrid charging where grid interconnection is an issue.
 EXAMPLES:

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

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 percent 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 childrens' 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.



VI. ENGAGE YOUR LOCAL ELECTRIC UTILITY

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.

A. COLLABORATE TO INCREASE OUTCOMES

Collaborate to promote transportation electrification.

- Communicate large-scale private and public EVSE project plans in the community to the utility.
- Participate in beneficial electrification programs, such as solar PV, energy storage, EV charging, managed charging and Vehicle-to-Grid (V2G) integration.
 EXAMPLE:
 - West Palm Beach-FPL Electric School Buses | Florida Power and Light and West Palm Beach partnered on Florida's first electric school buses. The pilot will explore vehicle to grid technology using the bus batteries and provide data that will inform future applications.
- Collaborate with the utility to install public EVSE.
 - EXAMPLE:

Florida Duke Energy Park and Plug Program



B. EDUCATE EV USERS ABOUT UTILITY INCENTIVES AND PROGRAMS

Educate consumers about utility incentives and programs.

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

EXAMPLES:

Knoxville Utilities Board Charger Rebate

Orlando Utilities Commission EV Rebate

Duke Electric School Bus

RESOURCE:

Alternative Fuels Data Center Incentives

• 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 EVolution Program TVA/TDEC TN Corridor Fast Charging Network

OUC Chargit Ownit Program

Savannah, GA and Georgia Power "Georgia Make Ready"

Duke North Carolina "Utility-Make-Ready Credit Program"

Santee Cooper is now <u>accepting applications</u> for its new <u>EVolve Electric Vehicle Commercial</u> <u>Grant Program</u>. The program is available to Santee Cooper commercial customers and will offer grants of up to \$25,000 designed to help transform the Grand Strand and other parts of the utility's service territory into electric vehicle-friendly destinations.

C. 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:

<u>Georgia Power, GA</u> <u>Florida Power & Light tariff pilot DCFC</u>



VII. COMPREHENSIVE TRANSPORTATION ELECTRIFICATION 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.

VIII. STATE ACTIONS: GOVERNOR'S OFFICE

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.

There are several actions that Governor's Offices can take to support and enable state-wide electric transportation and economic development goals. Likewise, local governments can lean into advocating for state policies and programs that will support goals, including access to federal funding flowing through state agencies.

A. ELECTRIFY STATE AGENCY FLEETS

Electrify state agency fleets.

• Develop and implement a state fleet transition plan. EXAMPLES:

NC DOA Motor Fleet ZEV Plan

- Utilize IRA tax credits (see funding section) to advance state fleet electrification.
- Regularly add EV models onto state purchasing lists that agencies can procure from.

A.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 | EVeryone Charging Forward™ Program South Carolina Governor McMaster | Executive Order 2022-31 South Carolina | ET website



IX. STATE ACTIONS: STATE LEGISLATORS

State legislators have the power to pass critical policies that can either accelerate or slow down the EV transition. In states with policymakers that support action on climate change, those actions can be drivers for supportive EV policies. Currently, that is not the state-of-play in the Southeast. Nevertheless, there are supportive policies that should be considered especially given the region is leading the nation in electric transportation manufacturing and jobs, which is creating economic development opportunities that will be strengthened by a stronger consumer and fleet EV market.

A. EV POLICIES FOR CONSUMERS

Enact supportive policies for consumers transitioning to electrification.

• 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

• 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

• 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

B. 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

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



X. STATE ACTIONS: STATE ELECTRIC UTILITY REGULATORS

The Southeast is significantly underrepresented in utility funding for transportation electrification at \$15.66 per capita, compared to the national per capita average of \$32.02. States that have higher levels of utility investment tend to have stronger EV markets. These investments include "make-ready" infrastructure (which includes service connection upgrades and new supply infrastructure to bring power to the charging equipment), utility-owned and operated charging infrastructure, charging station rebates, incentives to promote equity and access, workplace charging and fleet electrification including school and transit buses.

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

A. UTILITY INFRASTRUCTURE BUILD-OUT

Support utility infrastructure build-out through ET programs.

EXAMPLES:

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

B. VEHICLE PILOTS

Support utility investment in vehicle pilot programs.

EXAMPLES:

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

C. INCENTIVIZE CONSUMER BEHAVIOR

Incentivize consumer behavior through rate design and programs.

EXAMPLES:

Florida | Duke Energy Residential Off-Peak Charging Credit Program 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: <u>Residential</u> | <u>Commercial</u> North Carolina | Duke Energy Charger Solution Program: <u>Residential</u> | <u>Commercial</u>

XI. STATE ACTIONS: STATE AGENCIES

State agencies and EV stakeholders have joined forces in most Southeast states to develop plans to accelerate transportation electrification. Through the processes used and outcomes achieved vary across states, these plans demonstrate the importance and value of state-wide strategies. States can promote additional stakeholder engagement and infrastructure deployment through effective administration of the National E Infrastructure (NEVI) program and support of Community Fueling Infrastructure (CFI) grants led by local and tribal governments, non-profits, and other eligible applicants.

A. 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

B. 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 Collaboration on Electric Vehicle</u> (<u>EV) Infrastructure Programs</u>

LINKS TO ALL NEVI PLANS: All State Plans Florida Georgia North Carolina

South Carolina

Tennessee

Support eligible Charging and Fueling Infrastructure (CFI) Grant program applicants including local governments, non profits, tribal governments state agencies in applying for CFI funds.

RESOURCE:

FORTH Federal Grant Support

C. EV POLICIES FOR LOCAL MUNICIPALITIES

Enact supportive policies for local municipalities transitioning to electrification.

- Regularly add EV models onto state purchasing lists that local governments can procure from.
- 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 CarolinalPavement Markings and Parking Signage Guide