GoEVCity Colorado

A local policy toolkit for electric transportation

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GoEVCity Policy Toolkit

The GoEVCity Policy Toolkit is a catalog of local policies, strategies, and programs designed to advance the transition to EVs in Colorado communities. The toolkit takes a holistic approach to the transportation electrification, with specific policy recommendations for public transit, municipal fleets, taxis, ride-hail services, and personal car ownership. Most of these tools have been implemented in cities, counties, states, and utilites in Colorado and across the country.

The intent is not to suggest that every city or county making the GoEV commitment must implement all of these policies; rather, it is intended to provide a set of options that the community can consider when developing their action plans. We recognize that every community in Colorado is unique and we expect this toolkit to be adapted and applied to best fit the needs of your community.

We've categorized and summarized each policy below, and provided links to real-world examples.

GoEVCity Policy Toolkit

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1. Making the **GoEV**City Commitment

1.1. GoEVCity Resolution

The City pledges to embrace the GoEVCity guiding principles and develop an EV Action or EV Readiness Plan to advance the transition toward transportation electrification. For context, we also provide links to renewables resolutions that local governments have adopted.

Examples:

Sample GoEVCity Resolution

City of Pueblo: 100% Renewable Energy Resolution

City of Longmont: 100% Renewable Resolution

Town of Breckenridge: 100% Renewable Resolution

1.2. Electric Vehicle Strategy

Develop an Electric Vehicle Strategy or "EV Readiness Plan" outlining the basic challenges of electrification and proposing a series of goals, strategies, and incremental targets for 2025, 2030, and 2050. The document serves as a comprehensive master plan for transportation electrification in the community and includes a list of action items and deliverables alongside the corresponding City department to encourage implementation.

Examples:

City of Portland Electric Vehicle Strategy

Aspen Community Electric Vehicle Readiness Plan

City of Denver Mobility Action Plan

1.3. EV Driver Bill of Rights

An EV Driver Bill of Rights defines a series of rights focused on the EV consumer purchase experience, charging experience, and ownership experience.

Examples:

California Proposed Bill HR-117 (2017)

Sample EV Driver Bill of Rights (Sierra Club & Plug-in America)

1.4. Advocate for state and federal EV-friendly policies and programs

Be a leader in advocacy efforts to advance EV-friendly policies at the state and federal levels. Cities can also advocate for utility investment in EV infrastructure and EV-specific rate design.

Examples:

Policy goals in City of Denver 80x50 Climate Action Plan (2018)

Colorado Communities for Climate Action (CC4CA): Letter on Vehicle Emissions Standards

2. EV Incentives

2.1. EV purchase subsidy

Cities can offer EV rebates to reduce the capital costs of EV ownership. Rebates should be offered at the point-of-sale and can be designed with a vehicle cost cap to focus the benefits on low and middle-income residents.

Examples:

Riverside, CA: Alternative Fuel Vehicles Rebate Program ($500 incentive)

Sample Vehicle Purchases Rebate Template (Sierra Club & Plug-In America)

2.2. EV and eBike group buy program

EV group buy programs extend vehicle discounts to consumers through strategic partnerships and community-based outreach and marketing. Local dealerships provide limited-time EV discounts and in exchange, the municipality coordinates with local partners to educate the community and promote the program.

Examples:

Boulder County EV and eBike group buys

Garfield, Pitkin, Eagle County: EV Sales Event

Durango, 4CORE, Refuel Colorado group buy

SWEEP: EV Group Buy Handbook & Case Studies

2.3. Protected EV-designated parking spaces and signage

Cities implement signage and parking regulations for EV charging spaces through a zoning or parking ordinance to prevent EV charging spaces from getting blocked by gas-powered vehicles. Cities can collaborate with other agencies to increase EV signage and wayfinding throughout the community for EV drivers and non-EV drivers alike. For any City facilities with publicly-accessible charging, the City shall install EV signage at the facility entrance to help increase consumer awareness at the facility and from adjacent roadways.

Examples:

Arizona: 28-876. Parking spaces for electric vehicles; civil penalty

Sample EV Parking Enforcement Template (SWEEP, 2018)

2. EV Incentives

2.4. Discounted parking rates for EVs

Cities can offer free or discounted parking rates for EV drivers at city parking meters and city-owned parking garages. EV parking programs can be designed to phase out once EVs reach a certain occupancy rate, such as 5% for city-owned parking garages.

Examples:

City of Aspen: Electric Vehicle Parking

City of Sacramento: Electric Vehicle Parking

2.5. Carpool lane (HOV) access for EVs

Allowing EVs to travel in HOV, HOT, or BRT lanes without paying the toll or satisfying the 2-3 passenger minimum requirement. Programs can include a permit cap or performance standard to avoid HOV lane congestion from high penetration of EVs. This will generally require negotiating agreements with CDOT.

Examples:

Colorado Department of Transportation (CDOT): Hybrid Vehicle use in HOV/HOT lanes (2008)

Sample HOV Lane Access Template (Sierra Club & Plug-in America)

2.6. Vehicle feebate program

A fee-bate is a revenue-neutral system that collects fees from buyers of "gas guzzlers" and redistributes them as rebates to buyers of highly efficient and EVs. Feebates have been implemented in France and Denmark, and have been considered in some states in the US.

Examples:

SWEEP: Boulder County feebate study (2014)

UC-Davis ITS: Feebate Revenue Neutral Approach (2017)

Rocky Mountain Institute: Valuing Society First: Feebate Policy (2017)

3. Electrify Municipal Fleets

3.1. Municipal EV fleet targets

By replacing their vehicle fleets with EVs, municipalities can reduce both fleet emissions and operating costs. Local governments can establish incremental City fleet targets for purchases of light-duty EVs and consider EV procurement for any vehicle replacements when suitable EV options are available with equivalent operational capability.

Examples:

City of Denver: Mobility Action Plan (200 EVs by 2020)

City of Sacramento: "ZEV First" commitment (50% by 2018, 75% by 2020)

SWEEP: Boulder County's Clean Future (2018 study)

3.2. Workplace charging for city and county employees

Cities can support the transition to electric vehicles for its employees by installing workplace charging at their parking facilities.

Examples:

SWEEP: Boulder County's Clean Future (2018 study)

4. Electrify Public Transportation Options

4.1. Electric buses in public transportation

Cities work with transit agencies to transition from fossil-fuel to fully electric buses. Electric buses may have higher capital costs, but provide significant life-time savings because of reduced maintenance and fuel costs, especially in high-mileage use cases. Cities can work with local and regional transit agencies to secure electric bus grants through the VW settlement, build-out electric bus charging infrastructure, and get commitments to full electrification.

Examples:

City of Denver: 100% of public transit by 2050

City of Seattle: 120 electric buses by 2020

Los Angeles: 100% electric public transit by 2030

4.2. Electric taxi, Uber/Lyft targets

Cities shape the transition to electric-shared mobility by engaging directly with Transportation Network Companies (TNCs) and partnering on pilot programs centered around EV adoption, charging, and innovative multi-modal programs.

Examples:

Electrify California Ride-hailing E-CAr Legislation

City of Denver, Maven, Lyft, EVgo partnership

Uber “EV Champions Initiative” (7 major cities)

4.3. Working with school districts on EVs, EVSE, and electric school buses

Cities and counties engage with school districts to electrify school buses, provide staff EVs, and install EVSE in school parking lots and administrative facilities. School districts are traditionally conservative when it comes to new energy technologies, but can be open to cost savings and environmental benefits through collaboration with municipalities. School districts can apply for electric school bus funding through the VW settlement, which includes $18 million and a $200k cap for electric school buses and shuttle buses in Colorado.

Examples:

Boulder Valley School District: 3 EVs, EVSE, and plans to buy one electric school bus

City of Sacramento: 29 new electric school buses

VEIC: Massachusetts Electric School Bus Pilot Project Evaluation (2018)

4. Electrify Public Transportation Options

4.4. Investment in electric rideshare charging hubs

Cities engage in public-private partnerships and encourage TNC electrification by installing DC fast-chargers at designated charging hubs. Access to high-powered and reliable charging reduces range anxiety for high-mileage TNC drivers while allowing TNC fleet managers to optimize fleet operations through coordinated charging. High-powered charging hubs can also be co-located with electric transit, school bus, and car-sharing chargers to maximize efficiency.

4.5. Electric-autonomous vehicle incentives or requirements

City requires or incentivizes all autonomous vehicles to be electric. Incentivize operators of shared-autonomous commercial fleets to deploy EVs. Programs will need to be carefully designed to avoid state or federal pre-emption.

Examples:

Proposed MA Bill S.1945: Requirement for autonomous vehicles to also be zero-emissions vehicles

4.6. Electric car-sharing program

A local government hosts a community-wide EV car-sharing program for the community. Car-sharing programs should also offer one-way service options to provide greater transportation flexibility to customers. Additional car-sharing efforts should be focused on disadvantaged communities and affordable housing developments.

Examples:

City of Boulder and Denver eGo car-share

City of Denver: electric car-sharing program with GM's Maven and EVgo

Los Angeles car-share: BlueLA

City of Sacramento: Envoy

City of Portland: ReachNow (BMW)

4. Electrify Public Transportation Options

4.7. City plan for electric micro-mobility (eBikes, eScooters)

Cities develop rules, regulations, and pilot programs for shared electric bikes and scooters. Cities can explore public-private partnerships with shared-electric mobility companies and evaluate the impact of innovative transportation technologies like “dockless” electric bikes and scooters. To streamline public-private partnerships and attract more innovative technology companies, Smart City programs in San Jose, Sacramento, and Boston have adopted “demonstration partnership policies”. Cities can collaborate with electric bike and scooter companies and explore options for public charging infrastructure for these smaller, electric-assisted vehicles.

Examples:

City of Denver: dockless scooter pilot program

City of Boulder: dockless eBike pilot program

Santa Monica: Shared Mobility Device Pilot

Bird “Save Our Sidewalks” Pledge

4.8. Support new and emerging transportation solutions with EVs and EVSE

Collaborate with private transportation companies to encourage creative pilot programs that address local transportation goals. Such opportunities might include EV car-sharing programs, first-last mile commuting solutions, electric microtransit, or on-demand electric shuttle.

Examples:

City of Aspen: Downtowner electric shuttle

5. EV Charging Access & Infrastructure

5.1. Streamlined EVSE permitting process

Streamline the city's planning review process for the installation of EV chargers in existing parking lots with mechanisms such as expedited, over-the-counter, or online design review services for EV charger permits.

Examples:

Chicago's 2017 Easy Permit Process Ordinance

Palo Alto, CA: EV Charger Permit Guidelines

City of Sacramento 24-hr EV charger permit review

5.2. EV-ready building codes

EV-ready building codes require new residential and commercial construction projects to include either a set number of installed EV charging stations and/or the electrical infrastructure (panel capacity, conduit, and pre-wiring) to encourage the easy and affordable installation of future charging stations. The cost to install an EV charging station is significantly less expensive when infrastructure is provided at the time of construction as opposed to a retrofit.

Examples:

City of Boulder

City of Aspen

Boulder County

City and County of Denver

Palo Alto, CA

SWEEP: EV Infrastructure Cost Effectiveness

5.3. City EVSE installation guidelines and best practices

Municipalities provide guidelines with step-by-step instructions for EVSE installation in single-family, multi-family, and commercial applications. The City can maintain brochures, handouts, and other resources at City permitting counters and on the City website for installation of home and workplace EV charging. The guidelines should also include a list of suggested energy payment models.

Examples:

City of Atlanta: EV Readiness Workbook

City of Chicago: How to Install Electric Vehicle Charging Stations at Multi-Unit Dwellings

5. EV Charging Access & Infrastructure

5.4. City-owned public charging stations

Cities encourage EV adoption in the community by providing EV charging stations for public use. Cities can apply for state and federal grants to fund these projects and maintain affordable charging costs for users. An online EV parking map application can be integrated with City parking garage information to inform the public about EV charging options. Cities can also experiment with technology options to increase charging turnover and access at City garages, such as managed charging systems, technologies to allow for driver queuing, and fees for cars that charge beyond posted time limits.

Examples:

City of Boulder charging stations (46 chargers)

City of Aurora EV charging stations

5.5. City EVSE Incentives

Cities offer a tax credit or rebate for the equipment and labor costs associated with the installation of both public and private EV charging stations. Cities can direct residents toward grant opportunities such as the Charge Ahead Colorado program, which covers up to 80% of EVSE costs. Cities can further incentivize workplace charging infrastructure by funding the remaining 20% of the EVSE cost.

Examples:

Washington DC: EV charger incentives

5.6. Workplace charging incentives

The availability of workplace charging for community residents has been statistically linked with higher levels of EV adoption. Cities can direct local businesses toward the Charge Ahead Colorado program, which covers up to 80% of EVSE costs, and further incentivize workplace charging infrastructure by funding the remaining 20% of the EVSE cost. Cities can partner with local business groups to promote workplace charging and recognize exemplary businesses.

Examples:

Salt Lake City, UT: Leaders for Clean Air

SWEEP: Boulder County's Clean Future (2018)

5.7. Multi-family dwelling EVSE support and incentives

According to results from multiple utility EV infrastructure incentive programs, uptake in the multi-family housing sector tends to be disproportionately low compared to workplace, commercial, and single-family residential applications. Cities can address this trend by helping residents navigate administrative barriers and providing resources for multi-family dwelling EV chargers. Cities can also increase EVSE incentives for MFUs, and provide the remaining 20% of EVSE funding for projects that secure the 80% Charge Ahead Colorado incentive.

Examples:

Sample EVSE Installation at Multi-Unit Dwellings (Sierra Club & Plug-in America)

5. EV Charging Access & Infrastructure

5.8. Right of way access for curbside charging; Streetlight and power pole charging access

For residents and businesses that do not have off-street parking, cities can develop design guidelines and a permitting process for curbside EVSE installation. Cities can also develop charging on streetlight poles.

Examples:

Seattle, WA: The Electric Vehicle Charging in the Public Right of Way (EVCROW)

Los Angeles Power Pole EVSE Installations

Sample Right of Way Charging (Sierra Club & Plug-in America)

5.9. Pair EV charging stations with renewables

Cities invest in or partner with private companies to develop EV charging renewable energy options such as solar PV and storage to offset the grid emissions associated with EV charging. Renewable energy offsets can be achieved in the form of on-site solar PV generation or off-site community solar development and utility green tariffs.

Examples:

City of Los Angeles partnership with Envision Solar

6. Education & Awareness

6.1. Consumer education and informational materials

Cities develop engagement and partnership programs to expand public awareness and education in order to increase public understanding of EV feasibility and benefits. Programs should involve local groups, community and business organizations, neighborhood associations, and other stakeholders. Cities and Counties can incorporate EV education and awareness messaging into existing energy and transportation demand management programs and work plans. Maintain an EV website with information on EV resources and rebates for consumers and drivers.

Examples:

City of Denver: Pass Gas, Drive Electric

City of Boulder: Energy Smart Program, EV Advising Services

Drive Electric Chicago

6.2. Outreach events

Cities, Counties and local partners can organize EV education initiatives, showcases, and Ride and Drive events to educate the public about EVs. Cities work with local partners and auto dealerships to identify appropriate methods to increase sales of EVs, such as incentives, dealer training, and increased EV inventory.

Examples:

City of Denver “Drive Electric” launch

City of Portland: EV Showcase

6.3. Outreach events in low-income communities

Cities, Counties and local partners can organize educational events to educate low-income communities about the economic and environmental benefits of EVs. Organizers should consider expanding outreach events to other affordable clean transportation options such as electric car-sharing.

Examples:

National Drive Electric Week event in Watts, LA

6.4. Partnering with auto dealers

Lack of understanding and enthusiasm for EVs among auto dealers, and lack of access to diverse models and makes, can be a major obstacle. A number of jurisdictions have developed programs to recognize or incentivize dealers who actively promote EVs.

Examples:

Connecticut Hydrogen and Electric Vehicle Rebate Program (CHEAPR)

Connecticut Revolutionary Dealer Awards

CA Governor's GEELA Award for dealership ZEV promotions

7. Working with Electric Utilities

7.1. Utility-owned public charging infrastructure

The utility installs, owns, and operates public EV charging stations.

Examples:

Kansas City Power & Light: Clean Charge Network

7.2. Utility-owned public charging infrastructure in low-income communities

Allocate utility EV infrastructure investment for disadvantaged communities and consider implementing free or discounted charging rates.

Examples:

SDG&E, SCE, PG&E - EV Infrastructure plans

7.3. Utility EVSE incentive and support

Utilities develop EV infrastructure incentive programs and offer rebates for charger installations. Funding should be adequately provided for different use cases such as: single-family, workplace, multi-family dwelling, fleet, highway corridor, and public transit charging.

Examples:

Austin Energy: Plug-in Austin

Sacramento Municipal Utility District (SMUD) incentives

Pay-As-You-Save (PAYS) Program

Rocky Mountain Power: Utah EV Charging Incentive Program

NV Energy EV charging infrastructure program

7.4. Utility increased incentive and informational materials for EVSE at multi-family properties

According to results from other utility EV infrastructure incentive programs, uptake in the multi-family housing sector tends to be disproportionately low compared to workplace, commercial, and single-family residential. For MFUs, utilities should consider either increasing the incentive or building “turnkey” charging stations, where the utility owns and operates the chargers instead of relying on the property owner to coordinate installation with a third-party supplier.

Examples:

SDG&E Power your Drive program

Austin Energy Multi-Family charging rebates

Seattle City & Light guide for multi-family EV Charging

7. Working with Electric Utilities

7.5. Utility informational materials and outreach events

Utilities educate their customers about EV options, benefits, and charging requirements. Utilities can also work with auto makers to promote EV discounts such as those offered through the expansive Nissan Fleetail program.

Examples:

Xcel Energy: Get Started Going Electric

Baltimore Gas & Electric: EV information

Kansas City Power & Light

SMUD EV Rebate Programs with Nissan and BMW

7.6. Utility cost comparison tool

Utilities build an EV cost-comparison calculator on their website to determine the fuel cost savings achieved by purchasing an EV.

Examples:

Holy Cross Energy: eGallon Calculator

Kansas City Power & Light

7.7. Utility EV fleet

Procuring electric vehicles for a utility fleet can lower total fleet costs, improve safety, and reduce emissions while also enhancing consumer awareness, brand image, and public relations through community visibility and employee expertise with the technology and the benefits it offers.

Examples:

PG&E (CA) EV charging investment

7.8. Utility EV-rate design

Utilities experiment with alternative rate design pilot programs to realize the grid benefits of EV charging and reduce energy costs for EV owners. Such programs might include hourly pricing or time-of-use rates in lieu of demand charges for fast charging stations.

Examples:

Rocky Mountain Power (UT): EV Time-of-Use Pilot Program

Portland Gas & Electric (PGE) Transportation Electrification Plan: Electric Avenue Pilot

Austin: EV360 Residential Time-of-Use Pilot Program


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