



# Climate Solutions Series

OVERCOMING HURDLES TO AGGRESSIVE CLIMATE ACTION POLICIES



Electric Vehicles (EVs)

Experts tell us that we have less than a decade to significantly reduce greenhouse gas (GHG) emissions to avoid the most dire impacts of climate change. Transportation is the second largest source of emissions in many communities, making electric vehicle a critical solution for local governments.

In the US, transportation accounts for 29% of emissions – 60% of that from passenger cars and trucks. The way we get to and from work, school, the store and just around town has a huge impact on climate change and local air quality. Converting public fleet vehicles to EVs and encouraging adoption of EVs among residents and businesses is a key climate strategy.

## Why electric vehicles?

Clean transportation solutions are multimodal, but EVs have huge potential to meet climate goals and reduce air pollution. Traditional gasoline-powered vehicles use and emit high amounts of pollutants into the atmosphere, all of which are harmful to the earth's environment – especially carbon dioxide.

Electric vehicles save money on gas and maintenance. For public fleets this can mean massive budget savings and, with electricity prices more stable than gas prices, more consistent budget planning.

	Annual Fuel Costs	Annual Emissions
<b>All Electric</b> <small>Runs entirely on electricity. Based on 2021 Chevrolet Bolt.</small>	\$450	2.6 metric tons
<b>Plug-In Hybrid</b> <small>Runs on electricity and gasoline. Based on 2021 Toyota RAV4 Prime.</small>	\$650	3.6 metric tons
<b>Gasoline Only</b> <small>Runs entirely on gasoline. Based on 2020 Ford Escape.</small>	\$1,150	7.3 metric tons

\*Based on 45% highway, 55% city driving, 15,000 annual miles, \$13/kWh and \$2.18/gallon (national average fuel prices via U.S. Department of Energy, 2020). \*\*CO2 equivalent, annual well-to-wheel emissions

Credit: Electrification Coalition



The market is already making the shift. Every major car manufacturer has [at least one electric model](#), with 200 new models expected by 2025.



The EV market in the United States is likely to reach 6.9 million units by 2025 and will represent 48% of [all new cars sold in 2030](#).



Governments, automakers, and other stakeholders signed an agreement at COP26 to [transition to 100% zero-emission sales](#) of new cars and vans by 2040 globally.



Some estimates show that EV upfront costs will reach cost parity with gas powered vehicles by 2022, with battery prices dropping 90% since 2010. ([BloombergNEF](#))

## EV RESOURCES FOR LOCAL GOVERNMENTS

- [Electrification Coalition](#)
- [EV Tools and Calculators Clearinghouse](#)
- [Total Cost EV of Ownership Estimator](#)
- [GoEV Policy Toolkit](#)
- [The Greenlining Institute's Electric Vehicles for All: An Equity Toolkit](#)
- Fleets for the Future [Electric Vehicle Procurement Best Practices Guide](#) and [Guide to Financing Alternative Fuel Vehicle Procurement](#)



# Real and Perceived Challenges to EV Public Fleets and Consumer Demand

Whether you're trying to convert public fleets or increase business and consumer adoption of EVs, you're likely to hear pushback along the lines of: EVs are too expensive, the options are too limited, there aren't enough charging stations in the right places, there is too much red tape internally, and what about the grid infrastructure? But the lived experience of local governments across the US outlines a path for overcoming these barriers. A forerunner in this space, New York City has had EV fleets operating for a full cycle of 10 years and has the [60% overall cost savings](#) to show for it – with 2,260 on-road EVs and plug-in hybrids now.



## Vehicle Types and Procurement

*"How do we get started with a public fleet?"*

- Start with a fleet assessment to know which vehicles you could transition now and which can wait
- Replace vehicles with EVs through the normal replacement cycle.
- Check out the Electrification Coalition's free [Dashboard for Rapid Vehicle Electrification \(DRVE\)](#) tool free for download to help
- Don't stop with light duty vehicles. Consider emergency management, school buses, sanitation and more – affordable EV options exist for all sorts of vehicles
- Know your fleet procurement process and decision makers



## Financing

*"How can we pay for all of this?"*

- Commit government funding
- Get creative and go after state and federal grants
- Pursue manufacturer or local business investments and partnerships
- Utilize "lease to purchase" to spread costs out beyond a single budget year
- Enter into regional or cooperative procurement arrangements like the [Climate Mayors Electric Vehicle Purchasing Collaborative](#) to reduce costs and increase access to options
- Identify public-private partnerships like the one [between San Antonio and Blink Charging](#)
- Consult the [Electrification Coalition's Federal Funding Guidance for Cities](#)



## Infrastructure and Policy

*"How many charging stations do we need, what type and where do we put them? What policies and ordinances would support uptake of EVs?"*

- Assess your infrastructure needs. For public fleets, audit the number of vehicles, annual miles traveled, where they are stored and usage routes
- Consider policy and incentive opportunities:
  - ◊ Permits for home charging stations and charging stations in parking lots at workplaces, like a [new ordinance in Ann Arbor](#) requiring new real estate developments to include charging stations
  - ◊ EV-friendly zoning and building codes
  - ◊ Identify other policies and incentives that promote EV use (ex. free parking for EVs and access to carpool lanes)
- Consult [AchiEVe: Model Policies to Accelerate Electric Vehicle Adoption](#) and [Electrifying Transportation in Municipalities: A Policy Toolkit for Electric Vehicle Deployment and Adoption at the Local Level](#)
- Work with local utilities, car sharing companies, and charge station manufacturers to initiate partnerships that make EVs and charging more accessible to the community. Partnership examples include the [EV Spot Network](#) for all-electric carshare service and charging stations in Minneapolis and St. Paul and the [Los Angeles Cleantech Incubator Transportation Electrification Partnership](#) heading into 2028 Olympic and Paralympic Games



## Education, Outreach and Equity

*"How do we share our public fleet plans, convince more residents to go electric, and ensure equitable access throughout the community?"*

- Bake in equity with tools like the [ACEEE report](#) "Citing Electric Vehicle Supply Equipment (EVSE) with Equity In Mind"
- Leverage charging stations, parking signage and fleet vehicles for "free advertising" visibility
- Ride and Drive events
- Gear up for [National Drive Electric Week](#) every September
- Community outreach campaigns and websites, such as:
  - ◊ [Electrify Atlanta](#)
  - ◊ [EV Cincy](#)
  - ◊ [EVSA San Antonio](#)