REGIONAL EV STRATEGY
EV Fire Safety, New Guidance on Equitable Siting of EV Charging, and More

June 26, 2025

MAPC
METROPOLITAN AREA PLANNING COUNCIL

Today's Agenda

1:00-1:05 p.m.	**Welcome**	Emma Zehner, MAPC
1:05-1:35 p.m.	**Electric Vehicle Fire Safety**	Andrew Klock, National Fire Protection Association
1:35-1:55 p.m.	**New Resource: Guide to the Equitable Siting of Electric Vehicle Charging Stations in Environmental Justice Communities**	Crystal Johnson, Office of Environmental Justice and Equity, Executive Office of Energy and Environmental Affairs
1:55-2:10 p.m.	**New Resource: E-Cargo Bikes in Greater Boston**	Marah Holland, MAPC
2:10-2:25 p.m.	**New Resource: Electric School Bus Roadmap**	Alison Felix, MAPC
2:25-2:30 p.m.	**Updates and Resources**	Emma Zehner, MAPC

Electric Vehicle Fire Safety

New Resource: Guide to the Equitable Siting of Electric Vehicle Charging Stations in Environmental Justice Communities

A Guide to the Equitable Siting of Electric Vehicle Charging Stations in EJ Populations

Office of Environmental Justice and Equity (OEJE)

June 26, 2025

Overview

Office of Environmental Justice and Equity

A Guide to the Equitable Siting of Electric Vehicle Charging Stations in EJ Populations

- Purpose of the Guide
- Principles and Best Practices

Q&A

Office of Environmental Justice and Equity

The Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs' (EEA) Office of Environmental Justice and Equity (OEJE) works with all EEA agencies to ensure policies and programs are designed with equity at the center, ensuring that all voices are heard and all voices are shaping the solutions. OEJE works diligently to ensure there is meaningful engagement in all processes, resulting in more equitable public policies. OEJE is committed to ensuring a fair and equitable distribution of all environmental and energy benefits and burdens.

Purpose of the Guide

- The *Guide to the Equitable Siting of Electric Vehicle Charging Stations in EJ Populations* (Guide) serves to complement the second Electric Vehicle Infrastructure Coordination Council (EVICC) Assessment, as well as an independent resource

- As it becomes increasingly necessary for publicly accessible EV charging stations to further expand into communities with EJ populations, publicly-accessible municipal- and state-owned EV charging station locations should be selected with intentionality and in close partnership with local communities to ensure that the clean energy benefits are enjoyed by the residents of neighborhoods with EJ Populations

- Process: EVICC Sub-Committee

- Target Audience: Community-based organizations, municipalities, state agencies, as well as utility providers, EV industry and others

IV. Environmental Justice and Equity Considerations in Electric Vehicle Infrastructure Siting

It is essential to consider EJ and equity in the siting of publicly accessible EV charging stations. This process should be informed by principles that ensure a comprehensive understanding of accessibility and resilience. By understanding and adopting best practices, including meaningful engagement, an EV charging station network can be developed that supports EJ and equity.

Principles	Best Practices
• Reduce Disparities in Access to Public EV Charging Stations	• Conduct Equity-Centered Site Assessments
• Sustainable and Resilient EVSE	• Prioritize Community-Centered Planning
	• Collaboration and Stakeholder Engagement
	• Accessibility and Affordability

Best Practices:
Conduct Equity-Centered Site Assessments

- **Identify Priority Areas:** Use tools like EEA's Environmental Justice Map Viewer to identify communities with high pollution burdens, low incomes, or limited mobility options.
- **Evaluate Existing Infrastructure:** Assess the community's transportation needs, current EV adoption levels, and infrastructure gaps.
- **Consider Co-Benefits:** Prioritize sites that provide additional benefits, such as reducing air pollution near schools, healthcare facilities, or densely populated areas.
- **Data:** Use transparent, data-driven approaches to inform EVSE siting and adjust based on community feedback and usage patterns.

Best Practices:
Prioritize Community-Centered Planning

- **Early and Ongoing Engagement:** Projects impacting EJ Populations should undertake enhanced measures of engaging community members early and seeking initial feedback at the project's onset. Involve EJ Populations early in the decision-making process to ensure their voices shape the siting and implementation plans. This engagement can help identify opportunities for medium- and heavy-duty vehicle and fleet transition to EVs.

- **Meaningful Engagement:** Conduct meaningful and ongoing engagement, which requires consultation with communities to gather information about their specific needs. Empower community members to influence and shape project design, timeline, and benefits, and actively contribute to the public EV charging station site-selection process, including identifying charging options near highways and other roads with high congestion that could support freight and high mileage internal combustion engines in transitioning to EVs.

- **Culturally Relevant Outreach**: Use culturally appropriate materials and communication methods, such as multilingual resources and outreach through trusted community organizations.

- **Public Meetings and Workshops**: Host accessible meetings (virtual and in-person) to gather input, ensuring timing and locations accommodate residents' schedules. To the greatest extent possible, planning for public meetings should be developed in consultation with community-based organizations.

Best Practices:
Collaboration and Stakeholder Engagement

- **Collaborative planning:** Foster cross-sector collaboration among government agencies, utilities, the private sector, and community organizations to ensure comprehensive and inclusive decision-making. Community centers, faith-based organizations, and other CBOs can often assist with identifying populations where additional outreach is needed and have insight on the best channels to engage with local EJ Populations

- **Involve Local Community Leaders:** Join community meetings, town halls, EJ forums, or other advertised community activities to establish relationships with community leaders. Engage with local leaders who are active in underserved communities, so they can refer you to key organizations and networks.

- **Engage with Utilities:** Engage with the utility company serving the local geographic area to understand relevant rebates, incentives, and income-restricted assistance programs they offer. Work collaboratively with the utilities to conduct outreach and enhance awareness and participation in these programs.

- **Community Advisory Groups:** Establish advisory committees that include residents, EJ advocates, and local leaders to guide the process. Leverage expertise from organizations focused on EJ and equity and clean energy to shape and review plans. Consider offering compensation for their participation.

Best Practices:
Accessibility and Affordability

- **ADA-Compliance:** Ensure chargers are ADA-compliant and accessible to people with diverse disabilities. Reference MassEVIP ADA requirements as an example.

- **Clear Signage:** Ensure clear and consistent communication about the availability and pricing of charging stations to encourage use and build trust and are also designed for non-English speakers.

- **Technology Access**: Install EV chargers that are compatible with diverse EV models, particularly affordable and used EVs.

- **Curbside Charging Stations:** Consider installing curbside charging stations to provide convenient, public charging options for residents without access to private parking spaces. Reference MassCEC's Study (to be released in late 2025) and the City of Boston's Curbside EV Pilot Program.

- **Affordable Access**: Ensure that EV chargers are affordable to use, with clear pricing transparency and posting, both on the charging station and in the app. Provide subsidies or tiered pricing for low-income users where possible. Please refer to EVICC's Public Level 2 EV Charging Station Fees and Policies Guide.

- **Payment Flexibility**: To address financial inclusion, enable cash payment or systems that do not solely require credit cards or a smart phone application. Smart phone applications should include options to enter banking information and should not require additional debit or credit card fees at point-of-sale. Also consider adapting existing programs, such as SNAP, to allow for beneficiaries to apply those funds towards EV charging.

Questions?

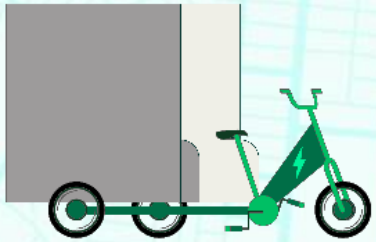
New Resource: E-Cargo Bikes in Greater Boston

E-Cargo Bikes: Strategies for Municipal Delivery Transition

Resource developed by MAPC and the City of Boston,
funded by the Massachusetts Clean Energy Center (MassCEC)

Agenda

- Background
- Boston Delivers Program
- Overview of the E-Cargo Bike Delivery Resource
- Audience Questions



Introduction

Massachusetts Clean Energy Center provided funding for this work

City of Boston piloted the e-cargo bike delivery program, Boston Delivers (and contracted with Net Zero Logistics for operations)

MAPC was subcontracted to develop a toolkit for how to expand e-cargo bikes for deliveries in the region

The Case for E-Cargo Bikes

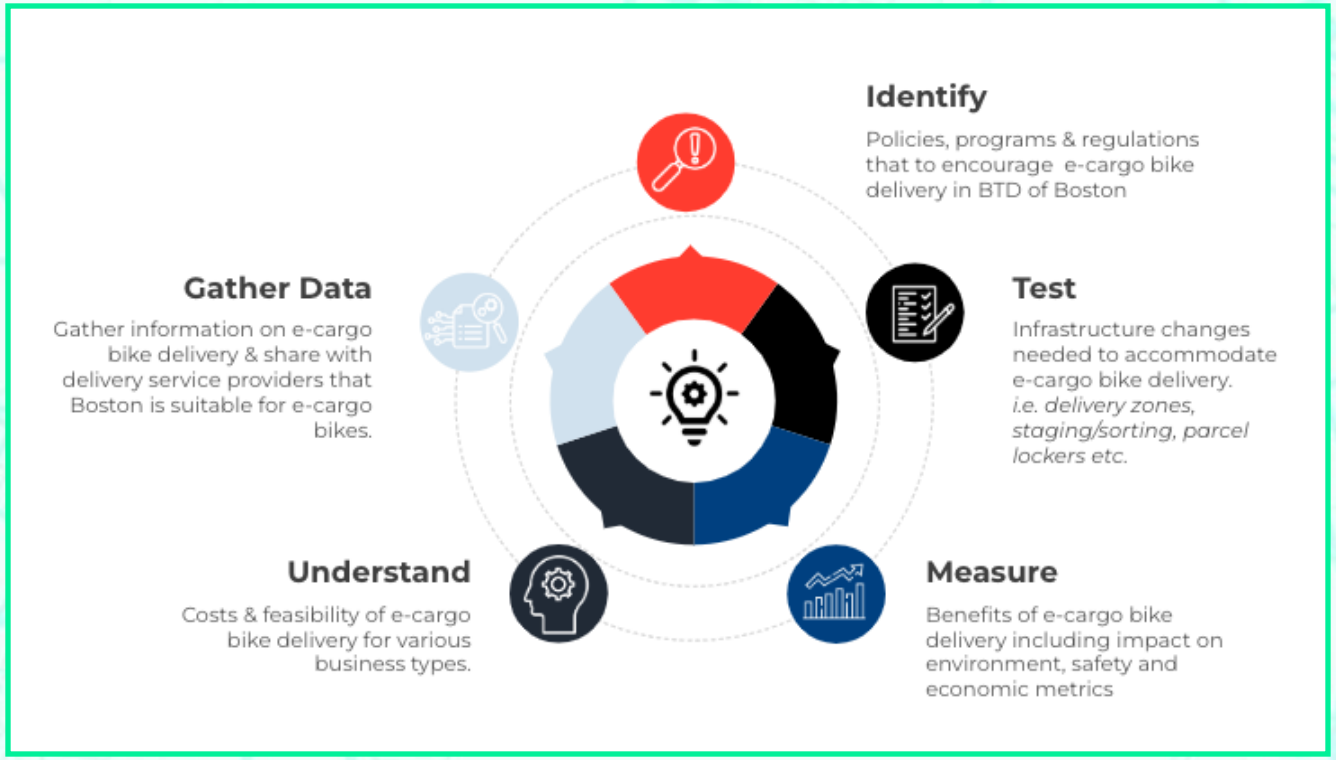
Benefits of e-cargo bikes for urban deliveries

- Congestion and parking
- Air Quality
- Street safety
- Delivery workers

E-cargo bikes come in many shapes and sizes. They vary in number of wheels, location and capacity of the cargo storage, width, height, power, controls, and more.

E-Cargo Bikes in Greater Boston

Boston Delivers was a pilot program that promoted a delivery service using e-cargo bikes for businesses in Boston.



Opportunities to Support E-Cargo Bikes Locally: Strategies that Prioritize Local Sustainable Deliveries

- Municipal Office or staff dedicated to sustainable deliveries
- Sustainable goals integration
- Defining e-cargo bikes locally
- E-cargo bike delivery cost subsidy for businesses
- Data collection and reporting

Strategy Highlight:
E-cargo bike delivery cost subsidy for businesses
Create subsidy programs that reduce the costs for businesses to conduct deliveries, or partner with a company to conduct deliveries via electric cargo bikes.

Boston, MA
Boston Delivers was launched in September 2023 and provided funding to subsidize deliveries for local businesses, creating an incentive for those businesses to use a more environmentally-friendly delivery option for their customers.

Opportunities to Support E-Cargo Bikes Locally: Strategies that Increase Access to Vehicles

- Equipment subsidies for local businesses
- Equipment subsidies or purchases for local delivery employees

Strategy Highlight:
Equipment subsidies for local businesses
Create incentive programs for local businesses to purchase electric cargo bikes for deliveries.

Denver, CO
The Denver Mobility Incentive Program allows organizations within the City and County of Denver to purchase e-cargo bikes for deliveries. The program gives priority to projects that will replace an existing gas-fueled vehicle with an e-cargo bike and requires the organization to have secure bike storage and to provide three years of reporting.

Opportunities to Support E-Cargo Bikes Locally: Strategies that Increase Operational Efficiency and Access to Public Space

- Low- or No- Emissions Zones
- Delivery Time Regulations
- Authorized space for microhub delivery centers
- Operational guidelines for microhubs
- Dedicated parking spaces and curb signage
- Wide on-street bike infrastructure along key routes
- Additional policies to consider

Strategy Highlight:

Low- or no-emissions zones

Designated areas with significant delivery or loading zones as no- or low-emissions zones to encourage and/or mandate the use of zero-emissions vehicles, such as e-cargo bikes, for deliveries.

Portland, OR

In 2023, Portland received a $2 million federal grant to pilot the country's first regulated zero-emission delivery zone in downtown Portland and use data and technology to better understand the curb. During the six-month pilot, the project area will prioritize access for zero-emission vehicles only.

Opportunities to Support E-Cargo Bikes Locally: Strategies that Support Public Outreach and Education

- Demonstration Days
- Trainings Programs
- Partnership Programs
- Additional Policies to Consider

Strategy Highlight:

Demonstration days

Plan demonstration days for groups of local businesses or business associations to learn about electric cargo bikes, how they could be used, and hear from other local businesses about their operations.

London, GB

The City of London, in partnership with the Zero Emissions Network (ZEN), offers free one-week cargo bike trials, providing local businesses with the opportunity to test cargo bikes for their delivery and logistics needs.

Opportunities to Support E-Cargo Bikes Locally: Funding Sources for E-Cargo Bikes and Infrastructure

- Municipal funds
- State funds and programs
- Federal funds
- Private funding

Strategy Highlight:

State funds and programs

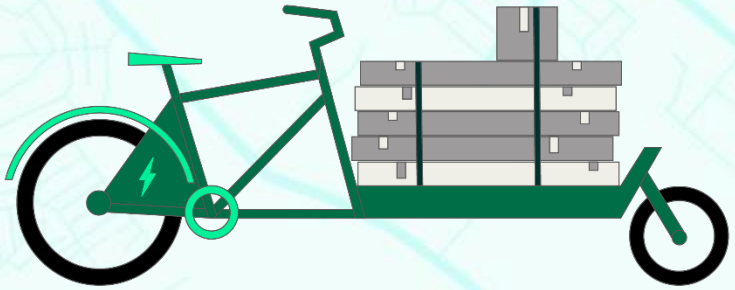
States can develop grant and incentive programs for municipalities, businesses, and individuals to increase access to e-cargo bike usage or pilot programs to test e-cargo bike deliveries.

Massachusetts

The MassCEC's ACT4All Program piloted equity-focused transportation programs that increase clean transportation access and decrease existing transportation burdens for underserved and overburdened communities across the Commonwealth. The Act4All program funded Boston Delivers.

Audience Questions

- What questions do you have for us?
- Is your municipality thinking about e-cargo bike deliveries?
- How could you help support e-cargo bike deliveries in your area?
- What strategies resonate with you?



Contact Us

Marah Holland, Senior Transportation Planner
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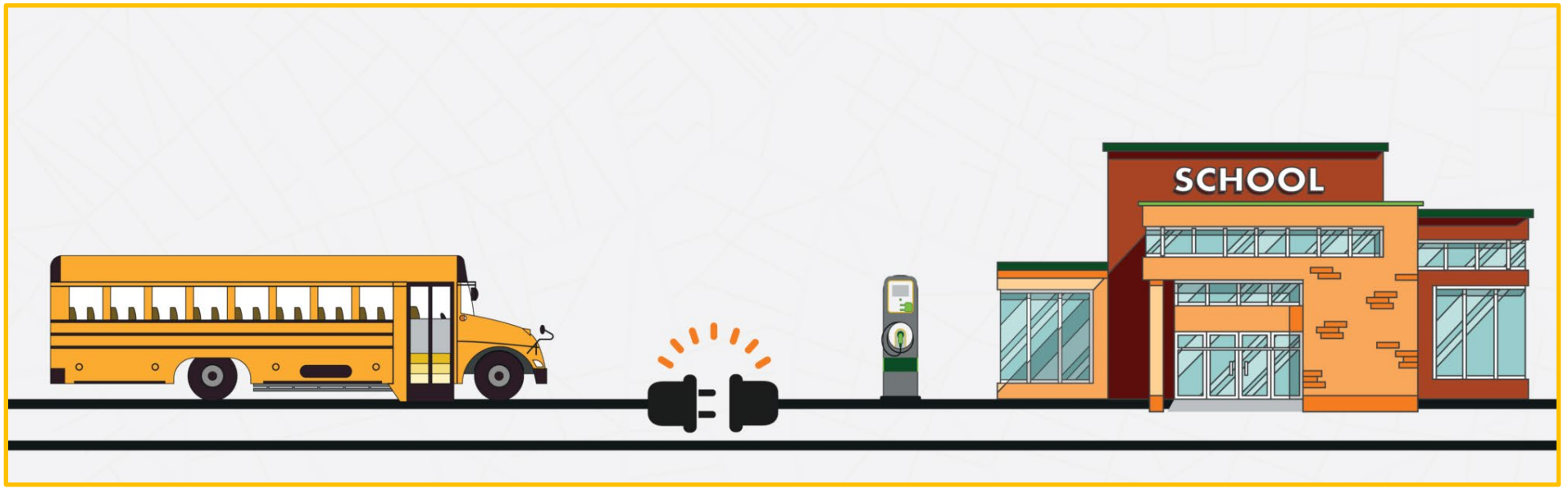
Check out the Resource Here:
mapc.org/resource-library/e-cargo-bikes

MAPC

New Resource: Electric School Bus Roadmap



Electric School Buses: A Roadmap

RESOURCE DEVELOPED BY MAPC

MAPC

What is MAPC's Electric School Bus Roadmap?

A guide for school districts and municipalities to start planning for an effective and efficient transition to electric school buses.

- Highlights the essential steps that school districts and municipalities should take.

Provides many links to resources that decision-makers can use to learn more and connect to existing resources about making this transition.

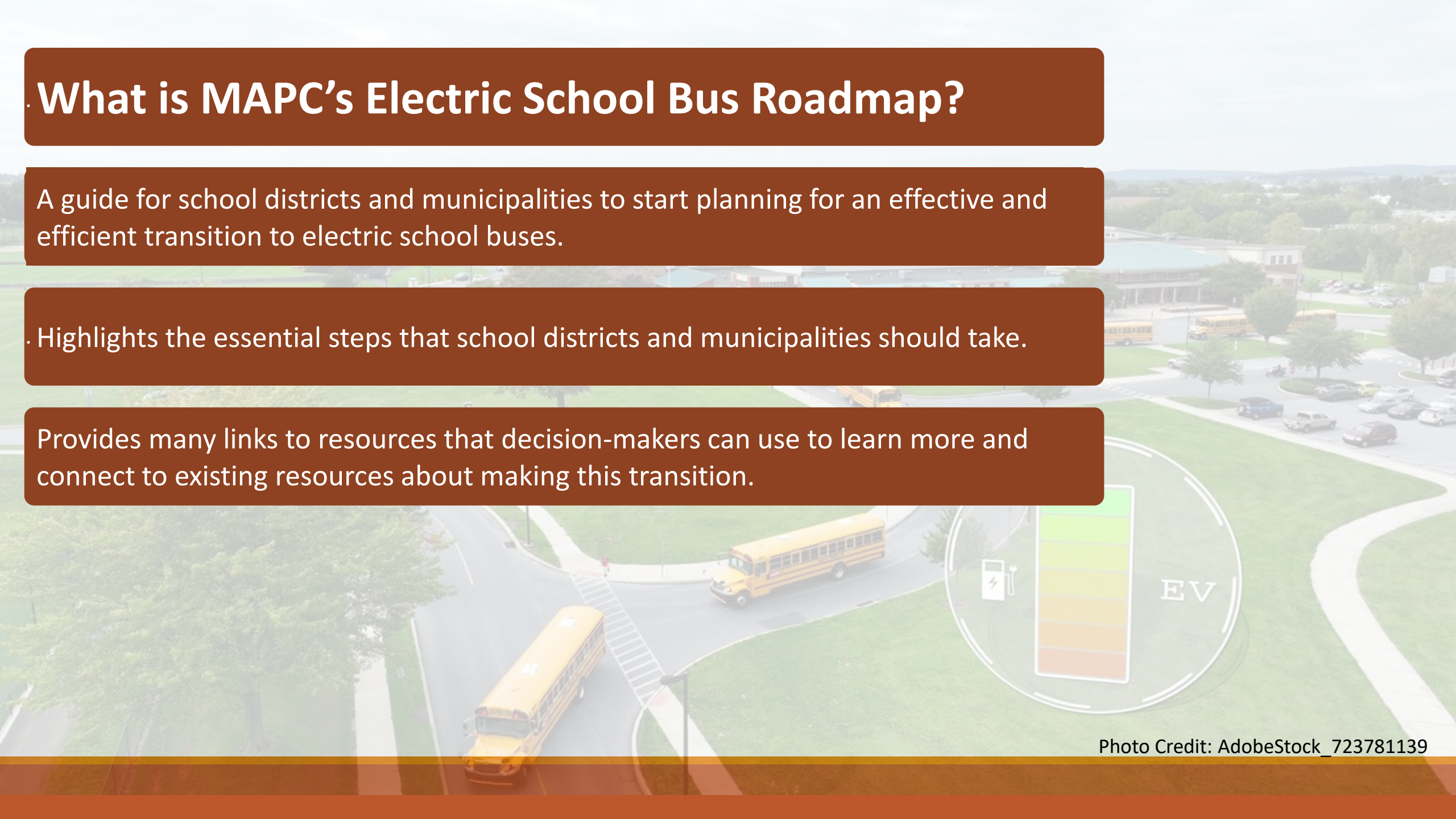


Photo Credit: AdobeStock_723781139

Why Electric School Buses (ESBs)?

Health Benefits

- Children spend 20 minutes to several hours a day on school buses
- Pollution levels inside older diesel buses can exceed surrounding by 5-10x (air quality on school buses not regulated by the EPA)*
- ESBs can reduce cumulative pollution burdens, especially in EJ communities

Greenhouse Gas Reduction

- ESBs produce < half of the GHG emissions of diesel school buses

Operations and Maintenance Savings

- A new ESB can save schools $6,000/yr in fuel and maintenance costs

Market Movement

- 20+ models available from all major manufacturers**

**Data on this page is from WRI's Electric School Bus Initiative, unless otherwise noted*

*** Mass Clean Energy Center*

MetroWest School Fleet Electrification Study

22 School Districts

Acton-Boxborough

Ashland

Concord-Carlisle

Dedham

Dover and Sherborn

Framingham

Harvard

Holliston

Hopkinton

Lexington

Lincoln

Marlborough

Medfield

Millis

Natick

Needham

Northborough and Southborough

Wayland

Wellesley

Westborough

Weston

Westwood

Sections (14) of the Electric School Bus Roadmap

Why Electric School Buses?	Operations, Maintenance, Safety
Electric School Bus Ownership and Operation Models	Total Cost of Ownership
Conducting a Fleet Assessment	Funding and Financing
Working with Utilities	Procurement
Selecting Charging Infrastructure	Connecting with Peers and Experts
Site Selection and Planning	Summary of MetroWest ESB Study
Workforce Training	Future Considerations for ESBs

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Electric School Bus Ownership and Operation Models

80% of buses are owned and operated by third-party bus providers

20% of buses are owned and operated by school districts or municipalities

Own Buses

School district or municipality owns, maintains, and operates the buses and chargers.

Lease Buses

School district or municipality leases the buses and operates the buses; school district or municipality owns, maintains, and operates the chargers.

Charging-as-a-Service

School district or municipality owns, maintains, and operates the buses and contracts with a third-party for charger ownership, maintenance, and operations.

Transportation-as-a-Service

School district or municipality contracts with a third-party to own, maintain, and operate the buses and chargers.

Turnkey Service

School district or municipality contracts with a third-party to own and maintain both the buses and chargers and the school district operates the buses.

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Conducting a Fleet Assessment

A Critical First Step

Low or no-cost fleet assessment options are available, including programs from MassCEC's ACT School Bus Advisory Services Program, Eversource, and National Grid.

A fleet assessment typically includes:

Analyzing Vehicle Needs:. Determining how many buses are needed and their routes

Assessing Site feasibility: Identifying suitable locations for charging infrastructure and electrical capacity.

Estimating Costs: Calculating the total cost of ownership, including fuel, maintenance, and infrastructure.

Evaluating Emissions Impacts: Understanding the environmental impacts of electrification.

Identifying Funding Opportunities: Identifyin g grants, rebates, and other financial incentives.

Engaging Stakeholders: Ensuring all relevant parties are involved in the planning process.

"Do It Yourself" Fleet Assessment Tools and Resources are Available

Working with Utilities

Electrifying a school bus fleet requires a strong partnership with utilities.

Utility involvement must start early in the initial planning process.

Utilities:

- Evaluate grid capacity and identify needed upgrades
- Anticipate future charging needs and avoid costly retrofits
- Provide incentives, rebates, and technical assistance
- Optimize energy use through time-of-use rates and demand management

Photo Credit: MassCEC

Selecting Charging Infrastructure

- “Right-size” charging (Level 2 vs. DCFC) based on route length, schedules, and terrain.
- Ensure buses are compatible with chargers.
- Plan for the vehicles and infrastructure rollout in tandem.
- Use charging software to manage energy use and reduce costs.

Site Selection and Planning

- Select depot sites close to routes with adequate grid capacity and space.
- Plan for charging equipment and future expansion.
- Consider property ownership and lease terms.

Operations, Maintenance, and Safety

- Train staff to safely operate and maintain charging equipment.
- Use cold-weather strategies: indoor storage, battery preheating.
- Address charger, battery, and fire safety protocols.

Sections (14) of the Electric School Bus Roadmap

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Total Cost of Ownership (TCO)

- Electric school buses have higher upfront costs compared to diesel buses, but save on fuel and maintenance. Costs are expected to reach price parity over time.
- Use the Roadmap's TCO calculators to evaluate purchase, operation, and maintenance costs and compare with diesel school buses.

Photo Credit: MassCEC

Funding and Financing

- Grants and programs can offset school bus and infrastructure costs.
- Check which programs can be combined ("stacked").
- Grants and programs change often – verify program details.

Procurement

- The Roadmap explains procurement pathways for municipalities and school districts that own school buses and those that use third-party contractors.

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Connecting with Peers and Experts

The Electric School Bus Forum, organized by the National Renewable Energy Laboratory (NREL) and the Joint Office of Energy and Transportation.

Join the Electric School Bus Network's bi-monthly forums to gain insights, receive updates, and connect with other districts.

Speak with an expert from the World Resources Institute's (WRI) Electric School Bus Initiative to get technical support.

Municipalities and school districts in Massachusetts have already begun transitioning their fleets. The Roadmap shares detailed examples of how municipalities and school districts in Massachusetts are finding success through different approaches:

Arlington
Beverly
Boston
Concord Public Schools
Cohasset Public Schools
Lawrence Public Schools
Worcester Public Schools

Electric School Buses: A Roadmap

https://www.mapc.org/resource-library/electric-school-buses/

We would like to express our gratitude and acknowledgment to the following organizations for their contributions to the development of this resource: *Eversource, Green Energy Consumers Alliance, Highland Electric Fleets, Massachusetts Clean Energy Center (MassCEC), National Grid, Operational Services Division (OSD), and the World Resources Institute.*

MAPC

News and Resources

Trump Administration Actions on Electric Vehicles – Current and Proposed

Federal EV Targets	Revoked 50% electric vehicle sales goal by 2030.
Funding for Charging Infrastructure	Paused or rescinded federal funding for EV charging stations. *Includes the National Electric Vehicle Infrastructure (NEVI) Program & Charging and Fueling Infrastructure Discretionary Grant Program*
EV Tax Credits and Subsidies	Propose eliminating federal EV and charging station tax credits. *Includes the federal tax credits for purchasing new and used EVs & for installing EV chargers.*
Emissions Standards	Initiated rollback of stricter EPA vehicle emissions rules.
State Authority	Rescinded California's EV mandates and California's Clean Air Act (CAA) emissions waivers.
Tariffs	Imposed tariffs on imported EV parts and vehicles.

Update: Federal Judge Blocks Freezing of EV Charging Station Funding in 14 states

February: Trump Administration suspended all new obligations under the National Electric Vehicle Infrastructure (NEVI) program (created by the Bipartisan Infrastructure Law)

May: Sixteen states plus Washington, D.C. sued over the freeze.

This Week: U.S. District Judge ruled that the Transportation Department **likely violated the law by withholding "expected and relied-upon funding"** under the NEVI program, and was causing irreparable harm in those states by continuing to do so.

- *Issued an Order to immediately release NEVI funds by July 2.*
- *The Ruling is for 14 of 17 Plaintiffs.* ***MA was not a Plaintiff,*** *ruling is limited to 14 states.*

Advanced Clean Cars II (ACCII) Program

The Advanced Clean Cars II program in Massachusetts is a regulation that requires increasing percentages of new zero-emission vehicles (ZEVs) to be sold in the state, reaching 100% ZEV sales by 2035.

In June 2025, the Massachusetts Department of Environmental Protection (MassDEP) announced a two-year pause of EV sales requirements for manufacturers unable to meet minimum sales required under the ACCII program.

Upcoming Grant Opportunities Announced by the Healey-Driscoll Administration

Dedicated additional grant funding for the purchase or lease of electric vehicles for publicly owned fleets, electric school buses, waste collection vehicles, and other vocational vehicles.

Enhanced grant funding opportunities for existing programs that support medium- and heavy-duty vehicle charging, charging at multi-unit dwellings and educational campuses, charging at workplaces and for commercial fleets, and publicly accessible charging stations through the MassEVIP program.

Affordable Clean Cars Coalition

In May 2025, Massachusetts joined 10 other U.S. Climate Alliance states **in launching an Affordable Clean Cars Coalition. T**he Affordable Clean Cars Coalition:

- Aims to expand access to affordable clean cars and protect states' rights to set stricter vehicle emission standards.
- Focuses on increasing zero-emission vehicle adoption, lowering costs, and expanding charging infrastructure.
- Was formed in response to federal efforts to weaken state clean vehicle programs.

Multi-state collaboration: California, Colorado, Delaware, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Rhode Island, and Washington. States represent over 100 million people and about 30% of the U.S. auto market.

Learn more: https://electrek.co/2025/05/23/11-states-launch-coalition-to-expand-clean-cars-in-face-of-federal-attacks

Credit: Electrek.

Massachusetts MassEVIP Workplace and Fleet Program – Expanded to Cover Medium- & Heavy-duty Vehicles

Massachusetts Department of Environmental Protection's MassEVIP Workplace and Fleet Program

- Provides incentives for employers and fleet operators to acquire Level 1 and 2, and DC (up to 36 kW) EV charging stations.
- Workplaces must have 15+ employees on-site and fleet vehicles must be in MA.
- Rolling program, up to $50,000 per address or 60% of eligible costs.

- **NEW! Recent expansion to cover Medium- & Heavy-duty vehicles**
  - Workplace and Fleet Program will now fund medium- and heavy-duty vehicle fleets, in addition to light-duty fleets.
  - Must have at least one light-, medium- or heavy-duty EV in your fleet, or on order (proof required before payment issued), to participate in the program.
  - Apply here https://www.mass.gov/how-to/apply-for-massevip-workplace-fleet-charging-incentives
  - If you have questions, contact massevip.massdep@mass.gov