

REGIONAL EV STRATEGY

State EV Council Update and FY24 Brainstorm

August 17, 2023



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Today's Agenda

1:00-1:10 p.m.	Welcome & Introductions	Alison Felix, MAPC
1:10-1:40 p.m.	Electric Vehicle Infrastructure Coordinating Council (EVICC) Update and Discussion	Eric Bourassa, MAPC
1:40-2:10 p.m.	Working Group Reflection and Discussion	Alison Felix, MAPC Emma Zehner, MAPC All
2:10-2:30 p.m.	Updates and Next Steps	Alison Felix, MAPC Emma Zehner, MAPC



EVICC Members

- **Undersecretary Michael Judge**, Executive Office of Energy and Environmental Affairs
- **Senator Mike Barrett Chair**, Joint Committee on Telecommunications, Energy, and Utilities
- **Undersecretary Layla D’Emilia**, Office of Consumer Affairs and Business Regulation
- **Aurora Edington**, Department of Energy Resources
- **Brain Ferrarese**, Department of Environmental Protection
- **Laura Gilmore**, MBTA
- **Jeffrey Roy Chair**, Joint Committee on Telecommunications, Energy, and Utilities
- **Commissioner Staci Rubin**, Department of Public Utilities
- **Undersecretary Monica Tibbets-Nutt**, Department of Transportation
- **Eric Bourassa**, Metropolitan Area Planning Council



Electric Vehicles and Charging in 2023

- Approx 70,000 zero-emission vehicles registered in Massachusetts
- 4,600 EV public charging stations deployed statewide
- Clean Energy and Climate Plan proposes 900,000 EVs—fifteen times today’s number—by 2030.
- To accommodate this influx, **the EVICC has been charged with developing future projections of charging demand, locations, and timeframes, as well as implications for the electrical grid.**
- EVICC recently released initial recommendations. Page 81 & 82 of report list municipalities with and without EV charging



Commonwealth of Massachusetts

Electric Vehicle Infrastructure
Coordinating Council

Initial Assessment to the General Court
August 11, 2023

[https://www.mass.gov/info-
details/electric-vehicle-
infrastructure-coordinating-
council-evicc](https://www.mass.gov/info-details/electric-vehicle-infrastructure-coordinating-council-evicc)



Charging Demand by 2030 in MA

Location	EV count	Charger type	Port count	EV/port ratio	Source
Single-family home	730,000	Level 1	160,000	4.6	EV Pro Lite
		Level 2	400,000	1.8	EV Pro Lite
Multi-family home	240,000	Level 1	6,000	40.0	EV Pro Lite
		Level 2	15,000	16.0	EV Pro Lite
Workplace	970,000	Level 2	33,000	29.4	EV Pro Lite
Public	970,000	Level 2	35,000	~28	Observed ratios†
		DC fast charger	10,000	~98	Observed ratios

Analysis by Synapse

EVICC Recommendations Related to Municipalities

- DOER will work with municipalities to develop guidance and support for programs to expand curbside charging and overnight charging infrastructure for tenants and garage orphans.
- Executive branch agencies will focus the deployment of publicly available funds for environmental justice populations and into rural areas, with a particular focus on reaching low-income residents, to ensure that the transition to electric vehicles is equitable.
- EEA and DOER will work with other agencies (e.g., Operational Services Division (OSD), MassDEP, the Department of Capital Asset Management and Maintenance (DCAMM), the Massachusetts Clean Energy Center (MassCEC), MassDOT, and the MBTA) and cities and towns responsible for procuring EVSE to coordinate procurement processes, and, if necessary, develop recommendations for the legislature to align processes.



EVICC Next Steps

- Continue to meet
- Authority over \$50 million in Charging Infrastructure Deployment Fund
- Track progress on the list of legislative and agency recommendations
- Consider establishing a transportation clearinghouse website for information on EVs, EVSE, and funding opportunities for stakeholders
- Further research EVSE and related infrastructure costs and how costs will be allocated between public and private domains



What are the key challenges municipalities face in deploying publicly accessible EVSE?

- Local city and town staff capacity?
- Not a local priority? Political will?
- Lack of technical expertise?
- Funding?
- Desire to see private sector lead, not public?
- Bureaucratic processes like procurement?
- Concern about parking issues?
- Public engagement too difficult?
- Other?



Source: Boston Globe



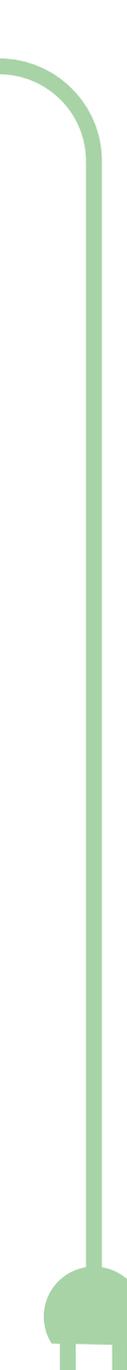
Working Group Reflection and Discussion



Working Group Goals:

- provide a space to generate creative multi-community solutions to the opportunities and challenges posed by increasing adoption of EVs across the MAPC region
- provide an opportunity for communities to share EV-related updates with one another and serve as a forum for short, informative presentations from a community or expert that relates to that month's focus topic





	What We Talked About	Who We Heard From
August 2022	MUD Charging and Equity	Forth Mobility, MassDEP, National Grid, Eversource, Energy New England
October 2022	Good2Go	E4TheFuture
December 2022	Creative Engagement	Energy New England, Green Energy Consumers Alliance
February 2023	Parking and Stretch Code	City of Boston Transportation Department
April 2023	EVSE on MBTA property and on private property	MBTA, EVgo
June 2023	Demand Charge Alternative	Eversource, National Grid

What new topics related to electrification are your communities tackling this year? What would be most useful to discuss as a group? Are there any topics we've covered that you would like to see us revisit?



Previous Recommendations:

- Right to charge laws
- Developing standards for EV charging spaces at commercial developments
- Equitable outreach
- Electric school bus planning (e.g. ongoing initiatives and fleet management)
- Wayfinding best-practices for charging
 - Charging standards (e.g. NACS vs. CCS)
 - Curbside charging (e.g. permitting and municipal initiatives)
 - Fleet assessment programs (National Grid, Eversource, MassCEC)
 - City of Boston E-cargo Bike Pilot
 - Medium Duty/Heavy Duty Vehicles



FY24 Brainstorm:

- Electric refuse trucks, fleet medium/heavy duty vehicles
 - New York sanitation to share experience
 - Cambridge
 - Mass CEC
- Appropriate parking garage for charging of electric school buses
- Boston e-cargo bike program
- Multi-unit dwellings, multi-family buildings, right to charge, owners having conversations about deeded parking spots, what are other people doing to solve those problems?
- Debrief federal funding programs (EPA bus grant, federal procurement law vs. MA procurement law)
- Fire safety and battery concerns (concern about EV ready charging being installed in multi-use parking garage)
- Lack of availability of fleet manufacturers (going to retail vs. State contract offering) - hear from a manufacturer
- Reforming chapter 30B – bids for bus contracts limited to 3 years
- Model legislation, TDM plans for multiunit dwellings, statewide legislation so cities and towns aren't negotiating this? Floor for requirements



Are there any key voices we are missing in our conversations? [e.g. private EV companies, community members using EVs, community members living in MUDs with charging, community-based organizations, etc.]

Post-it SUPERSTICKY BARRIERS
TALS FOLIA ILLUMINAZIONE E PROTEZIONE
SUPERADHESIVO DE PÓLIMOS RESPONSABLES



3M

FY24 Brainstorm:

- Boston bus depot director – important perspective
 - Weston electric school buses
- Key legislators
- Electricians (on board and supportive)
- Relevant committees: telecommunications, what do they see as legislative impediments (Mike Barrett)

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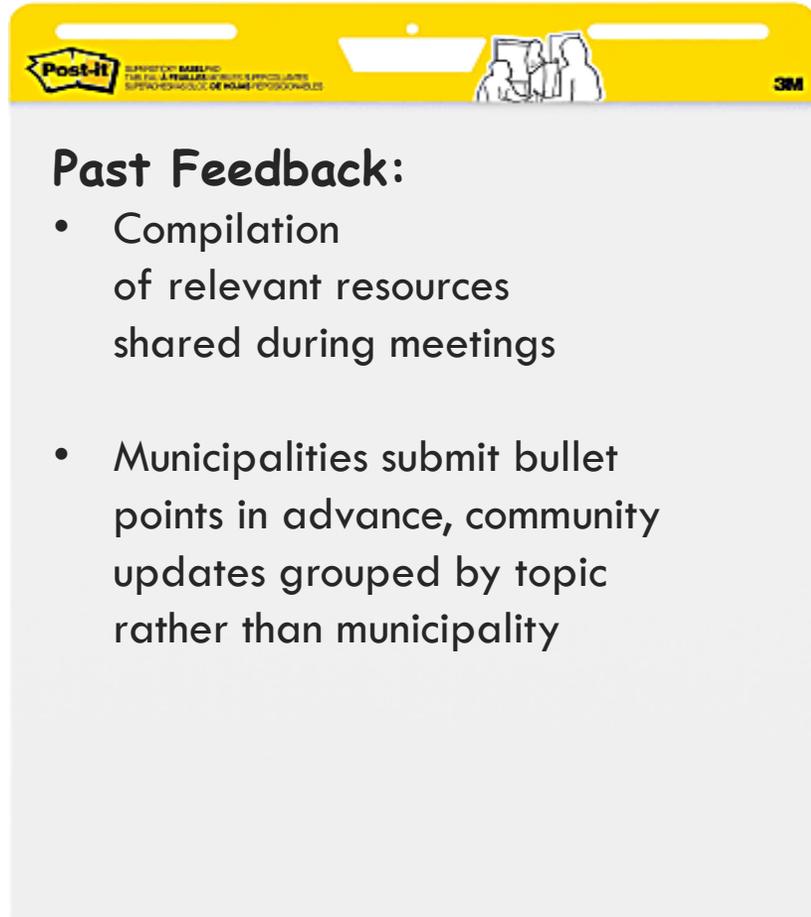


3M

- Ideas

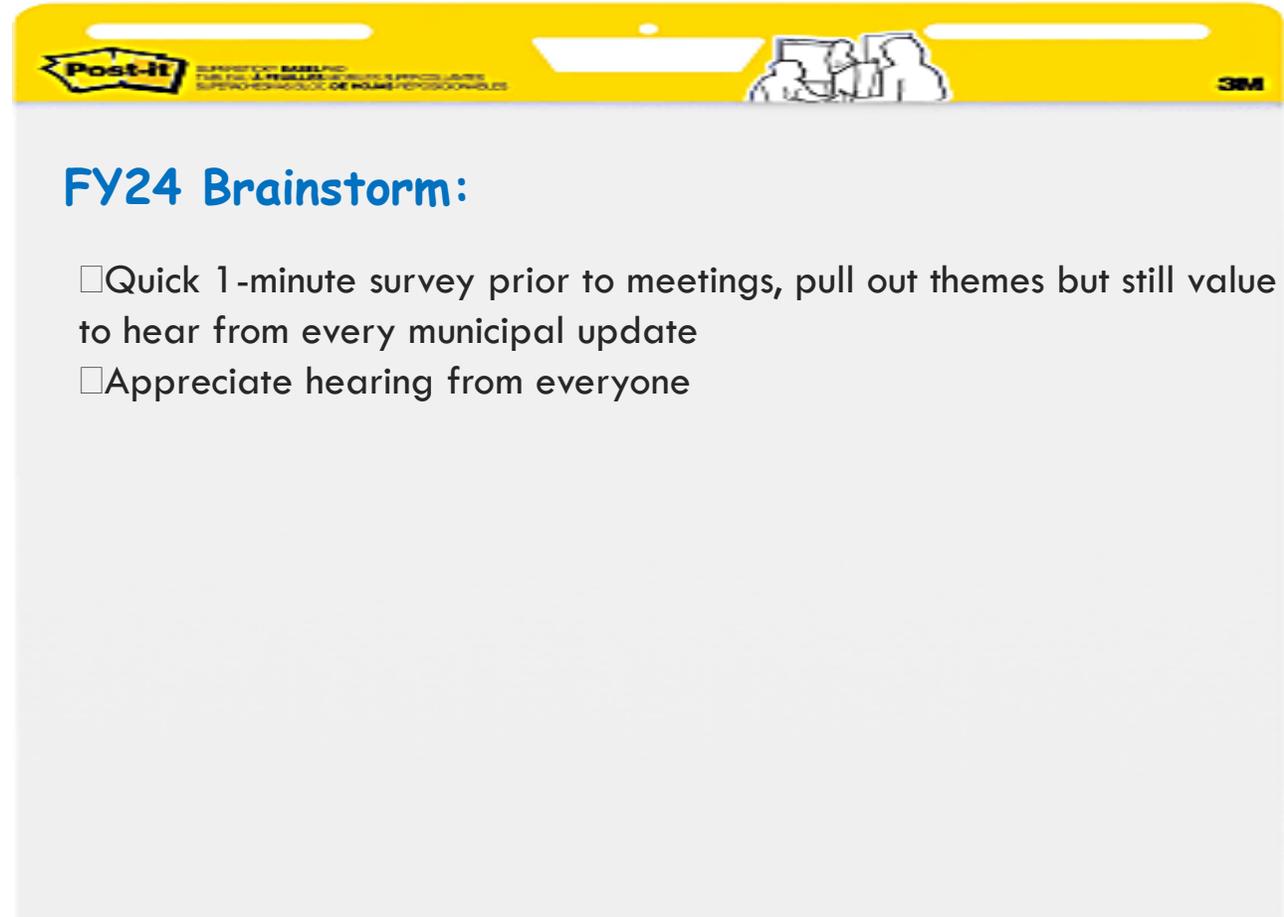


A key goal of the working group is to provide an opportunity for communities to share EV-related updates with one another. Right now, we ask each participant to share successes and challenges during the meetings. What do you think is the best format for municipal updates moving forward?



Past Feedback:

- Compilation of relevant resources shared during meetings
- Municipalities submit bullet points in advance, community updates grouped by topic rather than municipality



FY24 Brainstorm:

- Quick 1-minute survey prior to meetings, pull out themes but still value to hear from every municipal update
- Appreciate hearing from everyone



Updates



MOR-EV Program Rolls out enhanced Electric Vehicle Rebates!

Changes from 2022 climate law now in effect which prioritize equitable access to EV adoption.

In addition to the existing \$3,500 rebates for EVs, the new MOR-EV program elements include:

- Launch of rebates at the point-of-sale.
- \$3,500 rebate for used EVs for income-qualifying residents.
- \$1,500 rebate adder for income-qualifying residents called MOR-EV+ (in addition to the standard rebate for new or used EVs).
- Increased rebates for certain light-duty pick-up trucks.

MOR-EV+ and MOR-EV Used rebates are retroactive to November 10, 2022 for any income-qualifying residents who purchased new or used EVs on or after that date.

Learn More: <https://mor-ev.org/>



MOR-EV
Massachusetts Offers Rebates
for Electric Vehicles



\$11.5 Million in Grants Available to Electrify Heavy-Duty Vehicles



*Rendering of Seattle's First Electric Refuse Truck
To be Delivered Early 2019*

An electric waste truck in Seattle. Source: Green Car Congress.

- \$4 million from the Climate Protection and Mitigation Expendable Trust for refuse truck projects
- \$7.5 million from the VW settlement (Eligible Mitigation Actions include school buses and trucks)
- Administered by MassDEP
- **Deadline: September 26, 2023**
- Visit <https://www.mass.gov/how-to/apply-for-a-vw-or-refuse-truck-electric-solicitation-grant> for eligibility details and more information

DOE "Future Grants" to support a Community-Led Energy Future

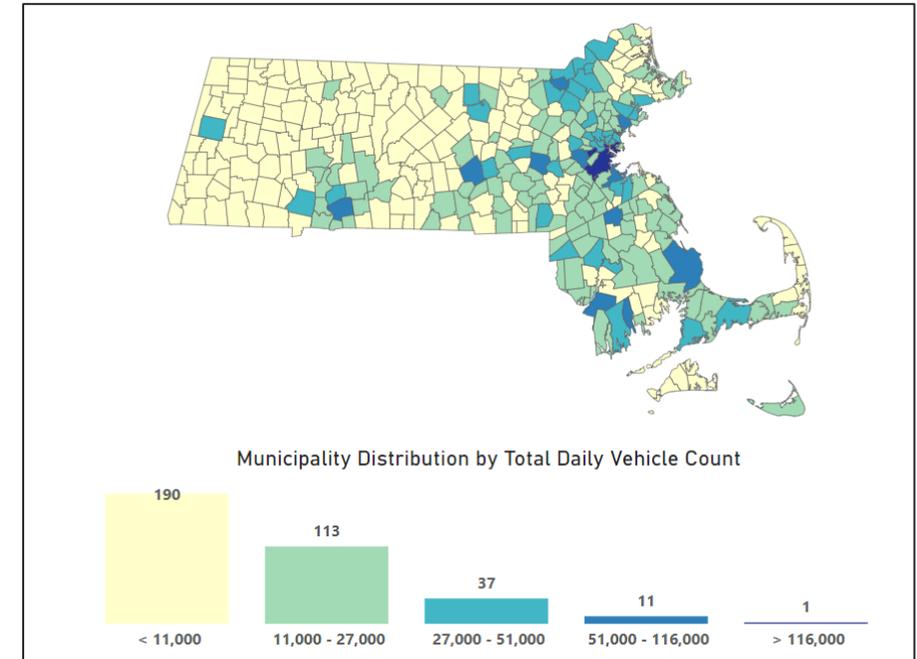


- \$37 million for local, state, and tribal governments to advance clean energy projects that benefit disadvantaged communities
- Proposed projects should focus on Transportation, Power Sector, Buildings
- Phase 1: ~ 50 awardees receive up to \$500,000 (\$27 million allocation)
- Phase 2: Successful Phase 1 awardees receive up to \$1 million (\$10 million allocation)
- **Deadline: September 30, 2023, 5:00 PM ET**
- Learn more: <https://infrastructure-exchange.energy.gov/Default.aspx#Foald21871a75-34ec-4ebb-93dd-0e2dd7bcf126>



Full Mass DOT Vehicle Census Dashboard is Live!

- Data from 2020, 2021, 2022
- Counts by municipality & breakdown of fossil fuel, hybrid, and zero-emission vehicles
- Visit <https://geodot-homepage-massdot.hub.arcgis.com/pages/massvehiclecensus>



44.2bn

Total Annual VMT (Passenger Fossil Fuel)

1.7bn

Total Annual VMT (Passenger Hybrid)

588.7M

Total Annual VMT (Passenger Zero-Emission)

5.3bn

Total Annual VMT (Commercial Fossil Fuel)

74.2M

Total Annual VMT (Commercial Hybrid)

4.9M

Total Annual VMT (Commercial Zero-Emission)



City of Cambridge announced pilot program to allow EV charging across public sidewalks

- 5,000+ EVs registered in city as of January 2023
- Pilot aims to help EV owners without driveways or off-street parking as city works to add more public charging stations
- Pilot design:
 - Designed to be temporary, filling a need while the city plans for curbside EV charging in more neighborhoods
 - Permits cost \$200
 - Program includes exclusion zones, so folks who live within about 1/4 mile from an existing charging station are not eligible for the pilot program
- Learn more: <https://www.cambridgema.gov/Departments/publicworks/news/2023/07/cityofcambridgeannounceselectricvehiclechargingpilotprogram>



Source: City of Cambridge.



Help Support EV Workforce Development!

- With Economic Development Administration grant funding, MAPC is working with training institutions, the City of Boston, nonprofit partners, and employers to help develop a diverse clean energy workforce ecosystem in the region
- **Participants have identified EV maintenance and EV charging station maintenance as areas with job growth & our training partners are starting to offer related courses**
- We are starting to reach out to relevant employers about potential hiring commitments. We would love to know: **which EV and EVSE installation and maintenance vendors have you worked with? Do you recommend we connect potential employees with these companies? Email ezehner@mapc.org with ideas or post in the chat now!**



Worker
Empowerment



AACCA
Educate. Empower. Employ.



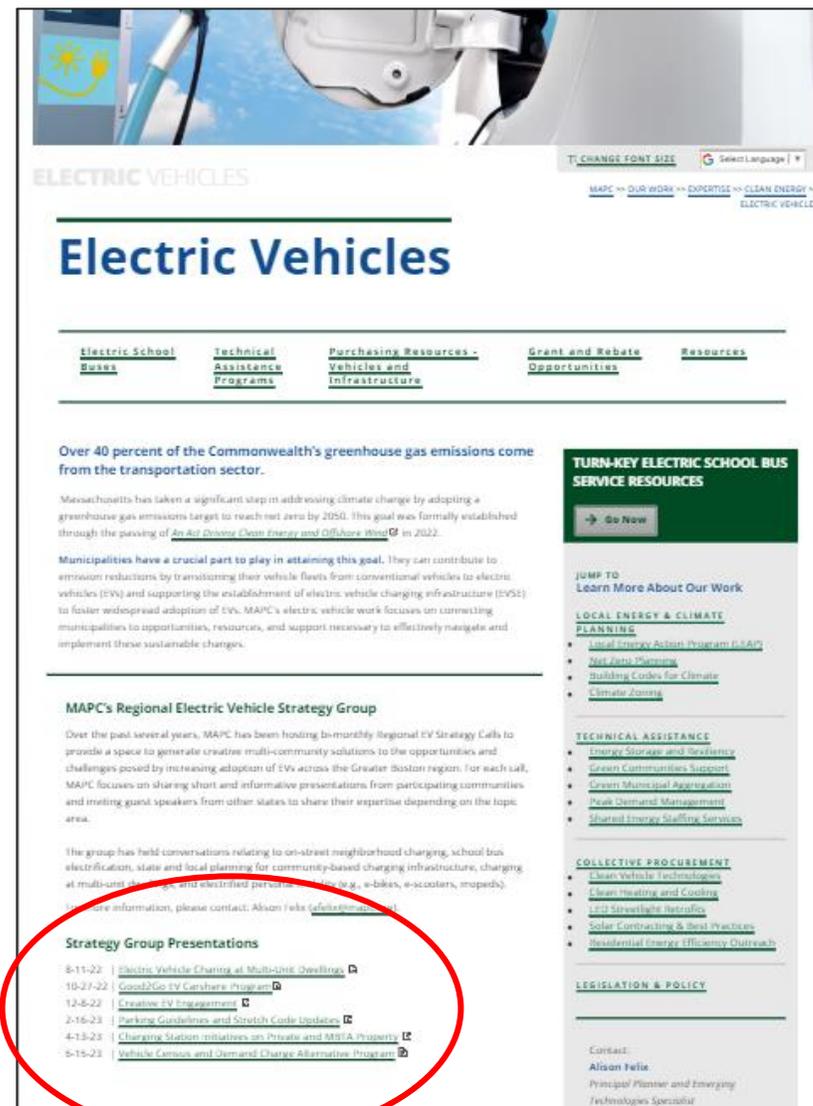
**Bunker Hill
Community College**
imagine the possibilities



**Franklin
Cummings
Tech**

We updated the MAPC EV web page!

- Key changes:
 - New information about resources and funding opportunities for electric school buses and enrollment in technical assistance programs for municipal fleet planning
 - New resources about purchasing EVs and EVSE
 - Information about grant and rebate opportunities
- **Regional Working Group PPTs are now available on this page**
- Visit mapc.ma/Electric-Vehicles



The screenshot shows the MAPC Electric Vehicles web page. At the top, there is a navigation bar with 'ELECTRIC VEHICLES' and a search bar. Below the navigation bar, the main heading 'Electric Vehicles' is displayed. A horizontal menu contains links for 'Electric School Buses', 'Technical Assistance Programs', 'Purchasing Resources - Vehicles and Infrastructure', 'Grant and Rebate Opportunities', and 'Resources'. The main content area features a headline: 'Over 40 percent of the Commonwealth's greenhouse gas emissions come from the transportation sector.' Below this, there is a section titled 'MAPC's Regional Electric Vehicle Strategy Group' with a list of presentations. A red circle highlights this list, and a red arrow points from the text 'Regional Working Group PPTs are now available on this page' to it. The list includes:

- 8-11-22 | [Electric Vehicle Charging at Multi-Unit Dwellings](#)
- 10-27-22 | [Good2Go EV Carshare Program](#)
- 12-8-22 | [Creative EV Engagement](#)
- 2-16-23 | [Parking Guidelines and Street Code Updates](#)
- 4-13-23 | [Charging Station Initiatives on Private and MTA Property](#)
- 5-15-23 | [Vehicle Census and Demand Charge Alternative Program](#)

Design Recommendations for Accessible Electric Vehicle Charging Stations

- Released by the U.S. Access Board in July 2023
- U.S. Access Board intends to publish a notice of proposed rulemaking to supplement the design recommendations under the Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA)
- To access the Design Recommendations: <https://www.access-board.gov/ta/tad/ev/>



Source: U.S. Access Board



National Drive Electric Week Events Near You



- September 22-October 1, 2023
- Events nationwide to raise awareness of the benefits of EVs
- Massachusetts Events:
 - September 23, 10 am-1 pm: Ipswich Town Hall
 - September 23, 12-3 pm: Beverly High School
 - September 30, 2-5 pm: 574 Hartford Turnpike, Shrewsbury
 - October 1, 11 am-2 pm: Concord Carlisle High School
 - October 1, 2-5 pm: 50 Otis Street, Westborough
- Check back for more events as the celebration gets closer: <https://driveelectricweek.org/index>



Source: Drive Electric Week

Wrap Up & Next Steps

Next Meeting in October – date and agenda TBD
We will discuss your feedback and how we plan to incorporate it into the FY24 working group!

If you aren't already on our invite list, please email afelix@mapc.org to be added for future meetings

