Regional EV Strategy Working Group Meeting Notes
June 26, 2025 - 1-2:30pm

Electric Vehicle Fire Safety

Speaker: Andrew Klock, Senior Manager, Education and Development, National Fire Protection Association (NFPA)

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Andrew provided context about fire safety related to electric vehicles and an overview of NFPA trainings and resources.

- EV fire safety involves many different partners.
- NFPA offers resources and workshops to help communities develop EV fire safety plans. These workshops, titled "Electric Vehicle Community Preparedness," are designed to create action plans for EV adoption and safety. The NFPA also provides training for first responders.
- NFPA conducts a range of research on fire safety and best practices:
    - Real world EV incidents: Send people to capture pictures and understand the story of the incident & establish guidelines to handle incidents.
- There are key differences between gasoline car (ICE) fires and EV fires.
    - EVs & Hybrid fires are much more widely publicized than ICE vehicle fires.
    - ICE vehicles have roughly the equivalent percentage of fires compared to EVs.
- EV fires present many challenges.
    - NFPA has identified 8 emergency responder EV risks
    - It is important to understand how electricity affects the body.
- Municipalities and other partners can prepare in several ways.
    - Learning from presentations and referencing NFPA's Electric Vehicle Training Portfolio.
    - Increasing level of education and awareness.
- NFPA is continuing to learn more about fire safety related to EVs through tests.
    - Depending on the make of the vehicle, there are different methods to put out fires.
    - To illustrate this point, Andrew played a video demonstrating the use of a fire blanket to extinguish a fire on an EV.
    - Andrew shared another video of firefighters responding to an EV fire, along with an NFPA simulation (similar to a video game) showing how EV fires in residential garages differ from ICE fires.
    - Andrew concluded his presentation by sharing a handout that summarizes relevant training materials including apps, classroom training downloads, and response guides.

Questions

- Does NFPA have recommendations for siting EV charging for fleets, particularly medium- and heavy-duty vehicles? Is there guidance on spacing from charging stations for school bus fleets and transit fleets? People are getting guidance from different departments.
    - Andrew: NFPA does not have any standards, yet, but would recommend more spacing. Larger vehicles can explode and send more fire jets from a larger distance.
    - Ryan Bradley, National Grid: Noted that fleets typically operate with low voltage systems, but noted that high voltage could propagate more quicky.
- How much safer are LFP batteries than traditional L-ion batteries? Do LFP fires, if any, require different handling or less water to extinguish?
    - Andrew: No testing has been done by NFPA. Based on reading and research, LFP batteries appear to be safer, but couldn't completely confirm this.
- We've had a couple of incidents recently related to E-Bike battery incidents. Does the NFPA have any resources for that scale of batteries?
    - Andrew: No resources currently available. New York City may have some.

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

Speaker: Crystal Johnson, Executive Office of Energy and Environmental Affairs Office of Environmental Justice and Equity (OEJE)

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Crystal provided an overview of the OEJE and a new resource, "A Guide to the Equitable Siting of Electric Vehicle Charging Stations in EJ Populations," developed for the state's Electric Vehicle Infrastructure Coordinating Council (EVICC).

- OEJE was developed during the Healey Administration with the goal of ensuring that all voices are heard and utilized to shape EEA solutions.
- The guide complements EVICC's recently drafted Second Assessment. The guide focuses on equitable EV charging station planning in recognition of the growing demand for EV charging stations and the need to ensure this planning is done in intentional partnership with communities.
- The guide outlines four best practices that aim to reduce disparities in EV infrastructure availability and create more sustainable and resilient infrastructure.
    - *Conducting Equity-Centered Site Assessments*: The four pillars of conducting site assessments include: identifying priority areas, evaluating existing infrastructure, considering co-benefits, and providing transparent data.
    - *Prioritization of Community-Centered Planning*: Partners should prioritize community-centered planning, including early and ongoing engagement, meaningful engagement, culturally relevant outreach, and public meetings and workshops. The outreach should also explain how community voices are contributing to plans for charging stations and implementation. Engagement should

be on-going rather than a one-time effort and should support community empowerment and building relationships. Outreach partners may need to customize materials to different cultural needs, rather than taking a cookie-cutter approach to community outreach.

- *Centering Collaboration and Stakeholder Engagement*: Partners should practice comprehensive and inclusive community making including involving local community leaders, engaging with utilities, and working with community advisory groups.
  - Local governments and partners can identify existing community centers and use those as the starting point for working with the community and building relationships.
  - Local governments should avoid transactional relationships and work to learn more about the community. This might involve joining community events early on in the process and being genuine.
  - Utilities are also important partners on EV charging infrastructure and outreach.
  - Partners may form community advisory groups, which are committed groups that can serve as channels for ongoing communication.
  - Participants should be compensated for their time, and municipalities should recognize that community members sharing their lived experiences are just as valuable as research and analysis conducted by consultants.
- *Prioritizing Accessibility and Affordability*: Outreach partners should make sure that charging stations are accessible and provide transparent information about pricing, fees, and policies.

New MAPC Resource: E-Cargo Bikes in Greater Boston

Speaker: Marah Holland, Senior Transportation Planner, MAPC

Marah provided an overview of the "E-Cargo Bikes: Strategies for Municipal Delivery Transition" toolkit, including project goals and key takeaways.

- MassCEC provided funding for this project in order to better understand one approach to replacing gas-powered trucks.
- The City of Boston piloted, Boston Delivers, an e-cargo bike delivery pilot. MAPC was subcontracted to create a toolkit to expand the use of e-cargo bikes for deliveries.
- E-cargo bikes have a range of potential benefits including alleviation of congestion and parking, improved air quality, street safety, and increased access to jobs.
- Boston Delivers included interviews with municipalities, businesses, and organizations to better understand what needs to happen in the Boston region to support deliveries via e-cargo bikes.
- The toolkit includes 18 strategies. Examples include:

- *Cost subsidy programs* help reduce costs for businesses to conduct deliveries, or to partner with a company that provides deliveries via e-cargo bikes.
- *Equipment subsidies* can incentivize local businesses to purchase e-cargo bikes for deliveries. Denver, Colorado has used this strategy.
- *Low or no-emissions zones* are designated areas with significant delivery or loading zones that encourage or mandate the use of zero-emissions vehicles, such as e-cargo bikes, for deliveries. Portland, Oregon is piloting a zero-emission delivery zone.
- *Demonstration days* give local businesses or business associations an opportunity to learn about e-cargo bikes, understand how they are used, and hear from peers who are using them. London offers free one-week cargo bike trials for local businesses.

Questions

- We would love to explore the idea of low/no emissions zones. Could this possibly be a regional program? What do you see as the first step to begin exploring that here?
  - Marah: Bring together interested stakeholders who also need to understand the existing challenges with designating a low/no emissions zone. Consider potential locations and work with local organizations to assess the feasibility of a zone. The first step would be initiating discussions and learning from other municipalities globally.

New MAPC Resource: Electric School Bus Roadmap

Speaker: Alison Felix, Principal Transportation Planner, MAPC

Alison Felix provided an overview of the new "Electric School Buses: A Roadmap" resource, which includes the importance of electric school buses and key steps for implementation. The roadmap includes many links to resources.

- Approximately 95% of school buses in Massachusetts are fueled by diesel. The transition to electric school buses can reduce GHG emissions and offer health, operations, and economic benefits.
- The resource was created after MAPC completed a school fleet electrification study for 22 municipalities in MetroWest.
- The resource contains 14 sections. Examples include:
  - *Electric School Bus Ownership and Operation Models*: Ownership models include owning buses, leasing buses, charging-as-a-service, transportation-as-a-service, and turnkey service.
  - *Conducting a Fleet Assessment*: Low- or no-cost fleet assessments are available through Eversource and National Grid programs and MassCEC's ACT School Bus Advisory Services Program. For municipalities looking to do a DIY fleet assessment, the resource includes links to resources.

- *Working with Utilities*: School bus electrification requires close and early collaboration with utilities.
- *Selecting Charging Infrastructure:* Charging needs to be "right-sized" to the fleet.
- *Site Selection and Planning:* Depot locations should be close to bus routes and have enough electrical capacity and physical space.
- *Operations, Maintenance, and Safety:* Staff should be trained on safe charging practices
- *Total Cost of Ownership*: Electric school buses cost more upfront, but they have lower fuel and maintenance costs over time. As battery prices fall, these savings are expected to increase. The roadmap has TCO calculators to evaluate purchase, operations, and maintenance costs.
- *Funding and Financing*: Grants and programs can help offset costs.
- *Procurement*: The roadmap outlines procurement options for both municipalities and school districts that own buses and municipalities and school districts that use third-party contractors.
- *Connecting with Peers and Experts:* There are a range of resources available to learn from peers and experts. Communities can also reach out to Massachusetts municipalities that already have them.

News and Resources

Emma Zehner, Senior Clean Energy and Climate Planner, MAPC shared news and resources.

- On the federal level, the Trump Administration has rolled back or is in the process of rolling back several EV charging station funding sources and programs.
- Earlier this week, a federal judge blocked the administration's effort to freeze NEVI EV charging station funding for 14 states.
    - Chris Aiello, from the Department of Transportation (DOT), noted that MA was not part of this lawsuit and that MA still has funds from NEVI program.

Emma mentioned that the next meeting will likely be in August or September and then concluded the meeting.