Regional EV Strategy Working Group Meeting Notes

April 10, 2025 - 1-2:30pm

Welcome

- Alison Felix (MAPC) kicked off the meeting

Public Level 2 EV Charging Station Fee and Policies Guide

Presented by Mark R. Scribner, Policy Advisor for Transportation Decarbonization, EEA

- Mark shared information about the guide developed by the Electric Vehicle Infrastructure Coordinating Council (EVICC) Technical Committee.
    - Intentionally holding back Level 3 to avoid confusion between the two, as they are fundamentally different.
    - This policy guide applies to charging stations that are accessible 24/7, regardless of whether they are privately or publicly owned.
    - Policies aim to ensure charging stations are financially sustainable for site hosts.
    - An energy-based fee structure is recommended. The fee is based on the total amount of energy used when the vehicle is charging. One can also add parking and idle fees to encourage turnover among vehicle owners.
        - Emphasis on balanced and reasonable pricing, what's fair and practical for users and hosts.
    - The guide also includes examples of alternative fee types. These fees are generally discouraged as they can create barriers for use, unless there is a specific policy reason for their adoption.
    - There is some existing confusion about what kind of fee structure is legal. It is legal to charge based on energy usage, per kW/hr. More recently, it has been clarified, it is illegal to charge by a time-based method. The only way to ensure you are complying with the law is to use the per kW/hr structure.

Questions:

- Are charging station owners able to recoup the cost of operating the charging station at the fee range of 30-40 cents per kW/hour?
    - Mark: This depends on multiple factors. Electricity costs vary across the state. The baseline cost is what you are paying for electricity. There are other incremental costs such as maintenance, operation, and network fees. These costs must be considered when deciding on the rate that works.
        - At a minimum, the pricing should cover the cost of electricity. Avoid overpricing, as higher prices can deter users. There is a chance that the station has a shortfall. Budgeting a small budget for shortfall is recommended, especially early on.

    - Do you have any guidance to municipalities on the frequency of changing rates? Are staff allowed to set the rates? Are there any regulations?
        - There are no legal requirements and standards around changing rates. Municipalities are not resellers or utilities. There is an exclusion for municipalities, and they are free to set up a rate.
        - Municipalities are recommended to do calculations based on cost recovery, helpful to think like a financially sustainable business.
- There is an opportunity to use overnight parking spaces for charging in Natick. What do you think about this use?
    - Charging overnight is better for the grid, reduces emissions, and is better for access in multifamily units.
    - Mark recommends piloting and collecting data to measure effectiveness. Get feedback through surveys and public meetings from EV drivers.
- There is no software currently that can only impose idle fees during the day and not the night. Do you have any guidance?
    - Mark is surprised there is not a way to do that yet.
    - Concord has tiered rates, where the rates are different based on times of charging, and lowest after 9pm. Concord is a municipal light plant.
    - For a lot of these companies, these features should only be a software update. For example, companies like ChargePoint should be able to make that update. More people should be in touch and request that from ChargePoint.
- The Supplementary Document provides an example calculation for setting fair and sustainable energy-based fees for EV charging stations.
    - It is important to not try to do your pricing based on 100% pricing recovery. Set the price keeping in mind market mechanisms.
- EVICC is continuing to add resources to the website
    - Keep an eye out for user/EV driver centric version of EV charging fee guidance and for Level 3 (publicly owned) guidance.
    - Reach out through the suggestion box or through email for any comments and feedback.
    - If you have questions, email Alison, Emma or directly to Mark at mark.r.scribner@mass.gov

MassCEC Vehicle-to-Everything Demonstration Projects

Presented by Elijah Sinclair, MassCEC and Katie Peterson, The Mobility House

- MassCEC funds climate solution innovation to meet state's emission reduction goals while growing the state's clean energy economy. The Vehicle-to-Everything project falls under MassCEC's Clean Transportation work.

- MassCEC is currently running 4 electric vehicle charging station programs: On-street charging solutions, Vehicle-for-hire EV charging solutions, Medium-and heavy-duty mobile charging, and Vehicle-to-everything demonstrations.
- $6.3 million is dedicated to the Vehicle-to-everything demonstration program (V2X).
    - The program is open for applications through August 2025.
    - Electric Vehicle Supply Equipment installations are expected to take place between August through December 2025.
    - Operation and data collection will happen from January to December 2026.
    - Public facing guidebook will be released in 2026.
- MassCEC is partnering with Resource Innovations, The Mobility House, BT2, Voltrek, and Converge Strategies for this project.
- MassCEC is also looking to hold regional workshops and national workshops, please reach out to Elijah or MassCEC if interested in being a part of those.
- V2X (Vehicle to Everything) takes advantage of the ability of new EVs to both charge and discharge power.
    - When the vehicle is not connected to the grid, the vehicle can provide backup power during a blackout. The vehicle will stop when the power is back on.
    - The EV can also send power back to the grid when it is still connected to the grid. For example, if you want to use another source of power to reduce energy usage from the grid during peak hours, you can use the E for power.
    - This program is still in its infancy. MassCEC and partners are looking to understand the value of V2X.
- V2X can be used for resilience hubs, backup power during blackouts, for fleet demonstrations, and for decreasing strain on the grid.
- Once selected, the project will provide full funding for installation, design, procurement as well as permitting and interconnection fees. The project team is comprehensive and includes various companies and providers equipped to support each of these aspects.
- EV fleets will also have the option to be enrolled in the utility's V2G program and earn revenue in exchange for discharging energy from EVs.
- There is a list of residential and commercial bidirectional chargers that are fully funded by the program. The residential bidirectional chargers are: dcbel Home Energy Station, Sunrun home integration system and Ford Charge Station Pro, DG Matrix Power Router, Enphase IQ Di-Directional EV Charger. The commercial bidirectional chargers are: InCharge ICE-22/44/66 V2X chargers, Tellus V2G DC fast charger, and Heliox 44kW V2G EV Charger.
- All school buses are likely to be V2G (able to feed to the grid during peak event) capable. The project team is working with school districts and manufacturers to gain more understanding.
- Participants can qualify if they own, lease, or operate any of the vehicles listed in the eligible vehicle list.
- The existing list is not the final list. The project team will update the website with other qualifying vehicles soon.

- The program will also help participants enroll in the Connected Solutions program. Participants during the summer are paid $275 dollars for every kilowatt that is discharged.
    - The project team is also exploring other programs. These include MMWEC's Connected Homes program and the Clean Peak Standard and new Virtual Power Plant programs.

Questions:

- Is there a requirement to have 480 volt service for eligibility?
    - 480 volt is what you would need for the system. Installing charging stations for V2G without the existing 480 volt power supply is more costly. However, if we see a school or fleet in an environmental justice community for example, even if the installation is more costly, we still want to see the application come through.
    - The dollar threshold for installation is around $20k (total cost divided 60-20-20) for commercial.
    - The program is seeing a lot of residential applications and is encouraging applications from municipalities.
- Will you speak about the concerns around having vehicles not ready for their functions?
    - The Mobility House, one of the project team members, does a lot of fleet charge management. The priority is to create a charging schedule that allows vehicles to be charged at a level that is needed when it is required for service. The project team is aware that customers are not going to be interested in the product if all we do is discharge the charge.
- Cambridge has spent $200k to install fast chargers and is struggling with the idea that you have to remove the current station and have the bidirectional chargers installed for the program. It is difficult to move and repurpose them when we have already spent so much on resources and labor.
    - For the sites that do not have high power chargers, moving and reinstalling may be an option.
    - The program also benefits from having the site designs being taken care of by the partners. In this case, we would keep the chargers there, or would look at another site, and you can resell them if you need to. If selected, you would work with the project team to figure out the best path.
- There is a concern that power cannot be sent back to the grid in current configuration which does not allow transformers to be set up.
    - There is a way where you can discharge to a building instead of the grid. Another way is to discharge at 240v instead of 480v.
    - The application also asks for pictures of the set up to see the possibilities. Encourages municipalities to still apply if they have the bandwidth.
- MAPC will share the slide deck afterwards which will include the link to the application.
    - Link to application here

MAPC Electric School Bus Roadmap

Presented by Alison Felix, MAPC

- This presentation is a high-level discussion. MAPC will have a full presentation at the June meeting.
- The roadmap for Electric School Buses is a guide for school districts and municipalities to start planning for an effective and efficient transition to electric school buses.
    - MAPC conducted a MetroWest School Fleet Electrification Study in 2023, which explored pathways for electrifying school buses in 22 school districts. The learnings from that study were used to roll out a roadmap intended to be a guide for municipalities for effective and efficient transition to electric school buses.
- The roadmap includes guidance for conducting fleet assessments, site selection, procurement, and information on grant opportunities and funding programs.
    - The roadmap is helpful for finding case studies, calculating total cost of ownership (TCO), and for connecting with peers and experts.
- Link to the resource here

E-Cargo Bikes: Strategies for Municipal Delivery Transition in Greater Boston

Presented by Marah Holland, MAPC

- Developed by MAPC and the City of Boston, funded by MassCEC.
- In this resource, there is a summary of the benefits of using e-cargo bikes for local delivery.
- Some of this resource is based on learnings from Boston's pilot program, Boston Delivers, a new initiative in Greater Boston. There are smaller companies who have been doing this work.
- Toolkit for municipalities that includes how they can support and expand the use of e-cargo bikes for local deliveries.
    - The primary audience of this resource is municipal staff. However, it can also be used by local businesses, advocacy organizations, and anyone who is interested in e-cargo bike deliveries.
- Connect with MAPC to learn more about implementation and technical assistance. Upcoming webinar on May 15th at 1pm.
    - Register here

Municipal Updates

- Irina: Cambridge received loaner cargo van and demonstrations. Currently exploring leasing with enterprises. Loaners may be available to other municipalities interested.
    - Please contact Ben if interested:
      Ben Hartford
      EV Sales Manager, Pritchard Commercial
      Direct: (641) 458-3054
      1 TeamQuest Way, P.O. Box 147 Clear Lake, IA 50428
      pritchardcommercial.com

Updates and Resources

- EV Procurement Strategies Under 30B and Statewide Contracts
    - There are several free online courses offered through the Office of the Inspector General's OIG Academy
        - Register here
- Updates to the MassCEC Electric Vehicle Information Page
    - Webpage to help MA residents find relevant information about EVs.
    - New call center to answer EV related questions.
- Green School Works Implementation Grant
    - MassCEC is accepting applications for Green School Works Implementation Grants.
        - Focus: projects that improve energy efficiency, reduce carbon emissions, or mitigate the impact of climate change.
        - Apply here
        - Deadline is April 30
- VEH122- Advanced Vehicle Technology Equipment, Supplies, and Services Bid
    - The Operational Services Division (OSD) is soliciting bidders for a wide range of vehicle technology equipment and services.
    - The Pre-Bid Conference is on Monday, April 14, 1-2pm
        - Bid opens on Tuesday, June 3 at 2pm
- Question: Guidance on having an outside contractor be part of the bidding? For example, the Automotive Career Development Center
    - Alison: recommends referring to the RFR available for download on Commbuys here. Also encourages attending the pre-bid conference on Monday, which is open to the public. The pre-bid conference may provide more clarity.