

EV Strategy Call Meeting Notes 7/11/2024

WHEN	WHAT	WHO
1:00 – 1:10 PM <i>(10 minutes)</i>	Welcome & Introduction	Alison Felix, MAPC
1:10 - 1:45 PM <i>(35 minutes)</i>	Emerging Charging Models: it’selectric, SparkCharge, Voltpost	Shannon Dulaney, it’selectric Josh Aviv, SparkCharge Chelsea Kammerer, Voltpost
1:45-1:55 PM <i>(10 minutes)</i>	Utility Perspective	Kurt Steiner, National Grid
1:55 – 2:10 PM <i>(15 minutes)</i>	Questions	All
2:10 - 2:25 PM <i>(15 minutes)</i>	Municipal Updates	All
2:25 - 2:30 PM <i>(5 minutes)</i>	Wrap up & Next Steps	Emma Zehner, MAPC

Emerging Charging Models

The following speakers presented their company’s innovative charging models for public charging that differ from conventional EV charging stations.

- Shannon Dulaney (it’selectric)
 - it’selectric is a privately powered, publicly available model of EVSE. By connecting to adjacent buildings, it’selectric supports EV owners who do not have access to EV charging at home. If a building has excess electrical capacity equal to 40 amps (roughly equivalent to a large home appliance), they can install an EV charger. This model takes advantage of electricity already at the correct voltage and does this at no cost to the municipality or property owner. it’selectric handles the cost of equipment and installation and provides the property owner 20% of revenue from charging. it’selectric offers a detachable cable to keep streets and sidewalks free of cables when cars are not charging and to prevent damage to the cords from being exposed to the elements or vandalism.
- Josh Aviv (SparkCharge) -
 - SparkCharge is the first mobile EV charging platform & network. Conventional EV chargers can be complex to install, unavailable in remote areas, or have poor reliability. Mobile charging service offers remote charging

capability without grid connection, allowing energy to be moved and delivered around a city. After users use the app or website to select a desired charging time and location, SparkCharge arrives with portable batteries to charge the vehicles and can accommodate all sizes of fleets. SparkCharge recently provided charging to support to vehicles following Hurricane Beryl in Texas, demonstrating an added energy resilience benefit.

- Chelsea Kammerer (Voltpost)
 - Voltpost utilizes lampposts for EV charging to help spur the adoption of EVs and address current barriers to deploying widespread charging infrastructure. One lamppost can support 2 chargers (or 4 in a parking lot) and contain a retractable charger cable. The technology is plug-and-play, allowing for use in most types of lampposts. The chargers have a utility meter inside the lamppost to monitor use. The 2-port chargers do not take electricity from the lamppost itself, so there is no risk of the light dimming or turning off when a vehicle is plugged in. At the moment, Voltpost is only an EV charging company but there are hopes to eventually offer 5G, air quality sensors, cameras, and other equipment. Voltpost has done pilots in New York City and Detroit, and are now out for commercialization. Voltpost bills on annual basis in a charge-for-service model with partners.

Utility Perspective

- Kurt Steiner from National Grid's Clean Transportation Strategy Team presented on how utilities work with companies that offer non-conventional EV charging models.
- Clean Transportation MA Electric Vehicle Programs
 - Overview of NG's EV charging programs
 - DPU approved National Grid's Phase III EV proposal to provide extensive EV infrastructure support (Make-Ready) to customers. National Grid is building capacity for EV charging, and has programs available for residential, multi-unit dwellings, public/workplace, and fleets.
 - Kurt Steiner provided an overview of the Make-Ready program's eligibility and incentives and shared lessons learned from a utility pole-mounted charging pilot in Melrose.
 - Summary of Melrose pilot: 16 pole-mounted charging stations across city. While some installations costs were lower (70% compared to ground-mounted stations) and easier, the third-party attachment process can be cumbersome. Additional barriers include: time and

expense to survey poles, cost of the annual licensing, and cost of additional insurance.

- Considerations for public curbside charging:
 - How will EV charging stations get electric service: new service connection & meter (overhead, mid-span, or underground service drop from utility pole); existing building service (behind the meter); streetlight (usually cannot support L2 without upgrade); external utility-grade meter required.
 - Where will station be mounted? Ground-level pedestal or pole mounted (e.g., EVSE lowers via an app)
 - Is the project eligible for utility Make-Ready incentives? To receive EVSE rebates, equipment must be qualified by National Grid or EPRI (Electric Power Research Institute); check EV program website and/or contact National Grid's EV program managers.

Q&A:

- Q: its'electric, how do you differentiate the electricity consumption of the building from that of the charging station to accurately account for the emissions of municipal buildings and exclude public usage?
 - A: We work with a software provider (Switch) and have a property partners dashboard to monitor electricity usage which allows us to reimburse them for electricity. We also establish an account with the utility so we can pay for electricity we use directly. Additionally, we monitor to make sure our property partners' electricity bills do not increase.
- Q: Are all the its'electric chargers Level 2?
 - Yes
- Q: Voltpost, does the lamppost for the charging station require any specific features or considerations to ensure proper implementation?
 - A: There are many different types of lampposts and there can even be different types within a municipality. Our technology can generally work on most lampposts, but we don't work with wooden lampposts yet. Because of the modularity & bracket within the lamppost, we can expand/shrink as needed making our technology applicable on a wide range of lampposts.
- Q: EV charging isn't installed all at one time. Municipalities will almost always phase EVSE to meet fleet needs. The "same site rule" limits municipalities from participating in Make-Ready more than one time per site. What kind of discourse have the utilities/DPU had about this?

- A: The utilities plan to file a Midpoint Modification Proposal to the DPU and municipalities will have an opportunity to provide feedback on the proposal, which aims to expand and improve EV programs. The Proposal will likely request approval to offer customers support for Future-Proofing to enable longer-term plans.
- Q: National Grid mentioned lampposts usually cannot support Level 2 chargers. How does Voltpost address this?
 - A: In order for Voltpost to use a lamppost, the post must have 240 volts of electricity. Typical posts have approximately 100 volts, so we work with the local utility to get it to 240 volts. Coordinating with the utility is not an additional fee in our package.
- Q: How do you collaborate with utilities and municipalities when selecting sites for street charging?
 - Voltpost: We get buy-in from stakeholders. We engage with the community to learn about their charging goals, needs and gaps. We always do site visits with local electricians. Most municipal partners we work with typically have strong opinions on where to site the chargers. Because we're not digging up anything, the permitting process is faster.
 - It'selectric: We engage the municipality's transportation department and private property owners to receive dual sign-off in order to deploy the charging. In Boston, for example, we were awarded an RFP and launched an online wait list to receive inbound interest while also reaching out to large property owners and other neighborhood stakeholders. We try to avoid commercial corridors and areas that already have bus/bike lanes. We try to capture overnight charging usage rather than opportunity charging usage in an attempt to mimic the benefit and convenience of home charging as much as possible. Every municipality has a preferred level of engagement, but every site needs to undergo a permitting process so sign-off from the municipality will be needed.
 - SparkCharge: We're different because we work above-ground. Some customers are long-term, some are more short term as they figure out their long-term charging strategy.
- Q: How do the provisions in the state climate bill impact the pole charging program?
 - A: There was an article in the globe that highlighted this issue. The utilities have had multiple conversations with stakeholders. It is anticipated that legislation will be inducted to make pole charging easier.
- Q: How/where does SparkCharge charge their mobile batteries?

- A: We can charge our batteries in two ways: recharge from solar energy or pull from the grid. We are working with a network of solar providers.
- Q: SparkCharge, what is your average per kWh cost for delivered electricity to fleet customers?
 - A: It depends on the vehicles and locations. Costs can be as low as \$0.60 per kilowatt hour, for bigger vehicles, such as freight, it can be \$1.20.

Municipal Updates:

- Newton:
 - Received a DOE grant that allows for \$35,000 for a consultant to determine locations for EV chargers and \$110,000 for purchase/install of chargers. The grant will be used in conjunction with MassEVIP and Make-Ready grants. We have a volunteer EV taskforce.
 - Also working to electrify the school bus fleet, but the biggest challenge is lack of a depot where buses can be charged.
- Boston:
 - Broke ground on more EV chargers for electric school buses. We are working quickly to fit in as much construction as possible during the summer months to install school bus chargers.
- Somerville
 - Started collecting fees for the use of public EV charging stations. Somerville is charging \$0.25 per kilowatt hour for charging. These charging stations were previously no-cost. The city has not received any complaints to-date. Somerville has a robust multi-lingual social media presence. All stations had signage on the charging stations to say this change was coming.
 - The City's Charge4Charge program aims to incentivize space turnover, reduce misuse and vandalism of stations, and promote longevity of Somerville's charging network.
 - Charge4Charge is part of a larger public information campaign by the city to promote EV charging etiquette due to frequent reports of misuse and vandalism.

Q: What does Somerville pay per kWh for its EV stations?

- A: We don't have exact numbers but \$0.25 is about parity. We also haven't added an additional parking fee. After about 6 months, we will explore additional tools for enforcement.

- Q: Has anyone had success lobbying big box retailers to install L3 chargers? If so, what has the communication been like? We're having a tough time finding suitable locations to install L3 chargers given real estate, complex install, etc.
 - A: We don't have direct experience but also trying to install fast chargers on public property is challenging. Demand charging is a cost not covered by grants.
 - A: SparkCharge: there are companies that provide turnkey services (e.g., they work with utilities and after 5 years, can decide whether to shut down the charger or take on the cost).

Updates & Resources

- Utility Midpoint Modification Proposal:
 - Eversource, National Grid, and Unitil plan to file a Midpoint Modification Proposal to the DPU later this year. Municipalities have an opportunity to provide feedback on the proposal, which aims to expand and improve EV programs.
 - Any municipalities interested in learning more and providing feedback are encouraged to contact Julia Gold at National Grid: julia.gold@nationalgrid.com
 - Beverly anticipates sending comments about the financial implications for the third-party funding requirement and same-site rule. Reach out to Erina Keefe at ekeefe@beverlyma.gov if you're interested in signing on / working together.
- EPA Clean Bus Rebate Program:
 - School Bus Funding Awards – In their latest funding round, the EPA awarded \$42 million in rebates to fund over 165 new clean school buses in 17 school districts in MA.
- EPA Heavy Duty Vehicles – grant due July 25.
 - This grant program includes a school bus sub-program.
- The Boston MPO was awarded an FTA grant which will address transportation insecurity. The pilot program will create multimodal transportation options for low-income households in Revere, Everett, Chelsea by combining MBTA access and electric-car sharing.