



City of Oakland

Zero Emission Vehicle Curbside Charging in the Public Right-of-Way

CITY OF OAKLAND November 2020

Curbside Charging in the Public Right-of-Way Stakeholder Meeting Summary – November 18th, 2020

The City of Oakland's Sustainability Program and Department of Transportation thank all participants of the Curbside Electric Vehicle Charging Stakeholder Group. We appreciate your commitment to having these important discussions and exploring the role of curbside charging in Oakland.

This event was a key input to Oakland's forthcoming [Zero Emission Vehicle \(ZEV\) Action Plan](#). The original meeting notes are available in Attachment A, and presentation slide deck is included in Attachment B. The goals of the November 18 ZEV Curbside Charging Stakeholder Meeting were to:

- Discuss the barriers and pain points that exist for installing electric vehicle charging infrastructure in the public right-of-way (PROW) in Oakland;
- Explore possible solutions to addressing these barriers and pain points;
- Discuss how to implement solutions equitably; and
- Develop draft Actions to incorporate into the City's ZEV Action Plan, and next steps for research and analysis.

Framing: All discussions in this Stakeholder Group, like the ZEV Action Plan as a whole, were guided by equity considerations. Participants were encouraged to consider the impacts of potential solutions on frontline communities, including people of color, non-English speakers, and low-income Oaklanders. While promoting EV ownership and providing Oaklanders with EV chargers can have profound health and economic equity benefits, we must ensure that our actions do not exacerbate displacement or exclusion. Similarly, the City's opening comments made clear that vehicle electrification must happen within a hierarchy of sustainable transportation. The City's priority, as expressed in Oakland's 2030 [Equitable Climate Action Plan \(ECAP\)](#), is to help Oaklanders move around and meet their needs without cars, through active modes or (electric) public transit. The next priority is shared electric mobility, and the third is electric private automobiles. We must ensure that electrification will happen even while overall vehicle trips decline.

Meeting Overview: The meeting began with a presentation from City of Oakland Staff that covered the 2030 ECAP, existing conditions of electric vehicle charging in Oakland ([Please see our online story map here](#)), and lessons learned to date, including from other cities and partner agencies leading in this space.

Next was an overview of Oakland's first curbside charging project at Lafayette Square (Old Oakland), with a brief perspective from Jonah Eidus of EVgo. Major lessons learned include:

- Involve the community early and often; an initial non-response does not mean approval.
- Expect greater demands on staff time – for both City staff and the contractor.
- Active coordination with contractors and single point of contact (for both City and installation contractor) are critical – as is a clear protocol for roles and coordination across departments.
- Build EV infrastructure with other services in mind, such as car share, on-demand microtransit, and micromobility.

- Make the City of Oakland a strong partner by building capacity, making and executing plans, securing funding, and attracting quality partners.

The next presentation was given by Sarah Moore (City of Berkeley) regarding Berkeley's Residential Charging Permit:

- Launched in December 2014, the City of Berkeley's Curbside Residential Charging Pilot allows residents without off-street parking a means of charging at home either in new on-site space or curbside. This is completely property owner-financed; street parking remains available to all.
- Berkeley found that there was a strong interest in the program, but few installations due to expense and access concerns
- Challenges to curbside station placement included street trees, installing conduit in the PROW, ADA accessibility, and street parking.

Next was a presentation from Zac Thompson of East Bay Community Energy (EBCE):

- Formed in 2018 by Alameda County and 11 cities, EBCE is a not-for profit public agency for electricity service.
- Currently EBCE is identifying areas of need for future investment in electric charging infrastructure, particularly in areas in Oakland with higher concentrations of rental properties and apartment buildings. Renters in multifamily buildings are currently underserved by public charging infrastructure, and curbside charging is a possible solution.
- A pilot project with the City of Piedmont and PG&E explored potential locations for level 2 charging using existing streetlight circuits, however EBCE concluded that this was not technically feasible.

The meeting then broke into three discussion groups to discuss three aspects of curbside EV charging: residential applications, planning and programming for commercial locations, and technical implementation. Participant comments from these groups are listed in Attachment A. The three themes and the questions asked of participants are summarized below:

Residential Curbside Charging – This group explored opportunities for curbside charging in residential areas, including building on lessons from Berkeley's Residential Permit Program. Participants were asked:

- *What are your top pain points for the installation of EV infrastructure in the PROW in residential areas?*
- *Is there anything that is worth replicating from Berkeley's permitting pilot? What is missing? How can this program be more equitable?*
- *What type of public process should the City have with each public PROW EVCS installation, given limited resources and equity concerns?*

Planning and Programming for Commercial Curbside Charging – This group put curbside charging in the larger context of transportation planning in Oakland, including examining siting policy, as well as pursuing forward thinking policies such as neighborhood carsharing and mobility hubs. Participants were asked:

- *How should the city balance the many different competing uses of the curb with the goal of increasing access to curbside charging?*

- *Of the possible opportunities discussed in the presentation what are you most interested in exploring further? Are there other opportunities not mentioned?*
- *How do we determine where to install infrastructure given limited resources and equity concerns? What program design (permitting, strategic partnerships, etc.) would be best to achieve these goals?*

Commercial Curbside Charging – Technical Implementation – This group discussed the technical implementation of curbside charging in the PROW, including the technology and partnerships with other organizations. Participants were asked:

- *What are your top pain points for the installation of EV infrastructure in the Public right-of-way?*
- *Of the possible opportunities discussed in the presentation what are you most interested in exploring further? Are there other opportunities not mentioned?*
- *How could the City pursue partnerships to install public charging infrastructure across Oakland, such that infrastructure is equitably distributed (i.e., Electric vehicle charging stations are installed in areas of the city where demand does not yet exist) and private investors are still made whole?*

Next Steps: The City will incorporate the themes that arose in this Group's discussion into additional outreach in 2021. The needs and critical pathways that the group discussed will also form the basis of Actions in the Public Curbside Charging section of the ZEV Action Plan. The City will hold stakeholder meetings on additional ZEV topics in 2021, including Electric Micro-Mobility, Medium- and Heavy-Duty Fleets, ZEV Workforce Development, and Requirements for Existing Buildings.

Key Takeaways

Curbside EV Goals and Metrics of Success

Clarity of Goals – Off-street v. On-Street: The City and partners must continue to weigh the merits of on-street charging in the PROW versus off-street chargers. PROW charging is more difficult to implement. However, curbside charging can increase access to charging in areas without easy access to off-street parking. The City should plan for future demand and overcome a perception that technology and interests are not ready. This is particularly vital due to Governor Newsom's executive order N-79-20, requiring 100% of all new in-state sales of cars and light trucks be ZEV by 2035.

Quantification of Success: The City needs to identify how it will quantify success when it comes to curbside charging. Options include metrics related to ZEV adoption, as well as the availability of charging stations citywide. This is a process that will continue to develop through ZEV Action plan development.

Balancing Transportation Modes

Hierarchy of Modes: To respect the City's sustainable transportation hierarchy, the ZEV Action Plan must be coordinated with the City's Bicycle and Pedestrian Plans, Paving Plan, Transit Action Plan, etc. The City should focus resources on areas where biking, transit, and mobility services overlap with ZEV infrastructure. This may include EV car sharing, e-bikes, e-scooters, EV ride-hailing, and EV on-demand shuttles.

Thinking beyond Privately-Owned Vehicles: Considering our hierarchy of modes, the City should explore dedicated space for EV carsharing and EV shuttles/on-demand vehicles, as opposed to exclusively focusing on privately owned vehicles. Expanding infrastructure and programing for electric carsharing and microtransit could be a strategy to expand ZEV access in underserved, frontline communities.

Mobility Hubs and Multi-Modal Access: ZEV infrastructure in the PROW may be best implemented as part of a suite of mobility and community amenities. This will require collaborations with TNCs (e.g., Lyft, Uber), transit agencies, and e-mobility providers, and finding ways to improve informational and technological infrastructure. Mobility Hubs could include community amenities such as improving Wi-Fi access, and using EV chargers as microgrids to bolster utility grid resilience.

Residential Curbside Charging

Main pain points for a residential curbside charging program include its overall expense, the need for updated electricity capacity, placement, metering, and vandalism or damage.

Equity and Inclusion: A big concern for residential curbside charging is the initial barriers for underserved, low-income communities of color. This includes the high costs of charging infrastructure as well as the possible need to upgrade utilities in these neighborhoods. Any efforts to create a permitting program modeled after Berkeley's must consider equity concerns, ensuring that a given approach would serve the wider public and not just a handful of individual homeowners. Potential solutions include car sharing programs or mobility hubs. Additionally, before setting up a permit program, City staff should comprehensively assess other related permitting fees and regulatory obstacles.

Collaboration and Coordination

East Bay Community Energy (EBCE) will be a vital partner in siting, funding, and other considerations for PROW charging. City staff should also consider locations identified in the Bike Plan, Pedestrian Plan, Paving Plan, Transit Action Plan and High Injury street network when implementing chargers. Finally, staff should establish a protocol and single point of contact for determining optimal infrastructure siting. Where and when to site ZEV infrastructure will be a major outcome of the final ZEV Action Plan