YOU'VE GOT PROBLEMS? WE'VE GOT SOLUTIONS: THE FUTURE OF EV CHARGING AND ELECTRIFIED RIDE-SHARE

April 11, 2024 | Veloz Summit Focus Group Recommendations

Like any emerging industry, the world of electric vehicles (EVs) has its fair share of challenges, and at Veloz we believe in finding smart, sustainable, and equitable solutions to help reach our Electric For All goals. As part of our 2023-2024 Summit Series, Veloz convened subject matter experts from Uber, Waymo, Electrify America, and EVgo, along with over 20 private companies and public organizations at our national headquarters in Sacramento to identify solutions around two main questions:

1. **How do we increase the number of electrified ride-share trips nationwide?**
2. **How do we execute and maintain a reliable national public charging network?**

Throughout the half-day session, this group of leaders brought their decades of combined EV sector experience to provide answers to these two questions. *Recommendations were segmented based on the following key priorities:

- Policy, Regulations and Standards
- Capital Investment
- Consumer Adoption
- Special Projects

COMPANIES AND ORGANIZATIONS REPRESENTED:

**The following pages detail the recommendations brought forth by the group, none of which should be attributed solely to Veloz or any of the participating companies and organizations.*

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RECOMMENDATIONS: ELECTRIFIED RIDE-SHARE

How do we increase the number of electrified ride-share trips nationwide?

The U.S. rideshare industry is comprised of approximately 1.7 million drivers, and according to a recent study performed by the UC Riverside School of Business Center for Economic Forecasting and Development, there were nearly 140 million trips and deliveries statewide in California in the third quarter of 2021 alone. Additionally, data shows that autonomous vehicles — including those used for ride-hailing — have driven more than 44 million miles on U.S. public roads. The electrification of ride-share vehicles — with or without drivers — presents one of the greatest opportunities as we move toward 100% transportation electrification.

Policy, Regulations and Standards:

- **Incentivize partnerships to increase charging at multi-unit dwellings**.
    - Many ride-share drivers live in multi-unit dwellings where home charging is either difficult or non-existent. Companies and organizations should be incentivized to create partnerships with property management companies, electric utility companies, and federal and state agencies to leverage both private and public funding for home charging options in multi-unit dwellings.
- **Prioritize and streamline permitting for EV charging installations at multi-unit dwellings.**
    - Improving the ease with which charging providers can obtain permits for adding charging to multi-unit dwellings would increase the availability of home charging, a major benefit to owning an EV, to more ride-share drivers.
- **Include ride-share options in the Clean Cars for All program.**
    - Regular and autonomous EV ride-share options (beyond personal car ownership) are not currently part of the Clean Cars for All program. EV ride-hailing could be incentivized through the program to help increase electrified ride-share trips.

Capital Investment:

- **Partner with electric utilities to incentivize and/or compensate EV ride-share drivers.**
    - Work with municipal and investor-owned electric utility companies to offer incentives for ride-share drivers to increase EV adoption. For example, the DTE Energy and Lyft partnership in Detroit offers drivers in its electric service

territory up to $5,000 when they purchase or lease an EV for use on the Lyft network.

- **Create discounts and preferred access programs to encourage ride-share drivers to go electric.**
    - Create opportunities to provide lower EV charging rates to ride-share drivers.
    - Provide preferred access like priority parking, exclusive curb drop-off and pick-up locations and discounted infrastructure tolls to ride-share drivers.
- **Explore next generation charging technology such as inductive charging and battery replacement.**
    - Wireless charging can be a way to provide an easy, convenient and seamless charging experience for rideshare drivers who are on the go.
    - As battery replacement/swap opportunities grow, battery replacement stations can provide less down time and allow drivers to get back on the road sooner.

Consumer Adoption:

- **Improve the EV experience for drivers who rent and own EVs.**
    - Increase funding to implement education and awareness campaigns for ride-share drivers on EV basics, including how to charge. This effort could also include a rider education component on the many benefits of choosing EV rides. Benefits including a reduced environmental impact, lower vehicle maintenance cost, and the price of electricity compared to gas should be addressed.
    - Partner with vehicle rental companies to educate on the value of installing charging stations at rental car pick-up/drop-off sites to make the charging experience better for those who rent their EV ride-share vehicles.

Potential Projects:

- **Create accessible charging for ride-share drivers.**
    - Create initiatives to raise funding in targeted locations where ride-share drivers reside. Places like multi-unit dwellings and communities outside of major cities can benefit from more charging infrastructure.
    - Incentivize collaboration between ride-share and charging companies to streamline charging opportunities for ride-share drivers.

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RECOMMENDATIONS: EV CHARGING RELIABILITY

How do we execute and maintain a reliable national public charging network?

According to the Department of Energy Office of Energy Efficiency and Renewable Energy, from the fourth quarter of 2019 to the first quarter of 2023, the number of public and private charging stations in the U.S. went from 87,352 to 161,562. The exponential growth of EV ownership over the last decade has amplified a long-held fact: EVs and charging go hand-in-hand and, as consumer EV adoption grows, so does the need for a reliable nationwide charging system.

Policy, Regulations, and Standards:

- **Increase the number and type of charging incentives.**
    - Implement policies that promote financial incentives to help states and charging companies continue to build out infrastructure and repair and upgrade legacy chargers. These programs need to be expanded throughout the Midwest, South, and East Coast.
    - Traditionally most charging incentives are consumer-focused, and not available for shared-use mobility or fleets. Create policies that allow ride-share and ride-hailing fleets to access charging station incentives and funding.
- **Support public and private charging reliability standards to improve charging for all.**
    - Policies and regulations help to set standards, create consistency, improve consumer confidence and move necessary innovation forward. Although there are electric vehicle regulations, charging regulations pertaining to standardization, implementation and locations are still needed to ensure a positive driver charging experience.
    - Support the California Energy Commission's (CEC) efforts to improve charging standards through initiatives like tracking and improving the reliability of California's EV chargers, expanding charging infrastructure manufacturing projects with charging providers, and improving transportation infrastructure.
    - Support the National Charging Experience Consortium (ChargeX Consortium) effort to create standards around and improve diagnostic data sharing, vehicle-charger communication, and payment processing and user interface.

Capital Investment:

- **Fund charging equipment replacements to keep pace with market demands.**
    - The lifespan of a fast charger is approximately 10 years, but innovation moves quickly. Funding opportunities should address equipment updates as technology rapidly improves and consumer demands change. This will help better the charging experience and reduce charging times.

- **Encourage charging providers to increase investments and exceed government reliability requirements.**
    - Increased reliability investments can help charging providers exceed reliability requirements from government agencies and improve the charging experience for consumers.

Consumer Adoption:

- **Increase consumer charging confidence through credible research and data.**
    - Collect robust and accurate charging reliability data using credible research methodologies to solve consumer EV purchase and charging hesitancies.
    - Use real-world consumer research to enhance EV charging confidence through educational programming, advertisements, marketing and infrastructure improvements.
- **Focus EV charging reliability solutions on the 'early majority' consumer.**
    - In some regions, the EV market is moving from the 'early adopter' to the 'early majority' consumer. EV charging reliability solutions should be viewed through the lens of an 'early majority' consumer who typically has higher expectations. When possible, charging stations should implement clear and consistent pricing to create trust and familiarity among current and potential EV drivers.
    - Support charging networks that give access to all makes and models of EVs. With most automakers and charging providers now committed to the North American Charging Standard, this will provide consumers with more charging options.
    - Promote solutions to increase charger reliability, such as standardized error codes, deploying preventative charger maintenance strategies, implementing vehicle interoperability testing, and create standard charging port locations on vehicles.

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Potential Projects:

- **Support automaker-led charging networks as a path toward charging standardization and reliability.**
    - Automaker groups convening to build robust charging networks, like IONNA, allow for additional charging station installations, network standardization and consistency.
- **Increase deployment and production of state-of-the-art charging stations.**
    - Strategically located charging stations that offer basic amenities to consumers instill consumer confidence in charging infrastructure while supporting the needs of drivers on the go. Station amenities include but are not limited to built-environment and personnel-driven safety measures (such as on-duty security or security cameras), cleanliness standards and practices, protection from the elements, multiple DC fast chargers, Wi-Fi, well-lit facilities, and restrooms.

ABOUT VELOZ

Veloz is the power behind the nation's largest and most inventive multi-stakeholder public awareness campaign for electric vehicles, the architect of events and programming garnering both state and national attention, and the organization bringing together a high-powered, diverse board and members from the public and private sectors. The organization was launched in 2017 and is built on the success of the California Plug-In Electric Vehicle Collaborative founded in 2010. Veloz is a 501 (c)(3) nonprofit.

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