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*Submitted On: 2/4/2022*  
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**Comments on Docket No 21-TRAN-03 ZIP**

*Additional submitted attachment is included below.*



February 4, 2022

Hannon Rasool  
Deputy Director, Fuels and Transportation Division  
California Energy Commission  
Submitted via online docket

**Re: Docket No. 21-TRAN-03 ZIP**

Dear Mr. Rasool,

On behalf of the [Los Angeles Cleantech Incubator](#) (LACI), I am pleased to submit comments to Docket No. 21-TRAN-03, providing insights and recommendations for the development of the California Energy Commission's Zero-Emission Vehicle Infrastructure Plan (ZIP). The State's investments in charging infrastructure are essential to achieving a rapid and equitable transition to light, medium and heavy-duty electric vehicles. Our recommendations for structuring these investments are informed both by the successes and lessons learned through our convening of the Transportation Electrification Partnership.

**Background on the Transportation Electrification Partnership**

In May 2018, the Los Angeles Cleantech Incubator (LACI) convened the [Transportation Electrification Partnership](#) (TEP), an unprecedented public-private collaboration focused on accelerating deep reductions in climate and air pollution in the greater LA region by the time of the 2028 Olympic and Paralympic Games. The 30+ members of TEP\* represent the California Air Resources Board, the Mayor of Los Angeles, the County of Los Angeles, other local governments, utilities, automakers, electric bus and truck manufacturers, EVSE providers, labor organizations and startups, all of whom are working together to achieve [bold transportation electrification targets](#) in Los Angeles County, including the following charging infrastructure goals:

- **84,000 public and workplace chargers** to enable 30 percent of all light-duty private vehicles on the road to be electric by 2028
- **Up to 95,000 chargers installed for goods movements** to enable 60 percent of medium-duty delivery trucks to be electric and 40 percent of short-haul and drayage trucks on the road to be zero emissions by 2028.

To advance these and related targets, LACI and TEP are pursuing pilots and policies that are equity-driven, create quality jobs, and grow the economy. One pilot has led to federal legislation that will be introduced next week by U.S. Representative Barragán to advance both EV car share for housing authority residents and access to DC fast charging in nearby low-income neighborhoods.

## **LACI Comments on the ZIP**

Building on our experience implementing innovative zero emission pilots and shaping leading policies, LACI offers the following recommendations on the market segments outlined for the ZIP:

### **Hydrogen for Light-Duty Vehicles**

**For all light-duty vehicle infrastructure investments, LACI recommends that State funding should focus only on plug-in battery electric vehicle infrastructure.** Other light-duty fuels and zero-emission drivetrains combined amount to less than 1% of the new low-emission vehicle sales in the light-duty and small truck classifications. There is no evidence that other technologies—including hydrogen—will achieve any appreciable volume in light-duty sales in the foreseeable future and thus, there is no justification for spending limited State dollars on infrastructure that will assuredly be a stranded asset from day one.

### **Electric vehicle charging/hydrogen fueling for MD/HD ZEVs**

One of the principles of the ZIP is that “State investments will accelerate market development of ZEV infrastructure and the handoff of mainstream charging and fueling infrastructure to the private sector.” While private sector investment in charging infrastructure for medium and heavy-duty vehicles is critical, **significant State investment in this sector, coupled with supporting regulation and policies, will be needed for the foreseeable future in order to create a strong market for zero emission goods movement vehicles.**

**Following market developments in zero emission drayage trucks, LACI recommends that the State focus drayage infrastructure investments in battery-electric charging infrastructure.** The North American Council for Freight Efficiency (NACFE) has, after extensive research across applications and OEMs in their [Run on Less report](#), determined that heavy-duty regional haul is an application where BEV trucks are technologically mature enough for fleets to make investments. The same is not said for hydrogen fuel cell trucks: large-scale series production of [Volvo Group’s](#) fuel cell systems will not start until the second half of the decade; [Daimler Truck](#) does not intend to manufacture hydrogen fuel cell trucks at scale until 2027; and [Hyundai](#) will deliver just 30 trucks in 2023 as part of a program that also includes the delivery of 100 battery-electric trucks. California has the opportunity to make meaningful progress towards its heavy-duty ZEV deployment goals by making investments in BEV truck charging infrastructure that support the applications where fleets can make economically sustainable investments, namely regional haul and drayage. These investments will spur deployments today, clean the air, and get California closer to its energy and climate goals.

### **Direct current fast charging for light- duty electric vehicles, and Level 1 and Level 2 charging for light- duty electric vehicles**

Many Californians—and in particular low-income Californians—in cities such as Los Angeles reside in multi-family housing and have limited or no access to residential charging infrastructure or even an outlet from which to access Level 1 charging. As such, it is critically important to target EV charging deployments that can bridge this gap.

LACI recently completed [two successful pilots of EV car share services in low-income communities](#) from which we draw recommendations for the deployment of charging infrastructure in underserved or disadvantaged communities. As background, LACI selected two local communities, Pacoima and San Pedro, to host EV car share programs provided by Envoy, a LACI company, in partnership with Pacoima Beautiful, a community-based

organization, and the Housing Authority of the City of Los Angeles (HACLA), respectively. Both car share programs made available two EVs; Nissan North America, a TEP founding partner, provided a long-range Nissan LEAF SV+ for each pilot. The EV car share pilots focused on providing easily-accessible, healthy, environmentally friendly, safe, reliable, and affordable transportation to accelerate the adoption of light-duty EVs while also developing a replicable, sustainable program model that tested for market transformation opportunities.

Drawing upon these pilots, we offer the following recommendations for publicly available EV charging investment guidance:

- **Allow for DCFC to be placed at housing authority properties—or other relevant federal, state, or local government owned properties upon which facilities and services target predominantly low-income, disadvantaged communities—to serve both drivers on nearby corridors as well as drivers (e.g., TNC drivers, etc.) living in adjacent neighborhoods, which have been historically and disproportionately burdened by pollution from cars and trucks on these corridors.** In addition, the utility upgrades for these DC fast chargers should also allow for additional capacity to add Level 2 charging for dedicated EV car share and other electric shared mobility serving these low-income, disproportionately burdened disadvantaged communities.
- **Allow for grants to invest in community-based organizations to inform the deployment of EV charging stations in the community, providing insights on community travel patterns and needs, infrastructure siting, and the design and implementation of targeted education and outreach programs tailored to ensure that the community is fully able to utilize the EV charging stations.** In the case of the Rancho San Pedro car share pilot, LACI funded eight HACLA Resident Advisory Committee members as community ambassadors. These ambassadors were known members of the community and they were responsible for outreach, education, and enrollment. As members of the community, they were highly effective at conveying the information needed to their community, and we recommend including funding for similar community ambassadors in future programs that seek to provide disadvantaged communities with access to EV solutions, including charging infrastructure.
- **Recognizing that knowledge of EVs and EV ownership are typically low in disadvantaged communities, pair EV charging deployment with programs to provide community members with the opportunity to learn about and access EVs.** Combining charging infrastructure with EV car sharing, particularly at public housing complexes, can support and encourage EV ownership and utilization in low-income neighborhoods. There are needs community members have that necessitate a vehicle, yet car ownership and access to a car is typically low at public housing locations. Furthermore, educating low-income residents about EVs can also help them consider purchasing a used or lower-cost EV model in the future. As such, pairing charging infrastructure with EV car sharing can be a key solution in helping meet the CEC's commitment to equity.
- **State funding could support and cover the costs of the charging—both DC fast charging and Level 2—in a grant program for a dedicated EV car share program.** At the federal level, LACI and TEP have drafted and are supporting **Representative Barragán (CA-44)'s legislation she will soon introduce to greatly expand access to EVs for residents of public housing** throughout the nation, requiring the U.S. Department of Energy (DoE) and Housing and Urban Development (HUD) to develop a program to provide grants of up to \$1M to public housing agencies, local governments or non-profits to support EV car sharing services and DC fast charging deployments at public housing projects. The bill would

authorize up to \$50M in annual appropriations from 2022-2031. We encourage the CEC to consider how to coordinate with this and related efforts, and to consider a similar state program.

### Emerging Technologies

We encourage utilization of startup innovation—which has been commercialized but is provided by early stage startups—to optimize existing electrical infrastructure and prioritize charging in key locations (e.g., multi-unit dwellings, workplaces, etc.), such as solutions from LACI startups [Xeal](#), [SparkCharge](#) and [NeoCharge](#).

### EVSE Maintenance and Reliability

In addition to the above recommendations on the ZIP market segments, **LACI urges the CEC to protect the investment of public funds in EVSE by dedicating funding for workforce training and actual maintenance contracts for non-electrical issues for EV chargers.** Ensuring charging infrastructure, once installed, is available and operating is key to widespread adoption of EVs. When EV chargers are down, 90% of the time it is due to a non-electrical issue like a wifi connection not working, a data logger is down, or a firmware/software issue.

Non-electrical workforce training for EV charger maintenance—such as the workforce training conducted by LACI—and the actual monitoring and maintenance of the chargers— such as that provided by LACI startup [ChargerHelp!](#)—should be funded. If EV charging station downtimes are reported on a real time basis, a firm like ChargerHelp! can deploy a technician to determine why the charger is down, and if it is a non-electrical issue, can provide the repair needed to get the charger back online. If the chargers are not repaired in a reasonable amount of time, it creates a lack of confidence in making the transition to EVs. In the unlikely situation that an electrical repair is required, then a qualified electrician will be dispatched.

### Conclusion

Thank you again for the opportunity to provide these comments to the ZIP. LACI and TEP look forward to supporting the CEC to rapidly accelerate the deployment of EV charging infrastructure in a manner that builds on lessons learned, prioritizes equity for low-income communities, and holistically approaches the need to coordinate electric vehicle access with EV charging infrastructure deployment.

Please do not hesitate to contact me at [michelle@laci.org](mailto:michelle@laci.org) if you have any questions or would like further information on these comments.

Sincerely,



Michelle Kinman

Sr. Director of Transportation

Los Angeles Cleantech Incubator

\*Transportation Electrification Partnership members include: LACI, County of Los Angeles, City of Los Angeles, CARB, LADWP, LA Metro, Southern California Edison, BMW Group, Itron, PCS Energy, AMPLY Power, Audi of America, BYD Motors, Greenlots, Nissan of North America, Proterra, Clean Power Alliance, Culver City, Inglewood, International Brotherhood of Electrical Workers Local 11, National Electrical Contractors Association - Los Angeles Chapter, Metrolink, Santa Monica, Burbank Water & Power, Glendale Water & Power, Pasadena Water & Power, and East Bay Community Energy. CEC Commissioner Patty Monahan is an informal advisor to the Partnership.