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CALSTART Comments on Transit Infrastructure Solicitation Concept

Additional submitted attachment is included below.

April 24, 2020

California Energy Commission
Re: Docket No: 19-TRAN-02
1516 Ninth Street
Sacramento, CA 95814

RE: Draft Concept for Zero Emission Transit Fleet Infrastructure Deployments

Dear Commissioner Monahan and Energy Commission Staff:

CALSTART appreciates the opportunity to provide feedback on the draft solicitation concepts for Zero Emission Transit Fleet Infrastructure Deployments that were presented by staff during the April 10, 2020 workshop. CALSTART submitted comments on the five draft concepts for the M-HDV and infrastructure funding under the Clean Transportation Program in the fall of 2019, and also submitted comments on the draft investment plan last month. We appreciate CEC staff's incorporation of our feedback to help inform the need for this draft solicitation.

CALSTART is proud to partner with government, industry and communities to drive the advancement of zero-emission vehicles and the charging/refueling infrastructure needed to support them. CALSTART represents over 250 organizational members including vehicle and component manufacturers, transit agencies, goods movement operators, large commercial fleets, such as PepsiCo and FedEx, utilities (including California's major investor-owned and municipal utilities), and electric vehicle service providers. Many of our members are working to advance widespread adoption of zero and near-zero emission vehicles and equipment in the medium and heavy-duty vehicle(M-HDV), and off-road vehicles and goods movement sectors. In the role as administrator of the California Air Resources Board's (CARB) Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) as well as the Clean Off Road Equipment (CORE) voucher incentive project, CALSTART works closely with state agencies, manufacturers, fuel suppliers and fleets in the medium- and heavy-duty space to address important barriers to ZEV deployment by putting forth solutions that enable successful technology adoption.

We commend the Commission for delegating 20% of typical annual funding under the Clean Transportation Program to transit fleets. Transit Fleets have been leading on zero-emission vehicle deployment for many years, but given the ambitious timelines they are expected to meet in CARB's innovative clean transit rule, the need to support transit fleets with infrastructure deployment is ever greater. First, we think this funding can go further and be more effective with a 25-50% cost share and by funding bus depot conversions rather than the infrastructure needed for an entire bus fleet. The public benefits of these projects (in addition to local air quality benefits and benefits to local riders) are the learnings that can be gained from converting an entire fleet from fossil fuels to zero-emission technologies (battery or fuel-cell electric).

Scope of Awards

At the workshop, Staff stated their intention to help one or two large fleets convert entirely to zero-emission. However, to get the statewide benefit of this project we would suggest that you only need to convert a bus depot –not an entire fleet (LADOT example 100 buses per depot, still a very significant number but far below their total bus fleet).

All transit districts in the state are expected to buy new ZEBs in the coming years. Many transit districts are currently waiting to receive ZEBs that they have ordered, which have been incented through HVIP. All of these districts are in need of funding support for infrastructure. Therefore, we recommend that the CEC Staff consider making this funding stretch further than only 2 fleets. $10-$20million per fleet seems higher than necessary, and there would be greater public benefit in learning from fleets with some diversity: both geographic, the size of the fleet/ depot, and by vehicle type.

Focus on Best Practice Development and Dissemination

It would be most beneficial, we observe, to develop best practices that the transit industry can apply to get to scale for a full ZEV fleet. However, two properties is too few to have significant "best practices" that can be replicated by other fleets. Because the average charger per bus is around $40-50k (hardware and software, not necessarily installation cost), even with a 50% cost share and installation/ any customer side-make-ready not covered by the utility, $5million should be sufficient cover a very large depot for EV charging. We think 50% would be a reasonable level to set but it depends on what is included in the cost share and whether CEC Staff will consider expenditures over time or only one-time expenditures. We found the CEC Staff's statement at the last workshop that the cost of buses would be considered an eligible cost share confusing. Given that a bus costs 10 times what the charger costs, this would essentially require potentially <10% share for infrastructure. We would encourage staff to stick with a range of 25- 50% cost share for infrastructure, depending on the size of the transit district, their financial situation, and that the cost share include any make-ready upgrades, construction costs, operating costs, and software not paid for by the utility.

Notably however, hydrogen fueling is more expensive per bus when fleets are smaller, but hydrogen has the value of becoming much cheaper as the scale of the fueling station increases, so if this solicitation is used to fund a hydrogen project (which we do think would be valuable) the award to that project may need to be higher than for a BEV infrastructure project, especially since there is not equivalent utility "make-ready" support for hydrogen. As we discuss below, we urge the Commission to supplement the funding for this solicitation with funding currently set-aside for other hydrogen projects.

CEC should design this program to require "best practices" to be shared with the industry at various stages during the project, with a document at the end that can become public to take to other agencies. These projects could be on *very long* timelines, five-years or more, so this

solicitation must be designed to share key learnings at key milestones throughout the life of the project and not just at the end.

Funding Diverse Projects

We strongly recommend that the CEC look for fleet diversity through this solicitation. The final solicitation should be designed to cover a few different size depots, a small depot with less than 50 buses, a mid-size depot of between 50-100, and a large depot of more than 100 buses. This diversity will provide key learnings that the broader California transit industry needs. There are many districts in the state with fewer than 50 buses/ vehicles.

In terms of diversity, to include Hydrogen fueling, we recommend including a fleet with at least 30-50 Fuel cell buses—because this is the minimum scale at which Hydrogen becomes cost-competitive and cost per bus fueling declines significantly. However, the solicitation should *not* require the depot or fleet to only utilize hydrogen. There are many fleets in the state purchasing both fuel cell and battery electric buses. We strongly recommend however, that given the *significant* funds currently available in the CTP designated for hydrogen fueling, that the hydrogen depot be funded ½ by this solicitation, and ½ by a solicitation using the "hydrogen fueling" set-aside funds. We also note that there are areas of the state that could be prioritized for lower cost hydrogen fueling, due to the proximity to hydrogen pipelines, such as the one in Torrance/ Southwest LA County, this could be a consideration for project selection as well.

Shared infrastructure projects, where multiple transit agencies share one charging depot, such as for commuter buses, should be encouraged—this is implied but not clear in the proposed concept. It should be a separate category with clear opportunities for Regional fleets to share infrastructure and develop a regional plan to share both the planning for infrastructure and the actual hardware itself.

Also, the CEC Staff shouldn't exclude a depot with smaller transit vehicles. How is "bus" defined? The language in the proposal regarding a "fixed route" implies staff might exclude on-demand shuttle services being used by smaller districts. We do not think this would be justified. We would also encourage support for a depot for shuttles/ vans as one project type, and this could be at significantly lower cost. Having one small/ rural agency that uses smaller vehicles to serve their community's needs would be very valuable.

Third Party Partnerships

We also recommend that the CEC Staff ensure, in the final solicitation, that third-party partnerships between NGOs and transit districts be allowed. These partnerships are likely necessary to successfully plan, design, and launch projects, and certainly will be necessary to provide analysis of the data and best practices, and develop a process for sharing best practices. This is currently not in the proposal. To achieve the maximum possible public benefit, grantees will need an outreach process managed by a third party that shares outcomes

at all phases. Giving away significant public funds to only a handful of projects without enabling others to learn from them throughout the process is not a good use of those dollars.

Evaluation Criteria

Regarding the environmental benefit evaluation criteria, we echo other transit agency comments and encourage the CEC to work with transit agencies or other organizations to develop an alternative formula to capture environmental benefits that different projects may yield. The current formula seems to penalize early technology adopters, because a transit agency that is transitioning from a diesel fleet to a zero-emission bus fleet will demonstrate higher environmental benefits than an agency that is transitioning from a Compressed Natural Gas (CNG) fleet to an electric bus fleet. If the CEC relies on a bottom-line number, early adopters of CNG or zero-emission buses may be punished. The environmental and economic benefit evaluation criteria may have this unintended consequence if it is not amended.

Proposed Schedule

In light of the current crisis that is particularly affecting transit agencies, we ask that the CEC consider postponing the August 2020 deadline, to September or October 2020 as it would allow for a wider range of participation in this important solicitation.

Conclusion

CALSTART is very encouraged by the CEC Staff's focus on assisting transit districts with their infrastructure needs and $20 million is certainly a significant investment. While converting a few bus depots/ fleets to zero-emission can generate significant benefits and lessons for other districts, to really help this industry with their mandated transition under the Innovative Clean Transit Rule, over the long term, it will be more important to provide ongoing infrastructure incentives to transit fleets through the proposed MHDV block grant program, and to ensure that program has sufficient funds to support all the transit districts currently awaiting delivery of Zero-emission-buses.

Sincerely,

/s/	/s/
Meredith Alexander	Fred Silver
Policy Director	Vice President
CALSTART	CALSTART