DOCKETED	
Docket Number:	19-TRAN-02
Project Title:	Medium- and Heavy-Duty Zero-Emission Vehicles and Infrastructure
TN #:	232768
Document Title:	CALSTART Comments - CALSTART Comments on MHDV Block Grant and Blueprint Proposed Solicitation
Description:	N/A
Filer:	System
Organization:	CALSTART
Submitter Role:	Public
Submission Date:	4/16/2020 4:56:42 PM
Docketed Date:	4/16/2020

Comment Received From: CALSTART
Submitted On: 4/16/2020
Docket Number: 19-TRAN-02

CALSTART Comments on MHDV Block Grant and Blueprint Proposed Solicitation

Additional submitted attachment is included below.

April 16, 2020

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

RE: Medium and Heavy-Duty Zero Emission Vehicle Infrastructure Deployments: Block Grant and Blueprint Draft Solicitations

Dear Commissioner Monahan and Energy Commission Staff:

CALSTART appreciates the opportunity to provide feedback on the draft solicitation concepts for Medium- and Heavy-Duty Zero Emission Vehicle Infrastructure (ZEV) Deployment Blueprint and Block Grant that were presented by staff during the April 2, 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 two current draft solicitations.

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.

I. Comments on Block Grant for Medium- and Heavy-Duty Zero-Emission Vehicle Infrastructure Incentive Projects

CALSTART strongly supports the development of a streamlined, continuous incentive project for medium- and heavy-duty charging infrastructure. We are extremely pleased to see CEC Staff proposing this program and congratulate the Staff on their release of the proposed solicitation concept. Commercial fleets continue to identify infrastructure planning and development costs to be the top barriers to MHD- zero-emission vehicle (ZEV) deployment—we recently polled attendees at our Policy Summit on the #1 barrier to ZE adoption, and the highest-ranking response was infrastructure, above even initial vehicle costs. Regarding removing this barrier, the draft solicitation document describes:

> [T]he goal of this solicitation is to seek a block grant recipient to design and implement up to $50 million in grant funds for various zero-emission medium- and heavy-duty (MD/HD) electric vehicle (EV) charging or hydrogen refueling infrastructure incentive projects throughout California. Projects funded under the resulting grant agreement may complement the MD/HD zero-emission vehicles (ZEVs) awarded under the California Air Resources Board's Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program (HVIP), with supporting ZEV infrastructure.

To help build industry confidence and to further support advanced vehicle adoption, the Commission needs to signal that there will be a continuous and significant stream of funding for ZEV infrastructure that compliments the state's vehicle incentive programs. Although the state's major investment owned utilities are implementing incentive programs to support MHD-ZEV deployment, and many municipal utilities also have programs focused on fleets, most utility incentives are going toward what is referred to as the "make-ready" portion of charging infrastructure (grid upgrades up-to the point of customer interconnection) and may not provide any or adequate incentives to help cover charging equipment hardware and software costs (EVSE) on the customer side of the meter. EVSE for heavy-duty vehicles can be very expensive as many large vehicles require high capacity DC-FC. Additionally, there are utilities in the state that do not offer make-ready infrastructure incentives to fleets.

It is crucial that incentives for charging/ fueling infrastructure are available to fleets statewide who are adopting ZEVs to support rapid and successful fleet deployment. These incentives should be available in parallel and on the same timeframe with the receipt of vehicle incentive funds. The Commission is the appropriate agency to provide incentives for customer-owned infrastructure through a streamlined, continuous program to help fleets pay for the "customer side of the meter" charging infrastructure, as well as the software necessary for managed and smart charging. This type of ongoing, continuous funding is critical to help fleets speed their adoption of MHD-ZEVs.

CALSTART supports the strategy of administering these funds through a Block Grant, similar to the funding structure of the CALeVIP program, to enable the efficient and timely award and dissemination of funds. It is critical that as commercial fleets seek investments for vehicles, subsidies are readily available to support infrastructure development and deployment on a parallel track, and that it be clear to fleets who are waiting for vehicle delivery that they *will* be supported by public funds for infrastructure incentives. Administering funds this way can expeditiously support on- and off-road voucher incentive programs that apply 'point of sale' equivalent discounts off the price of a medium- and heavy-duty charging/ fueling technology, as well as incentivizing the more complex, non-hardware infrastructure build out necessary to install chargers or fueling on the customer's property.

<u>Comments on Initial Program Budget, Demand for the Program and Timeline for Program Administration:</u>

From working with our members directly and through the MHDV Infrastructure Working Group meetings we are currently facilitating, CALSTART sees significant pent up demand for infrastructure incentives to support MHDV fleet deployments. While Cal-eVIP has been in place for a few years, there has been no comprehensive statewide program aimed at MHDV charging. Similarly, while the Commission has run programs to build out light-duty hydrogen fueling stations for over a decade, the Commission has only invested in selected MHDV pilot projects and not invested in comprehensively supporting a hydrogen fueling infrastructure for MHDVs. Furthermore, as of 2020, due to a budget allocation for HVIP that cannot keep pace with demand for vouchers, the HVIP program no longer offers an "infrastructure plus up" award with vouchers. In prior years, the plus up was intended to cover the cost of the EVSE only (not other infrastructure or installation) up to $30,000 per vehicle. For fuel-cell vehicles, the plus up covered up to $100,000 per vehicle (with a minimum of five vehicles) for fueling infrastructure. *Based on data we have gathered from HVIP voucher holders, we estimate that the demand for incentives for battery electric MHDVs only, to cover even partial EVSE costs and a lesser percentage of installation costs, is likely in the range of $75 million*. This estimate assumes average costs of hardware and software for each battery electric vehicle and does not take into account any site-specific construction or installation costs.

While the $50 million allocated to this program is certainly extremely notable and represents great progress, we think it is equally important that the Commission clearly state its expectations regarding ongoing funds to drive ZEV adoption. As stated above, we expect the $50 million will be subscribed extremely quickly, if not immediately, as there are 2,500 battery electric MHDVs on order in the HVIP

program. This number doesn't even touch hydrogen vehicles, which have very different infrastructure needs and costs per vehicle that can vary dramatically.

We have reviewed and commented on the Commission's investment plan, which calls for $20 million in additional funds to be dedicated to MHDV infrastructure from FY '20-'21 funds, and which speaks to the Commissions intention to create this kind of continuous incentive program. However, it is unclear from the investment plan whether future funds will be put into this program. Depending on funding availability in HVIP and market growth or contraction, we are expecting a demand for around 2,000 additional ZEV MHD vouchers in 2021. This would translate to additional demand for infrastructure incentives of an additional $40 million in funding (using a low estimate of $20,000 per vehicle) for this ongoing MHDV infrastructure incentive program.

While acknowledging unknowns regarding future year budgets, we recommend that the Commission indicate *now* its intention regarding whether funds will be dedicated to this program on an ongoing basis, or whether this $50 million is intended to be a one-time award. It is also important that the Commission clarify whether block grant recipients will need to re-apply once this initial $50 million in funding is exhausted, or whether, once chosen, a program administrator will remain in place for multiple funding cycles. As we explain below, we believe this $50 million will be appropriated via incentives within less than one-year - choosing a new program administrator for the next tranche of funding seems extremely inefficient. Once designed, the program should remain in place for at least 2-3 years, with a guarantee from the investment plan that funds will be invested in this program from future year's CTP program funds.

Comments on Program Design for the Block Grant

We wish to re-emphasize that of primary importance to commercial fleets is the existence of an incentive program that is continuous (multi-year) with funding increased over time for each appropriation from the AB 118 funds. Only such a program can give the industry the certainty that it needs to continue investing in commercial ZEVs. It is also critical that the program established through this solicitation, or a subsequent solicitation approved by the Commission, be a statewide program without regional carve-outs or separate regional program designs. Our understanding from our fleet members is that they need one-stop decision making no matter where they are. They have found that funds broken into regions with different timelines, like the Cal-eVIP program, does not match their deployment planning and decision process and creates extra complication, delay and cost. We do not

see fleets having different needs by region (except for funding differences based on utility programs) rather, their needs differ depending on the fleet size and vehicle types.

We strongly encourage guiding principles for this program to be indicated by the Commission, and suggest that the program create a streamlined, easy-to-use process for fleets to apply for incentives for hardware and software costs. In this regard we recommend that the program use design and structural elements from similar existing voucher incentive programs, such as HVIP and CORE. These programs are marked by elements such as creating an electronic application process, embedding terms and conditions of the funding into the request for funds (to create a fast-track process for dispersing funds); pre-identifying categories of eligible equipment and incentive levels or limits for those categories to simplify requests; the ability to electronically track the progress of an incentive request; the ability to upload qualification information electronically; and rapid payment upon completion of required documentation. We would also encourage the potential for interim payment milestones, given the often long lead time for infrastructure installation.

We also believe it is vitally important the Energy Commission infrastructure program has a close link and alignment with existing state incentive programs for vehicles and equipment, specifically HVIP and CORE. Fleets and manufacturers have made multiple requests to state and local agencies to combine, synchronize and align state programs to all extent possible. They are looking for seamless and transparent "one stop funding" across the state and across vehicle and infrastructure support. A deep connection to and integration with HVIP and CORE and other M-HD ZEV deployment programs will ensure Energy Commission funds are available to the fleets most ready to deploy. At minimum, vehicles and equipment waiting for vouchers in HVIP and CORE should be directed to the Energy Commission for infrastructure funding and prioritized. This coordinated application process will greatly reduce the burden for fleets and ensure timing alignment between their vehicle purchase and their infrastructure installation.

We recommend that incentives provided through this program be *stackable and complimentary* with other funding sources potentially available from IOUs or municipal utilities. Fleets should be allowed to combine these incentives with other funding sources to stretch public resources, as long as the total public award does not exceed the total infrastructure cost. We would also encourage the program design to ensure that applicant leverages any available software rebate to install the software necessary for managed charging, at a minimum. It may be helpful to provide additional funding for

infrastructure for applicants not in utility territories where major programs have been approved, however, doing so would likely cause program funds to be exhausted more quickly.

We also recommend combining these two solicitation concepts, so that the Block Grant award could be used to support fleets whose immediate need is planning assistance rather than equipment incentives. Combining a planning grant program with the Block grant for incentives into one program would allow fleets to apply for immediate and timely assistance to support with evaluating infrastructure needs and plan development. Ability for fleets to access incentives for both technical assistance and infrastructure deployment will further stretch public funds and avoid deployment of "throw-away" infrastructure.

Comments on Incentive Program Design and Stakeholder Engagement

The solicitation concept, as proposed, seems to suggest that it would be up to the applicant to fully develop an incentive structure based on the vehicle technology (battery electric or fuel-cell electric), vehicle class, charging, and determine what other parameters should be relevant to determining the incentive amount. We encourage CEC Staff to further consider how this program would incentivize hydrogen infrastructure. Hydrogen infrastructure is not installed in an equivalent manner to EVSE, which can be installed to serve a small number of vehicles. Hydrogen fueling has higher costs per vehicle for a small fleet, but then decreases per vehicle for larger fleets. Our opinion is that supporting fuel-cell vehicles will likely require a completely separate incentive program design. It is unclear whether the Commission intends to "carve-out" part of the $50M budget for hydrogen? Or leave it to the program applicant to suggest how hydrogen should be funded and prioritized? We would ask CEC Staff to further elaborate on why the Commission cannot design a parallel program for MHDV hydrogen fueling using the $120M allocated for hydrogen fueling from the Clean Transportation Program? The present solicitation for hydrogen suggests that dual-use stations (those that are both public and private) can apply, but it doesn't appear to create an *incentive* program for MHDV hydrogen fueling. We know that there are large fleets in CA that have already purchased many heavy-duty fuel-cell vehicles, such as AC Transit and Sunline Transit, and other large fleets, such as Anheuser Busch are planning to procure significant volumes of fuel-cell vehicles from manufacturers like Nikola.

Regarding program design: the proposed solicitation does not clarify what the Commission intends to occur once the block grant is awarded with respect to stakeholder engagement and input on the design of the incentive program, as the proposed solicitation leaves much of the incentive program

design to the 3rd party. CALSTART members would like to see a robust stakeholder process around incentives with industry stakeholder involvement. With CALeVIP for example, while it is similarly administered by a 3rd party, the programs are designed with robust stakeholder engagement and feedback, as well as CEC Staff engagement. It seems this block grant proposal, as currently written will delegate the program design, segment prioritization, sub-budget specification, etc. to the 3rd party and the stakeholder engagement in that process seems to be unspecified.

We do believe the Energy Commission has the premier role to play in assisting fleets to lay the foundation for their readiness to transition to zero emissions infrastructure. One other element of program design that we believe is critical to consider and include is having the funding flexibility to support fleet infrastructure not just for their immediate deployment plans, but also future deployments. The state needs to help fleets put in place the core infrastructure assets needed to provide readiness to meet their future expansion and full build out plans. Fleets and utilities have made clear to us that it will be far cheaper for them overall to build the framework for their future needs at the outset, even if they only implement a first phase of vehicle deployments in the short term. Funding assistance aimed at future readiness would be extremely valuable and can ensure that public dollars are used most effectively, and not to fund "throw away" infrastructure. "Throw away" infrastructure can occur when fleets need to add capacity or redo trenching for each additional vehicle deployment. The Commission should be doing everything it can to help fleets and utilities "future proof" their investments.

Comments on Minimum Project Information:

VGI standards: we urge the CEC Staff to dig deeper into understanding the state of VGI in the MHDV space—which is very nascent. CALSTART has been an active participant in the CPUC's VGI working group, and as part of this work we surveyed MHDV and charging equipment manufacturers. Many are just beginning to consider VGI capability for commercial vehicles and chargers. Many vehicles delivered in the near-term will not have Vehicle-to-Grid capability, as sufficient market signals did not exist to encourage vehicle manufacturers to design with this capability. Requiring certain VGI technology for charger eligibility, if that technology is not currently in-use, could significantly hamper the goals of this program. We think that requirements could be phased in over time after CEC Staff is certain that the technology is actually available for *every* MHDV class and vocation. At a minimum, we think that all vehicles should have the ability to conduct managed charging, but there are many ways this can be accomplished and so would ask for you to retain flexibility.

Comments on Project Eligibility Criteria:

We recommend that the eligibility review process be used to evaluate a fleet's needs, and qualifications for, "build-out" funding in addition to immediate deployment funding. Fleets requesting infrastructure incentive funding should include evidence and/or appropriate documentation that it has at least initiated infrastructure planning. Part of this requirement will be to set in place best practices for what planning fleets should be doing as they prepare for MHDV-ZEV deployments and establishing a minimum thresh hold of readiness to proceed.

The program administrator should, through a stakeholder process, further develop such minimum eligibility criteria, such as: having contacted their local utility; having performed a site power availability and requirements assessment; having outlined a vehicle charging location and charge profile plan; and identified the implementation timeline for their infrastructure. Such criteria could both help select those eligible to apply, and/or help prioritize access to funding.

For those fleets who are not yet ready to apply for infrastructure funds, it would be valuable for this program to include funding for a fleet planning grant, as we describe in our comments on the "blueprint" concept, this would help smaller fleets and fleets in disadvantaged communities create their infrastructure plans and be ready to apply for infrastructure funding. As an alternative approach, such planning could be done as one of the stages of an application; those with a deployment plan for vehicles could reach a first stage of the application and then proceed to the next stage when they have a qualifying infrastructure plan. Fleets in need of planning assistance could be considered for a small planning grant at this stage to support their readiness to request infrastructure incentive funding.

We recommend CEC Staff should clarify the need to "engage regional community-based organizations, community leaders, California Native American Tribes, and potentially affected local residents in the planning process and education on the benefits of ZEV transportation." We do not see value in developing regional programs/ project design for this MHDV initiative. The applicants for these incentives will be primarily commercial and public fleets. While clearly program outreach to tribes and communities is crucial to make sure they are aware of new programs, which part of the "planning process" does the CEC envision would be appropriate for public input? That seems more relevant if this were a public infrastructure program, which we do not understand to be the primary purpose.

Regarding the requirement to "develop processes and procedures to ensure incentive payments are processed and paid within fifteen working days of receipt of complete and valid request for incentive funds", we note that this will only be possible if the administrator of the program actually has funding on hand before applications are approved. This will depend on the Commission's own disbursement and accounting procedures, so we would ask you to look into the reasonableness of this further.

II. Comments on M/HD ZE Blueprint Grant

CALSTART has been advocating for the Commission to assist fleets with "planning assistance grants" for some time and therefore we were very happy to see the CEC Staff propose a solicitation concept for planning blueprints. Helping fleets with planning is paramount to allowing them to access the hundreds of millions of dollars of IOU make-ready assistance, which either requires or encourages fleets to have long-term plans for converting to zero-emission-vehicles.[1] Early learnings from utility programs demonstrate that there can be a loss of time, facilities, and money if fleets only plan short-term for a handful of vehicles., rather than developing a site plan that allows for their fleet to grow.

From reviewing the CEC Staff proposal however, the desired focus and outcome of these blueprints envisioned under this proposal is still unclear. Is the CEC envisioning these grants to fund plans at a community or regional scale that would encompass many fleets/ entities in the planning? Or is the Commission staff envisioning supporting individual fleets to develop either local or state-wide planning blueprints? The proposal's description of the goals is as follows: "[t]hese planning "blueprints" will identify actions and milestones needed for implementation of MD/HD ZEV electric vehicle (EV) charging or hydrogen refueling infrastructure. Funds provided through this proposed solicitation will challenge project teams to accelerate the deployment of MD/HD ZEVs and ZEV infrastructure with a holistic and futuristic view of regional transportation planning. Blueprints may include a regional focus on connecting corridors." This statement implies that this effort is similar to the Energy Commission's previous efforts to fund EV-ready community blueprints, primarily focused on light-duty vehicles. While that may be a valuable exercise, if that is the goal, we suggest that funding come from the broader CTP pool, and not those funds designated to support MHDVs.

We would encourage CEC Staff to break these into two separate concepts: one for community blueprints, and one for MHDV fleet planning assistance grants/ planning blueprints. Also, because these

[1] PG&Es make-ready program requires fleets to sign a 5 year commitment to purchase a significant number of vehicles before their projects can begin.

planning grants will be relatively small awards, and because it may be most valuable to have a technical 3rd party organization assist awardees with getting started, we recommend combining the planning blueprints with the MHDV block grants, as discussed above.

If the commission is focused on community/regional blueprints, then, it should ensure that the grant recipients take input from private commercial fleets, so that their needs and plans are accounted for in these community/ regional blueprints. We wish to point out that commercial and public fleets are generally not the same types of entities concerned with regional transportation planning. That is generally the role of Regional Transportation Organizations (RTOs), that plan for large and mega-regions like the Bay Area, Los Angeles, as well as smaller cities/ regions like Fresno. Therefore, CALSTART suggests that this solicitation should more clearly focus on serving the purpose of helping both public and private MHDV fleets to plan for the adoption of ZEVs, and leave regional planning efforts to a completely different solicitation. MHDVs might be *part of* a regional planning effort, but would only be one part, alongside LDVs and off-road vehicles/ equipment, and therefore, that solicitation should be funded from a completely separate pool of funds and not those set aside for MHDVs.

Regarding the proposed funding amounts: CALSTART's experience suggests that $150k is sufficient to support a medium-large sized fleet with infrastructure planning, and therefore the proposed funding amount of $3 million could support approximately 20 medium-large fleets. Smaller commercial fleets who are planning for fewer vehicles may need less than $150,000, but obviously this amount depends on how much detail is built into the blueprint.

However, we have found that the immediate need for planning assistance is likely far greater than 20 fleets, so $3 million is likely insufficient to meet the present demand, as funds for this express purpose have never been made available before. We urge the Commission to look for additional funds to support the enormity of fleets with infrastructure planning needs. There are, for example, hundreds of transit agencies in California alone, all of whom are regulated by CARB under the innovative clean transit rule, and so the majority of whom may need assistance developing infrastructure plans to support zero-emission buses. Airport shuttle companies are also under an ambitious CARB regulatory timeline and so may need immediate assistance with planning grants.

We encourage CEC Staff to differentiate the grants with categories of applicants: public vs. private fleets and large vs. small fleets. We think it would be important to develop different tranches of funding

under this solicitation, and would suggest they be broken down at a minimum for example by, large fleets (greater than 50 vehicles) vs. medium (between 25-50) and small fleets (fewer than 25 vehicles)

CALSTART also observes that there is a great need for large fleets in particular to consider up-front which type of ZEV might best fit their drive cycles (ie, deciding between battery and fuel-cell electric vehicles). We encourage CEC Staff to make fuel choice an allowable use of planning assistance/ blueprint grant funds. Fleets should be permitted to use this planning assistance to make the primary decision of whether their fleet should make use of all battery or fuel-cell electric vehicles, or whether a mix of vehicle types may best serve their needs.

We recommend that the Commission consider having a 3rd party administrator for this program to improve the efficiency of administrative costs and to provide technical expertise to applicants. It would be much more efficient for a 3rd party to manage distribution of blueprint/technical assistance grants because the administrator could be chosen who has direct experience supporting fleets with infrastructure planning and can therefore help guide fleets in choosing how to spend funds, even using a a blueprint/technical assessment template to help guide multiple fleets with infrastructure planning, leveraging available funds in the best way possible to make them go further. An administrator could also ensure that awardees have qualified consulting resources available to support them. Finally, with such small grant amounts it is *critical* that overhead costs be as low as possible.

CALSTART wishes to clarify that while we think planning grants are a critical need, completion of, or inclusion of a project in a specific"blueprint grant" should not in any way be an eligibility requirement for infrastructure incentive funds. Fleets are in many different places with regard to their planning, some are very far along and really just need incentive dollars ASAP. As stated above, community planning grants may not be well positioned to address fleet needs.

<u>Eligibility Criteria:</u>

We observe that some of the project eligibility criteria proposed by CEC Staff seem to go beyond what is truly necessary to support a fleet and they seem overly restrictive and detailed for the types of applicants to this program. We highly encourage CEC Staff to simplify the criteria so that many different types of public and private fleets and entities can apply for these funds, and not only those entities that previously received blueprint funding. We also discourage CEC Staff from requiring blueprints to

identify overly specific locations, as this is unnecessary, entities receiving these funds will, in reality, need flexibility to respond to changing demands and changing needs.

On the issue of technical criteria, and including "Project collaboration and coordination with an existing ZEV readiness plan or blueprint" - this may cause confusion unless it is the same region/organization. This scoring criteria seems to favor regions that have already completed a blueprint, and regions/ communities that have not yet developed a blueprint will have a more challenging time responding to this. This may unintentionally disclude those fleets or communities that have the greatest need for planning assistance.

CALSTART again congratulates CEC Staff and sincerely appreciates you considering our comments on these proposed solicitations, and looks forward to discussing them with you in the near future.

Sincerely,

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