

DOCKETED

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RFI response to loan support

Additional submitted attachment is included below.

1. What vehicle segments, vocations, and/or locations of the medium- and heavy-duty clean transportation infrastructure system are most amenable to a loan program at this time? Additionally, what portions of infrastructure are most amendable (e.g. in front of the meter, behind the meter, EVSE, transformers, etc.)? What evidence exists to substantiate these claims?

The FCEV heavy-duty sector would likely be the most amenable given the lack of HRI credit incentives and the strong need for deep decarbonization.

We suggest a two-pronged approach:

- *Solve for the acquisition of FCEV vehicles by providing owner operators financial flexibility (through low interest rate loans or additional purchase incentives) would accelerate technology adoption.*
- *Create a pathway for vetted technology providers for*
 - 1) *Easier refueling infrastructure development through guaranteed (or supported) land partnerships with existing stations, and*
 - 2) *Repurposing of older/soon to be outdated refueling infrastructure (LNG/CNG/Diesel) into hydrogen refueling stations.*

Note: Additional support could be through additional funding pathways, similar to DOE Title XII guaranteed loans.

Evidence to substantiate these claims has been demonstrated anecdotally from drayage owners, such as TTSI, who has pioneered FCEV testing for the past several years, citing the need for refueling infrastructure as critical.

The Port of Long Beach alone estimates a requirement of approximately 22,000 trucks. If only half of these were to convert to FCEV, the need would still be hundreds of thousands of kilograms per day of supply. As of today – no public refueling infrastructure is available for Heavy Duty FCEVs. With companies like Nikola planning mass heavy duty FCEV rollouts by 2023, the need for heavy duty refueling is at a critical stage and can only be achieved at the necessary pace with public support.

FCEV refueling has a significant advantage over BEV given the refueling time and range, which is similar to modern day diesel trucks.

2. What examples of successful loan programs can you cite, ideally in transportation infrastructure in other geographies, or as a second-best example, in other sectors? What are the key features of these programs that CEC should look to replicate?

The POLB 2008 Clean Truck Program is a demonstrated example of public capital driving clean(er) truck adoption and reducing truck emissions by 90% through new truck acquisitions by companies/owner operators. This reference demonstrates the willingness of owners to adopt newer technologies, yet capital support is needed.

Key features the CEC should investigate driving FCEV truck adoption (like the Clean Truck Program) through financial support for companies and owner operators, however, these must be extended to infrastructure developers, include a pathway for repurposing of current, soon to be, obsolete fossil refueling stations (LNG/CNG/Diesel). This will drive an infrastructure transition and help developers streamline R&D efforts between light-duty and heavy-duty vehicles.

3. How should a loan program be structured to deliver maximum effectiveness? What design features matter most to induce private capital participation? How can a loan program work optimally with public programs like the LCFS, the Renewable Fuel Standard and others of relevance? In particular, how can a loan program be structured to work alongside grant programs run by the state and other entities?

A CEC loan program should be supportive of infrastructure development and favor efficient technologies supporting cost favorability, help subsidize construction, favor carbon capture (or neutrality), subsidize feedstock cost and network deployment, including dollars for operational expenditure, maintenance and an off-set for warranty allocations.

An approach similar to the DOE's Title XVII loan guarantee/grants, California Competes Credits, or other vetting processes would be ideal. The process can be a multiple step approach from ideation, to validation, and due diligence.

4. In which instances and under what program designs would you prefer a loan over a grant? Would reduced reporting requirements or a streamlined application process cause you to prefer a loan over a grant?

Deployment of infrastructure should be through funded loans/loan guarantees. A solicitation similar to DOE's Title XVII guarantees would synergize application requests.

Grants should be specific to unique technology (example, revolutionary hydrogen production) still being developed and researched. Some grants for deployment of infrastructure in critical locations (such as POLB or POLA) would accelerate infrastructure deployment and alleviate large capital costs.

Yes, reduced reporting requirements would cause us to prefer a loan over a grant, but such reduced reporting requirements would benefit the adoption of both loans and grants.

5. How can a loan program reach priority populations, including both by directly providing capital to these populations, and by ensuring that resulting infrastructure projects deliver meaningful benefits?

A solicitation/application process should be intensive during the due diligence process and be carried out by functional experts (engineering, administration, finance) to properly vet qualified candidates.

6. What Evaluation, Management and Validation (EM&V) framework should be used to evaluate the success of a loan program? Can you identify examples of EM&V frameworks that have been employed in other public loan programs?

DOE Title XVII loan guarantees provide a great example of validation through due diligence.

7. Are there any other thoughts or recommendations that you would like us to consider?

Infrastructure deployment is the single most important aspect that will drive adoption of FCEV vehicles. Few trucking businesses are willing to replace fleets with FCEV as refueling stations in critical locations are non-existent.

We strongly believe the CNG stations which were deployed at an impressive rate could be repurposed into hydrogen refueling stations, yet public support is critical to creating this pathway.