

**DOCKETED**

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## **Nikola Responses to RFI on MDHD Loan Program**

*Additional submitted attachment is included below.*

## CALIFORNIA ENERGY COMMISSION – REQUEST FOR INFORMATION

Date for Comments Due October 1, 2021

### ***MEDIUM- AND HEAVY-DUTY ZEV CHARGING AND REFUELING INFRASTRUCTURE POTENTIAL LOAN PROGRAM***

The California Energy Commission (“CEC”) is accepting public comments under this RFI to inform staff of the current state of the MDHD ZEV infrastructure market and establish if there is a demand for a loan program in this area. The RFI seeks feedback on the following questions regarding MDHD ZEV infrastructure and demand:

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?

#### **Nikola Corporation Response:**

##### **Context**

Current market alternatives to traditional diesel MDHD vehicles include A) battery-electric vehicles (“BEV”s) and B) hydrogen fuel-cell vehicles (“FCEV”s). As an OEM of both zero-emission alternatives, Nikola has collected live feedback from its customers on key adoption pain points.

Given BEVs are primarily used as day cabs for short-to-medium haul needs within inner cities and ports, DC fast charging infrastructure is often bought on a per truck basis and installed onsite at each customer’s transportation and shipping facility location.

On the other hand, FCEVs are purchased as zero-emission alternatives to traditional diesel sleepers, required to travel 500 to 900 miles per refueling and across various geographies. As a result, FCEV refueling infrastructure is requisite in a similar fashion to diesel gas stations: along the dedicated routes of truck fleets and at cost parity to diesel on a per mile basis.

##### **Recommendation**

Nikola believes that The California Energy Commission can effectively accelerate the adoption of BEVs by providing one-time grants rewards to fleet owners buying DC fast charging infrastructure for its Class 8 fleets.

For FCEV adopters, Nikola recommends a loan program for the development of hydrogen production, distribution, and dispensing projects.

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?

#### **Nikola Corporation Response:**

By keeping requirements for its loan applications broad, The Department of Energy’s Loan Program’s Office has found success both receiving applications and successfully funding innovative projects within energy, innovative vehicle manufacturing and infrastructure.

Examples of replicable loan structures include but are not limited to the following:

- Direct loans (Program funds are used to make a loan directly to the equipment owner).
- Loan guarantees (Program funds are used to create a loan loss reserve to guarantee a loan made by a lender).
- Loan or interest rate subsidies (Program funds are used to buy down the interest rate).
- Lease-to-own (Program funds are used to subsidize a leasing program where the lessee takes ownership of the vehicle/equipment at the end of the lease).

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?

**Nikola Corporation Response:**

Nikola believes that an infrastructure loan program will be most effective if specifically tailored to the development of FCEV refueling stations, which has been historically the most underfunded category across the hydrogen value chain<sup>1</sup>. To attract the participation of private capital, the California Energy Commission can provide dollar-for-dollar incentives for the creation of hydrogen refueling stations. While LCFS credits increase the return of dispensing hydrogen over the life of the asset, upfront capital assistance for the actual construction of a station will amplify the quantity of new projects undertaken.

While grants are often delayed, can run out of funding, and are typically smaller in value, loans provide for a more consistent, larger funding opportunity to early developers of hydrogen infrastructure.

To incentivize the participation of outside private capital, the CEC could also decide to give lien priority to those outside participants, thus inducing joint private/public capital investment into projects.

Currently, Nikola plans to invest roughly \$100 million in the development of 10 hydrogen stations within close vicinity to major California interstates. If the CEC provided loan assistance for just 20% of each project, Nikola could create two additional hydrogen stations during the same timeframe, which would likely increase the potential for adoption due to greater availability of refueling stations.

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?

**Nikola Corporation Response:**

- Larger funding amounts, and a more certain supply of funds offered by a loan program would be preferred over a grant, and larger funding amounts can be used to achieve change at scale, resulting in a more transformative outcome.
- The loan program application process must be competitive to traditional lending in terms of overall funding timeline start-to-finish, ongoing reporting requirements, etc.
- The loan program should not contain terms or conditions that would deter or disqualify other sources of private financing (the more funding opportunities for clean energy projects the better).
- The CEC should consider creative repayment terms which could increase financial viability of certain high-priority, clean energy projects (such as no payback, reduced payback, and repayment terms tied to profitability, longer loan terms, option to defer interest, etc.).

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<sup>1</sup> How Hydrogen Will Help Industrials Meet Decarbonization Goals And Leave Fossil Fuels Behind - CB Insights Research, 2021

- The loan program should streamline the application process to ensure a quick turnaround.
  - A loan program should accept applications on a rolling basis. Given the timing constraints of grant programs, securing a loan at any time may be preferred to allow for more flexible and rapid deployment of infrastructure.
- Fees, burdensome information collection, supplemental documentation, and criteria found in grant or other loan programs should be reduced or eliminated such as firm contracts, economic and project studies, data sharing, reporting requirements, match sharing, and emissions quantification.
  - By requiring the potential borrower to have all this information (firm contracts, etc.) in hand before funding, often potential applicants are better off seeking traditional financing as the funding process through traditional lenders is more streamlined.
- Due to timing differences and programmatic restrictions, opportunities to stack funding sources are available, but limited. A loan program that allows stacking opportunities with federal, state, and local funding mechanisms would be preferred over a grant.

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?

**Nikola Corporation Response:**

- The loan program should identify priority populations and target geographic locations consistent with the State's efforts to ensure low-income communities, disadvantaged communities, and burdened communities selected through AB 617 benefit from infrastructure investments.
  - The CEC and loan program should overlay data provided by the CalEnviro Screen mapping tool with existing and planned MDHD infrastructure projects, along with cargo routes and freight flow data to guide infrastructure siting and project development.
  - This information should be publicly available and shared with applicants.
  - The loan program should consider allocating a certain percentage of funding to these communities AND the loan program could prioritize opportunities within these communities.
- The loan program should provide participating lenders with loan-loss protections to encourage financing of infrastructure and offer rebates to small business borrowers when they pay off their loans.
- The loan program should include a cap on the interest rate.
- CEC should have the authority/discretion to approve the structure and conditions of any proposed loan project to provide increased and tailored assistance to projects that would benefit priority populations.

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?

**Nikola Corporation Response:**

- The CEC should aim to measure the success of the loan program by:
  - The amount of funding deployed.
  - Measure of the actual activity that the loan program was meant to stimulate.
  - How many clean energy projects of this type were there prior to the loan program?
  - How many are there after loan programs funds are exhausted?
  - What % of new projects received some level of loan funding from the program?

- Compared to other jurisdictions that do not have a similar loan program in place, how many clean energy projects have been implemented?
- Can we be reasonably certain based on the metrics above that this loan program served its purpose?
- Based on the results, should we continue the program or can/will private market investors be able to sustain the level of activity desired going forward?
- How does the impact of this loan program compare to the impact of existing grant programs for MDHD infrastructure and a “no loan program” alternative scenario.
- After closing, the loan program should use reasonable monitoring tools, including milestones and benchmarks to manage the risk that it assumes and assess the project’s benefits.

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

**Nikola Corporation Response:**

- Any government funding program should aim to kickstart and scale infrastructure across California to assist the ZEV industry to rapidly 1) lower the total cost of ownership, 2) achieve diesel parity, and 3) reach a point of self-sufficiency.
- Government programs should give preference to projects that have well thought-out business plans. In particular, plans that have considerations throughout the hydrogen value chain and address the challenge of matching supply with demand. Funding programs that promote stations with no hydrogen supply model or that support hydrogen hubs with no “line of sight” for supply will not generate the momentum that the hydrogen economy needs. Programs should look for proposals that are very close to “turning the corner” to profitability and where funding will generate the inertia to propel the industry.
- Government programs should also put the onus on applicants to outline and quantify in detail the benefits to the environment from “cradle to grave” of their application.
- The federal government’s role in transforming solar, wind, and geothermal technologies can serve as a model for the State as it considers financing assistance for MDHD transportation infrastructure.
  - Take risks on technologies that could have big payoffs.
  - By the end of President Obama’s Administration, the Department of Energy’s loan guarantee program had taken in \$30 million more in interest payments than it had lost from defaults.