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# Nikola Corporation Comments - Medium- and Heavy-Duty Zero-Emission Vehicles and Infrastructure

Additional submitted attachment is included below.



April 16, 2020

California Energy Commission 1516 Ninth Street Sacramento, CA 95814 Docket #: 19-TRAN-02 Project Title: Medium- and Heavy-Duty Zero-Emission Vehicles and Infrastructure

#### **Nikola Corporation Comments**

## Company Background

Nikola Corporation is globally transforming the transportation industry. As a designer and manufacturer of battery-electric (BEV) and hydrogen-electric vehicles (FCEV), electric vehicle drivetrains, vehicle components, energy storage systems, and hydrogen stations, Nikola is driven to revolutionize the economic and environmental impact of commerce as we know it today. Committed to a clean transportation future, from energy creation to energy consumption, Nikola is developing a robust U.S. and European footprint leveraging key strategic industry partnerships such as IVECO, Bosch, Hanwha, Ryder, Nel and others. The company's vision is to be the zero emissions commercial transportation system leader. Nikola is the only company offering both BEV and FCEV solutions; addressing both short-haul and long-haul markets for commercial fleets.

In 2019, the company unveiled its zero-emission vehicle future, showcasing five zero-emission products, including: the Nikola Tre, a cabover battery electric truck; the Nikola WAV, a new class of electric personal watercraft; the Nikola Two, a purpose built hydrogen fuel cell Class 8 truck for longer range driving; and off-road vehicles including the Nikola Reckless and Nikola NZT. Most recently, the company announced its plans to build the world's first hybrid hydrogen and battery-powered pickup truck, the Nikola Badger.

Nikola's fleet customers have expressed high interest in production timeline efforts as the company prepares to bring the nation's most advanced zero emission semi-trucks to market. With an anticipated groundbreaking for its manufacturing facility in Coolidge, Arizona in 2020, Nikola plans start of production in 2021 and ramping up to building 35,000 trucks per year by 2023. With more than \$10 billion (14,000 trucks) in pre-order leases to date, Nikola's business model uniquely supplies both the truck and fueling infrastructure, solving the fleets' concerns of where to refuel and in the case of hydrogen - with green hydrogen - at competitive pricing to diesel. The company plans to accompany its vehicle deployment with building 700 fueling and charging stations across North America to support its freight network.



## Customers and Demand

Among the 14,000 trucks pre-ordered, Nikola has secured a large launch fleet customer in Anheuser Busch who has submitted an order for 800 zero emission trucks. These zero emission fleet vehicles will be utilized to transport Anheuser Busch product to and from their facilities throughout the state of California as well as 12 breweries and 6 distribution centers across the U.S. Nikola is currently exploring building a 8-ton hydrogen station near the Anheuser-Busch brewery in Van Nuys, CA to support some of these vehicles operating out of the LA Basin region. Incentives such as the California Energy Commission's infrastructure block grant funding to install zero emission charging and hydrogen infrastructure will greatly assist enabling early market adoption and expand the rate of fleet transitions for companies like Anheuser Busch across California.

## Additional Comments for Block Grant Solicitation and Blueprint Solicitation

#### Medium and Heavy-Duty Zero Emission Block Grant

- Funding needs to be associated with a formal program that is continuously funded over a multi-year period to support medium and heavy-duty zero emission infrastructure deployment. Technologies for infrastructure are an area of continuous improvement and efficiency impacting cost. Funding such as the block grant will be extremely helpful to address this as new zero emission technologies and efficiencies are introduced to the marketplace.
- The current amount identified of \$50 million can be deployed very quickly. Nikola customers are indicating great interest in our vehicles and this list is growing across California and the country.
- There are many layers of users for the supporting infrastructure and how it will be utilized. Fleet users should have the ability to access incentives for both technical assistance and infrastructure deployment.
- Would encourage connecting funding from Blueprint grant with this grant to expand reach and impact of investment (consider including funding from Blueprint grant with Block grant to stretch dollars and help meet current demand)
- Important to understand the duty cycles of the vehicles and maximize the vehicle to charging and fueling equipment infrastructure again by including Blueprint dollars in combination with the infrastructure effort would make very good sense to be better stewards of the funding.
- The program is assured to be available statewide and is designed to administer incentives for charging hardware and software costs and hydrogen infrastructure. In the case of hydrogen infrastructure, would encourage a recognition and an additional credit or incentive for those who investing in infrastructure that produces onsite generation for their fleets.
- Deep connection to HVIP and other M/HD ZE deployment efforts-potential priority for vehicles w/ pending vouchers and fleets operating in high pollution zones.



- Develop incentive structure to evaluate the charging/fueling technology for a specific vehicle class and fleet size.
- Stackable able to be combined with other funding sources to stretch public resources
- Flexibility to support future expansion/build out plans
- Encourage infrastructure projects proposed to include information for means of expanding upon that request as part of a wholistic ecosystem of service and operations especially as way to get access to "forward funding" for expanding upon initial resources.
- Allocation of funding resources for battery electric versus hydrogen should consider equity as well as application use of the infrastructure for short versus long-haul fleet needs and goals in concert with appropriate planning.

# M/HD ZE Blueprint Grant

- Recommend combining with block grant to allow for an expedient and efficient way to
  provide access to technical assistance resources for planning of infrastructure for firms like
  Nikola directly working with customers to appropriately deploy supporting infrastructure for
  fleets.
- Additional funding is needed to support different classes of fleets with infrastructure planning needs and also consider alignment with CARB's Heavy-Duty Investment Strategy.
- Planning assistance should allow a fleet to best determine appropriate zero fuel choice depending on how and where that fleet will operate.
- There should be consideration of an administrator to manage distribution of blueprint/technical assistance grants that have experience supporting fleets with infrastructure planning working in concert with a number of stakeholders representative of different fleet use cases.