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Navistar Comments on CA NEVI

Attached is Navistar's comment letter on the California NEVI Plan.

Additional submitted attachment is included below.

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Ms. Barbara Valentine
Zero-Emission Vehicle Hub Manager
Director's Office of Sustainability
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Submitted electronically to: www.efile.energy.ca.gov

RE: California's Deployment Plan for the National Electric Vehicle Infrastructure (NEVI) Program (Docket No. 22-EVI-04)

Thank you for the opportunity to comment on the draft of California's Deployment Plan for the National Electric Vehicle Infrastructure (NEVI) Program (NEVI Plan). Navistar would first like to commend the California Energy Commission (CEC) and California Department of Transportation (CalTrans) on the work done to date on developing the NEVI Plan and the robust stakeholder engagement process. Each state NEVI Plan will be crucial in implementing the $5 billion to be administered by the United States Department of Transportation over the next five years.

Navistar, Inc. (Navistar) is a leading commercial vehicle manufacturer that sells International® brand Class 4-8 commercial trucks, IC Bus® (IC) brand school and commercial buses, proprietary diesel engines, and parts for trucks and engines. The company is based in Lisle, Illinois and has more than 14,000employees worldwide in its headquarters, technical design centers, manufacturing and parts distributions facilities. In addition to conventional trucks and buses, Navistar is investing significant capital resources zero emission technology via battery electric and hydrogen fuel cell. Currently, Navistar is delivering battery electric IC Bus school buses and International eMV series medium-duty trucks to customers. Navistar supports the transition to a zero-emission transportation future. However, to be successful in deploying zero emission commercial trucks, charging and refueling infrastructure needs to be in place to support these vehicles.

California has long been a leader in zero emission transportation. The state has invested heavily in the development and deployment of electric trucks as well as the buildout of the charging network. The state has set aggressive policies to reach 100% zero-emission medium- and heavy-duty vehicles by 2045 and by 2035 for drayage trucks. Additionally, the state has passed the Advanced Clean Truck Regulation, which requires increasing percentage sales of electric trucks beginning 2024 and is developing the Advanced Clean Fleets Regulation which would require fleets to turnover trucks to zero emissions beginning 2024.

One of the main drivers behind the goals and regulations is air quality. California has two of the worst regions of air quality in the nation as both the South Coast Air Basin and the San Joaquin Valley are designated as extreme nonattainment for Ozone and PM 2.5. The air quality plans of both regions rely heavily on the turnover of older existing trucks to reach attainment with the U.S. Environmental Protection Agency. Without a built-out charging infrastructure, emission reductions from trucks will not be realized. The ultimate success in transitioning to zero emission trucks hinges

on the deployment of infrastructure, specifically public charging along transportation corridors. California understands this key enabler and has committed $690 million to the California Electric Commission (CEC) over three years to implement infrastructure for commercial vehicles. Navistar appreciates the references to commercial vehicle charging in the NEVI Plan; however, actions are largely deferred to be assessed in future years. With regulatory requirements for zero emission trucks beginning 2024, the state must act with urgency to build out infrastructure to support the deployment of trucks. It is imperative that the deployment of commercial vehicle infrastructure exceeds the pace trucks are deployed per regulations.

California Air Resources Board (CARB) staff forecasts that there will be a total of approximately 36,700 Class 4 through 8 vocational trucks and Class 7 and 8 tractors in 2026. Using a ratio of 0.87 chargers per truck[1] from the AB 2127 Electric Vehicle Charging Infrastructure Assessment prepared by the CEC, this would require approximately 31,900 medium- and heavy-duty vehicle chargers throughout the state by 2026. The state is woefully behind in deploying this many chargers and should look at this issue with a sense of urgency as 2026 is only three and a half years away. Additionally, there are significant supply chain delays for transmission and distribution components. Therefore, it is even more critical to begin procurement and construction as soon as possible.

While the NEVI Formula Program guidance is primarily focused on passenger vehicles, it also allows states to consider future EV needs including the needs of medium and heavy-duty vehicle use. We encourage the state to use this opportunity to build out commercial vehicle charging network concurrently with passenger vehicles as higher capacity commercial vehicle charging would also charge passenger vehicles. The state should also use this opportunity to commit to definitive near-term actions to commit NEVI funds for commercial vehicle charging.

Charging technologies for passenger and commercial vehicles are similar, however, there are many nuances and details that differ. Because of these differences, a charging network throughout a corridor built for passenger vehicles cannot simply be upfitted or scaled to accommodate commercial vehicles without thoughtful planning for a number of reasons.

Site Power Requirements

Commercial vehicles have much larger batteries than passenger vehicles and need significantly more power at sites. The draft NEVI Plan has a minimum power requirement of 600 kilowatts (kw). Commercial vehicles require much more power. As a comparison, utility companies on the west coast conducted a study that found that a charging facility suited for medium and heavy-duty trucks would have a peak load of 23 megawatts (MW). This type of load would require utility upgrades including transmission, distribution, substations, etc. Utility upgrades should be included in the NEVI buildout so that upgrades do not have to occur multiple times.

Charging requirements

Commercial vehicles have much higher charging requirements than passenger cars and typically require a minimum 350 kw per charger for non-depot charging. Fast charging for heavy-duty trucks is expected to require at least 1MW. Sites need to be planned for this level of charging. Additionally, the locations of chargers that 350kw or higher should be placed in corridors known to have higher volumes of medium-duty truck traffic. There are over 300,000 medium-duty trucks operating in the state that drive over 14 million vehicles miles within the

[1] The AB 2127 Electric Vehicle Charging Infrastructure Assessment forecasts that 157,000 chargers will be needed to serve 180,000 trucks, a ratio of 0.87 chargers per truck.

state annually. Electric medium-duty trucks are commercially available today and efforts should be made to build out public infrastructure to support deployment.

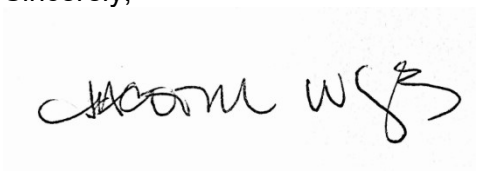
Physical Constraints
Charging sites will require different physical configurations than traditional fueling stations. Charging sites may resemble parking lots more than drive through lanes of existing gas stations. Commercial vehicles will have larger space requirements, particularly tractor-trailer configurations that can be up to 65 feet long. This will impact the size of each charging stall as well as the turning radii and ingress/egress requirements. Locations should have enough space to expand to serve commercial vehicles in the future.

Piecemealing passenger and commercial vehicle charging would essentially require California to work within corridors multiple times, which is an inefficient use of resources. Instead, investments into passenger and commercial vehicle charging should be done concurrently. Commercial vehicle charging can be extremely expensive (up to $20 million per station, not including utility Infrastructure[2]) and therefore leveraging work done for passenger vehicles would make economic sense. Additionally, a study prepared by the West Coast Clean Transit Corridor Initiative recommended 50-mile increments for medium- and heavy-duty charging stations, which is consistent with what is required under the NEVI Program. This can also be leveraged to maximize investment. While the buildout of passenger vehicle charging could potentially occur first, the corridor should be future proofed for the ultimate buildout of commercial vehicle charging.

We hope that the NEVI Plan and the state's future efforts towards transportation electrification include commercial vehicles. We think that commercial vehicles will follow shortly after passenger vehicles and it would be prudent to plan and be ready for the transition.

Thank you again for the opportunity to comment and we look forward to working with the CEC and Caltrans on finalizing the NEVI Plan.

Sincerely,



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[2] I 5 Corridor Final Report, West Coast Clean Transit Corridor Initiative, 2020.