December 9, 2019

Clerk of the Board
California Air Resources Board
1001 I Street
Sacramento CA 95812

Submitted Electronically: http://www.arb.ca.gov/lispub/comm/bclist.php

RE: Proposed Advanced Clean Trucks Regulation

Dear Chair Nichols and Members of the Board:

The California Trucking Association (CTA) would like to thank you for the opportunity to comment on the proposed Advanced Clean Trucks Regulation.

Manufacturer Requirements

At the highest level, the CTA has supported your staff's efforts to develop a reasonable manufacturing standard for electric-drive capable commercial vehicles. CTA members are actively participating in the development, piloting and demonstration of alternative fuel and electric-drive capable vehicles. In fact, some member fleets have been working to bring electric-drive vehicles to market for nearly ten years. To date, these members have enjoyed productive discussions with staff regarding the challenges they have faced in deploying these vehicles.

Make no mistake, the proposed sales mandates are extremely ambitious. CARB estimates that electric and plug-in hybrid electric cars made up 7.8% of new light duty sales in 2018[1]. Achieving up to 50% of Class 4-8 vocational and 15% Class 2b-3/Class 7-8 tractors new sales as electric-drive capable by 2030 would require technology to advance at a pace we have not seen in the light duty market, where such vehicles have already been commercialized and whose performance expectations are dramatically lower.

Therefore, we urge CARB and the manufacturers to continue to work together to ensure that the manufacture requirements in the proposed Advanced Clean Trucks Regulation harmonize with CARB and EPA's holistic strategy for heavy duty trucks, create incentives for major manufacturers to commercialize and fully support electric-drive capable vehicles and ultimately drives these technologies to full maturity.

[1] https://ww2.arb.ca.gov/news/sales-electric-cars-breaking-records-california

Large Entity Reporting

We would like to first support the coalition comments on the Large Entity Reporting requirement submitted by the California Chamber of Commerce and state that we share their concerns especially pertaining to the need for additional streamlining and clarity surrounding enforcement.

In addition, the Board should recognize the ancillary challenges associated with this rulemaking and make efforts to overcome and/or minimize these challenges, including:

- The likelihood of a low response rate for reporting;
- Additional purchase costs which can more than double the cost of new vehicles;
- At least $8.1 billion of additional infrastructure deployment needs;
- A steep learning curve for service and support;
- A secondary market which has not been developed; and
- Concerns about range, reliability and acceptance.

CTA member companies are in the initial stages of evaluating and understanding the role electric trucks may play in their businesses. To date, the availability of electric trucks has been limited. For example, in its 10 years of operation, HVIP has issued 1,777 vouchers for battery electric trucks (class 2b-8). Only 461 (26%) of these trucks have been delivered as of the recent release of the AQIP report.[2] Despite this limited experience, the industry recognizes many of the challenges that have recently been identified in the Board's Heavy-Duty Investment Strategy. These challenges extend well beyond the sales focus of the Advanced Clean Truck rulemaking and will require additional actions to advance the electric truck market to the levels envisioned by the state. These challenges, as noted in the Investment Plan, include:

Purchase Cost

Perhaps the most recognized barrier to the deployment of advanced technology vehicles is their higher cost compared to their conventional counterparts. For novel, more complicated, or lower volume vehicles, the incremental cost can be even more exaggerated. The cost to purchase and deploy an advanced technology vehicle is greater than just the incremental cost. Fleets pay increased sales tax on a more expensive vehicle and face other costs associated with new technologies, such as training and adapting to new maintenance procedures. In some cases, as shown in Table 2 which illustrates the average voucher cost for battery-electric trucks for FY

[2] California Air Resources Board, *Proposed Fiscal Year 2019-20 Funding Plan for Clean Transportation Incentives For Low Carbon Transportation Investments and the Air Quality Improvement Program,* p. D-68 (September 20, 2019).

2019-2020 for HVIP, incentives to offset the additional purchase cost can more than double the cost of a vehicle.

Table 2. HVIP (FY 19-20) Average Incentive Cost[3]

Vehicle Class	Supported Technology	Cost per Technology
Medium Heavy-Duty	Battery Electric	$90,000
Heavy Heavy-Duty		$150,000

Infrastructure

The high costs of infrastructure is an important barrier — particularly for zero-emission technologies — and the cost of hydrogen and electricity. Fleets face uncertainty on charging connection standards, which complicates deployment timing and future fleet expansion. Scaling infrastructure raises more problems with available space and the extensive subterranean work required. Once infrastructure is in, fleets in many parts of the state have uncertain electricity costs and fuel cell fleets are forced to absorb very high hydrogen costs.

CARB's analysis of the value of the infrastructure needed to support the commercial vehicles deployed with HVIP incentives is presented in Table 3. Extrapolating the average cost per vehicle ($34,904) from this analysis to the more than 232,000 zero-emission vehicles expected to be operating on California roadways by 2040 as a result of the ACT regulation equates to nearly $8.1 billion of additional infrastructure deployment needs.[4] It is not unlikely that this figure will ultimately be much higher as the cited cost estimates tend to be from smaller scale, more cost-effective projects not requiring significant upstream or on-site changes (e.g. on-site storage or back-up generation).

[3] Ibid, p. A-34.

[4] California Air Resources Board, *Public Hearing to Consider the Proposed Advanced Clean Trucks Regulation Staff Report: Initial Statement of Reasons, Appendix F: Emissions Inventory Methods and Results for the Proposed Advanced Clean Trucks Regulation*, p. 7 (October 22, 2019).

Table 3. HVIP-Associated Infrastructure Valuation[5]

Vehicle (Class)	Technology	# Vouchers Issued	Average Cost per Vehicle for Infrastructure[a]	Estimated Value of Infrastructure Needed
Truck (2B – 3)	Battery Electric	111	$25,000[b]	$2,775,000
Truck (4 - 5)		1,278	$25,000[b]	$31,950,000
Truck (6 -7)		256	$52,500[c]	$13,400,000
Truck (8)		132	$105,000[d]	$13,860,000
Totals		1,777		$61,985,000

[a] Includes charger/equipment, installation, construction, and utility upgrades.
[b] Pacific Gas & Electric. A.17-01-020 Electric Vehicle Infrastructure and Education Senate Bill 350 Transportation Electrification Program Application Prepared Testimony.
[c] Class 6-7 trucks are assumed to use the same infrastructure as a class 8 truck but would be able to share the charger with another class 6-7 truck; as a result, their infrastructure costs are half that of a class 8 truck.
[d] CARB. Innovative Clean Transit Rulemaking, Initial Statement of Reasons. Charging needs for class 8 are assumed to be similar to those for transit bus.

Furthermore, the trucking industry has a well-established understanding of existing fueling suppliers. Increasing utility interaction as electric-capable vehicles scale to the levels envisioned in the draft ACT rulemaking will result in identification of potential misalignments between utility policy and regulation and fleet operations. Ensuring that the policy discussions occur to work through these issues will be vital to the ultimate success of the ACT.

Service and Support

Beyond deploying vehicles and infrastructure, fleets are tasked with maintaining their vehicles. Advanced technology vehicles present a steep learning curve and fleet managers are finding a dearth of qualified technicians.

Secondary Market

In the trucking space, many companies count on a secondary market to recuperate value from the vehicle. A large portion of the industry counts on these cheaper vehicles

[5] California Air Resources Board, *Proposed Fiscal Year 2019-20 Funding Plan for Clean Transportation Incentives For Low Carbon Transportation Investments and the Air Quality Improvement Program,* p. D-69 (September 20, 2019).

for their operations. Secondary markets are not yet developed for zero-emission trucks.

Range Anxiety, Reliability and Consumer Confidence

Addressing range anxiety, reliability and making users more comfortable with new technology is critical to breaking into new market segments that are generally more hesitant.

The CTA stands ready to help the Board better understand these challenges and work towards solutions that will help advance the development and deployment of electric trucks.

Specific to the proposed regulation order itself, we have several recommendations:

- **Extend the Large Entity Reporting deadline to July 1, 2021**

  The current reporting deadline is unreasonably soon considering the substantial amount of data being requested. Currently, the rule provides only three months – until April 1, 2021 – to gather and report data in existence at the end of calendar year 2020. Rather, feedback from our membership indicates it would take a minimum of six months to gather the data necessary to provide a meaningful report to CARB.

- **CTA Supports the American Trucking Associations' Request to Exclude Class 8 trucks registered with the International Registration Plan from Large Fleet Reporting**

  We support the ATA's request to exclude Class 8 IRP trucks from the reporting requirement for the reasons included in their comments. Excluding these trucks from the reporting requirements will help to reduce the reporting burden and refocus the reporting efforts on vehicles that are more likely candidates for near-term electrification.

- **Procedural aspects of the Large Entity Reporting need to be clarified.**

  The regulation and staff report do not address how notification and enforcement of the Large Entity Reporting will be conducted. A prior reporting rulemaking for cold storage facilities resulted in an estimated response rate of less than 3%.[6,7] More recently, a

[6] California Air Resources Board, *Revised Staff Report: Initial Statement of Reasons for Proposed Rulemaking Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate*, "it is estimated that 2,705 California facilities will be subject to the reporting requirement," p. VIII-12 (October 28, 2003).

[7] California Air Resources Board, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking 2011 Amendments for the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate*, "A total of 80 facilities submitted facility reports." p. B-2 (October 28, 2003).

voluntary effort to collect California truck travel data resulted in a reported response rate of 5%.[8] Given these traditionally low reporting response rates, the agency needs to disclose how large entities, many of which do not currently interact with the Board, will be notified of the new reporting requirements.

The likelihood of a low response rate makes it essential the Board identify how enforcement will be conducted and the level of fines that will be associated with non-reporting and/or misreporting. The reporting requirements have the potential to create compliance disparities among the targeted reporting entities. The Board and affected entities need to understand the extent of enforcement resources that will be devoted to the reporting requirements (and possibly away from actual emissions violations) and how the agency's limited enforcement resources will be impacted.

So we urge the Board to balance flexibility, the need to ensure all entities subject to CARB rules are provided a level playing field, while also considering the Board's limited enforcement staff.

- **Concerns with "busy season" reporting**

Proposed section 2012(3)(b) requests that "for fleets with seasonal workload fluctuations, use a time period in the busy season when answering questions about typical daily operation."

Seasonal fluctuations are common in the goods movement industry and, in some cases, it is impractical to request data collection from such periods. As an example, fleets may supplement their capacity during peak season with short term rentals and seasonal staff and these operational changes may not be easily mined from centralized assets databases or tracking software. Administrative staff may be pulled into operations during these events, making it harder to track such activity.

While we understand the intent to understand how infrastructure may need to be sized to accommodate peak demand, staff may want to explore some flexibility for regulated entities to provide a range of estimated additional activity in the form of a multiplier of "typical" operation.

- **CARB should clarify whether it intends to publish, report on, or otherwise disclose Fleet Reporting data**

While we appreciate the references to the procedures for release of confidential records pursuant to 17 CCR 91000 to 91022, CARB should indicate how, if at all, it intends to publish any data collected in the Large Entity Reporting requirement

[8] Eastern Research Group, Inc., *Heavy-Duty Vehicle Accrual Rates - Final Report*, California Air Resources Board (June 14, 2019).

considered to be confidential. It is of note that, pursuant to 17 CCR 91022(b), CARB is required "upon receipt of a request from a member of the public that the state board disclose data claimed to be confidential or if the state board itself seeks to disclose such data, the state board shall inform the individual designated pursuant to Section 91011 by telephone and by mail that disclosure of the data is sought". Any future disclosure of such data would involve individually contacting potentially tens of thousands of regulated entities.

As written, the Advanced Clean Truck Regulation requires the reporting and disclosure of a significant amount of business confidential and propriety information. Although carriers may designate information as "confidential" under the Public Records Act, this will require substantial effort and cost to defend any requests for public disclosure of data. Accordingly, the categories of reporting data should be re-analyzed for necessity and streamlined. If CARB intends to publish any data, information marked as "confidential" must be redacted by CARB prior to publication or should be limited to trend analysis on an anonymized basis so that no individual company's data would be identifiable.

- **Please clarify whether "yard goats" with off-road engines are to be included in Facility Reporting**

We appreciate the Board's consideration of our requests and the many challenges associated with the deployment of electric-drive capable commercial vehicles. We look forward to continuing to work with CARB staff and the Board as we move through this rulemaking.

Thank You,

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