California Energy Commission
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December 4, 2014

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 14-IEP-1
1516 Ninth Street
Sacramento, CA 95814-5512

RE: California Energy Commission. 2014. *2014 Draft Integrated Energy Policy Report Update*. Publication Number: CEC-100-2014-001-D.

Thank you for the opportunity to comment on the 2014 Draft Integrated Energy Policy Report (IEPR).

The California Trucking Association (CTA) is the nation's largest statewide trade association representing the trucking industry. We are pleased to serve on the Energy Commission's AB118 Advisory Group and to have participated in the 2014 IEPR workshops as a presenter.

Energy Commission staff has, again, produced a draft report of impressive scope and breadth. Please see the attached technical comments on the current draft IEPR.

Thanks again and please feel free to contact me with any questions.

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Page 3	In the San Joaquin Valley and South Coast Air Basins, truck-related NOx emissions are the leading cause of harmful ozone pollution ***and fine particulate matter emissions*** and resulting respiratory disease.

Comment 1

Please provide a citation for the above comment re: particulate matter. According to the San Joaquin Valley Air Pollution Control District's 2012 PM2.5 Emissions Inventory, by 2019 medium-heavy and heavy-heavy duty trucks will only account for 2.66% of the directly emitted PM2.5 in the district. In the South Coast it is 2.89%. There are several source categories in both inventories which exceed trucks.

Page 3	While state incentive programs like the Energy Commission's ARFVTP help to facilitate development and commercialization of medium- and heavy-duty vehicle technologies with investments across multiple near-term and long-term fuel pathways that include natural gas, electric drive, hydrogen fuel cell electric drive, and hybrid and range extender combinations, ***market uptake of the cleanest trucks remains slow due to cost***.

Comment 2

It is important to note that there are factors in addition to cost that slow the market uptake of the referenced technologies. In the case of pure electric drive, hydrogen fuel cell hybrids and natural gas, there are shortages of fueling/charging infrastructure to varying degrees of severity with natural gas being the most developed, but still lacking any significant presence outside of the South Coast Air Basin.

There are also significant performance deficits and weight penalties associated with the listed alternatives which vary in degrees of severity. CEC may want to consider a more thorough technology assessment of commercial vehicles in future versions of the IEPR.

Page 13	The California Air Resources Board (ARB) estimates that heavy-duty trucks are responsible for roughly 20 percent of the air pollution in California.

Comment 3

Please provide a citation. Which pollutant is being referenced? According to the ARB's own 2013 emissions inventory, medium and heavy duty trucks comprise:

- Roughly 4% of all statewide PM2.5
- Roughly 21% of all statewide NOx (a figure which will fall as NOx controlled MY2010 engines become mandated in 2023)
- Roughly 7.8% of all GHGs (2012 inventory; includes buses and motorhomes)

Source: http://www.arb.ca.gov/cc/inventory/inventory.htm

Page 92	They comprise about 3.7 percent of the total vehicle population in California, yet consume more than 20 percent of the total fuel ***and are responsible for as much as 25 percent of total criteria and greenhouse gas emissions***.

Comment 4

Please see Comment 3. These figures are not consistent with current or future ARB inventories.

Page 95	RE: Section "ZEV Truck Potential at California Ports"

Comment 5

The Calstart 710 study's most significant finding was not cited:

A "dual mode" or "range extender" Hybrid Electric Vehicle (HEV) with some EV-only capability was seen as the most feasible solution, particularly if combined with an infrastructure power source such as catenary or in-road, which would allow for smaller battery packs aboard the vehicles. Clarification and development of a sustainable overall economic and business case and corridor market mechanisms were seen as the most significant challenges to be overcome.

Consistent with Comment 2, it is important to note that a full battery electric Class 8 drayage truck without a range extending feature may not ever be a feasible option. We would also like to see a more thorough citation for the cited 35,000 units. What is the needed incentive amount per unit and overall? How are these incentives being funded? In what markets are these trucks expected to serve?

CEC staff may also want to consider a full review of the report completed by Tiax LLC for the San Pedro Port Technology Advancement Program, "Technology Status Report - Zero Emission Drayage Trucks". This report provided a comprehensive overview of the challenges and costs associated with existing zero emission drayage truck technology.

Page 93	Re: Figure 20

Comment 6

Using 2012 emissions inventory data can be misleading as there are already existing control measures in place to reduce NOx from medium and heavy duty trucks through 2023 in both the South Coast and San Joaquin. For instance, if you use future year emission inventories, the overall contribution of trucks to regional NOx is reduced:

- Roughly 11.5% in the South Coast by 2023
- Roughly 23.5% in San Joaquin by 2025.

Source: 2012 South Coast PM2.5 AQMP Appendix III, 2023 Annual Averages; 2025 ARB Statewide NOx Inventory for San Joaquin Air District.

Page 97	Currently, the Energy Commission's near-term strategy is to deploy advanced natural gas trucks and fueling stations, which create modest but immediate near-term benefits…

Comment 7

CEC staff may want to put more emphasis on the market development benefits to deployments of existing technology, including those which will enable deeper emission reductions as these technologies and their associated fuels, mature.

For instance, Cummins announced in 2014 that it was "pausing work" on it's 15L engine platform, which is a preferred engine of long-haul truck fleets[1]. It stands to reason that

[1] http://www.truckinginfo.com/news/story/2014/01/work-paused-on-isx15-gas-due-to-market-timing-uncertainty-cummins-says.aspx

continuing to encourage the growth of alternative fuel markets will, in turn, encourage vendors of those markets to provide additional offerings. We believe this is consistent with the analysis in Appendix D of the IEPR.