



July 18, 2016

Clerk of the Board
California Air Resources Board
1001 I Street
Sacramento CA 95814

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

RE: Proposed 2016 State Strategy for the State Implementation Plan and the Draft Environmental Analysis

Dear Chair Nichols and Members of the Board:

While the American Trucking Associations (ATA) recognizes the significant challenges the Board faces in developing a plan to demonstrate attainment of federal air quality standard, we urge the Board to reconsider the proposed actions for several of the measures.¹

The trucking industry has gained a great deal of experience with the implementation of emissions regulations over the past two decades. The combination of engine emission standards and fleet turnover will ultimately reduce both NOx and particulate emissions by more than 90 percent. In addition, fuel efficiency standards for large trucks are projected to reduce greenhouse gas emissions by as much as 23 percent with additional reductions soon to be announced. To achieve these emissions reductions, the trucking industry spends billions of dollars annually on emissions control technologies.

As purchasers of transportation equipment, the industry relies heavily on suppliers to provide reliable and proven technologies. The recourse for products that fail to live up to industry standards is to delay purchases until the technology matures or avoid the technology altogether. Unfortunately, this extends the age of existing equipment and results in both operational and environmental impacts that could otherwise be avoided. Therefore, it is important that the agency's proposed actions do not result in unintended consequences.

ATA is very concerned the agency's insistence upon zero-emission technologies will deter the advancement of other promising technologies and result in a lack of adequate charging infrastructure. In contrast to light-duty partial and zero-emission vehicles, the development of zero-emission technologies in the medium and heavy-duty fleet is largely unproven and in its

¹ The American Trucking Associations (ATA) is the largest national trade association for the trucking industry. Through a federation of 50 affiliated state trucking associations and industry-related conferences and councils, ATA is the voice of the industry America depends on most to move our nation's freight.

infancy. As a result, the agency should move cautiously to avoid mandates that force unproven and unreliable technologies onto trucking companies – technologies that may ultimately become stranded assets and taint the appetite for these technologies.

With this focus in mind, ATA submits the following comments related to the Proposed 2016 State Strategy for the State Implementation Plan and the Draft Environmental Analysis.

A) Mandates on equipment purchasers will not ensure market readiness and should be replaced by technology development targets.

Predicting the advancement of technology is difficult at best. The Board’s nearly three-decade effort to commercialize zero-emission passenger vehicles (ZEVs) is a prime example. Today, ZEV sales account for an estimated 3 percent of the state’s new car sales, well below the initial targets envisioned in 1990.² One of the lessons learned from this experience is the need to match technology to consumer preferences. The range, capacity and cost of ZEVs are factors that only recently have begun to meet consumer expectations. For larger vehicles, these factors and more continue to fall short of expectations.

Placing mandates on equipment purchasers assumes the technology satisfies consumer demand without ensuring market readiness. A prime example is the Board’s Truck and Bus Rule where aftermarket retrofits were anticipated to be the primary compliance option. In reality, this technology has captured less than half of the demand estimated by the rule.³ Clearly, differences between technology readiness and consumer acceptance have been in play.

Proposed measures which pursue purchase mandates include Last Mile Delivery and Transport Refrigeration Units Used for Cold Storage. Placing zero-emission vehicle/equipment mandates on equipment purchasers will not ensure the adequacy of the technology or charging infrastructure. While a “market pull” approach tends to assume technology readiness, in reality, a host of issues must be addressed by manufacturers and infrastructure providers to ensure market acceptance. The Board should acknowledge this reality by replacing the proposed purchase mandates with technology development targets focused on manufacturers and infrastructure providers.

B) To ensure business competitiveness in the state, the Board should identify the enforcement resources which are needed to implement the plan.

The Board’s recent enforcement report serves to highlight the difficulty of enforcing the state’s existing in-use requirements. Under both the Transport Refrigeration Unit and Truck and Bus regulations, more than 1 out of every 3 vehicles inspected is issued a citation for non-

² California Air Resources Board, *Low Carbon Transportation and Fuels Investments and Air Quality Improvement Program (AQIP)*, Presentation to the Board, June 23, 2016.

³ Manufacturers of Emissions Control Association, *MECA Releases Diesel Retrofit Figures for 2014* (March 18, 2015) and *MECA Releases Diesel Retrofit Figures for 2013, California On-Road Retrofit Sales Still Less Than Expected* (April 7, 2014).

compliance.⁴ As these regulations have been in place since 2004 and 2008, respectively, compliant companies remain concerned about this degree of noncompliance. The ability to adequately staff and conduct inspections on the nearly 1.2 million trucks that operate in the state, not to mention the millions of other types of vehicles and equipment which are subject to the Board's current regulations, remains a major obstacle.

Enforceability is one of several criteria upon which control measures must be evaluated.⁵ While some of the proposed measures increase the stringency of existing programs, others will create new programs and/or increase the number of entities subject to regulation. For example, new facility monitoring and reporting requirements are proposed under the Transport Refrigeration Unit measure. With the prospect of several thousand additional facilities being subject to regulation under this one measure alone, the additional resources necessary to successfully enforce all the measures proposed in the plan should be identified. This focus will not only address the enforceability of the plan but can help shape the proposed actions by identifying the necessary enforcement resources.

C) ATA cannot support the proposed Low-NOx Engine Standard at this time.

ATA acknowledges the best way to reduce the contribution heavy-duty trucks make toward air pollution is to set emission standards in a manner that allows for, and encourages, improvements in productivity and fuel efficiency. These emissions standards must be technologically feasible and thoroughly-tested so as not to cause market disruptions for operators or manufacturers.

At this time, ATA cannot support the proposed Low-NOx Engine Standard given the unknown feasibility of achieving a 0.02 g/bhp-hr NOx reduction level across all trucking types and applications. While the Board and others are funding research to investigate the feasibility of reducing NOx emissions to levels significantly lower than the existing standards, much more work needs to be done.

Uncertainties over technology, costs and impacts exist. For example, the Board's website indicates potential low-NOx strategies are being evaluated; however, these strategies are increasing fuel consumption. With the trucking industry spending billions of dollars to reduce fuel consumption and associated greenhouse gas emissions, a low-NOx standard may adversely impact these efforts. In addition, the cost of achieving this type of standard is unknown.

Given these uncertainties, it is incumbent upon the agency to recognize the trucking industry's previous experience implementing a low-NOx standard and work to alleviate the industry's concerns. In addition to failed attempts to meet the previous standards which have resulted in litigation; maintenance, reliability, and durability issues have increased warranty claims despite equipment cost increases averaging \$30,000 (more than four times the original cost

⁴ California Air Resources Board, *2015 Annual Enforcement Report* (June 2016).

⁵ *Federal Register*, Volume 74, pp. 2945 – 2954.

projections).^{6,7} The Board's efforts to advance a low-NOx standard will only reach expectations if a concerted effort is made to adequately address industry's concerns.

D) The emission impacts from the increased use of zero-emission vehicles need to be assessed.

The draft Environmental Analysis should programmatically assess how increasing the volume of zero-emission vehicles in the state will impact the electrical generation network. Even though the state has adopted a renewable electricity procurement goal, natural gas and other resource types which produce emissions are likely to continue to play prominent roles in the state's electrical generation network.⁸ The announced closure of the state's last nuclear power plant in 2025 is likely to cause the reallocation of electrical generation resources while at the same time additional demand is being created by an expanding zero-emission vehicle fleet. The environmental impacts associated with increased electrical generation as a result of the proposed SIP measures need to be analyzed. And with some of California's electricity generation initiated outside the state, both in-state and out-of-state impacts must be assessed.

E) The baseline and projected emissions inventories need to be updated.

Current events which are projected to impact emissions in California include the recent Volkswagen emissions settlement and the expansion of the Panama Canal. While the Board has been involved in the development of the Volkswagen settlement agreement to offset the adverse emissions impacts over time, how excess emissions generated from these vehicles are impacting the existing monitoring network and corresponding baseline emissions inventory have not been addressed.

In addition, the recent expansion of the Panama Canal is projected to impact California's port traffic. According to the latest research, as much as 10 percent of container traffic between East Asia and the U.S. could shift from West Coast ports to East Coast ports by the year 2020.⁹ The impact of this decrease in container traffic on future emission inventories need to be addressed in the plan.

ATA remains committed to improving air quality throughout the nation. And while the Board faces significant challenges in meeting the federal air quality standards in California, revisions to the plan are necessary to ensure the trucking industry will be able to respond to the challenges ahead. These revisions will allow trucking companies to continue to do what they do best; move the nation's goods as efficiently as possible, while directing technology development at manufacturers and infrastructure providers. This change in focus will help to better ensure market readiness.

⁶ Caterpillar, Inc. *C13 and C15 Engine Products Liability Litigation* (6/27/2016).

⁷ CARB, *Evaluation of Particulate Matter Filters on On-Road Heavy-Duty Diesel Vehicle Applications* (May 8, 2015).

⁸ California Energy Commission, *Electricity Generation by Resource Type (1983 – 2014)*.

⁹ Bratton, Jennifer, Dustin Burke, Peter Ulrich, Sri Laxmana, and Steve Raetz, *Wide Open: How the Panama Canal is Redrawing the Logistics Map*, The Boston Consulting Group and C.H. Robinson, (June 2015)

Respectfully,

A handwritten signature in cursive script, appearing to read "Mike Tunnell".

Mike Tunnell
Director, Energy and Environmental Affairs
American Trucking Associations