



ADVANCED  
ENGINE SYSTEMS  
INSTITUTE

September 26, 2014

Mr. Erik White  
Chief, Mobile Source Division  
Air Resources Board  
1001 I Street  
Sacramento, CA 95812

Dear Mr. White:

The Advanced Engine Systems Institute (AESI) is a trade association of highly-focused automotive supply manufacturers that design, engineer and manufacture technologies that optimize and reduce pollution from internal combustion engine (ICE) systems. Our industry has 62 companies with 323 facilities in 39 states maintaining America's global leadership in automotive technologies.

AESI is pleased to respond to the California Air Resources Board's (ARB) request for public comments on the Technology and Fuels Assessment Workshop slides. AESI commends ARB for developing technology assessments for a variety of source categories, including trucks and buses, that will support ARB planning and regulatory efforts for development of the Sustainable Freight Strategy, State Implementation Plan (SIP) updates, and ARB's mobile source control program.

Since the advent of the Clean Air Act (CAA), technologies developed by the engine manufacturers and their supply sector partners have seamlessly facilitated regular expansion of our nation's and California's reliance on affordable cars and trucks, while drastically reducing air emissions, and their associated public health and environmental harms. Heavy duty engines (HD) used to move cargo to and through densely populated cargo corridors (e.g. along the California coast and central valley) are a primary - and growing - source of the NOx emissions contributing to ozone/smog formation and violations of the NAAQS. Fortunately, emissions control technology innovations to address this challenge are already being tested and in advanced development.

As set forth in Staff's Sept. 2, 2014 technology assessment presentation, the emission control industry is working on "next generation" technologies to meet tighter NOx standards (e.g., cold temperature NOx management/controls, waste-heat recovery and thermal management, and GPS-enabled emission control technology). By the time new

NOx targets would be implemented (post-2020 timeframe), competition and innovation will drive further improvements and refinements. Industry is acutely aware of how important increased fuel efficiency targets are for regulators to meet their GHG/CO<sub>2</sub> targets and end-use customers to realize fuel savings. As such, our industry is participating in the most comprehensive study to date – a multi-million dollar, multi-year demonstration project to demonstrate that dramatic reductions in HD NOx emissions are possible with little to no impact on fuel efficiency and will not require cost-prohibitive government subsidies to be effective. (CARB research project, "Evaluating Technologies and Methods to Lower NOx emissions from Heavy-Duty Vehicles," conducted by Southwest Research Institute)

Focusing on obtaining additional NOx reductions from the HD sector will provide significant progress toward ozone NAAQS attainment, and alleviate the need for much more costly initiatives focused on the power, manufacturing or oil refining sectors. Though we recognize that ARB must consider all options to meet the challenge of achieving NAAQs attainment and GHG reduction targets, AESI urges ARB to continue to focus on technology-neutral standards (both for traditional criteria pollutants and GHG emissions) in lieu of adopting incentives that could raise market barriers to promising technologies that can meet or exceed California's environmental goals. Properly designed performance standards will encourage market forces to deliver on those goals most effectively.

AESI and our members are committed to providing technologies aimed at improving air quality in California and around the world. We look forward to participating in ARB's Technology and Fuels Assessments process, as we believe there is significant opportunity to reduce criteria pollutant emissions, reduce greenhouse gas emissions, and provide customer value using advanced engine system technologies that optimize efficiency and reduce pollution from ICE systems.

Sincerely,



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