



# Air Resources Board



**Matthew Rodriguez**  
Secretary for  
Environmental Protection

**Mary D. Nichols, Chairman**  
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**Edmund G. Brown Jr.**  
Governor

April 24, 2014

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

California Energy Commission

**DOCKETED**

**14-IEP-1B**

**TN 72955**

**APR 24 2014**

To Whom It May Concern:

Thank you for providing the opportunity to comment on the 2014 Integrated Energy Policy Report (IEPR) update. The Air Resources Board (ARB) is pleased to work with your staff to provide input on this report. My staff provided verbal testimony at the April 10, 2014, Lead Commissioner IEPR Workshop focusing on assessing the state of transportation technology over the next ten years. This letter expands upon those comments.

California faces significant challenges in meeting our air quality and climate goals. We estimate that meeting the federal ozone standards in the South Coast will require an 80 percent further reduction in oxides of nitrogen (NOx) by 2023 and about a 90 percent reduction by 2032. Similar levels of emission reductions will likely be needed in the San Joaquin Valley by 2032. At the same time, California must meet its long-term climate goal of an 80 percent reduction from 1990 greenhouse gas (GHG) emissions levels by 2050. Meeting these goals will require the widespread adoption and use of zero and near-zero emissions technologies that emit at levels far below today's technologies. Because of the magnitude and timing of reductions needed in both NOx and GHG emissions, we believe a coordinated approach focused on both goals simultaneously is the best approach.

ARB is currently developing two plans that will guide our future mobile source program strategies: the Sustainable Freight Strategy and the next State Implementation Plan (SIP) for the federal ozone air quality standard. To support development of these plans, ARB has recently initiated a wide-ranging mobile source technology assessment. This technology assessment will combine staff's knowledge of vehicle operations in the different heavy duty sectors and zero and near-zero technologies that could serve these sectors, with a review and analysis of the many assessments that have already been conducted by governments, non-governmental organizations, and the private sector.

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.*

California Environmental Protection Agency

ARB's technology assessment is aimed at providing a comprehensive assessment of the current state and projected development over the next 5 to 10 years of heavy-duty mobile source technologies for the following mobile source sectors: heavy-duty trucks, locomotives, oceangoing vessels, commercial harbor craft, cargo handling equipment, airport sources, and transportation fuels. (A separate technology assessment for the light-duty vehicle sector is proceeding on its own track, with ongoing work being done as part of the mid-term review required under the Advanced Clean Cars program.) In conducting this assessment, our goal is to combine ARB staff's knowledge in these areas with the many assessments that have already been conducted by governments and the private sector. The assessment for each sector will comprise many elements, including:

- An evaluation of how vehicles and equipment are used
- An evaluation of how fleets currently purchase and manage their vehicles and equipment
- An evaluation of each emission control technology
- An evaluation of the infrastructure needs of each technology
- A summary of demonstration and pilot projects for each technology and current and potential future production capacity
- An estimate of costs and well-to-wheels emissions levels both now and in the future for each technology

The assessment will help identify how best to encourage commercialization of key advanced zero and near-zero emission technologies, so that this information can be used in our integrated planning assessments for freight and the SIPs, and ultimately inform our mobile source regulatory and incentive strategies.

ARB's technology assessment is being developed through a public process associated with the development of the Sustainable Freight Strategy. We anticipate holding a series of workshops in the summer, as part of the Sustainable Freight Strategy, focused on the technology assessment. The technology assessment is being conducted in close coordination with the South Coast Air Quality Management District, the San Joaquin Valley Air Pollution Control District, and the Bay Area Air Quality Management District. We anticipate completing the assessments in the fall of 2014.

Many facets of our technology assessment complement the work being done by the California Energy Commission (Energy Commission), and the assessment will provide information useful for the 2014 IEPR update. We would like to coordinate with the Energy Commission so that both the IEPR and ARB planning and assessment efforts

California Energy Commission  
April 24, 2014  
Page 3

are consistent, aligned, and complementary. We appreciate the discussions we have had with Energy Commission staff, and look forward to our continued coordination. As we delve further into our technology assessment and have findings to share, we will provide this information to Energy Commission staff to support the 2014 IEPR update.

Thank you again for providing the opportunity to comment on the 2014 IEPR update. If you have any questions, please contact me at (916) 322-1017.

Sincerely,



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Mobile Source Control Division

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California Energy Commission  
April 24, 2014  
Page 4

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Also email to [docket@energy.ca.gov](mailto:docket@energy.ca.gov) with "14-IEP-1B: Transportation Technology Over the Next 10 Years" in the subject line. Copy the technical lead staff at [Jim.McKinney@energy.ca.gov](mailto:Jim.McKinney@energy.ca.gov) **Comments due April 24, 2014.**

Ref #14-55