June 23, 2016

California Air Resources Board
1001 I St.
Sacramento, CA 95814

Re: Mobile Source Strategy; Proposed 2016 State Strategy for the State Implementation Plan

The California Electric Transportation Coalition (CalETC) appreciates the opportunity to comment on the California Air Resources Board's (CARB's) Mobile Source Strategy and Proposed 2016 State Strategy for the State Implementation Plan, released May 2016 (collectively referred to as the Strategies).

CalETC is a non-profit association promoting economic growth, clean air, fuel diversity and energy independence, and combating climate change through the use of electric transportation. CalETC is committed to the successful introduction and large-scale deployment of all forms of electric transportation including plug-in electric vehicles of all weight classes, transit buses, port electrification, off-road electric vehicles and equipment, and rail. Our board of directors includes: Los Angeles Department of Water and Power, Pacific Gas and Electric, Sacramento Municipal Utility District, San Diego Gas and Electric, Southern California Edison, and the Southern California Public Power Authority. Our membership also includes major automakers, manufacturers of zero-emission trucks and buses, and other industry leaders supporting transportation electrification.

CalETC supports CARB's efforts to ensure a comprehensive Mobile Source Strategy and State Implementation Plan to reduce emissions from the transportation sector in order to meet critical air-quality mandates and climate-change goals. We also recognize the importance of funding programs, in addition to regulatory measures, to ensure the transition to a cleaner transportation system.

Both regulatory and funding programs are necessary to overcome the tremendous challenges inherent in transitioning the mobile-source sector to zero-emission technologies. At the end of 2015, plug-in electric vehicles (PEVs) represented only 3.1% of the new vehicle market in California and only 0.66% in the U.S.[1] Sales for conventional hybrids only reached 5.8% in California last year,[2] even though this technology has been widely available and accessible for over a decade. We urge CARB to recognize the need for unwavering state commitment and investment to overcome these challenges. Private investment will follow clear, consistent public commitment and investment.

We respectfully submit the following comments for your consideration:

Summarized Comments:

- CalETC supports the incorporation of a broad suite of measures to ensure emission reductions.
- We support the proposed on-road light-duty sector suite of programs.
- We support the emphasis on reducing vehicle miles traveled (VMT), and replacing internal-combustion-engine VMT with zero- or near-zero-emission VMT. However, for certain applications, operation or operating hours is a more appropriate indicator than VMT.

[1] See, e.g., Cobb, Jeff, California Plug-in Sales Led The US Last Year with Nearly Five-Times Greater Market Share, February 17, 2016, http://www.hybridcars.com/california-plug-in-sales-led-us-last-year-with-nearly-five-times-greater-market-share/.
[2] *Ibid.*

- We support the commitment to zero-emission technologies everywhere feasible, and near-zero emission technologies powered by clean renewable fuels everywhere else. We encourage CARB staff to apply the goal of transitioning to zero-emission technologies to all sectors. We also encourage staff to describe the existing and emerging "game-changers" that could allow a faster and steeper adoption of zero-emission technologies among all transportation sectors.
- CalETC supports CARB staff's recognition that incentive funding is and will continue to be critical to achieve further deployment and adoption of advanced, cleaner technologies.
- We recommend that the Strategies specifically recommend a long-term, large-scale, and comprehensive role for utilities to implement the transportation-electrification provisions of Senate Bill 350 (2015).
- We recommend that CARB staff include all transportation fuels within the gambit of substitutes for conventional gasoline and diesel fuels, in the fuels section and in the proposed fuels measure.

Full Comments:

General Considerations

CalETC supports CARB staff's approach of incorporating a broad suite of measures to ensure emission reductions within the Strategies, like on-road light-duty, medium- and heavy-duty vehicles, federally- and internationally-regulated sources, off-road vehicles and equipment, and fuels. All mobile sources must be considered in order to reach our air quality and climate goals.

CalETC supports CARB staff's proposed on-road light-duty sector suite of programs. The Advanced Clean Cars regulations have been instrumental in transitioning California's light-duty fleet to cleaner technologies, and we support CARB's plans to encourage continued penetration of these technologies through appropriate regulatory and funding mechanisms.

CalETC supports the emphasis on reducing vehicle miles traveled (VMT), and replacing internal-combustion-engine VMT with zero- or near-zero-emission VMT. However, for certain applications, operation or operating hours is a more appropriate indicator than VMT. For example, with heavier vehicles or vehicles with power takeoff (PTO), converting to electricity can still result in significant emission reductions even when the vehicle is not traveling many miles. Converting to electricity can also reduce emissions produced from idling or powering equipment on the vehicle when the vehicle is stopped. And, with technologies like forklifts, their operation is generally measured in hours, not miles traveled.

CalETC supports the commitment to zero-emission technologies everywhere feasible, and near-zero emission technologies powered by clean renewable fuels everywhere else, as articulated in the Strategies. We encourage CARB staff to apply the goal of transitioning to zero-emission technologies to all sectors, in addition to the freight sector. We also encourage staff to describe the many existing and emerging "game-changers"[3] that could allow a faster and steeper adoption of zero-emission technologies among all transportation sectors through CARB and air district efforts. Considering these "game-changers," we recommend that CARB staff review the current Strategy and set appropriately ambitious goals to transition to cleaner technologies – plug-in electric technologies are now commercially available, or are on the cusp of becoming commercially available, across multiple weight classes. Although the increased emphasis on low NOx trucks in the Strategies is understandable, given the barriers with transitioning heavier classes, there are additional zero and near-zero emission options available that should not be overlooked. For example, CARB may consider encouraging the pairing of the new low NOx engine with plug-in hybrid technology to achieve further emission reductions.

CalETC supports CARB staff's recognition that incentive funding is and will continue to be critical to achieve further deployment and adoption of advanced, cleaner technologies. In order to ensure further deployment and adoption, we recommend that—to the degree appropriate—these funding programs include cost-sharing requirements. Requiring cost-sharing will result in funding from sources outside of CARB and make limited state funds go further, as well as help accelerate zero-emission and near-zero-emission technology adoption.

Utility Role

CalETC recommends that the Strategies specifically recommend a long-term, large-scale, and comprehensive role for utilities to implement the transportation-electrification provisions of Senate Bill 350 (2015). Both investor-owned utilities and publicly-owned utilities have a role in increasing transportation electrification within California. Publicly-owned utilities are currently investing in transportation electrification, and seeking new ways to be involved across all transportation segments. SB 350 directs investor-owned utilities to propose and implement programs and investments to accelerate widespread transportation electrification in order to help meet several long-term state goals and federal air-quality standards. Further, SB 350 defines transportation electrification in a very broad manner.

CARB and the California Energy Commission are and should continue to work with the Public Utilities Commission to implement SB 350 in the most effective fashion, and to extend limited state funds. To the extent utilities are providing and will provide transportation-electrification infrastructure and investments, state agencies should seek to avoid duplicating or boxing-out utility investment, in order to extend limited state funds. The Strategies should specifically call for a utility public-private partnership regarding: investments in charging and propulsion infrastructure, market-education and outreach programs, incentive programs, pilot projects, and electric rates designed with transportation electrification in mind.

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[3] Battery prices have fallen dramatically. (See, e.g. Harrington, Rebecca, Tech Insider, *One dramatic chart shows why electric cars are about to become mainstream*, March 29, 2016, http://www.techinsider.io/electric-vehicle-battery-cost-decreases-2016-3.) Investor-owned utilities have been directed by the Legislature in SB 350 to have an expanded long-term role to help enable electric transportation. Both large truck manufacturers with global distribution and Chinese truck makers have entered into the electric truck and bus markets. Finally, commercialization of zero-emission trucks and buses is accelerating because of the many substantial federal, state, and local funding programs.

Fuels

Within the Fuels section of the Strategies, CalETC recommends that CARB staff include all transportation fuels within the gambit of substitutes for conventional gasoline and diesel fuels. As currently worded, the Strategies are not fuel-neutral and recognize a wide variety of diesel-alternative fuels. We recommend also including electricity, which could be used to displace diesel or any of these listed fuels, either fully or partially (e.g., in a plug-in hybrid). In addition, electricity will continue to get cleaner as more renewables are incorporated into the grid. All transportation fuels should be included in this mix to fully diversify the fuel pool and incentivize the increased use of cleaner fuels.

Thank you for your consideration. Please do not hesitate to contact us should you have any questions.

Sincerely,

Eileen Wenger Tutt, Executive Director
California Electric Transportation Coalition