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Subject:
ETAAC Comments - San Francisco Electric Vehicle Association
From:
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11/27/07 Comments of the San Francisco Electric Vehicle Association re: Economic And Technology Advancements for California Climate Solutions (ETAAC) Report Discussion Draft

We appreciate this opportunity to comment on the Economic And Technology Advancements for California Climate Solutions (ETAAC) Report Discussion Draft. For now, we will limit our comments to the Transportation Sector, section 3.

The Transportation Sector recommendations has strength in the variety of its approaches to greenhouse gas reductions, all of which will be needed in order to deal with global warming. The report could be strengthened further by attending to some of its key principles.

I. Introduction -- For example, ETAAC recommends that in addition to addressing GHG emissions associated with vehicle technologies, fuel carbon intensity, and transportation activity levels, CARB address the additional measures of conserving energy by lowering passenger and freight motor vehicle miles traveled, lowering GHG emissions per mile traveled for each vehicle, and lowering the global warming effect of transportation energy.

COMMENT: Energy efficiency is a key component of many of these measures, and should be emphasized up front and repeatedly.

II. General Principles -- We wholeheartedly agree with the stated principle that "Policies should aim for a level playing field." As stated within that section, considering both long-term goals and short-term needs "does not mean picking technology winners."

COMMENT: Unfortunately, this report repeatedly emphasizes a particular technology -- hydrogen fuel-cell vehicles -- in its examples of the future. Given the technological immaturity, economic disadvantages, and greater inefficiency of hydrogen fuel-cell scenarios, this attempt to "pick a winner" is concerning, and a more balanced discussion is needed.

Fair consideration must include comparisons of well-to-wheels or lifecycle efficiencies, emissions, and costs of vehicles and fueling infrastructure. This is especially important for long-term scenarios comparing zero-emission vehicles (ZEVs) that utilize renewable power (such as battery electric vehicles or fuel cell vehicles using hydrogen made via electrolysis). Taking this "big picture" approach in either the near- or long-term, hydrogen looks to be far from a winner, and ETAAC should not favor it over other more sensible options. In the long term, as we incorporate more emission-free fuels and vehicles, vehicle/fuel comparisons will need to move beyond emissions and incorporate metrics such as total energy requirements, economic efficiency, and societal costs.

Throughout the Transportation section, the report relies repeatedly on the conclusions of the 2007 ZEV Panel report. That report concluded that battery electric vehicles (BEVs) are a less costly and more technologically-ready alternative than fuel-cell vehicles (FCVs), but because automakers don't seem interested in them, BEVs are not considered viable (regardless of what the state demands via regulations, and despite several automakers expressing renewed interest in BEVs). That report also concluded that there is no sign that FCVs can overcome their many persisting technological challenges and exorbitantly higher costs, but because government and some companies are spending lots of money in this area, we should assume that everything will work out, and pretend that FCVs will reach mass commercialization before BEVs or even City EVs.

This makes no sense. We urge ETAAC and CARB to stick to the principles outlined in the Discussion Draft, and stop framing hydrogen fuel cell vehicles as the technological "winner."

III. General Policy Recommendations -- Comments: We applaud CARB for discussing green labeling of vehicles and fuels, and encourage the inclusions of Energy Efficiency or Energy Expended in all labeling of vehicles, on a well-to-wheels basis. If you label fuel production/transmission/storage separately from vehicle use, consumers will not get the big picture of the results of their choices.

We encourage CARB to adopt additional General Policy Recommendations that move beyond R&D, education, and coordination. Policies are needed to increase mechanisms for getting ZEVs and near-ZEV vehicles on the road as soon as possible, given the slow turnover in the vehicle fleet. Ramping up production will give manufacturers the economy of scale needed to change the vehicle fleet.

IV. Conserving Energy by Reducing Passenger and Freight Motor Vehicle Miles -- We support exploring all these strategies. Comment on section H: Low-speed modes of transportation. We encourage CARB to include among the "Possible Solutions" the idea that the state Legislature could increase the top speed allowed for Neighborhood Electric Vehicles from the present 25 mph to 35 mph, as has been adopted by the states of Washington and Montana. This would greatly increase the utility and acceptance of NEVs, and quickly produce GHG reductions.

V. Renewable and Other Low-Carbon Fuels -- In "Next Generation Transportation Energy", the report wisely mentions the synergies between energy sources that can be used for electricity use or as a vehicle energy source. Vehicle-to-grid synergies deserves explicit mention and consideration. The technology is available today to use BEVs and PHEVs for storing off-peak energy that can be fed back into the grid if needed, thus removing one of the biggest obstacles to further use of intermittent renewables like wind or solar power.