

Dr. Alan Lloyd
Chair - Economic and Technology Advancement Advisory Committee
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Subject: Infrastructure in the Draft ETAAC Report.

Dear Chairman Lloyd,

Energy Independence Now (EIN) would like to thank the ETAAC for the opportunity to submit comments as you prepare the final draft of the report. We have followed the development of the report with interest, noting the wide range of promising technological development that has been highlighted in the process, and commend the authors on the integration of this information.

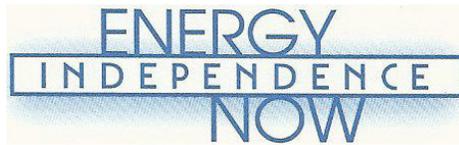
The purpose of this letter is to highlight the problem of infrastructure, which we believe is one of the critical barriers to the de-carbonization of the transport sector. We are concerned that the various state initiatives addressing climate change and petroleum dependence, several of which we are working closely on, are consistently under-estimating the challenge which infrastructure development poses for alternative fuels development.

We urge ETAAC to do what it can to highlight to the state agencies the importance of a strategic program focused on infrastructure, identifying such a program as a necessary complement to the ETAAC recommendations and the Market Advisory Report. As appropriate, we also urge ETAAC to include infrastructure funding and initiatives under its core recommendations, including the mandate of the proposed carbon trust.

Infrastructure, including pipelines, storage facilities, distribution networks and pumps and refueling facilities poses a significant barrier for many well known reasons. These include the fragmented nature of retail ownership, large capital investments required, low initial volume/distribution profits, and potential conflict of interest for the incumbent providers themselves. Since infrastructure requires little technological innovation, it is often missed by R&D focused policy. The large scale of investments that are needed also makes infrastructure less susceptible to small price changes from market-based government incentives. Infrastructure is also difficult to fund while remaining committed to technology neutral policy.

Our direct involvement in the Hydrogen Highways program has highlighted that although approaches such as the Fuel Cell partnership (identified in the draft ETAAC report) are of value, they provide an insufficient impetus for fuel providers and distributors to make the necessary capital intensive investments. Furthermore, even if the will is there, a host of additional regulatory barriers face a prospective investor, from fire codes to equipment

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certification by standards bodies which have been tailored to petroleum distribution. The current co-funding incentives for alternative fuel stations are useful but are likely to be insufficient to incentivize the scale and strategic approach required to move into a new transportation paradigm.

We therefore remain very concerned that while state policy may accomplish its goals on the three legs of the ‘stool’ – vehicle technology, fuel carbon intensity and vehicle miles travelled - the ‘seat’ linking them together, namely infrastructure, is being left relatively unattended.

A full discussion of the type of program needed is beyond the scope of this letter, but we would like to highlight that our experience working with automakers and fuel providers on the ground suggests that a state-wide infrastructure program for alternative fuels must incorporate at a minimum:

1) **A strategic & geographic approach.** A pump by pump grant scheme will not be sufficient for a rapid transition to alternative fuels and blends. A coordinated program, integrating urban zone programs, strategic corridors and fleet-based programs is required.

3) **Non-traditional partnerships.** The initiatives must include a broad range of possible future fuel distributors, including non-fuel retail chains, industrial gas producers, utilities and others. This infrastructure development is disruptive, and will change the competitive landscape of transportation fuels. It will not happen fast enough if we rely exclusively on the willingness of the incumbent petroleum industry to invest in this transition.

2) **Broad regulatory review.** New fuels and blends challenge many state and local codes which need to be proactively addressed.

We recognize that the ETAAC process leaves little time for a more in-depth inquiry into this subject, but once again urge the authors of this report to impress upon the state agencies the danger of leaving alternative fuel infrastructure development relatively unattended.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Emmett", on a light-colored rectangular background.

Daniel Emmett
Executive Director

A handwritten signature in black ink, appearing to read "Remy Garderet", on a light-colored rectangular background.

Remy Garderet
Clean Transportation Program

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