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California Energy Commission
Dockets Office, MS-4
Re: Docket No. 06-AFP-1
1516 Ninth Street
Sacramento, CA 95814-5512

**Comments on the State alternative Fuels Plan AB1007 draft report
Submitted by Energy Independence Now**

Energy Independence Now (EIN) would like to thank the Energy Commission and ARB for the opportunity to submit comments as you prepare the final draft of the AB1007 State Alternative Fuels Plan.

We recognize the challenges of preparing a comprehensive plan, given the multiple policy objectives and timelines. The following comments are offered in the spirit of creating the best possible analytical and actionable basis for future government action.

Our comments fall into two categories, relating to the summary text and underlying analysis respectively.

I. Report emphasis, and clarity of government actions

1. The Infrastructure challenge is not sufficiently addressed.

Infrastructure development is a component that needs to be singled out more explicitly in this report, as a major barrier, as a policy challenge and as an element requiring a high level of coordination and creative public intervention.

Most of the infrastructure incentives mentioned are co-funding proposals, but co-funding alone may not be a sufficient incentive, given the low utilization in the early years (the current h2 experience should be noted). The report mentions that the LCFS should provide a sufficient incentive for fuel distributors to invest in E85 infrastructure (p.39). This may be the case for blending strategies, but should not be assumed for new fuels. We believe that a coordinated, strategic intervention may be needed for new infrastructure development, given the incumbents conflict of interest with regards to petroleum displacement.

We recommend the report better reflect this challenge. Specific suggestions include:

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- a) On page ES-4 (Plan Conclusions). The 4 part strategy covers
 - (1) Promote AF blends
 - (2) Maximize AF in early adopter niches
 - (3) Maximize AF use in ICE vehicles and develop new technologies
 - (4) Reduce VMTShould add: (5) Assure a supporting fuel infrastructure is developed.
- b) A separate heading of "Infrastructure" is needed under the Specific Findings section (page ES 5-8), identifying the relevant fuel infrastructure analysis and recommendation from the rest of the report.
- c) The infrastructure component should be noted on page E-9 under both Key Barriers, and Recommended actions.
- d) Infrastructure should also be singled out on page 54, alongside the efficiency, blends, vehicles and VMT strategies.
- e) In the Recommended Government Actions section (page 11), the report should recommend specific action aimed at developing the appropriate intervention that will assure infrastructure development. This could include a recommendation for a focused inquiry into how to do this.

2. Actions need to be spelled more specifically in terms of who does what, and their relative priorities.

The "Actions Needed by Fuel Type" section currently mixes together the actions that need to be undertaken by the government, with the technological breakthroughs hoped for, private sector investments needed, research required. The long list of large and small 'needs' also gives no indication on what are critical barriers and therefore priorities.

This section of the report warrants much greater attention and clearer writing. The recommended actions should be grouped and sorted clearly by fuel type, by who needs to take the action (government vs automakers vs fuel providers), and the level of priority. We urge the authors to refer carefully to the Alternative Fuel Scenarios that were developed as part of the AB1007 process, as many of these included very concrete, actionable recommendations that have been lost in this summary report.

II. Comments on the underlying analysis

3. The analysis of Renewable Diesel / Biodiesel is incomplete

As per previous EIN submissions, we feel the analysis and the scenarios have failed to consider the possibility of a significant diesel penetration in the light duty sector, combined with B20-level blending. This is not only a possible

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forecasting error, but a missed opportunity to explore the possible role of renewable diesel in achieving substantial GHG emission. Because of this, the economic analysis is also flawed, in that the cost-effectiveness of Renewable Diesel in displacing petroleum and reducing GHG emissions (as indicated in Table 12 and 13 on page 70) is underestimated.

Greater clarity is also needed on what renewable diesel blends are used for the three example scenarios. Our understanding from Example 3 is that although increasing level of biodiesel blending is assumed for the heavy duty sector (as stated on page 48), this is not the case for the light duty sector. It seems that Example 3, which is focused on biofuels, would be a good place to incorporate the possibility of high diesel penetration (from the CEC High Diesel Demand projection – see IEPR), together with the same high blending in the LD sector as the heavy duty.

Additional minor edit suggestions:

- Page ES-5. "Primary biofuels include ethanol, **renewable diesels** and other biofuels, such as biomethane."
- Page 14. "Renewable diesel can be used in diesel engines with no major modifications. Two percent (B2) and 5 percent (B5) blends have been used in vehicles in California and up to 20 percent renewable diesel and biodiesel blends ~~may be possible~~ **are possible with minor engine modifications.**"
- Page 16. The "Sustainability standards" action item should be an item that goes under the "General Biofuels" heading, and applies to all alternative fuels, not specifically biodiesel & renewable diesel.
- Fig 4, page 23. Renewable Diesel and Biodiesel are missing from this chart and need to be added, as per the BD20 and RD30 pathways analyzed in the Full Fuel Cycle Analysis
- Renewable Diesel is missing from Table 10, page 64.

4. The price volatility of alternative fuels not analyzed

The economic analysis chapter does not sufficiently acknowledge the possible price volatility of alternative fuels, while at the same time promoting them as a hedge against the price volatility of petroleum. While forecasting this is an admittedly difficult task, some discussion on the susceptibility of the different fuels to economic, political and weather shocks, as well as to infrastructure bottlenecks, demand surges etc should at the very least be discussed.

There are many facets to fuel price risk: a vehicle that accepts multiple fuels has a lower fuel price risk to a consumer than a single fuel one; running a

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vehicle on a fuel like electricity incorporates the reduced risks due to the electricity generation portfolio, as well as the regulated status of electricity; a fuel that can be made from multiple, available feedstocks is less risky than a single source one, etc..

It is important that these economic risk issues be acknowledged and discussed. We would expect to see a section in Chapter 7 devoted to this discussion, with a table showing how the fuels compare in terms of susceptibility to the various drivers of fuel price volatility. The discount rates used for fuel savings analysis may need to be adjusted to reflect the different risk profiles.

Without a more detailed discussion of fuel price risk, the consumer payback analysis (page 65) is of limited value, and paints an unrealistically optimistic view of how consumers will embrace alternative fuels.

5. The possibility of drop in petroleum prices ignored

While it seems unlikely in today's environment, a drop in the price of oil could freeze the commercial development of alternative fuels. This possibility (which has happened before) needs to be acknowledged in the report, and incorporated into the proposed actions. Incentives tied to the price of oil are one way to acknowledge the volatility of the incumbent competitor (oil) and this major risk for developers and consumers. As mentioned before, the authors should re-examine some of the Alternative Fuel Scenarios, where such recommendations were made.

Thank you for your consideration of the comments. We welcome a response and a discussion.



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