

Thomas & Associates*Engineering and Environmental Services*

INITIAL QUESTIONS FOR CEC RE: AB 118 PLANS

From cursory review of AB 118, 7/9/08 Investment Plan and 9/26/08 Funding Restrictions
November 7, 2008

I would appreciate response to all of these questions.

1. How does CEC's Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP) (\$120M/year) differ from CARB's Air Quality Improvement Program (AQIP) (\$50M/year) vs. Bureau of Automotive Repair (BAR) Enhanced Fleet Modernization Program (EFMP) (\$30M/year)?
2. Explain the process for obtaining Grants vs. Loans
3. Are matching funds required? How much by dollars or % per each type of eligible project?
4. What will be the criteria for award and typical terms & conditions for the award of grant funding?
5. Eligible Projects. Concerned that eligible projects are only those not mandated by laws and regulations. However, none of these existing laws and regulations is summarized. For example. As stated in CEC's funding restrictions, how can replacement of diesel buses with bio-diesel buses qualify when CNG buses do not qualify for grant funding. What law prohibits this. Each CEC solicitation for applying for grant funding should specify which laws and regulations are applicable to deny grant funding, and which projects which will be ineligible and why.
6. Concerned that plan is too top heavy on only bio-fuels and FFVs (E-85). Why is that? Please provide justification.
7. Emission Reduction Methodology. Why are net emission reductions being replaced with surplus emission reductions as a criteria for funding. Please provide justification that formed the basis of the rather vague Health & Safety Code Section 44271 or other applicable codes & regulations.
8. Surplus emission reductions are not consistent with BAR's EFMP.
9. The ARFVTP states a petroleum displacement of 26% alt fuels and renewable by 2022 and the 10% carbon reduction of fuels in the LCFS by 2020. What is the baseline? How will that be reconciled and tracked?
10. What is the current amount of gas and diesel use for CY 2007, and how many vehicles are currently operating in California? How is the amount of gas and diesel consumption tracked and potential increase in vehicle operating in California due to population growth be tracked each year? The methodology should be defined in the plan.

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11. For example, Table 1 in the 7/9/08 Investment Plan shows 5.2 billions of gallons of alt. fuels will replace gasoline and diesel from by 2022, assumed to occur in California only. Is that correct? If so, that implies that 20 billion gallons of gas and diesel (5.2 billion/26%) will be used during that same period. How are these numbers determined? References should be provided in the plan.
12. According to US DoE Clean Cities data, only 1.3 billion gallons of alt. fuels displaced gasoline and diesel in 15 years (or since 1993). The CEC plan does not seem to contain sufficient methodology, specification and analysis on how 5.2 billions gallons of alt. fuels will replace gasoline and diesel in 12 years. Further clarification and attainment of these goals should be provided.
13. The Investment plan states that the energy efficiency of vehicles will be increased by 2050. For example, the plan states that conventional vehicle including FFVs will average more than 40 mpg. Hybrids and FFVs (assumed to be hybrids) will average 60 mpg, while plug in hybrids will average well over 100 mpg with FCVs averaging over 80 mpg. How were these ambitious assumptions derived, given that mpg has only risen recently with the advent of hybrids and Honda GX (CNG) cars being the highest fuel efficient vehicles. The Plan does not seem to evaluate the current tendency for Americans to drive gas guzzling SUVs and pickup trucks. A complete reversal of that outdated business model will be required by the OEMs. Has CEC be given any commitments by the auto OEMs on manufacturing more fuel efficient, alt. fuel vehicles?
14. The plan states that growth in per person driving will be reduced to 1990 levels. The term growth in per person driving is not defined. Since, this concept really is the fundamental and driving force to reduction of GHG and other vehicle emissions, it should be extended to promoting population controls or reduction overall in the state, the country and the world. It is the rapid growth of population in the state and other areas of the world that is causing the GHG problems, and population growth is what needs to be controlled and reduced. Will that be part of the Implementation Plan? A whole new economic model seems necessary.
15. Table 1 also indicates that almost 2X as much GHG emission will be reduced or avoided per gallon of E-85 over natural gas. This same implication applies to biodiesel over natural gas. Given that these fuels, E-85 and biodiesel have more “carbon intensity”, how were these GHG avoidances calculated. Please provide example calculations.
16. Concerned about selling credits. Methodology is not well defined. Also this will potentially eliminate mom/pop Alt. Fuel projects. Please clarify.
17. There is virtually no discussion on vehicle types and composition currently being used by the consumer or by public or private fleets. Further, there is no discussion on how the automakers will embrace or participate in changing the composition of these fleets to operate on alt. fuels. The plan needs further discussion on these two areas also to put into prospective how to obtain petroleum reduction and promotion of alt. fuel vehicles.

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18. It is doubtful that this effort or plan, as laudable as it is, will work voluntarily. Consequences needs to be assigned when any metrics are not achieved, provided the metrics are reasonable. Suggest regulatory mandates combined with incentives for fuel replacement by alt. fuels by a certain % each year with the % increasing each year, and with the mandate starting with government fleets (Federal, state, county, and local) followed by private fleets. This will create the demand for OEMs to return to the market, rather than voluntary or by AB 118 or LCFS. There needs to be an element that requires federal and state legislators to compel the vehicle OEMs and engine manufacturers, both domestic and foreign, to embrace this effort. Will that be part of the plan?