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Dear Mr. Smith:

I appreciate the opportunity to provide comments to the Docket for the FY 2013-14 Investment Plan for the Alternative and Renewable Fuel and Vehicle Technology Program. I was privileged to serve as the Program Manager for this program for the first three and one half years of its existence, and so I hope my comments and observations are in all ways helpful, and can be useful as the potential for reauthorization of this program is being considered in the California Legislature this year.

Focusing on Energy Goals

Some stakeholders and I have noted a shift in the California Energy Commission's (CEC's) Program's mission recently toward the achievement air quality regulations and goals, similar to those of the Air Resources Board's-Air Quality Improvement Program. I suggest it may be helpful at this time to refocus the direction of this important energy Program to attain the primary project goals cited in the statute which included the following top three (of eleven) goals (Chapter 8.9, 44272.:

> "(1) The project's ability to provide a measurable transition from the nearly exclusive use of petroleum fuels to a diverse portfolio of viable alternative fuels that meet petroleum reduction and alternative fuel use goals.
> (2) The project's consistency with existing and future state climate change policy and low-carbon fuel standards.
> (3) The project's ability to reduce criteria air pollutants and air toxics and reduce or avoid multimedia environmental impacts…"

The energy goals (both CEC's and ARB's) are very clearly stated in Section 1 of the statute:

> (c) The State Energy Resources Conservation and Development Commission (Energy Commission) in its Integrated Energy Policy Report recommends that alternative fuels comprise 20 percent of on-road motor vehicle fuels by 2020.
> (d) The State Air Resources Board is currently developing a "low-carbon" fuel standard for transportation fuels to reduce the carbon intensity of transportation fuels by 10 percent by 2020.
> (e) The Energy Commission will adopt a state alternative fuel implementation plan to increase the use of alternative transportation fuels by recommending policies and financial incentives, and identifying barriers to alternative fuel use.

The energy goals of AB 118 are quite important for the CEC to address as they can foster commercial activity, market and economic development, and perhaps most critically, the creation of jobs for California. This year marks the 40th anniversary of the Arab Oil Embargo, one of the most important influences in the very creation of the California Energy Commission in 1974. Currently households and fleets are paying more for transportation fuels than any other time in the last thirty years. The transition from a nearly exclusive Petroleum reliance, and its recession-inspiring economic effects of cartel-derived pricing worldwide, also has many positive environmental benefits (reduces criteria and GHG emissions), energy security benefits and national security benefits, that are well known. The CEC's AB 118 Program is the only program in California with the goal to reduce petroleum fuels use, and to increase alternative fuels use, and should therefore measure its success by those goals declared in the statute.

These goals are mentioned here because in the December 4, 2012 Advisory Committee presentation the "Other Important Updates" slide (slide 12), the Vision for Clean Air, and draft ZEV Action Plan (Air Resources Board policy documents) are the only focus provided for the draft Investment Plan Update, when the progress toward the Integrated Energy Policy Report requirements, and the CEC/ARB adopted AB 1007 Alternative Fuels Plan, have gone relatively unaddressed. It is quite important that the CEC, the state's energy agency, support the goals of other agencies, federal, state and local, and the CEC has a good track record of being overwhelmingly complementary. But the CEC should not give up its independent mission and goals to assist the state in transitioning from petroleum to a full portfolio of low-carbon, clean alternative fuels and advanced vehicle technologies that can help the citizens and the economy-now. The reauthorization of this valuable program, possibly this year, could be at stake.

Informing the Program

The CEC should seek and explore all its capabilities to assure that the most updated and relevant market information is available and utilized when making allocations for the fuels and vehicle technologies supported in the annual Investment Plan or Updates. The CEC has the resources in place with contracts with the National Renewable Energy Laboratory (NREL), the UC Davis NextSTEPS and the UC Irvine STREET program, as well as the capable suggestions of the AB 118 Advisory Committee, to actively assess the markets and potential for all the allocations in the Investment Plan. The development of Market Assessments and Market Risk Analyses for each of the alternative fuels and vehicle technologies is easily within the capability of these supporting organizations. I encourage this work to be performed as soon as possible to better inform the specific allocations proposed in each annual Investment Plan or Investment Plan Update, the interactions with stakeholders via Topical Workshops, and to support the development of Solicitations and the evaluation of project proposals resulting from those Solicitations.

Developing Metrics

At the December 4 Advisory Committee meeting, Members Gershen and Coleman of the Advisory Committee suggested the development of "metrics", perhaps based on the Market Assessments, Risk Analyses, achieving energy goals, and other inputs from the CEC's stakeholders and technical support resources, to guide the funds allocation in the CEC's Investment Plan process. The technical support resources mentioned above are not trivial, and can be utilized in a number of beneficial ways, including the sound development of Program Metrics. The use of these resources can provide substantial relief to the staff workload requirements, bring to light important technical and market information on the fuels and technologies considered, and can be relied on for confidential and actionable recommendations solely directed to the CEC's administration of AB 118- The Alternative and Renewable Fuel and Vehicle Technology Program.

Further, I am concerned that the research of available metrics may be stifled by the current views of staff for this important issue. On slide 16 of the staff presentation at the February 28, 2013 AB 118 Advisory Committee meeting, this assertion of certainty was made as it reflected the "Staff View":

"*Near term metrics will overvalue currently mature technologies and undervalue long term investments in ZEV technologies"*.

This statement seems to assert a factual basis that is not now known, and seems to prejudge the open and equitable investigation of metrics for the fuels and technologies before the necessary information has been gathered, assessed and analyzed. The truly mature technologies are those utilizing petroleum fuels, having matured over the past 100 years- while alternative fuels and vehicle technologies do not represent any significant market share at this point. In addition, the staff view seems exclusively focused on goals for ZEV technologies instead of the statutory goals for the Program, as stated above.

Unfortunately, some specific allocations for program funding in the proposed draft Investment Plan Update are not supported with adequate and verifiable market information that would justify those allocations. Two examples of such allocations; one for Medium-and Heavy-Duty Demonstration- a $15 million allocation, and one for Hydrogen Fueling Infrastructure- a seemingly annual allocation for $20 million- come to mind, and have very scarce factual justifications, particularly as compared to the other allocation categories.

The Medium and Heavy Duty Demonstration funding of $15 million, justified to support the *Vision for Clean Air* and the draft *ZEV Action Plan*, is a worthy effort if it is directed to the results of the Energy Commission PIER Program's Natural Gas Roadmap, taking the positive conclusions of that roadmap and fostering ways to commercially demonstrate viable options it has developed. Industry stakeholders have commented that the Demonstration the hybrid or all electric medium and heavy duty technologies appears out of sync and possibly redundant with the ARB's Hybrid and Electric Vehicle Incentive Program, funded by the ARB's AQIP. The $15 million allocated to this future demonstration could be utilized across a wider array of vehicle, infrastructure and fuel production opportunities that can be much more productive in creating jobs and economic development in the short- and mid-term.

The Hydrogen Infrastructure funding allocation of $20 million is factually unsupported in the 2013-14Investment Plan Update. While it is clear that fueling infrastructure is needed to support the potential deployment of up to 54,000 FCVs by 2017, information regarding the automakers' deployment of FCVs, contained in the joint CEC/ARB annual survey is omitted from the draft Investment Plan Update, unlike prior years. Without the most current vehicle deployment information to support this investment, no one can know whether $20 million for needed infrastructure is too much, or, in fact, too little to achieve its purpose. Further, funds in this category are proposed for not only the majority of the capital expense for establishing the infrastructure, but not also for the operation and maintenance of these stations- unlike any other fuel infrastructure offering provided by the CEC. The funding of $20 million is simply not factually justified by the draft Investment Plan Update or the ARB presentation on February 28, 2013, and the omission of this crucial, factual information at a time when the reauthorization of the entire program is being considered appears ill-advised. Needless to say, several other allocations could be increased and attain a much better cost-efficiency for the near-to mid-term goals of improving fuel and vehicle choices, creating jobs and improving economic development, than the justification in the December 4 Advisory Committee presentation:

"Reflects need for new stations to keep pace with automakers' FCV deployment schedules".

In just these two areas, totaling about 35% of the CEC's annual Program allocation, the lack of sufficient information, assessments, and fact-based metrics, make the Program vulnerable both to not achieving the CEC's mission and goals, and to not providing a credible, information and metrics-based administration of the public's trust. I encourage the staff to consider the metrics for this state, the opportunity cost for accepting such unsupported areas of development in lieu of providing more balanced allocations that can make much larger contributions to the energy choices, jobs creation, economic development and environmental improvement we all seek.

Transparency

Over the past year, I have encountered many stakeholders and industry partners that are seeking more transparency for how decisions are made within the CEC's AB 118 Program, and I would like to make some suggestions as to how this might be addressed and improved.

For Solicitations, I note that the Hydrogen Infrastructure Solicitation was very well supported by several Workshops, some prior to the release of the Solicitation. This CEC action is very commendable, and would be very beneficial for the other fuels and vehicle technologies, and could be well supported by the CEC's strong team of technical support organizations under contract.

The publication of Market Assessments, surveys of automakers for all the fuels, not just Hydrogen Fuel Cell Vehicles, and the linking of current reports and publications for the affected fuels, vehicles and industries on the Drive web site, would be most useful to exiting stakeholders and Program participants, and especially useful to those not familiar with the Program, but wishing to find a way to participate.

The CEC's Docket for the Investment Plan proceedings and the Program in general, can be a very useful tool to inform the Program, and to involve the stakeholders and potential participants in communicating with the CEC. Currently, the following is noted on the Docket page for Docket Number 12-ALT-02:

"PLEASE NOTE: This Docket Log is only a ***listing*** *of all the documents filed in a proceeding. It was not set up to have links to all documents filed in a proceeding. Not all documents are available on line."*

It is important to note that many other programs in other state and federal agencies have found it important to provide immediate electronic access to the Docket-submitted materials, and have found a way to provide the documents on line. In addition, some agencies provide written responses to the issues presented in Docket materials, in a timely manner. I had hoped this could be accomplished from my first day as Program Manager, but this is much more critical now, and one would think that this capability is even more technically possible now as well. Until that time, I suggest that hard copies of comments, such as these presented herein, be sent directly to Commissioners and Program management staff to better assure their consideration.

Areas of Increased Need

Refocusing the allocations in the AB 118 Investment Plan can fund the 'existing' opportunities to a larger potential, resulting in much more immediate benefits to reducing petroleum use, increasing the availability of low-carbon fuels and vehicle technologies and reducing GHG and other criteria emissions- is entirely possible. It is those opportunities, in the near- and mid-term, that will be responsible for the jobs creation and needed economic development for California- the stated and urgent focus for the Program.

Providing incentives for the portfolio of all alternative-fueled vehicles of all sizes, increasing strategic infrastructure investments to those fuels that are in commerce now, efforts to certify and deploy vehicle upfits and conversions for alternative fuel vehicles, and a much broader effort for educating fleets and the public about the alternative and renewable fuels and vehicle technologies, are all areas that can have a much stronger effect and uptake in the market that currently exists.

I note that the allocation for incentives for Propane vehicles was "zeroed out" due to funds remaining from prior Investment Plan allocations. The development of alternative fuels and vehicles is not easy, and the current ARB certification procedures for these vehicles in California are overly costly, time-consuming and discouraging for manufacturers. Certification can cost up to ten times that needed for US EPA certification, can take up to four times longer, resulting in regulatory uncertainty for sales, and a 'bottle-necked' market for California, and ten other states. This ARB certification process is just now starting to be addressed, but to cut funding for this viable, lower-carbon, lower cost alternative fuel sends a market signal of impatience, reduces the 'portfolio' of available choices for consumers and fleets, and can actually turn back the progress achieved to date. For example, Freightliner is about to introduce Propane powered class 5, 6 and 7 trucks into full production starting June 1, 2013. I suggest a $2 million allocation be reinstated for propane- now a viable, lower cost fuel choice for the School Bus replacement market, and several other existing and emerging vehicle applications.

I am hopeful that the direction of the Program can be refocused to the areas that can provide the most benefits- jobs, economic development, sustainable markets- in the shortest time, and that this will result in the reauthorization of this landmark program for the development of alternative and renewable fuels and vehicle technologies in California; and that it sets a standard for the rest of the nation.

Thank you for all your efforts- I have a true appreciation of how difficult this work can be- and for the opportunity to provide these observations and input, which I hope are beneficial. I am happy to discuss these comments further, and I look forward to even greater successes for California's Alternative and Renewable Fuels and Vehicle Technologies Program, and its successful reauthorization.

Best Regards,

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