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TO: California Energy Commission Commissioners and Staff
FROM: John Boesel, President and CEO
RE: Docket Number 10-ALT-1 – Advisory Committee for AB 118

Clean Transportation Technologies and Solutions

www.calstart.org

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The AB 118 program is a vitally important part of California's efforts to ensure a prosperous and sustainable future. AB 118 investments made by both the California Energy Commission (CEC) and the California Air Resources Board (CARB) are helping to improve the outlook for California's economy and environment by making the state's transportation system cleaner and more efficient. As a direct result of the AB 118 program, Californians will have an increasing array of choices regarding transportation options, fuels, and vehicles. We should see a large number of ethanol, biodiesel, propane, natural gas, hydrogen, and electric re-powering locations around the state as a result of the CEC's positive investments. We are finally moving toward a future where petroleum-powered vehicles are not our only option.

Relative to Europe and Japan, the prices for gasoline and diesel are low and do not full costs associated with these fuels. Emissions from conventional vehicles generate significant health expenses. The cost of having a military that protects the free flow of oil around the globe is not reflected in the price at the pump. As a result, on the surface, clean alternatives appear expensive in comparison with conventional fuels. As a result, to create a level playing field, we need strong and robust incentive and public investment programs such as AB 118.

CALSTART acknowledges and appreciates the tremendous effort put for the by the CEC staff and commissioners to make the AB 118 program a success. Both the commissioners and staff deserve significant praise for their work to date. However, particularly in the start-up phase, any initiative should be open to learning and improving. We are therefore providing comments on the investment plan and program implementation with the goal of helping this vitally important program become even better. We start by providing high level comments on the investment plan structure and process, and then move on to provide comments on specific elements of the draft investment plan.

Improving Efficiency and Flexibility in the Investment Plan Process

CALSTART encourages the CEC to remain flexible, with a focus on efficiently implementing the program and reaching key performance goals and end results. To that end, we recommend that the CEC incorporate the following recommendations into the investment plan process:

- **Look for investments that will lead to self-sustaining changes.** Vehicle and fuel incentives should be provided when there is a clear exit strategy and evidence indicating that they will be temporary in nature and meaningful in impact. CEC should invest where there is a clear path forward and a reasonable expectation that the market will be able to take over. The need for a given incentive should decline or disappear over a reasonable timeframe such as five to seven years.

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- **Maintain flexibility to fund the best projects rather than limiting investments according to pre-defined technology buckets.** Consistent with CALSTART's comments on the FY2010-2011 plan, the plan should focus more on performance outcomes and be less specific in terms of how many dollars will go toward each specific fuel or technology. The art of picking technology winners is a challenging one, and it would be best if the investment plan and solicitations were based on performance outcomes.
- **Produce two-year investment plans with a focus on performance targets.** We recommend that CEC and the Advisory Group produce a two-year investment plan that is more oriented toward performance outcomes. The current process of producing the annual plans is time consuming and resource intensive. In an era of major reductions in government spending, we should be looking at ways to save money and improve processes. It's worth noting that several organizations have also recommended that the state move toward a two-year budget process as a general process improvement.

Comments on Specific Elements of the FY2011-2012 Investment Plan

In addition to the overarching comments on the plan and process as a whole, CALSTART would like to provide feedback on several specific elements of the draft investment plan. As outlined above, our goal in making these recommendations is to ensure that CEC maintains the flexibility to use limited state dollars in the most efficient way possible to achieve California's economic and environmental goals. Some of these recommendations call for modifications to certain elements of the plan that could improve flexibility. Others call on CEC to make use of the authority it has to use additional investment tools.

Increase flexibility and efficiency for biofuels investments

The plan wisely calls for a number of investments in advanced or very low carbon biofuels. In general, that's a smart decision. However, the inclusion of specific dollars amounts for very specific types of technologies will limit the overall effectiveness of the program, resulting in missed opportunities and a sub-optimal allocation of state resources. As noted above, we believe it makes sense for CEC to maintain flexibility and fund the best projects in a given area. Having narrow, pre-defined funding categories is not consistent with this goal. Second, there a number of companies (both inside California and elsewhere) that are developing next generation biofuels that don't fit neatly in any of the specific categories outlined in the plan. In order to address these challenges, we recommend that CEC do the following:

- Put the funds allocated for advanced or low carbon biofuels into a single broad, flexible category. Any organization able to produce a biofuel in-state that meets our air quality objectives and produces 50 percent (or less) greenhouse gas emissions should eligible to compete.
- Define the category and solicitations such that an entity can submit a single application to receive funding that supports not only the fuels production plant, but also the vehicles and refueling station connected to the project. Not all



competitors will want to ask for funding for vehicles and a refueling station, but if they're essential and the state gets very significant carbon and criteria emission reductions per dollar spent, the project should be supported. This comprehensive and flexible approach would also allow entities to submit a single proposal. For both the CEC and the applicants, this process is more efficient than one which requires multiple proposals for the plant, the vehicles, and the refueling station.

Ensure ongoing and flexible investments in medium and heavy duty vehicles

Investing in advanced medium- and heavy-duty vehicles is a good decision, and one that is very consistent with the need to reduce criteria emissions under the new proposed National Ambient Air Quality Standards (NAAQS). The CEC should retain the ability to invest in advanced technology that can be used in buses, trucks, and non-road vehicles. Of these three markets, the truck sector is the largest but not an area where new technology is easily adopted. The transit market often serves as a proving ground for advanced heavy-duty vehicle technologies. Advanced technologies then make their way to the on-road truck sector, and finally to off-road vehicles. Despite its small size relative to the light duty sector, the medium and heavy duty vehicle sector is a major source of fuel usage, greenhouse gas emissions, and criteria emissions in California. Continued investment is a wise choice.

Move ahead with flexible investments in California manufacturing

The draft plan calls for \$10 million to fund projects that establish commercial-scale alternative fuel vehicle and component manufacturing facilities in California. We strongly support funding for clean technology manufacturing in general, as it has the potential to help build a strong, sustainable clean energy economy well-suited to the needs of the 21st century. Furthermore, the language in the investment plan suggests that this funding category will be broad, flexible, and not tied to any specific technology. This approach is directly in line with our overarching recommendations on maintaining flexibility and steering state resources toward those projects that have the greatest promise to help California meet its goals.

Take advantage of authority to make flexible investments vehicle and fuel technology innovation

As noted in the investment plan, the enabling statute gives CEC the authority to:

"...make public investments in opportunities not specifically identified in the annual investment plan including: projects that optimize alternative and renewable fuels for existing and developing engine technologies; control systems and vehicle/fuel integration systems; advanced internal combustion engines that result in at least 40 percent efficiency improvements; lightweight materials; energy storage; battery recycling and reuse; engine and fuel optimization, electronic and electrified components, idle management technology, and aerodynamic retrofits that decrease fuel consumption."



CEC has not yet made investments in this broad and flexible area, and we would like to better understand why. CALSTART and its member companies have numerous ideas that don't fit neatly into any of the other buckets and would like to engage CEC on this topic. Based on our current inventory of ideas for this area, we would recommend that CEC do the following:

- Allocate at least another \$5 million for innovative technologies and ideas. This would provide the flexibility needed to fund strong projects or opportunities that do not fit nicely into the pre-defined project categories.
- Consider providing funding (possibly up to the full \$5 million) for a competitive "1,000 Jobs" program. Under this program, the CEC could create an independent evaluation board to review proposals from any organization that puts forward a plan to create 1,000 clean transportation technology industry jobs in California within the next three years. This sort of creative and competitive program could generate many good ideas and help generate new job growth in California.

Use block grant authority provided in enabling statute to leverage in-state talent and lessen the demands on CEC staff

Given the state's limited resources and the hiring freeze, the CEC should think creatively about how to leverage outside expertise in implementing the AB 118 program. There are organizations within the state that CEC can tap to assist in the implementation of this program. For example, our organization has considerable expertise in facilitating the development of a wide array of advanced technologies. Presently, CALSTART manages a wide array of leading medium- and heavy-duty vehicle technology programs. We have a lot to offer and the state should effectively consider "out-sourcing" some of its work and taking advantage of California-based organizations such as ours. In particular, we recommend that CEC:

- Strongly consider making full use of the block grant authority provided in the statute creating the program. This authority allows the state to leverage in-state talent and provide a small number of large awards that would advance a certain area.

Investing in a Clean and Secure Transportation Energy Future

CEC's implementation of AB 118 has put California on a path to a cleaner, more secure, and more prosperous future. The progress to date is impressive in the face of limited state resources and a severe economic downturn. The need for public investments in clean transportation is particularly important today as we strive to maintain momentum. We look forward to engaging with staff and would be happy to answer any questions or provide more information on the recommendations included here. Thank you for the opportunity to provide comments, and for your work in implementing the program to date.