March 8, 2013

California Air Resources Board
1001 I St.
P.O. Box 2815
Sacramento, CA 95812

RE: Cap-and-Trade Auction Proceeds Investment Plan

CALSTART is a fuel- and technology-neutral clean transportation technologies consortium headquartered in Pasadena, with a second California office in the Bay Area. We have approximately 150 member companies that include clean vehicle and fuel suppliers, manufacturers, and users. Our work with our members has given us a solid understanding of low carbon transportation technology trends, potential, and investment needs. We appreciate the opportunity to provide comments on the Draft Concept Paper for the cap and trade auction proceeds investment plan. We also contributed to group comments with other clean technology industry stakeholders through the Clean Energy Working Group, but we wanted to provide some more detailed input on the transportation sector.

Investment Principles and the Transportation Sector

First and foremost, we strongly support the investment principles outlined in the concept paper. In drafting these principles, staff has identified the key issues and considerations that should frame the investment plan process. The principles are paraphrased and grouped below, and we argue that clean transportation technology investments "score well" on all of the investment principles and priorities.

Investments in Transportation Sector GHG Reductions Should be a Top Priority

We agree that investments must further the purposes of AB 32, in order to help achieve our state goals and to meet the legal requirements of the "Sinclair test" (ARB Draft Investment Principle #1). We also agree that investments should be prioritized toward sectors with both the highest GHG emissions and the greatest need for future reductions to meet GHG goals (ARB Draft Investment Principle #3). We would add that it makes sense to target sectors that most need public investment in order to achieve emissions reductions.

With these goals in mind, clean transportation technology investments should be a top priority. The transportation sector is the largest single source of climate pollution in California, representing nearly 40% of state GHG emissions. The transportation sector "share" of GHG emissions approaches 50% when one accounts for emissions from oil refining, which is largely a transportation-related activity.

Reducing emissions from the transportation sector will require substantial public investment. Transportation choices are made by individual consumers and businesses, meaning you cannot drive sufficient change solely through regulation. Cleaner technologies are currently more expensive than their conventional counterparts, creating a barrier to deployment. Infrastructure needs are another hurdle. Investments are needed to address market barriers to move to a cleaner transportation future.

Put simply, we cannot address our GHG emissions challenge without reducing emissions from the transportation sector, and we cannot transform this sector without public investment to overcome market barriers and transition costs.

Achieving Our Goals Will Require a Balanced Portfolio Approach

We strongly agree with staff that California should pursue a balanced portfolio investment approach that includes both (a) investments with incremental near-term GHG emission benefits, and (b) investments in transformative technologies and strategies needed to achieve longer term goals. Both strategies are crucial and should be pursued concurrently (ARB Draft Investment Principle #2).

Some may interpret "cost-effectiveness" to call for a strict focus on tons reduced per dollar invested in the near term. However, this near-sighted approach would hinder our ability to develop the technologies and strategies we need to meet longer term goals. We would argue that such an approach is not cost effective at all over the longer term.

Looking at our long term climate goals, as well as our air quality needs, it is clear that investing in carbon reduction for the transportation sector is absolutely critical. ARB's Vision for Clean Air Framework outlines the scale of the challenge we are facing. We need to start now if we want to transform this sector, and we need a mix of investments.

Investments Should Maximize In-State Benefits, Particularly in Disadvantaged Communities

We agree with staff that "state agencies should seek to maximize investments in and benefits to disadvantaged communities wherever possible" (ARB Draft Investment #4), as required by SB 535. Transportation sector investments almost invariably benefit disadvantaged communities by improving air quality in these areas, and by providing mobility and access to economic opportunities.

70% of our criteria air pollution is from mobile sources. Disadvantaged communities, particularly along major freight movement corridors, tend to suffer disproportionately from vehicle emissions. Investments in clean, low-carbon transportation technologies will directly benefit people living in these areas. Planning and transit investments will also benefit disadvantaged communities by improving mobility options for those without reliable cars.

We also agree with staff that "investments should foster job creation and maximize economic benefits for California wherever possible" (ARB Draft Investment #5). Investments in carbon reduction from the transportation sector tend to improve system-wide efficiency, yield savings for California residents and businesses. Moreover, reports have shown that California is an industrial hub for clean vehicle and fuel technologies, due in part to the fact that the state has directing investments to this sector. We support continued investment in projects that benefit California's economy, and believe there are several opportunities for these investments in the transportation sector.

Investments Should be Targeted, Efficient, and Coordinated

Turning from investment priorities to program implementation, we believe it is important to ensure that these auction proceeds are invested in smart and efficient ways. To that end, we agree with staff that "Investments should be coordinated with other local, State, and federal funding programs and avoid duplicative efforts. The State should coordinate its clean energy, transportation, and climate change investments to maximize their impacts" (ARB Draft Investment Principle #6). Leveraging existing programs – such as the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP) and the Air Quality Improvement Program (AQIP) created by AB 118 – will help ensure coordination.

We also agree with staff that "funding should leverage private and other government investment to the maximum extent possible (ARB Draft Investment Principle #7)." Existing programs in the transportation sector have been very effective from this standpoint. The AB 118 program has attracted over $105 million in federal funding, and the program actually sets aside funding for federal cost share. The program has also leveraged nearly $600 million in private sector investments. Other existing clean transportation programs, including the Carl Moyer Program and the PLACE program, are set up to leverage private funding and could potentially serve as models for GHG reduction programs as well (though they are not currently designed that way).

We do note that there is room for some additional coordination. For example, programs could better leverage synergies between distributed generation and electric vehicle charging by bundling incentives for these technologies. Similarly, there are cases where it would make sense to bundle incentives for clean vehicles and refueling infrastructure so as to eliminate the need for end users to apply for two separate sources of funding.

Investment Recommendations

We recognize that there are many compelling investment needs and competing priorities. We commend ARB staff for the work to date and believe the principles above provide the right framework for investment. We also support the Preliminary Concepts outlined in the Draft Concept Paper. The Early Action, Transition, and Transformation stages align well with the needs we are seeing. We are also happy to see both near term and longer term projects called out as example projects in Figure 9. The transportation projects listed, while heavily focused on electrification, are all things that we see as necessary. Below, we have provided thoughts on the types of investments needed.

Light Duty Vehicles and Infrastructure

There is still a clear need to invest in cleaner, lower carbon light duty vehicles and infrastructure. We need to see broad market success for Zero Emission Vehicles in order to meet our state goals and commitments. The Clean Vehicle Rebate Project under ARB's AQIP program provides purchase incentives for these vehicles, but more funding is needed to reach the market volumes that California needs. Furthermore, investment is needed in refueling infrastructure for electricity and hydrogen to support these vehicles.

Medium and Heavy Duty Vehicles and Infrastructure

Trucks and buses represent a substantial and growing share of California's transportation-related greenhouse gas emissions. Moreover, these vehicles are responsible for many of our air quality and particulate matter problems. This is especially true in disadvantaged areas around the ports and along major goods movement corridors such as the freeways of the San Joaquin Valley. Reducing emissions from the truck and bus sector is vitally important. Cleaning up this sector will also provide substantial air quality improvements, particularly in disadvantaged communities.

ARB's Vision for Clean Air Framework calls for a dramatic transformation of our state's truck fleet, with a strong focus on electrification. CALSTART has been working with a very broad group of expert stakeholders through the California Hybrid, Efficient, and Advanced Truck Research Center (CalHEAT) to develop a roadmap for policies and investments needed to meet emissions targets for the truck sector in California. The CalHEAT Roadmap includes 66 specific action items and investments, with an eye toward meeting our near term and long term GHG goals. The plan will be released later this month at the CalHEAT Forum in Sacramento, and it provides compelling reasons to increase technology investments in this area.

The outstanding investment needs in the truck and bus sector include research, development, and demonstration as well as deployment funding. Advanced technologies for these heavy duty vehicles are not as far along in the commercialization process as they are for passenger vehicles, and many of the technologies needed for cleaner trucks are simply not yet ready to deploy at scale. Increased investment in this area – guided by the CalHEAT Roadmap and supplemented with infrastructure funding – should be a top priority because it is both necessary from an emissions standpoint and beneficial from an air quality standpoint.

Alternative Fuels

We need a lower carbon fuel supply in California in order to meet AB 32 and Low Carbon Fuel Standard goals. There is a role for public investment to support the development and commercialization of advanced "next-generation" biofuels. Funding is needed for research, development, demonstration, and testing, as well as production facilities. California is already home to several leading advanced biofuels companies, and investments to date in this sector have helped jumpstart an advanced biofuels industry in the state. However, financing for new facilities remains challenging, especially in the face of regulatory uncertainty, and funding is needed to help new fuels cross the "Valley of Death." There may also be room for the state to play a role in commercialization by purchasing these fuels through long-term contracts that can give some certainty to fuel producers.

Other Investment Areas

There are several transportation technology-related investments not mentioned above that could support AB 32 goals. These include investments to support in-state manufacturing of clean transportation technologies, standards and certifications for new fuels and technologies, research and planning to guide future investments, and outreach and education efforts to facilitate the transition to a cleaner future. We recommend maintaining the flexibility to support these sorts of investments where appropriate.

Finally, we have not yet mentioned land use, planning, and transit investments. These investments are also vitally important for reaching our longer term emissions and economic development targets and for meeting the goals of SB 375. Programs to connect people to transit, improve transit operations, and ensure that our state grows in a sustainable manner are an important complement to technology-focused investments. We need to invest in both technology and system-wide planning and efficiency.

Program Management and Implementation

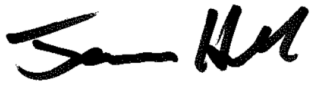
The state has existing programs in place today that can be augmented with auction proceeds. The Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP) and the Air Quality Improvement Program (AQIP) created by AB 118 were created specifically to address transportation emissions needs. These programs have proven track records, built-in flexibility to adjust to market needs, and sufficient statutory authority to invest in a wide range of low carbon fuels and vehicle technologies. AB 118 is also highly oversubscribed, suggesting that there is a need to supplement existing AB 118 funds. Leveraging the AB 118 programs would be an efficient, cost-effective way to invest in transportation sector emissions reductions. This would allow the state to quickly achieve near-term GHG reductions through existing channels by avoiding the time it takes to create entirely new programs.

There may also be room for new programs to support financing for cleaner transportation options. The comments from the Clean Energy Working Group discussed a Sustainable Development Bank that could be the vehicle for new financing mechanisms. Similarly, a program such as the PLACE loan program for trucks could provide the structure and model for a financing program focused on cleaner, more efficient vehicles. These are just examples of program structures worth considering.

In conclusion, targeted investments in transportation technologies and strategies will help the state achieve measureable GHG reductions in both the near- and long-term. These investments also capture important co-benefits such as job creation and criteria emission reduction in disadvantaged communities. AB 118 provides a proven, existing program structure for these investments, and ARB may wish to consider new programs as well to fill other needs.

We appreciate the opportunity to submit comments on this important matter and look forward to working with you as you develop the Investment Plan.

Sincerely,



Jamie Hall
Policy Director
CALSTART