DATE June 22, 2012

TO: California Energy Commission Commissioners and Staff
FROM: Jamie Hall, Policy Director
RE: Comments on Cap and Trade Auction Revenues; 5/24 Hearing Follow Up

Public investments in transportation sector greenhouse gas emission reductions should be a top priority for California as the state looks to achieve the goals set out by AB 32. Though there are several regulatory programs and policies in place to drive changes in the transportation sector, incentives and investments are still needed to help California reach the 2020 and 2050 emission reduction targets. Revenues from an auction of AB 32 emissions allowances provide an opportunity to address market barriers, help ensure success of key programs, and achieve several other policy goals. We recognize that there is no shortage of ideas on how best to invest auction revenues. These comments are intended to provide some guidance, help prioritize investment categories, and highlight the many compelling reasons for a strong focus on transportation-sector investments.

ARB Should Prioritize Investments Based on Needs and Potential Benefits
CALSTART believes that AB 32 auction revenues should be invested in technologies, projects, and infrastructure that help the state achieve AB 32 targets and related policy goals. We therefore recommend that ARB ask two separate but related questions about potential investment categories:

- **Where is public investment needed most to reduce GHG emissions?** As a general rule, public funds should only be used to directly address market barriers and needs that will not otherwise be met by private capital. This may mean no longer providing funding for some technology categories that have a clear path forward without incentives, and really zeroing in on those strategic investments that yield the greatest additional benefits.
- **What co-benefits will potential investments provide?** Given the state's limited resources, it is important that California get multiple public benefits for every dollar invested. Proactively focusing on those opportunities that provide the greatest "co-benefits" can help the state to further prioritize investments and achieve additional policy goals.

Filtering potential investments using these criteria will help California maximize "bang for the buck." The best investments will bring about emission reductions that would not otherwise have occurred while helping California achieve other pressing and related policy goals, including better air quality, public health, environmental justice, energy security, consumer choice, and in-state job growth. Transportation-sector investments are a clear win-win that can help on all fronts.

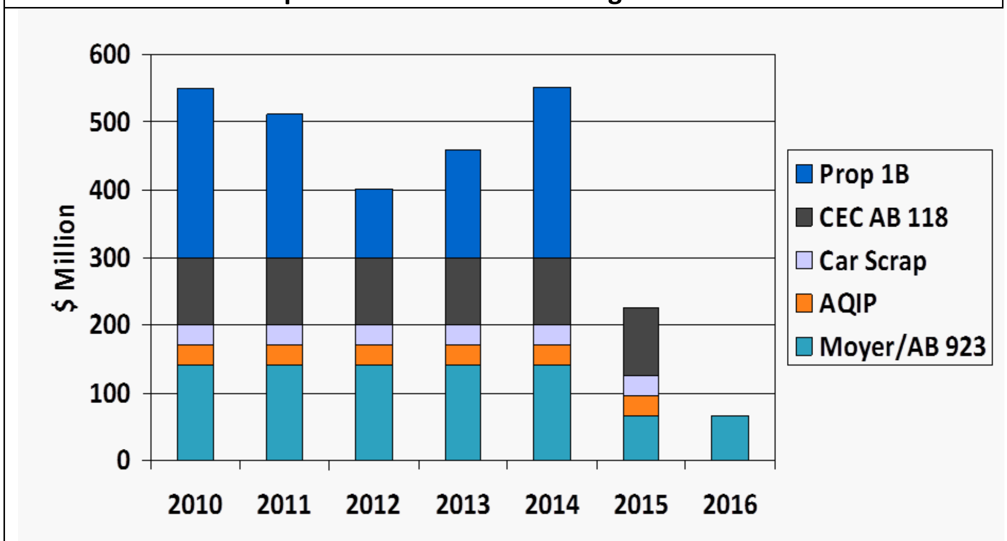
There is a Pressing Need to Invest in Transportation-Sector Emission Reductions
Reaching the 2020 and 2050 emission reduction targets without substantial investment in changing our state's transportation system will be difficult or impossible. The transportation sector is the largest single contributor to greenhouse gas emissions in California. When you take into account emissions from oil extraction and refining (the majority of which is tied to the transportation sector) transportation-related emissions are nearly 50% of overall emissions in the state. Achieving the AB 32 targets without driving real change in the transportation sector therefore seems unlikely.

O F F I C E S I N :
48 S. Chester Ave, PASADENA, CA 91106 • 626.744.5600 • FAX: 626.744.5610 | 14062 Denver West Pkwy Suite 300 LAKEWOOD, CO 80401-3188 • 303.825.7550 • FAX 626.744.5610
1160 Brickyard Cove, Suite 101, POINT RICHMOND, CA 94801 • 510.307.8772 • FAX: 510.307.8706

The need for emissions reductions from this sector is widely acknowledged, and there are several programs and policies in place to improve efficiency, accelerate technology innovation, and modernize our overall transportation system. Among others, these include the Zero Emission Vehicle program, GHG emission standards for light duty vehicles, the Low Carbon Fuel Standard, and smart growth policies under SB 375. While the creation of these programs is a step in the right direction, successful implementation is unlikely without public incentives and investments. Market barriers, transition costs, and simple inertia favor a transportation system that is dominated by petroleum fuels and highly reliant on the personal automobile. Changes to land use, transit systems, and vehicle and fuel technologies will not come about without substantial public investments to complement the state's forward-thinking policies and regulations.

For the past several years, California has been investing roughly $500 million per year in clean transportation technologies, through a number of different programs. These include the Carl Moyer program, the AB 923 program, the Proposition 1B Goods Movement Emission Reduction bond funds, and the AB 118 program. AB 118 is the only program that actually targets greenhouse gas reductions, though other clean transportation funds could also help drive progress. Unfortunately, nearly all of the state's incentive programs are set to expire in the near future. This fact underscores the need for ongoing clean transportation investments.

California Clean Transportation Incentive Funding



Source: California Air Resources Board

Investments in Transportation Will Yield Substantial Co-benefits

Investing in cleaner transportation technologies and practices is a win-win. In addition to reducing greenhouse gas emissions, these investments can also help achieve many other related policy goals:

- **Improving air quality, public health, and environmental justice:** combustion of petroleum fuels in California releases several harmful pollutants into our air. The health and economic consequences are large and well-known. Moreover, the negative impacts of poor air quality from transportation emissions tend to be worse in already disadvantaged areas such as the San Joaquin Valley and the "diesel death zone" around the ports of L.A. and Long Beach.

- **Increasing energy security and consumer choice:** efforts to reduce transportation sector GHG emissions will, in most cases, also improve our energy security and increase consumer options for mobility. This is true for alternative fuels, fuel-saving technologies, and transit and planning projects that give people alternatives to the personal automobile.
- **Supporting jobs and maintaining a "California Advantage:"** California is a world leader when it comes to advanced transportation technologies. Many of the fuel and vehicle technologies needed to solve the world's transportation energy challenges are already developed and manufactured here in California.

ARB Should Target Several Transportation-Sector Market Barriers with AB 32 Revenues
Transitioning to a cleaner transportation future will require targeted investments in several key areas, as outlined below:

- **Market and Deployment Support:** One of the most pressing needs over the next 5-10 years is purchase incentives to ensure the market success of many clean vehicle and fuel technologies that are finally coming to market. These incentives should be predictable, performance-based and limited in duration. Key needs and potential mechanisms are outlined below:
    - **Point-of-sale purchase incentives** are needed over the next 5-7 years to sustain market demand for advanced cars, trucks, buses and non-road vehicles. Simple vouchers and rebates provided through ARB's AQIP programs have been very effective to date.
    - **Deployment funding for refueling** infrastructure is needed in the early years as alternative fuels seek to gain a foothold in a market dominated by ubiquitous gas stations. This includes electric and fuel cell cars, as well as advanced trucks, buses, and off-road vehicles. This also includes refueling infrastructure and advanced biofuels. Simple point-of-sale vouchers for vehicles have been very effective. Other possibilities include, but are not limited to, grants, tax exemptions, and state purchase commitments. The success of many of California's forward-thinking policies depends on market acceptance of new technologies, and deployment incentives have an important role to play here.
- **Research, Development, and Demonstration (RD&D) Support for New Technologies:** There is an ongoing need to accelerate the commercialization of new technologies by funding RD&D for advanced, low-carbon technologies. Funding should target key needs for off-road as well as on-road cars, trucks, buses, and other vehicle and fuel categories. Innovation market failures have led to consistent under-investment in RD&D on the part of the private sector. ARB should pay particular attention to technology segments that can deliver transformative change or very good "bang for the buck." As always, ARB should ensure that public investments are not displacing private RD&D funding, but rather filling critical gaps.

- **Funding for Land Use Planning, Mobility, and Transportation System Efficiency:** The goals set out by SB 375 (Steinberg) start to drive progress on GHG reductions from land use and system-wide efficiency – the so-called "third leg of the stool." However, achieving the SB 375 goals and further reducing transportation-sector emissions will require public investments in planning, mobility, transit, and transportation-system efficiency. ARB should consider using AB 32 auction revenues to reduce transportation-sector GHG emissions through planning and system-wide efficiency measures. Examples of such expenditures include transit operations and maintenance, low-carbon buses and other transit technologies, repair and maintenance of existing infrastructure that helps advance SB 375 goals, bike and pedestrian infrastructure, transportation demand management programs, and efforts to link people to transit through "first mile" programs.
- **Clean Energy Jobs in California:** CALSTART believes it is appropriate to use allowance auction revenues to promote in-state job growth in the clean energy and transportation arena. Providing incentives for in-state job growth helps to ensure that California reaps economic as well as environmental benefits from AB 32 and related programs. Additionally, in-state manufacturing for clean energy and transportation technologies will often reduce greenhouse gas emissions from the manufacturing process. This is because California's energy mix is low carbon relative to national and international averages, and also because building goods near end use markets in California reduces lifecycle emissions associated with transportation of finished products from factories outside the state.
- **Market Facilitation:** There are many other potential activities that can contribute to GHG reductions, but that fall outside of the categories above. These include permitting assistance, market research, workforce development, and outreach activities. In the clean transportation sector, public funding could advance plans for zero emission goods movement corridors through market and technical research. Limited public funds could also be used to facilitate deployment of electric vehicle charging infrastructure by addressing permitting and information barriers.

Given the tight timeline for emissions reductions and the delays associated with setting up new investment programs, ARB may wish to consider investing some auction revenues through existing programs in the early years. On the transportation side, this would mean using AB 32 auction revenues to extend and expand the AB 118 program, which is currently set to expire in the near future. Over time, we believe ARB may prefer to either amend existing programs or create a new overarching program so as to better coordinate funding to achieve the stated goals of AB 32.

We recognize the fact that ARB has many competing interests to balance when it comes to investment of auction revenues, and we thank you for the opportunity to participate in the process.