September 1, 2015

California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Comments on the Cap-and-Trade Auction Proceeds Second Investment Plan – Draft Concepts for Public Discussion

Thank you for the opportunity to submit comments on the Second Investment Plan Concept Paper. The Donald Vial Center on Employment in the Green Economy at the University of California, Berkeley carries out research on the job and workforce impacts of climate and clean energy policy in California. We offer the following recommendations to guide the development of the Energy Efficiency and Clean Energy components of the Draft Second Investment Plan, to ensure that California's climate investments support good quality jobs.

Recommendations:

1. **Allocate additional funding for energy efficiency and clean energy projects on public buildings, including municipal, university, school, and hospital (MUSH) buildings.**

The Draft Concept Paper states that "clean energy and energy efficiency have traditionally received substantial public support" however, public buildings still have a large potential to reduce greenhouse gas emissions through energy efficiency and clean energy investments. This investment, if designed to promote apprenticeship and local and targeted hire, can help fulfill SB 535 requirements to provide benefits to disadvantaged communities by providing pipelines into career-track construction jobs for community members.

- The Cap and Trade Expenditure Plan currently allocates $20 million annually for energy efficiency projects in public buildings and $60 million combined to the University of California (UC) and California State University (CSU) systems. However, use of this funding is limited to state-owned buildings and UC/CSU properties, respectively.
- The Investor-Owned Utilities (IOUs) allocate a small portion of ratepayer funds to programs serving the MUSH sector but our research suggests a substantially higher need for these investments than currently available.[1]
- Proposition 39 directs up to $550 million annually for five years to energy efficiency and clean energy projects for K-12 public schools and community colleges but, to date, the

[1] www.irle.berkeley.edu/vial/publications/zne-mush-socalren14.pdf (pp. 17-18)

program is receiving less than the full authorization due to lower-than-anticipated tax receipts. Program demand remains high and additional investments could produce deeper retrofits (i.e. zero net energy buildings) to help achieve the state's ambitious mid- and long-term greenhouse gas reduction goals.

Directing additional Greenhouse Gas Reduction Fund (GGRF) investments to energy efficiency and clean energy projects on public buildings would also, importantly, create good jobs because contractors working on public works projects must pay prevailing wages and utilize apprentices for a minimum percentage of work hours.

Many energy efficiency and clean energy jobs are in the construction sector, where apprenticeship—a regulated, earn-while-you-learn, multi-year training system that includes a clear wage ladder as skills and experience are acquired—is the gold standard for high quality training and career advancement. Apprenticeship programs accept, each year, only as many trainees as are needed to meet projected demand for their labor. As a demand-driven training program, apprenticeship avoids the pitfalls often associated with workforce development: training more people than there are jobs. Policies that encourage more projects to utilize state-registered apprentices will create more openings for workers who can obtain middle-class careers in the industry. In addition, when combined with strong pre-apprenticeship programs and targeted hire agreements, these strategies can broaden career track job opportunities in disadvantaged communities.

2. **Implement labor standards to improve job and work quality for low-income residential (single and multi-family) energy efficiency and clean energy projects.**

Our research has shown that residential energy efficiency and solar jobs, including weatherization jobs for programs administered by the IOUs and the California Department of Community Services and Development (CSD), can be low-wage jobs with few opportunities to move up career ladders[2]. Maximizing the economic co-benefits of California's climate investments requires ensuring a strong wage floor and ladders up the wage scale as skills are acquired. The CSD low-income residential energy efficiency and solar programs currently funded by the GGRF do not include a wage floor or structured opportunities for advancement.

An example of a low-income residential energy efficiency program that includes strong labor standards is the Los Angeles Department of Water and Power (LADWP) low-income weatherization initiative. The initiative includes the Utility Pre-Craft Trainee (UPCT) program,

[2] http://www.irle.berkeley.edu/vial/publications/WET_Part1.pdf (page 103); http://laborcenter.berkeley.edu/are-solar-energy-jobs-good-jobs/

jointly operated by LADWP and the International Brotherhood of Electrical Workers (IBEW) Local 18.[3] UPCT is an earn-while-you-learn, pre-apprenticeship program linked to utility apprenticeship, providing a pipeline into utility jobs that will face shortages as workers retire. Trainees work full time weatherizing the homes of low-income utility customers while learning other skills and preparing for the civil service exams and career opportunities in the utility. The program includes a wage standard of $16 per hour plus benefits, considerably more than most workers earn doing residential weatherization, and works with community groups to help connect low-income communities to weatherization services and job opportunities.

Thank you for considering these comments and for your ongoing work to implement climate and clean energy programs in California. Please contact Carol Zabin (510-642-9176, zabin@berkeley.edu) or Megan Emiko Scott (510-643-7646, megan.scott@berkeley.edu) if you have any questions or if we can be of assistance.

Sincerely,

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[3] http://laborcenter.berkeley.edu/greenjobs/training_future.shtml