October 30, 2015

Mary D. Nichols, Chair
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

Subject: Comments on the Draft Short-Lived Climate Pollutant Reduction Strategy (September 2015)

Dear Chair Nichols:

On behalf of Sierra Club California and its more than 380,000 members and supporters in California, I am writing to offer our recommendations on the latest draft of the Short-Lived Climate Pollutant Reduction Strategy, released in September 2015**.**

Sierra Club California is in strong support of AB 32 programs and initiatives, and we appreciate the opportunity to comment on the California Air Resources Board's (CARB) Draft Short-Lived Climate Pollutant (SCLP) Reduction Strategy (Draft Strategy). These efforts help California achieve our greenhouse gas (GHG) emissions reduction goals by developing a SLCP strategy that, as the draft notes, will include "an inventory of sources and emissions, and identification of additional research needs that will guide the development of strategies and measures". [1]

The SCLP Draft Strategy offers a unique opportunity to highlight the new proposed additions to the draft strategy. Nonetheless, there are several improvements that will allow CARB to maximize on the SCLP reductions.

Sierra Club California offers the following recommendations to ensure strong and clear climate actions are reflected on the SCLP Draft Strategy:

Black Carbon Emissions

CARB has employed a variety of strategies that have reduced black carbon emissions from mobile sources, including lower emission standards, clean fuel requirements, in-use rules, incentives, and investments in research and new technology. The following recommendation is meant to assist CARB staff in furthering those strategies:

[1] Short-Lived Climate Pollutant Reduction Strategy- Concept Paper, pg. 17

Mobile Sources (On Road & Off Road) Emissions

The SCLP strategy correctly identifies the need to reduce black carbon emissions from on-road vehicles, but these strategies need to be accelerated to meet its reduction targets. At the same time, off-road vehicle reduction strategies need to be on a similar track as on-road vehicles. Advanced particulate reduction technologies have been instrumental in reducing black carbon in on-road vehicles and portions of the off-road vehicle sector. More resources need to be devoted to this area given black carbon's impact as a significant pollutant from these sectors. CARB must clearly define additional strategies in the upcoming State Implementation Plan to ensure reductions of black carbon.

<u>Methane Emissions</u>

The SLCP Plan shows a target of a reduction in methane levels from 118 $MMTCO_2e$ in 2013 to 71 $MMTCO_2e$ by 2030, but needs to show a clear plan on how to get there. CARB should identify and require more specific strategies for reducing methane emissions from oil and gas development, enteric fermentation, organics disposal in landfills, manure from large dairies and wastewater treatment plants. The following recommendations are meant to assist CARB staff in developing those strategies:

Oil and Pipeline Leaks Emissions

While we appreciate the development of SLCP reduction strategy we believe CARB should additionally consider whether the Cap and Trade program is adequately incorporating the importance of addressing SLCP's in the program. Methane leakages from oil and gas wells are not part of the inventory, and therefore not covered by the price signal of cap-and-trade. Methane and other SLCP reductions are valued at a longer time frame than what is most appropriate. CARB is developing a regulation to reduce methane emission from oil and gas production, processing and storage operations in conjunction with the California Public Utilities Commission (CPUC), in accordance with the requirements of SB 1371 (Leno, Chapter 525, Statutes of 2014). In developing this strategy, CARB and other agencies should include the **total lifecycle methane** emissions in cost/benefit calculations for various state energy and efficiency programs and appropriate methods for doing so. Sierra Club California endorses regulations that will uniformly expand local regulations to all air districts that will include adding infrastructure components (such as valves, flanges, and seals) that are not currently covered by local district programs.

Finally, we commend CARB staff for "investigating ways, including offset requirements, to ensure that there will be no net increase in NOx emissions in cases where methane and VOC emissions cannot be sent into existing sales lines, fuel lines, reinjection wells, or combustion devices; and are instead captured by installing new vapor collection and combustion devices on existing storage tanks" and encourage CARB to continue developing this strategy. [2]

[2] Short-Lived Climate Pollutant Reduction Strategy- Concept Paper, pg. 52

Landfill Emissions

Sierra Club California is pleased to see CARB and Cal Recycle developing regulations by 2018 to require waste management agencies to effectively eliminate the disposal of organics in landfills by 2025. According to the SCLP Draft Strategy, "material would be diverted to organics recycling facilities to make useful products, including compost, fuel or energy. These facilities may be developed at existing landfill and other waste management sites, or at new stand-alone sites. Organic wastes could also be diverted to regional waste water treatment plants or dairies for co-digestion with wastewater sludge, bio solids, or manure".[3] We believe current emissions from landfills can be addressed by diverting all organics from landfills and by using small cells and better covering methods in the critical first few days after organics are dumped. Some municipal districts - East Bay Municipal Utility District, San Francisco Municipal Utility District - are pioneering innovative methods of reducing the amount of food waste reaching landfills while simultaneously producing renewable energy.

Dairies Emissions

Another area that warrants further development is from the state's anthropogenic methane producing sources: manure management and enteric fermentation. More research is needed to understand how to properly reduce emissions from this sector and their life cycles. Mandatory targets need to be required. Sierra Club California further addresses these concerns in a sign on letter from the Center on Race, Poverty & the Environment.

Wastewater Treatment Emissions

We are pleased to see a focus on the state's wastewater treatment plans as opportunities to assess the feasibility and benefits of actions to require capturing and effectively utilizing methane generated from wastewater treatment. These strategies rely heavily on financial incentives and/or regulatory actions from several state agencies, such as: State Water Resources Control Board and Regional Water Quality Control Board to a name a few, but these efforts/strategies need to be clearly defined with a specific timeframe.

Thank you for considering these recommendations.

Sincerely,

Diana Vazquez
Policy Advocate

[3] Short-Lived Climate Pollutant Reduction Strategy- Concept Paper, pg. 50