



June 10, 2015

The Honorable Mary Nichols, Chair
The Honorable Richard Corey, Executive Officer
California Air Resources Board
Sacramento, CA 95814

Re: Comments on the Short-Lived Climate Pollutant Reduction Strategy Concept Paper.

Dear Chair Nichols and Mr. Corey:

I am writing on behalf of the Bioenergy Association of California to express its strong support for the *Short-Lived Climate Pollutant Reduction Strategy Concept Paper*. The Concept Paper provides an excellent summary of the science and the urgency of reducing SLCPs and a very good starting point for developing the strategy to reduce SLCPs. We look forward to working with the Air Board and other stakeholders to develop a strategy that will reduce SLCPs and other pollution while helping to meet the state's clean energy, waste diversion and other important goals.

The Bioenergy Association of California (BAC) is an association of more than 60 public agencies, private companies, local governments, environmental groups and more that are working to promote sustainable bioenergy development, converting organic waste to energy. BAC's members include agencies responsible for air quality, environmental protection, solid waste and waste management. Its private sector members include clean energy and technology firms, waste managers and haulers, carbon investors, environmental consultants, engineering firms and others. BAC's members work across all organic waste sectors using a variety of technologies.

BAC is very pleased to offer the following comments and suggestions on the Concept Paper.

A. Strong Support for the Concept Paper Overall

BAC strongly supports the Concept Paper overall and applauds the Air Board for producing an excellent first draft. We are especially impressed with the very

strong summary of the science and the clear message throughout the Concept Paper about the urgency of reducing SLCPs. Most importantly, the Concept Paper makes clear that reducing SLCPs is the only way to immediately slow global warming and begin to reverse its impacts. The Concept Paper also points out in numerous places the immediate public health benefits of reducing SLCPs, which is another reason to move quickly and aggressively to reduce these pollutants.

BAC also agrees with the Concept Paper that many of the strategies to reduce SLCPs are cross-sector and require integrated, systems level strategies to reduce them and maximize other benefits. For example, using organic waste to produce bioenergy and organic soil amendments will require better coordination between CalRecycle, CDFA, the Air Board, CalFire, the CPUC and other agencies.

Finally, BAC agrees with the Concept Paper that California can and must cut methane and black carbon dramatically, and that doing so will provide many other significant public health benefits and benefits to the environment and economy.

B. Immediate Research Needs

The Concept Paper points out in several places where additional research and demonstration is needed. BAC recommends that the Air Board and other agencies begin immediately to address the following important research needs:

1. Need to Quantify Lifecycle Emissions and Reductions from Organic Waste, Including Different End Uses.

The Concept Paper says that California should put organic waste to its most beneficial use, but doing that requires a lifecycle analysis of the GHG/SLCP reductions from different waste diversion strategies – composting, bioenergy production, bioenergy + composting, – to ensure that we capture all the upstream and downstream reductions and other benefits, including the GHG reductions, water savings and other benefits. CalRecycle, in its technical paper on Composting and Anaerobic Digestion released September 2013, provided a rough calculation of the GHG reductions attributable to composting and then attributed the same number to bioenergy production. While this was helpful to make the general point that diverting organic waste provides significant GHG/SLCP reductions, it is not helpful in assessing what the highest and best use of organic waste is or how to incentivize it. It also does not differentiate organic waste by location, organic feedstock type, technology, where the end product is applied, transportation emissions attributable to the compost/bioenergy production or other factors that should be included in a lifecycle analysis.

Given the potential call to divert 90 percent of organic waste by 2025, it is critical for the state to accurately quantify the lifecycle emissions reductions attributable

to that goal and to assess the lifecycle reductions attributable to the various end uses so that the state can in fact put organic waste to its highest and best use.

2. Need lifecycle analysis of the GHG/SLCP emissions and reductions from forest fuel treatments and their end uses.

Wildfire causes 66 percent of California's black carbon emissions and reduces carbon sequestration in California's forests. And, with climate change, wildfire is increasing and increasingly damaging. In order to maintain carbon sequestration – and other values – in California's forests, it is critical to quantify the lifecycle emissions and reductions from forest fuel removal and its various end uses. The analysis should compare the no treatment alternative with forest fuel removal, pile and burn, biomass combustion in a biomass power plant, biomass conversion using gasification or pyrolysis and other factors. The lifecycle analyses should include the forest fuel removal itself, avoided wildfire emissions, water savings and impacts, impacts on hydropower supplies and other factors upstream and downstream.

3. Need to quantify emissions reductions from organic soil amendments such as biochar, biosolids, digestate and compost.

The Concept Paper notes that biochar may be used to sequester significant volumes of CO₂. Similarly, biosolids from the wastewater treatment process and digestate that remains after anaerobic digestion can all provide organic soil amendments and water saving benefits. BAC strongly supports the Concept Paper's statement that the potential benefits from biochar will be investigated and demonstrated, and urges similar investigations for biosolids, digestate and compost.

C. Recommended Strategies to Reduce SLCPs

BAC supports the goals in the Concept Paper and urges the Air Board to add the following specific strategies:

1. Align GGRF and other funding with SLCP reduction priorities.

The Concept Paper recognizes that substantial investments will be required to achieve the SLCP reductions needed to meet California's climate change goals. Yet neither the current year budget nor the proposed budget for 2015-16 include GGRF funding levels that reflect the urgency or the opportunity to reduce SLCPs. Several areas that can provide significant SLCP reductions, but received no GGRF funding in the current budget or proposed budget for 2015-16 include:

- Transportation fuels made from organic waste, which are the lowest carbon fuels of any kind;
- Forest biomass to energy facilities that use forest fuels collected to reduce wildfire hazard risks;

- Increased bioenergy production at wastewater treatment facilities; and
- Agricultural waste to energy projects.

We urge the Air Board to include specific funding recommendations for these sectors.

We also recommend that the Air Board work with CalRecycle and CDFA to develop funding plans that realistically assess the number of facilities and the investment needed to meet the SLCP reductions called for in the solid waste and dairy sectors. For example, in the organic waste sector, the number of facilities needed to meet a 90% diversion goal is probably closer to 200 than 100, as estimated in the Concept Paper and earlier papers by CalRecycle. Accurately quantifying the investment needed in each of these sectors is critical to meeting the reduction goals in these sectors, especially the dairy sector which is not required to reduce its methane emissions.

We also recommend that the Strategy include specific funding recommendations for the gas and electric sector cap and trade revenues. Since bioenergy is an important strategy to reduce both methane and black carbon, the Strategy should recommend allocating a portion of the utilities' cap and trade revenues – especially from the gas sector – to reduce SLCPs.

2. Need to change utility processes and incentives.

BAC strongly supports the Concept Paper's finding that we need to make significant changes to utility processes and incentives to better align their incentives with SLCP reductions. The Concept paper is also correct that it is still too hard to get biomethane into the pipeline and biopower on the transmission lines.

We urge the Air Board to include specific recommendations to revise utility processes and incentives that include the following:

- Allocation of cap and trade revenues to pipeline biomethane and biopower;
- Accelerated interconnection processes for pipeline biomethane and biopower;
- Cost certainty (and reasonable costs overall) for interconnection for both pipelines and transmission lines;
- Utility incentives for accelerated interconnection and penalties for delays;
- Allow bioenergy developers to keep the value of carbon reductions below carbon neutrality (for carbon negative power);
- Reconsider pipeline integrity standards, such as the BTU requirement, for biomethane that vary significantly from other states and make pipeline biomethane costs prohibitive.

3. Need a cross sector strategy to increase the use of renewable gas, such as a Renewable Gas Standard.

We urge the Air Board to propose a policy that would require the increased production and use of renewable gas, like the Renewables Portfolio Standard in the electricity sector and the Low Carbon Fuel Standard in the transportation sector. More than 25 percent of California's greenhouse gas emissions are from the use of natural gas (not including leaks). Increasing the production and use of biogas would reduce SLCPs upstream, reduce emissions from fossil fuel gas, and provide organic soil amendments such as biochar and biosolids. Increasing renewable gas can reduce greenhouse gas emissions by tens of millions of metric tons per year.

Incentives are powerful tools for piloting and demonstrating new technologies and helping to commercialize an industry, but they do not provide the long-term market demand or certainty needed to truly transform an industry. Just as California needs the RPS and LCFS to move to significant renewables and low carbon fuels, it needs a policy to significantly expand the production and use of renewable gas.

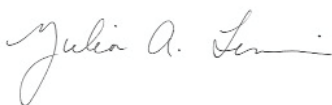
BAC urges the Air Board to recommend, in the SLCP Strategy, the adoption of a Renewable Gas Standard or other policy that requires California to increase the percentage of renewable gas, particularly biogas, produced and used in California.

4. State purchasing and organic waste management policy.

BAC urges the Air Board to include a recommendation in the SLCP Strategy that addresses ways in which state agencies, buildings and facilities can use their own organic waste to reduce SLCPs. State prisons, Veterans Affairs, hospitals and other state facilities generate large amounts of organic waste that can be converted to energy and organic soil amendments. In addition, the state is a major purchaser of vehicles and fuels. A policy to increase the use of fuels made from organic waste – including biomethane and renewable hydrogen derived from biogas for use in fuel cell vehicles – would help to commercialize the organic waste based fuels industry.

We look forward to working with the Air Board to develop and implement a successful strategy to reduce SLCPs. The Concept Paper is a great start.

Sincerely,



Julia A. Levin
Executive Director