



May 26, 2016

Chairman Mary D. Nichols and Executive Officer Richard Corey
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Proposed Short-Lived Climate Pollutant Reduction Strategy

Dear Chairman Nichols,

The Capital Region Climate Readiness Collaborative (CRC) would like to thank the Air Resources Board (ARB) for the opportunity to comment on the draft Short-Lived Climate Pollutant (SLCP) Reduction Strategy.

The CRC is a collaborative network designed to promote greater resilience through coordination at the regional and local level across the six-county Capital Region (El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba County). Our goal is to help local leaders from the public, private, and non-profit sectors come together within and across sector and jurisdictional boundaries to share information and best practices, leverage efforts and resources, avoid duplication, identify critical needs, and develop funding strategies to meet those needs.

We would like to thank the Air Resources Board for drafting a comprehensive SLCP Reduction Strategy. Reducing SLCPs will be essential to slowing the rate of climate change, giving California and the world time to implement long-term mitigation and adaptation strategies. We appreciate that the proposed measures and actions aim to maximize co-benefits that strengthen the long-term health and resilience for California communities, through improving air and water quality, reducing forest fires, supporting healthy soils and watersheds, and spurring the development of advanced technologies and jobs. We also appreciate that ARB underscores the importance of integrating the strategy with ongoing local, regional, and statewide planning efforts, and encourages coordination and collaboration among agencies at all levels of government, and across sectors, systems, and jurisdictions.

To realize success, we have several recommendations below:

- **Engage urban and rural stakeholders in forest protection:** All Californians benefit from reducing wildfire risk, as the benefits and avoided costs accrue to urban and rural communities alike. The SLCP Reduction Strategy's proposed activities to reduce wildfire risk, develop beneficial uses for forest thinning, and support the rural economy are critical for climate adaptation, as they help to maintain California's critical watersheds and forests that nurture the state's clean air and water, natural resources, biodiversity, and more. A cross-regional approach can quantify and articulate the significant co-benefits for downstream urban jurisdictions, potentially opening the door for new project



partners and funding sources. An integrated, collaborative approach that includes local governments, community groups, conservancies, scientists, and regional adaptation collaboratives can help ensure that fire-risk reduction activities are designed and implemented to support a wide range of climate and sustainability goals, such as watershed improvement, forest health, local jobs, renewable energy generation, and biodiversity protection.

- **Take actions to prevent agricultural burning:** The SLCP does not propose any specific, additional measures to prevent a potential increase in agricultural burning (p. 45-46) that is likely to occur due to the closures of bioenergy facilities in the Central Valley. If new community-scale bioenergy facilities are located near high-hazard forests, as suggested by Governor Brown's emergency proclamation E35 553, the cost of transporting agricultural waste would likely be out of reach for Central Valley farmers (and would also result in additional greenhouse gas emissions). We recommend that the ARB work with local farmers and agencies to develop alternative agricultural waste disposal strategies to help prevent an increase in agricultural burning, which could have a significant air quality impact for residents in the already-polluted Central and Sacramento Valley. Potential suggestions include supporting centralized co-digesters that can handle agricultural biomass and cattle manure, in addition to other organic wastes.
- **Prioritize co-digestion facilities:** Co-digestion facilities at wastewater treatment plants, which utilize existing anaerobic digestion capacity and can accept organic waste with some modifications, should be a priority to support and further develop in the state. While they can be technically challenging and require careful design, they are a very cost-effective way to handle food waste, and most wastewater treatment plants have excess capacity due to the drought and the exit of many large food processors.
- **Education and outreach to encourage thoughtful behavior change:** The successful implementation of eliminating organics from California's landfills requires not only regulation, but also a significant behavior change from millions of businesses and residents. The SLCP Reduction Strategy emphasizes the creation of markets for renewable fuels, soil amendments, and credits to incentivize the recycling of organic wastes, but this provides incentive only for the developer of the anaerobic digester, not a local business concerned with staying afloat or a busy household. A comprehensive outreach strategy is essential to ensuring that compliance is proactive and widespread, and not dependent on enforcement staff and activities, which would require significant time, funding, and capacity.

We encourage the ARB to implement a coordinated outreach and public engagement strategy in collaboration with local agencies, community-based organizations, and private entities to ensure compliance with future ordinances for organics diversion. Public education and outreach is critical for these proposed measures to be successful, because unlike other measures, they require implementation at an individual level. At the same time, local solid waste authorities need assistance and



funding for implementation and enforcement. A coordinated outreach campaign, coupled with the proposed incentives, can also help accelerate woodstove and the replacement of high-global warming potential (GWP) refrigerants.

- **Natural refrigerants and energy costs:** The proposed HFC reduction strategy has an important interaction with the electricity sector due to the potential impact of natural refrigerants on electrical load. We are supportive of the proposed strategy; however, we question the assumption of energy savings included in the economic analysis.

We agree that system reconditioning and retrofit with lower-GWP refrigerants is likely to result in energy savings. However, the implementation of natural refrigerants, which offer the largest potential for GHG reductions, is not certain to produce energy savings. Based on our current understanding of natural refrigerant systems on the market today, their implementation is a significant undertaking requiring expert design, engineering and careful commissioning to ensure expected performance. In addition, their use could result in flat or even slightly increased electrical load relative to the use of traditional refrigerants, depending on the nature of the systems and the conditions in which they operate. As such, we suspect that the total cost associated with implementation of this measure could be significantly greater than that which appears in the economic analysis.

In addition, utility relationships with commercial customers can be leveraged to improve both the electrical efficiency of their refrigeration systems while also delivering significant community emissions reductions.

- **Economic analysis of co-benefits:** We understand that the economic analysis focuses only on direct costs and benefits. While some societal benefits such as contribution to a change in cumulative warming would be challenging to calculate, the quantification of other co-benefits would assist in evaluating multiple reduction strategies. Significant co-benefits for climate adaptation, for example, may help to prioritize a reduction strategy that has higher upfront costs.

We hope you find these comments and suggestions useful and supportive of your efforts. We welcome any questions you might have.

Sincerely,

A handwritten signature in dark ink, appearing to read "Kathleen Ave".

Kathleen Ave

Climate Program Manager, Sacramento Municipal Utility District
Chair, Capital Region Climate Readiness Collaborative