

January 17, 2017

To: Clerk of the Board
Air Resources Board
1001 I Street
Sacramento, California 95814

Online Submission: <https://www.arb.ca.gov/lispub/comm/bclist.php>

COMMENTS ON CALIFORNIA AIR RESOURCES BOARD'S SHORT LIVED CLIMATE POLLUTANT REDUCTION STRATEGY (2016 SLCP)

This memorandum is submitted to the Air Resources Board ("ARB") with respect to the requirement in SB 1383 directing ARB to implement "a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in [...SLCP] gases by 40 percent ... below 2013 levels by 2030." This plan is to be enforced by 2018. We urge ARB to include, as part of its Short Lived Climate Pollutant ("SLCP") Reduction Strategy, methodologies or protocols for emission offsets for SLCPs. Those emission reductions will not only promote achievement of the aggressive SLCP emission reduction objective (40% below 2013 baseline levels), such will have further benefits, including:

- net emission reductions even though HFC emissions are growing rapidly;
- emission reductions beyond those potentially required by EPA and potential international regulations;
- providing an incentive to go beyond existing requirements and developing new technologies and applications for replacement and avoidance of high-GWP HFC uses;
- emission reductions in urban, low income areas;
- promoting use of low-GWP insulating materials in spray foam applications, providing an incentive toward net zero buildings;
- providing an incentive to demonstrate the applicability of low-GWP materials in building codes, both locally and nationally; and
- continuing to demonstrate California's environmental leadership.

The comments here reflect the recent legislation for Super Pollutants (Short Lived Climate Pollutants or "SLCPs") and highlights the important environmental and cost containment benefits associated with the adoption of offset methodologies which address SLCPs.

1. ARB has been directed to achieve substantial reductions in SLCPs.

SB 1383 (or the Super Pollutant legislation) codified ARB's emission target for SLCPs and ordered its enforcement by 2018. SB 1383 directs ARB to implement a "comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in [... SLCP]

gases by 40 percent [...] below 2013 levels by 2030.” The law requires ARB to have a plan for all measures needed to meet this objective for SLCPs . This 40% reduction goal is very ambitious. We submit this goal can met only by using all available tools. Even with implementation of the Kigali amendment to the Montreal Protocol and EPA’s recent SNAP rules, those reductions will not be enough.¹ Moreover, implementation of all those requirements in the United States is aspirational and not assured. Certain industry sectors covered by SNAP have already petitioned EPA to provide more time, even though there are available technologies to meet the SNAP. EPA’s future course under the new Administration is unknown. California’s action here is significant.

A compliance offset mechanism for SLCPs is a valuable tool to support ARB efforts to reach the crucial yet ambitious State overall target greenhouse gases (“GHG”) target of 40 percent below 1990 by 2030 (“SB32”)². According to the Proposed “SLCP Reduction Strategy”, reaching this target represent a reduction of 24 million metrics tons of CO₂e- compared to 2013 levels³. EPA’s SNAP rules and any further reductions from the Kigali Amendments to the Montreal Protocol will not be sufficient to meet the aggressive objective required by the SLCP Reduction Strategy.

2. The SLCP Offset Methodologies foster the state’s efforts to reach the ambitious target for SLCPs.

We respectfully submit that ARB should consider the adoption of SLCP Offset Methodologies⁴. These Methodologies provide an incentive to reduce SLCP emissions either at a sooner date or at a greater rate than would otherwise occur. The HFC reductions are particularly focused on the high-GWP HFC emissions in the refrigerants and foam manufacturing industry, while other methodologies reduce carbon black and methane emissions.

- In the SLCP Reduction Strategy, ARB recognized that “Even with a strong international agreement to phase down the use of HFCs, additional opportunities remain to reduce their emissions in California in the near-term and through 2030 at a low cost”⁵. Indeed, a

¹ The reductions under the Kigali Agreement, if implemented by EPA for the United States, are far less than 40% by 2030. We understand from the December 16 hearing herein that ARB will be reviewing those projected reductions, even as these comments are submitted. It is expected that the Kigali and the SNAP reductions will not yield the requisite 40% reduction by 2030.

² SB 32 (September 8, 2016), Cal. H&S Code, §38566, relating to greenhouse gases. Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32.

³ ARB, Proposed SLCP Reduction Strategy, April 11, 2016 at page 10, 86.

⁴ The “SLCP Offset Methodologies”, allow for offset credits to be earned by early compliance as well as going beyond compliance (reductions beyond those required). These methodologies include: Reclaimed HFC Refrigerants and Advanced Refrigeration Systems [HFCs]; Transition to Advanced Formulation Blowing Agents in Foam Manufacturing and Use [HFCs]; Truck Stop Electrification [carbon black]; and organic waste digestion [methane]. Each has been adopted by at least one of the ARB-recognized offset registries, has undergone public review and peer review and can be implemented in urban areas.

⁵ ARB, Proposed SLCP Reduction Strategy, April 11, 2016 at page 85.

compliance offset mechanism for foam BAs and HFC refrigerants offers a practical solution which incentivizes appliance and foam manufacturers to go beyond the use of *any HFCs*, even those which EPA would continue to allow to be used indefinitely.

- The adoption and use of this Methodology could *potentially generate millions of offset credits annually* and encourage the *voluntary replacement* of high-GWP BAs with low or near-zero GWP BAs.
- HFC emission sources in California are expected to grow by more than 60 percent through 2030, with 17 percent of that growth attributed to the foam industry⁶. Even with the implementation of the recent international Montreal Protocol Amendment and a national phase down, additional action must be pursued to dramatically reduce these emissions by 2030.

3. These Methodologies provide early benefits in disadvantaged communities areas

These SLCP offset methods can provide emission reductions in urban areas. These projects are not rural or remote. These methods are to be implemented at manufacturing activities and truck stops, often associated with low income areas; each of those listed here are focused on at least one Short Lived Climate Pollutant. These offset methodologies can be implemented in urban areas, in the same areas often associated with low-income populations.⁷

Several offset methodologies are available for SLCPs. Most of those provide incentives for applicable technologies to be used sooner and in greater intensity than BAU. ARB has made it plain that advanced refrigerant technologies are needed. Two of the methods can provide an incentive to not only go with lower GWP refrigerants, but also to provide incentives to manufacturers to go to even lower GWP BAs for insulation.

By promoting offsets, ARB will give the benefit of private investment motivated by offset pricing. Instead of having to provide grants and public dollars to develop technologies, ARB sends a strong market signal. Offset projects with respect to identifiable end uses with high GWP gases will provide a record for adoption of such technologies by 2030.⁸

⁶ ARB, Proposed SLCP Reduction Strategy, April 11, 2016 at page 84,85

⁷ See “Comments on California Air Resources Board’s Cap and Trade Regulation Amendments Workshop” with respect to Compliance Offset Methodology, Short-Lived Climate Pollutant Strategy” November 4, 2016 by Dentons US LLP, at pp. 4-8.

⁸ Offset methodologies typically have a 10 year crediting period. Thus, a methodology adopted in 2018 can provide ample time to demonstrate new technology applications. If an offset technology is successful, ARB could include it in new regulatory requirements prior to 2030, as needed to meet the HFC emission reduction requirement.

4. SLCP Offset Methodologies provide economic benefit to the State and communities

Others will address the economic and environmental benefits to the State and to local communities of the AB32 cap and trade program. We agree with those recommendations to continue the cap and trade program.

There are at least two other aspects which inclusion of SLCP Offset Methodologies provide. First, the incentive to adopt offset technologies accrues to the businesses who make a change -- either to less polluting substances or to making changes sooner than required. As demonstrated in the comment noted at footnote 7, the emission reductions from the SLCP methodologies are local. They are not remote. The extra income realized by using these offset methodologies provides additional support for businesses to stay in their existing communities. The incentive to users of these offset methodologies encourage them to stay and invest in their existing resources, helping to keep jobs in their local communities. Moreover, these SLCP methods will be used across the US. SLCP reductions are in and of the communities in which the offset projects exist and provide environmental and economic benefits locally.

One of the offset project types included in these methodologies concerns the use of 2-component spray foam. Building insulation is a major component of HFC uses and emissions and will continue to be so. ARB has long been aware of the substantial “inventory” of HFCs in buildings in California.⁹ Moreover, a key objective for California is development of “Net Zero” buildings. Including these offset methodologies will further limit HFCs in construction.

Of course, offset projects can demonstrate that new technologies can be deployed and are hence “available.” These types of offset projects provide a bases for ARB, should it chose to do so, to adopt regulations requiring such conduct in the future. “Early action” leads to action by other companies, beyond the innovators, and then to regulations requiring all to do so. At the same time, California is not burdened with the fiscal need to experiment and justify new technologies.

Conclusion

For all these reasons, SLCP offset methodologies should be considered by ARB as a necessary component of its strategy for dramatically reducing the emissions of HFCs.¹⁰ These Methodologies present the advantage to target emissions in disadvantaged areas with localized action resulting in immediate benefits within the community where the manufacturing occurs. The adoption of an offset mechanism for SLCPs will have a direct and localized positive outcome on areas disproportionately affected by poor air quality.

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⁹ “Developing a California Inventory for Ozone Depleting Substances (ODS) and Hydrofluorocarbon (HFC) Foam Banks and Emissions from Foams,” Caleb Management Services Limited, March 14, 2011.

¹⁰ Regulations adopted by the State of Washington recognize two SLCP offset methodologies for providing emission reduction credits, from methodologies concerning “... *Reclaimed Refrigerants and Advanced Refrigeration Systems*” and concerning “... *Advanced Formulation Blowing Agents in Foam Manufacturing and Use*”. WAC 173-442-160 (8)(b), (d) (10/14/16).