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November 12, 2018

Chair Mary Nichols
California Air Resources Board
1001 I Street
PO Box 2815
Sacramento, CA 95812

RE: AHRI Comment Letter on Discussion Item 18-9-7: Public Meeting to Present the Revised Cap-and-Trade Auction Proceeds Third Investment Plan

Dear Chair Nichols:

The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) represents more than 300 manufacturers of air-conditioning, heating and commercial refrigeration equipment. It is an internationally recognized advocate for the HVACR industry and certifies the performance of many of the products manufactured by its members. In North America, the annual output of the industry is worth more than \$20 billion. In the United States alone, AHRI members employ approximately 130,000 people, and support another 800,000 dealers, contractors, and technicians.

AHRI has been engaged in the California Air Resources Board (CARB) rulemaking to reduce hydrofluorocarbon (HFC) emissions from stationary air-conditioning and refrigeration systems. AHRI organized our members and facilitated information sharing with the agency in order to provide technical feedback that will help CARB implement feasible regulations to achieve the HFC reduction targets defined by Senate Bill 1383 – a 40% reduction in HFC emissions by 2030 from 2013 levels.

AHRI supports the implementation of Senate Bill 1013 and the Fluorinated Gases Emissions Reduction Incentive Program outlined in Section 76008 of the legislation. To accomplish the goals of the legislation, the state of California needs a defined program and dedicated funding to promote the adoption of refrigerant technologies and achieve short- and long-term climate benefits, energy efficiency, and other co-benefits.

AHRI members manufacture a wide variety of commercial refrigeration and air conditioning equipment systems eligible for funding under Section 76008, but we believe the funding allocations should depend on a number of considerations. AHRI supports funding equipment conversion to maximize reduction of greenhouse gases (GHG)—both from direct (leaks) and indirect emissions (energy)—from refrigeration and air conditioning equipment. The incentives should ensure that there is room for innovation by including options for multiple refrigerants.

With these goals in mind, a number of low global warming potential (GWP) refrigerant and equipment types are available, each with varying levels of energy consumption. Inefficient equipment introduces significant GHGs through higher energy consumption. In support of maximizing GHG reduction and accelerating conversion to higher efficiency products, AHRI supports inclusion of the following specific measures in the incentive program and the commensurate budget to support these conversions.

- CARB funding should include a requirement that projects funded should have demonstrated best-in-class greenhouse gas emissions reduction including the impact of refrigerant emissions and emissions related to energy consumption within the climate zone (ambient temperature).
- CARB should fund incentives for conversion of existing commercial refrigeration and AC systems that can achieve as much as a 60% or greater reduction in GWP. For example, for converting commercial refrigeration systems with greater than 3500 GWP to less than 1500 GWP or AC systems from systems with 2088 GWP to less than 750 GWP.

This type of incentive will be especially beneficial in low income areas, in addition to supporting replacement of those systems with lower GWP refrigerants while ensuring that systems maintain or increase energy efficiency. The environmental cost benefit analysis would provide significant impact quickly, especially in the case of commercial refrigerators in communities with small grocery stores that might not accommodate larger equipment with even lower GWPs. It would also allow larger benefit for the money available.

- Furthermore, funding should be made available for a range of replacement refrigerants so as not to inhibit innovation. Allowing only a single refrigerant for all design applications constrains the replacement market and limits current system and component technology advancement. Rather than only allowing a single acceptable replacement and limiting all companies to the capability of a single refrigerant, incentives should drive innovation in product design and energy efficiency; ultimately leading to lower emissions in all applications. If funding is only made available for conversion to systems with 150 GWP or lower, there would be minimal options for replacement and the incentive program would favor a small subset of the industry. By setting funding requirements at 750 GWP for AC systems and 1500 GWP for commercial refrigeration, existing bases will be able to be addressed more quickly.



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In addition to the aforementioned recommendations, AHRI supports the requirement that funded projects ensure proper installation and maintenance of alternative refrigerants and air-conditioning equipment to maximize energy efficiency and minimize emissions. We also support regulations that encourage recovery, reclamation, or destruction of existing high-GWP refrigerants and funding to enable an enforcement structure ensuring that counterfeit reclaimed refrigerants are not sold in California.

AHRI also respectfully requests that CARB establish a dedicated program to achieve the goals outlined in SB 1013 and those we have recommended in this letter by expanding the California Climate Investments Program. Given the importance of reducing HFC emissions, we believe it will require special focus and an ongoing funding commitment from CARB. A dedicated California Climate Investment Program helps reduce barriers associated with phasing down HFCs and has the potential to directly impact the lives of all Californians, as well as their homes, businesses, and communities throughout the state.

Thank you for the opportunity to provide our recommendations for consideration by the Board. We look forward to continuing to work together to achieve our shared goal of reducing HFC emissions. If you have any questions about the recommendations contained in this letter, please contact AHRI's Vice President of Regulatory Affairs, Helen Walter-Terrinoni, at hwalter-terrinoni@ahrinet.org.

Respectfully,

Helen Walter-Terrinoni