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To: California Air Resources Board (via electronic submission)

**Re: Comments on the April, 2016 Short Lived Climate Pollutant  
Draft Strategy**

The North American Sustainable Refrigeration Council (NASRC) is a 501(c)(3) nonprofit working to lessen the environmental impact of supermarket refrigeration through the widespread adoption of natural refrigerants. We are taking action to address the challenges that are slowing transition to more climate-friendly refrigeration technology, especially in the supermarket and grocery sector. We are pleased to offer comments on the SLCP Draft Strategy. NASRC fully endorses a low-GWP incentive program for commercial refrigeration.

As CARB states in the Draft Strategy: “A window of opportunity exists in the next five years to accelerate the transition of refrigeration and air-conditioning equipment to lower-GWP refrigerants, before another generation of equipment is locked into using higher-GWP refrigerants over their average lifetimes of 15 to 20 years.” NASRC was founded for this exact reason: to help advance natural refrigeration in the United States faster in order to drive the best environmental decisions moving forward.

NASRC commented in October 2015 that two of the main hurdles holding back the use of natural refrigerants in new construction are upfront cost and lack of familiarity with these systems. CARB notes in this most recent version of the SLCP strategy that: “The incentive program could remove the added initial cost barrier and build familiarity with low-GWP refrigeration systems to help them scale throughout the sector.

One of the advantages of an incentive program is that it could fund early adoption of low-GWP technologies, with substantial long-term effects on avoided emissions. The incentive program would “lock in” early and permanent GHG reductions prior to any mandatory measures.”

**NASRC strongly supports such an incentive program, and believes it will be fundamental to driving the necessary transition to more climate-friendly options.**

In conversations with retailers in late 2015 and early 2016, NASRC continued to hear enthusiasm and interest for such a program.

On a dollar per ton basis of CO<sub>2</sub>eq emissions avoided, this program makes sense as a tool for reducing SLCP emissions. For example, a large supermarket might have 4,000 pounds of refrigerant in a centralized system. The standard for new installation is currently the R-407 series HFC refrigerant. Four thousand pounds of R-407a, which has a GWP of 2,100, is 84 million pounds of CO<sub>2</sub> equivalent. Compare that with just 4,000 pounds of CO<sub>2</sub>eq if the retailer were to instead choose a transcritical system (with a 4,000-pound charge of CO<sub>2</sub>). For each specific project, these GHG emissions savings can be quantified and used to make a strong case for funding low-GWP commercial refrigeration; however, perhaps even more meaningful is the potential for an incentive program like this to shift the entire market nationally, so that natural refrigerants become the standard for new systems moving forward.

If, through a low-GWP incentive program, we can make it affordable to install natural refrigeration technology, we will “lock in” early and permanent emissions reductions *and* help drive the market in the right direction. A low-GWP incentive program will help generate the evidence and real-world data we need to show the rest of the country that natural refrigeration is more climate-friendly, more energy efficient and can reduce overall refrigeration costs to businesses. The more end-users that install natural refrigerants, the more we build economies of scale, the more costs come down, and the more likely other end-users are to install similar technology. California also offers a great opportunity to demonstrate the success of natural refrigerants—and the diversity of options—in a variety of climate zones.

NASRC is pleased to see \$20 million in annual appropriations for the low-GWP incentive program in California’s draft budget for 2016–2019. We hope that this funding is included in the final budget signed by the governor.

NASRC an environmental nonprofit committed to seeing natural refrigerants succeed in the United States. Given our access to end-users and breadth of industry knowledge, we well positioned to help implement and manage a low-GWP incentive program. We look forward to working with ARB and assisting however we can. Thank you for considering our comments.

Sincerely,

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