

Danfoss 11655 Crossroads Circle Baltimore, MD 21220

October 23, 2017

Michael FitzGibbon, Chief Atmospheric Science and Climate Strategies Branch Research Division California Air Resources Board

Dear Mr. FitzGibbon,

Danfoss is pleased to have the opportunity to comment on the California Air Resources Board's revised proposed Short-Lived Climate Pollutant (SLCP) Reduction regulations.

As a leading manufacturer of controls, compressors, heat exchangers, sensors, valves and variable frequency drives utilized in high efficiency residential and commercial refrigeration and air-conditioning applications, Danfoss has a vital interest in these regulations. We enable customers who manufacture such equipment to enhance the efficiency and performance of their products while using refrigerants that are not harmful to the environment. Danfoss has sixteen factories and approximately 3500 employees in North America and has over 50 years of experience with these applications. We operate in approximately 100 countries with over 25,000 employees worldwide. This experience provides insight into technologies and best practices from markets around the world.

Danfoss has been a global leader in the transition to low-GWP refrigerants, both natural and fluorinated. In the refrigeration sector, we are a leader in the use of CO_2 refrigeration systems worldwide. We also have experience with propane as a refrigerant for stand-alone refrigeration equipment. We are working to qualify our components for use with a wide variety of low-GWP HFCs, HFOs and natural refrigerants.

Danfoss applauds California's ambitious plans to reduce the emissions of high GWP refrigerants in the state. We are, of course, concerned about a patchwork of different refrigerant phasedown dates among the states. We urge California to work with its partners in the US Climate Alliance to encourage them to keep these rules uniform in those states where they might choose to regulate refrigerant emissions.



We note that CARB states that they aware that fire and building codes and standards can be barriers to the successful implementation of low-GWP systems. We thank California for their sponsorship of research that will help inform code proposals. Still, code changes will take time and we recommend that CARB moves deliberately, so that code changes can be proposed to the model codes and then adopted in California.

Finally, we encourage California to provide financial incentives, perhaps under the cap and trade program, to early adopters of low GWP equipment. Danfoss has been successful in bringing these technologies to Europe and elsewhere, but until the market for these technologies in California matures, they are likely to have a price premium. Incentives could help speed the penetration of low GWP technologies faster than they would on their own.

Thank you for considering our comments. Please contact me if you have any questions.

Sincerely yours

Mark Menzer

Director of Public Affairs

markmenzer@danfoss.com

Danfoss