

# SOMETHING'S COMING, SOMETHING GOOD

If California's Refrigerant Incentive Program gets the proper funding support from the California legislature, it will transform the marketplace for natural refrigerant systems, not just in California but nationally

– By Keilly Witman



**W**e are on the cusp of a game-changing development in the natural refrigerants arena.

In the near future, the California legislature is expected to announce its 2016-2017 budget, including funding for a low-GWP refrigerant incentive program, which would provide essential funding support for natural refrigerant refrigeration systems.

California's Governor Brown included \$20 million for this financial incentive program in his proposed budget. The California legislature's budget subcommittee #3, chaired by Assemblyman Richard Bloom, a strong advocate for environmental protection, has been primarily responsible for reviewing the portions of the budget relating to the program.

Glenn Gallagher, air pollution specialist at the California Air Resources Board (CARB), has made it clear that the funding would apply to systems that use natural refrigerants, such as transcritical CO<sub>2</sub>, ammonia-CO<sub>2</sub> and hydrocarbon self-contained systems and stand-alone equipment, whose GWP is zero or close to it.

To paraphrase Vice President Joe Biden on another topic, the Refrigerant Incentive Program, if it comes anywhere close to getting the \$20 million the governor has allocated to it, will be a really big deal. For supermarkets, cold-storage operators and many other large end users of refrigeration equipment, the refrigerant incentive program would offer an opportunity to escape from endless refrigerant regulations and phase outs.

What's particularly significant about the refrigerant incentive program is that for the first time in the U.S. an incentive program would target the direct greenhouse gas emissions (GWP) associated with refrigerants. Heretofore, incentives in commercial refrigeration have been the realm of utility companies, and as a result, the incentives have been based on energy-efficiency improvements. While natural refrigerants are demonstrating energy-saving capacity, their super-low GWPs are what leads to the largest gains for our climate system.

## CAP-AND-TRADE MONEY

The funding for the refrigerant incentive program comes from an apropos source – California's greenhouse gas cap-and-trade program, which collects a large amount of money annually from the state's greenhouse gas emitters. The state must, by law, invest the money in programs that combat climate change. The current investment cycle started in 2013, and ends this month as the legislature decides which entities will receive funding for the next three-year period (July 2016-June 2019).

Groups like the North American Sustainable Refrigeration Council (NASRC) and shecco have taken steps to support California's refrigerant incentive program; NASRC has been encouraging supermarket companies to tell the California legislature that they are in favor of this program.

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→ Supermarket operators have for a long time been aware that they can't solve refrigerant-related environmental problems by just addressing leak repair and record-keeping.

But supermarkets, famously operating under razor-thin margins, for the most part can't afford, or are otherwise disinclined, to simply overhaul their leaky, high-GWP systems with natural-refrigerant alternatives that cost \$1 million to \$1.5 million, far above the cost of a conventional system – at least not without some help.

Why are costs of environmentally friendly refrigeration systems so high? According to systems manufacturers, it comes down to economies of scale. These systems are still relatively new to the U.S. market, so manufacturers have not yet achieved the sales volumes that lead to economies of scale and lower prices. Some system components are being imported from Europe and Japan because the U.S. market is still too small to warrant domestic manufacturing facilities.

Contractors also have limited experience with these new systems, resulting in higher installation and maintenance costs in the U.S.

The beauty of California's proposal is it would help generate enough sales for OEMs and component makers to achieve economies of scale, and lower equipment prices. Contractors would have more opportunities to gain experience installing and maintaining these systems. Organizations like NASRC and shecco could track system performance and share data throughout the industry.

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Eventually, more supermarket companies and other commercial and industrial end users would invest in these systems, ultimately creating a continuous virtuous cycle. Most importantly, the impact of this cycle would be felt not just in California, but also nationally.

The commercial refrigeration industry eagerly awaits the verdict on the refrigerant incentive program from the California legislature. It remains to be seen how the legislature divvies up the cap-and-trade monies, but to quote from an old song, something's coming, something good. @KW

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