

California Refrigerant Regulations – Historical Overview

This document focuses on supermarket refrigeration rather than domestic. Domestic refrigerators are of less concern because they rarely leak, they use a very small amount of refrigerant compared to supermarkets, and natural refrigerants can already be used in domestic refrigerators with far less barriers than supermarket.

- 2006** • [Assembly Bill 32](#) was signed into law, which aimed to reduce greenhouse gas (GHG) emissions to 1990 levels by 2020 (approximately 30% reduction).

- 2009** • The California Air Resources Board (CARB) created the [Refrigerant Management Program](#) (RMP), designed to:
 - Reduce emissions of high-global warming potential (GWP) refrigerants from stationary, non-residential refrigeration equipment; and
 - Reduce emissions from the installation and servicing of refrigeration and air-conditioning appliances using high-GWP refrigerants.

- 2016** • [Senate Bill 32](#) was signed into law, which set an additional goal to reduce GHG emissions to 40% below 1990 levels by 2030.
 - [Senate Bill 1383](#) set a target of a 40% reduction in statewide **Hydrofluorocarbon (HFC) refrigerant emissions** below 2013 levels by 2030.

- 2017** • CARB released their [Short-Lived Climate Pollutant \(SLCP\) Strategy](#) outlining a proposed strategy to reduce emissions of SLCPs (HFC refrigerants, black carbon, and methane). During the development of the strategy, CARB determined that the phase-downs outlined by the Kigali Amendment would not be enough to reach California's GHG emissions reduction goals. The resulting [HFC emissions reduction strategies](#) proposed:
 - Financial incentives for early adoption of climate-friendly refrigerants;
 - HFC supply reduction;
 - Prohibition on sales of greenhouse gas refrigerants; and
 - Prohibition on sale & installation of new equipment containing greenhouse gas refrigerants.
 - During their research, CARB found commercial refrigeration, which includes retailers such as supermarkets and grocery stores as well as wholesalers, to be the greatest contributor to HFC emissions in California. The [roughly 24,000](#) commercial refrigeration systems in California are responsible for [36% of California HFC emissions](#).

- 2018** • [Senate Bill 1013](#) was signed into law, which continued previous U.S. EPA SNAP prohibitions on certain high-GWP HFCs in retrofit and new refrigeration equipment.
 - SB 1013 also established an incentive program for low-GWP refrigerants. The establishment of the program did not include program design details or guaranteed funding. CARB proposed an allocation of \$30 million from the Cap & Trade Fund to the program in California's 2019 FY budget, but only \$1 million was allocated in the state's 2019-2020 fiscal budget.
 - CARB also [proposed new regulations](#) which would prohibit the use of the refrigerants that are commonly used today by banning:
 - Greenhouse gas refrigerants with a *GWP \geq 750 in new residential and commercial air conditioning starting in 2023;
 - Sale or installation of new systems containing greenhouse gas refrigerants with a GWP \geq 150 starting in 2022 (applies to large systems containing more than 50 lbs of refrigerant); and
 - Sale, distribution, or import for use in California, of new refrigerants (not reclaimed or recycled from other systems) with a GWP \geq 1500 starting in 2022.
 - Currently, most supermarket refrigeration systems use refrigerants with GWPs close to 4,000.

- 2019** • \$1 million was allocated to the incentive program under SB 1013 in the [state's 2019-2020 fiscal year budget](#).
 - CARB to gather stakeholder feedback throughout 2019 and plans to release their draft regulations by early 2020.

*GWP is the global warming potential of a substance, which is defined as the amount of heat that substance traps in the atmosphere relative to an equal amount of CO₂ (e.g., GWP of CO₂ = 1; GWP of HFCs can be in the thousands).