

HFC Regulations Fact Sheet

International

Montreal Protocol (1987)

- Phaseout of ozone depleting substances (ODS), leading a shift to hydrofluorocarbons (HFCs)
- New production and import of virgin HCFC-22 will be phased out in North America by 2020

Kigali Amendment (2016) to the Montreal Protocol

- Phasedown of production and consumption of HFCs to reduce greenhouse gas emissions
- Effective in January 2019 where ratified
- More than 90 countries have ratified (including Canada and excluding U.S., as of February 2020)
- Driving global transition to lower global warming potential (GWP) solutions. Learn more at Opteon.com

"Perhaps the single most successful international agreement to date has been the Montreal Protocol."

Kofi Annan,
UN Secretary-General,
1997-2006

U.S. Federal

Significant New Alternative Policy (SNAP)

- The Environmental Protection Agency (EPA) made certain HFCs unacceptable for use in SNAP Rules 20 (2016) and 21 (2017).
- However, SNAP Rules 20 and 21 were partially vacated by the D.C. Circuit Court; the EPA is reviewing the court decision. The industry awaits the EPA rewrite, expected in 2021.
- Despite being vacated at the federal level, states may choose to adopt and set their own timeline for the implementation of rules. The following table shows an abbreviated view, highlighting some of the key restrictions. For further details, visit EPA.gov/SNAP.

SNAP Rule	Application	Unacceptable Refrigerants ¹						
		In New Equipment	For Retrofit	Implementation Date ²				
				CA	VT	WA	NJ	NY, CO, MD and MA
20	Condensing Units	R-404A/507	R-404A/507	1/1/19	1/1/20	1/1/20	7/1/20	1/1/21
	Stand-alone Units		R-404A/507	1/1/19	1/1/20	1/1/20	7/1/20	1/1/21
	Stand-alone Units (Low Temp.)	R-404A/507, 134a, 407A/C/F, 410A		1/1/20	1/1/20	1/1/20	7/1/20	1/1/21
	Stand-alone Units (Med. Temp. <2200 Btu/hr)	R-404A/507, 134a, 407A/C/F, 410A		1/1/19	1/1/20	1/1/20	7/1/20	1/1/21
	Stand-alone Units (Med. Temp. ≥2200 Btu/hr)	R-404A/507, 134a, 407A/C/F, 410A		1/1/20	1/1/20	1/1/20	7/1/20	1/1/21
	Supermarket Systems/Racks	R-404A/507	R-404A/507	1/1/19	1/1/20	1/1/20	7/1/20	1/1/21
	Vending Machines	R-404A/507, 134a, 407A/C/F, 410A	R-404A/507	1/1/19	New 1/1/22; Retrofit 1/1/21	1/1/22	7/1/20	New 1/1/22; Retrofit 1/1/21
21	Centrifugal Chillers	R-404A/507, 134a, 407C, 410A		1/1/24	1/1/24	1/1/24	1/1/24	1/1/24
	Cold Storage Warehouse	R-404A/507, 407A, 410A		1/1/23	1/1/23	1/1/23	1/1/23	1/1/23
	Household Refrigerators and Freezers (Compact)	R-404A/507, 407A/C/F		1/1/21	1/1/21	1/1/21	1/1/21	1/1/21
	Household Refrigerators and Freezers (Non-compact/Non-built-in)	R-404A/507, 407A/C/F		1/1/22	1/1/22	1/1/22	1/1/22	1/1/22
	Household Refrigerators and Freezers (Built-in)	R-404A/507, 407A/C/F		1/1/23	1/1/23	1/1/23	1/1/23	1/1/23
	Positive Displacement Chillers	R-404A/507, 134a, 407C, 410A		1/1/24	1/1/24	1/1/24	1/1/24	1/1/24
	Refrigerated Food Processing/Dispensing	R-404A/507, 407A/C/F		1/1/21	1/1/21	1/1/21	1/1/21	1/1/21

¹This is a summary of the most commonly used refrigerants. Please consult EPA.gov/SNAP for a full list of unacceptable products.

²Implementation dates for other states adopting SNAP rules to be added when available.

Refrigerant Management (Clean Air Act, Section 608)

- In 2016, the EPA extended the refrigerant management program to include HFCs (40 CFR Part 82, Subpart F, under Section 608 of the Clean Air Act).
- The EPA signed a rule in February 2020 that rescinded some parts of the program, including the extension of leak repair provisions to appliances using HFCs.
- This rule did not rescind other parts affecting HFCs, such as sales restriction or requirements for technician certification, for safe disposal, recovery, and reclamation.
- Likewise, this rule does not affect the requirements for equipment containing ozone depleting substances. For more information, visit EPA.gov/Section608.

U.S. Federal

American Innovation and Manufacturing (AIM) Act

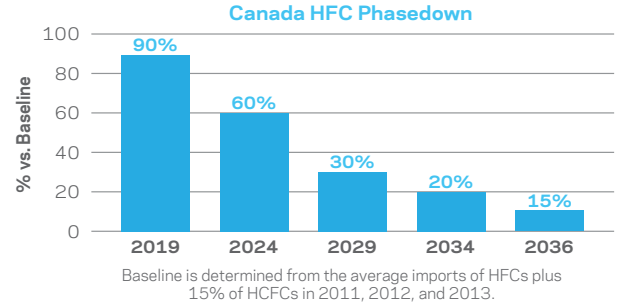
- On December 27th, 2020, the AIM Act was signed into law, allowing for a federal phasedown of the production and consumption of HFCs, with implementation dates yet to be developed by the EPA
- The phasedown will be managed through an allocation program, and the schedule will mirror the schedule proposed in the Kigali amendment
- This legislation grants the EPA the authority to establish standards for recovery and reclamation of HFCs
- The Aim Act authorizes the EPA to facilitate transitions to next-generation technologies by establishing sector-based use case restrictions
- Implementation could create significant economic and new employment benefits

Canada

Amendments to the Ozone-Depleting Substances and Halocarbon Alternatives Regulations (ODSHAR)

- Phasedown of HFCs in alignment with Kigali Amendment
- Product-specific refrigerant GWP limits for new equipment
- Existing equipment, service, and retrofit are not impacted by product-specific controls
- Effective as of April 2018

Visit laws-lois.justice.gc.ca/eng/regulations for more information.



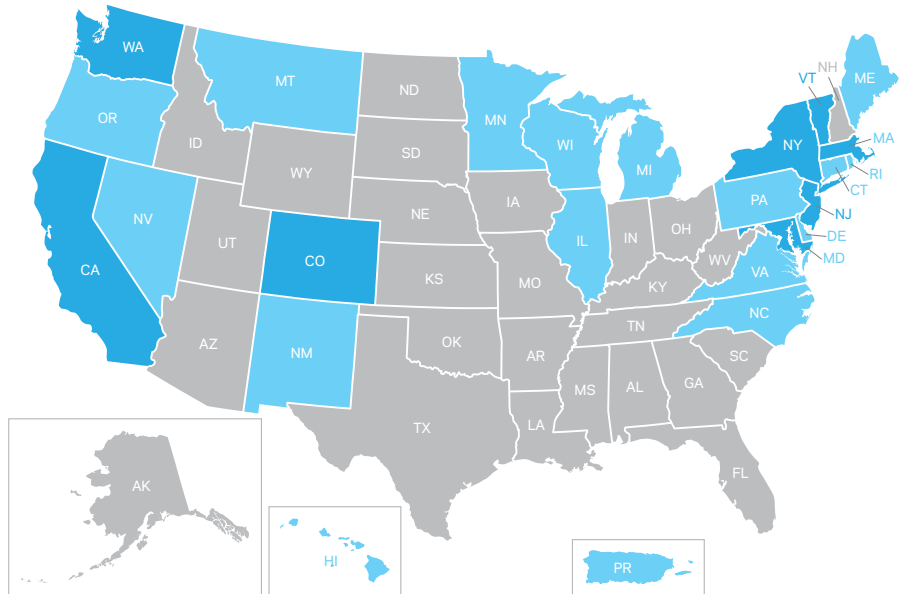
U.S. State-Level Activity

Climate Alliance

The United States Climate Alliance, founded in 2017, is a bipartisan coalition of U.S. states and territories committed to reducing greenhouse gas emissions by at least 26-28% below 2005 levels by 2025—this is consistent with the goals of the 2015 Paris Agreement. The Alliance represents greater than 55% of the U.S. population and over 60% of the economy. As of February 2020, there are 25 members, with 8 states joining in 2019. Visit USClimateAlliance.org for more information.

Climate Alliance members in motion with SNAP rules

Certain members of the U.S. Climate Alliance have taken steps to adopt SNAP rules, with some modifications, at the state level (as of January 2021: CA, CO, MA, MD, NJ, NY, VT, and WA). Other states that have expressed an intent to regulate HFCs include CT, DE, HI, ME, OR, RI, and VA. Note that states adopting SNAP rules may implement special reporting and labeling requirements. Visit EPA.gov/SNAP to learn more.



California Air Resources Board (CARB) Activity

In September 2018, the California Cooling Act (SB 1013) adopted SNAP Rules 20 and 21. Additional regulations related to the Short-Lived Climate Pollutant (SLCP) plan are *proposed*, as shown below. CARB is currently seeking stakeholder input.

Type	Sub-type	Proposed Refrigerant GWP Limit ¹	Effective Date
New Chillers	Designed for min. evaporator temp > +35 °F	<750	1/1/25
New Chillers	Designed for min. evaporator temp ≤ +35 °F and > -10 °F	<1500	1/1/24
New Chillers	Designed for min. evaporator temp ≤ -10 °F and > -58 °F	<2200	1/1/24
Ice Rinks	Retrofit and remodeled ice rinks	<750	1/1/24
Ice Rinks	Greenfield, new construction ice rinks	<150	1/1/24
Air Conditioning Equipment	Air conditioning, equipment (new), residential and non-residential	<750	1/1/23
New Refrigeration Equipment	Non-residential, with >50 lb refrigerant	<150	1/1/22
Existing Refrigeration Equipment	Companies with >20 retail food facilities	Average GWP <2500 or 25% reduction in GHGp ² below 2019 baseline	12/31/26
Existing Refrigeration Equipment	Companies with >20 retail food facilities	Average GWP <1400 or 55% reduction in GHGp ² below 2019 baseline	1/1/30
Existing Refrigeration Equipment	Companies with <20 retail food facilities	Average GWP <1400 or 55% reduction in GHGp ² below 2019 baseline	1/1/30

¹GWP - IPCC 4th Assessment Report, AR4

²Greenhouse Gas Potential

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