

Primer on Carbon Credits from Fluorocarbon Emissions Reductions (last revised 5/15/2023)

Reducing fluorocarbon emissions from cooling systems and foam applications is one of the fastest and most cost-effective ways available today to slow global warming. Many such emissions reduction activities can generate revenue through the carbon markets. Under existing methodologies, the following activities may be eligible:

- Commercial refrigeration system retrofits and installations
- Leak detection and reduction in commercial refrigeration systems
- Low Global Warming Potential (GWP) blowing agent usage in foam manufacturing
- Recovery and reclamation of used refrigerants
- Recovery and disposal of refrigerants from stockpiles or equipment
- Recovery and disposal of foam blowing agents from appliances or buildings

See Table 1 for registry and eligibility information, and Table 2 for a full comparison of each methodology.

Table 1: Carbon Credit Methodologies for Fluorocarbon Emissions Reductions

Registry	Methodology Name	Approved Countries/Regions	Eligible Activities
ACR	Advanced Refrigeration Systems v2.1 (link)	U.S., Canada, or Mexico	Deployment of advanced refrigeration systems in select commercial applications. Both retrofits and new installations may be eligible.
ACR	Certified Reclaimed HFC Refrigerants, Propellants, and Fire Suppressants v2.0 (link)	U.S., Canada, or Mexico	Use of certified reclaimed HFCs to charge existing or newly manufactured refrigeration, air conditioning, aerosol, or fire suppression equipment.
ACR	Destruction of Ozone Depleting Substances and High-GWP Foam v2.0 (link)	For sourcing material: U.S. or Canada For destruction: anywhere	Destruction of ODS refrigerants from equipment or stockpiles, or destruction of foam blowing agents from appliances or buildings.
ACR	Destruction of Ozone Depleting Substances from International Sources v1.0 (link)	For sourcing material: outside the U.S. For destruction: anywhere	Destruction of select ODS refrigerants from equipment or stockpiles.
ACR	Transition to Advanced Formulation Blowing Agents in Foam Manufacturing and Use v3.0 (link)	U.S., Canada, or Mexico	Replacement of high-GWP blowing agents in foam manufacturing with low-GWP alternatives. Blowing agents eligible for replacement vary by species, region, and foam end-use category.
CARB	Destruction of U.S. Ozone Depleting Substances Banks (link)	U.S.	Destruction of ODS refrigerants from equipment or stockpiles, or destruction of foam blowing agents from appliances or buildings.
CAR	U.S. Ozone Depleting Substances Project Protocol (link)	U.S.	Destruction of ODS refrigerants from equipment or stockpiles, or destruction of foam blowing agents from appliances or buildings.
CAR	Article 5 Ozone Depleting Substances (link)	For sourcing material: Article 5 countries For destruction: U.S.	Destruction of select ODS refrigerants, either recovered from equipment or acquired from stockpiles that cannot legally be resold (or can be legally resold but are held by an Article 5 government).
CAR	Mexico Halocarbon Protocol (link)	Mexico	Destruction of select halocarbon refrigerants from stockpiles, equipment, or used servicing cylinders. Eligibility varies by species.
Verra	Infrared Automatic Refrigerant Leak Detection Efficiency v1.1 (link)	Anywhere	Installation of infrared automatic leak detection systems in commercial refrigeration systems using HFCs.
Verra	Recovery and Destruction of Ozone Depleting Substances v1.1 (link)	Parties to the Montreal Protocol	Destruction of ODS refrigerants and blowing agents (both CFCs and HCFCs). Refrigerants may be recovered or stockpiled gas. Blowing agents must be recovered from end-of-life appliances.