

THE KIGALI AMENDMENT 10 YEARS SINCE ADOPTION: THE WORLD AND ALBANIA

2016 – 2026

1. WHAT IS THE KIGALI AMENDMENT

The Kigali Amendment, adopted under the **Montreal Protocol**, is a legally binding global agreement adopted on **15 October 2016** in Kigali, Rwanda. It aims to gradually phase down hydrofluorocarbons (HFCs) — extremely potent greenhouse gases widely used in refrigeration and air conditioning.

Although HFCs currently account for approximately **2% of global greenhouse gas emissions**, they have been growing at over 10% per year in the absence of controls. Unlike ozone-depleting substances, HFCs do not harm the ozone layer, but have a **global warming potential (GWP) thousands of times higher than CO₂**, making their rapid reduction a major climate priority.

Developed countries began reductions in 2019; **developing countries, including Albania**, began with a consumption freeze in 2024, followed by gradual reductions. By 2047, global HFC use is expected to fall by **80–85%**.

The Power of the Cooling Sector

If fully implemented, the Kigali Amendment is projected to avoid up to **0.5°C of global warming by 2100** — one of the most significant single climate interventions this century.

170+

countries have ratified the Amendment

0.5°C

of warming avoided by 2100

When combined with improvements in the energy efficiency of cooling equipment, the climate benefit could **nearly double**, potentially avoiding up to **1°C of warming** over the same period. The Amendment plays a critical role in supporting the **Paris Agreement** to keep global temperature rise below 2°C, building on the proven success of the Montreal Protocol — widely regarded as the world's most effective environmental treaty.

A More Energy-Efficient Cooling Sector

A key strength of the Kigali Amendment is the link it creates between climate and development. Through the Montreal Protocol's financing mechanism, the **Multilateral Fund**, developing countries receive financial and technical support to transition to sustainable cooling technologies.

This transition also accelerates the adoption of high energy efficiency equipment, since the majority of emissions from the refrigeration sector come from electricity consumption, not only from HFCs.

The Amendment requires a shift toward low-GWP refrigerants, including synthetic alternatives and natural refrigerants such as ammonia and propane, and encourages improvements in energy efficiency. With more than 170 countries having ratified the Kigali Amendment, it represents a powerful bridge between ozone protection and climate action. Ten years on, it is widely regarded as one of the most impactful global agreements for near-term climate change mitigation.

2. GLOBAL PROGRESS: 10 YEARS OF RESULTS

After a decade of implementation, the Kigali Amendment has produced measurable results. The latest data from the Technology and Economic Assessment Panel (TEAP) and the Montreal Protocol Secretariat indicate:

- ▶ **Global production reductions:** Group 1 countries (advanced economies) have achieved significant HFC production reductions since 2019. As an example, the EU has reduced F-gas emissions by 38% since the 2014 peak.
- ▶ **Industry transition:** the refrigeration sector is shifting massively toward low-GWP alternatives — HFOs (hydrofluoroolefins), CO₂ (R-744), ammonia (R-717), and isobutane (R-600a).
- ▶ **Multilateral financing:** the Multilateral Fund has financed hundreds of millions of dollars in transition projects in developing countries.
- ▶ **European Union:** F-Gas Regulation 2024/573 has accelerated timelines, setting some of the world's most stringent standards.
- ▶ **Universal ratification:** the Ozone Secretariat is targeting universal ratification by all 198 Parties by MOP38 (October 2026) — the Amendment's 10th anniversary.

3. ALBANIA AND THE KIGALI AMENDMENT

First in the Region

Albania ratified the Kigali Amendment in

January 2019

First country in the region — a clear demonstration of political commitment to international environmental obligations

The early ratification reflects Albania's clear political commitment to climate protection and its engagement with the international obligations of the Montreal Protocol. As a developing country (Article 5), Albania has frozen its HFC consumption based on the 2020–2022 average, with **883,849 tonnes of CO₂ equivalent** as the reference baseline.

Albania's Obligations under the Amendment

Year	2024	2029	2035	2040/2045
HFC Reduction	Freeze (baseline)	-10%	-30%	-50% / -85%

Albania follows the Group 1 Article 5 schedule: consumption freeze in 2024, 10% reduction in 2029, 30% in 2035, 50% in 2040, and 85% in 2045.

Legal and Institutional Framework

The national legal framework rests on two main pillars: **Law No. 2/2023 “On Fluorinated Greenhouse Gases”** — the primary legislation transposing EU directives and Kigali obligations; and **DCM No. 708 (November 2024)** — a sub-act of Law 2/2023, establishing the legal basis for the **National F-Gas Certification Scheme**, mandatory for technicians in the refrigeration, air conditioning, and heat pump (RACHP) sector.

- ▶ **The National Ozone Unit (NOU)** coordinates national implementation.
- ▶ Projects by **UNIDO and UNDP** have supported Albania's technical and institutional capacity throughout this decade.
- ▶ **58 technicians** certified over the past three years in collaboration with Centro Studi Galileo (Italy) — a certification recognized in the EU and registered in European F-Gas certification registries.
- ▶ **Harry Fultz Technical College** has submitted documentation and is pursuing accreditation under ISO/IEC 17024.

Challenges

- ▶ The number of certified technicians remains limited relative to market volume. Expansion requires consolidated accreditation infrastructure.
- ▶ The market continues to consume **high-GWP HFCs** (R-410A, R-404A). **Transitional refrigerants** such as R-32 are gaining ground, while long-term low- or zero-GWP alternatives — natural refrigerants (R-290, R-600a, R-744) and HFOs — remain limited in supply and adoption.
- ▶ Monitoring and reporting of HFC imports and consumption requires institutional strengthening and customs coordination.
- ▶ Awareness among equipment operators and SMEs of their legal obligations remains insufficient.

Next Steps

- ▶ **Official accreditation:** expansion of the national certification scheme and accreditation of training institutions under ISO/IEC 17024.
- ▶ **NCAP:** development and adoption of the National Cooling Action Plan — a strategic document required under Montreal Protocol mechanisms.
- ▶ **Customs enforcement:** strengthening the HFC licensing system as the basis for consumption monitoring and phase-down compliance.
- ▶ **F-Gas EU alignment:** harmonization with Regulation (EU) 2024/573 in the context of Albania's EU accession process.
- ▶ **Promoting alternatives:** encouraging natural refrigerants and HFOs through awareness programmes and financial incentive schemes.

About the Montreal Protocol

The Montreal Protocol is a global agreement on chemicals aimed at protecting the ozone layer through the gradual elimination of ozone-depleting substances.

Adopted in 1987 and in force since 1989, it is one of the most successful environmental treaties in the world. Thanks to global cooperation, the ozone layer is on the path to recovery, delivering significant environmental and economic benefits.

The Kigali Amendment is not only an international obligation. It is an opportunity to modernize the refrigeration sector, create skilled jobs, and contribute to global climate protection.

Source: NOU Albania · Law No. 2/2023 · DCM 708/2024 · Montreal Protocol Secretariat · TEAP 2025 · Regulation (EU) 2024/573