



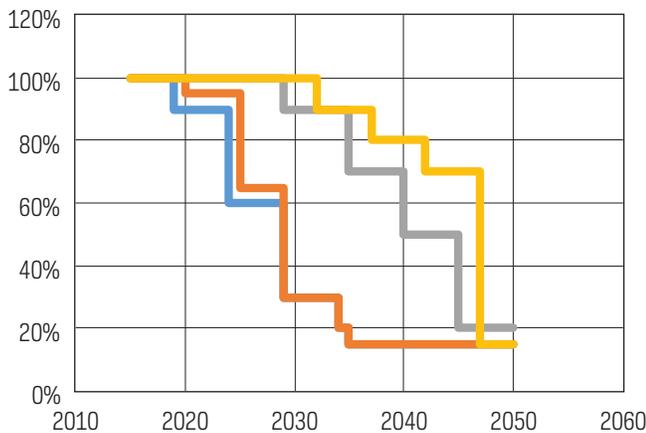
Opteon™ Refrigerants

Overview of Montreal Protocol Kigali HFC Amendment

On October 15, 2016, an amendment to the Montreal Protocol was agreed upon in Kigali, Rwanda. This 2016 amendment calls for a reduction of hydrofluorocarbon (HFC) “consumption” (production plus imports minus exports) from an established baseline to 15 to 20% of the baseline in 2036 to 2047, depending on the country group. The final consumption level extends out indefinitely, which is a recognition of the importance of HFC use in many critical and/or non-emissive applications.

Each country will enact its own regulations in order to meet the consumption reductions required by the amendment. Due to the success of the original Montreal Protocol in reducing chlorofluorocarbons (CFCs), it is reasonable to expect that national regulatory structures enacted will be similar in nature to those used with the original Montreal Protocol.

Kigali Amendment to the Montreal Protocol - HFC Phasedown Schedule as % of Baseline



- A2 Countries excluding Group 1
- A5 Countries excluding Group 2
- Group 1: Belarus, Russian Federation, Kazakhstan, Tajikistan, Uzbekistan
- Group 2: GCC, India, Pakistan, Iraq, Iran

A2 countries include: United States, Canada, European Union, Australia, New Zealand, Russian Federation, Ukraine, Israel, Japan

A5 countries include: China, Indonesia, Korea, Malaysia, Singapore, Thailand, Vietnam, Philippines, Belarus, Bosnia, Kazakhstan, Serbia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Mexico, Nicaragua, Paraguay, Peru, Uruguay, Venezuela, Bahrain, Egypt, Ghana, Jordan, Kenya, Kuwait, Oman, South Africa, Turkey, UAE

Are You Prepared?

- Consult your country-specific proposed, or final, HFC regulations
- Begin using Opteon™ low global warming potential (GWP) refrigerants from Chemours, for energy efficient solutions in a broad range of end-use applications, without compromising system performance.

Learn more about low GWP solutions at Opteon.com.



Background on Montreal Protocol Kigali HFC Amendment

On October 15 2016, in Kigali, 197 parties agreed to amend the Montreal Protocol phasing down the consumption of high GWP HFCs. The Montreal Protocol was originally created to reduce and eliminate the consumption of ozone-depleting substances and has been hailed as the most successful international treaty for global environmental action. HFCs were developed largely to replace the ozone-depleting products regulated under the Montreal Protocol. While HFCs do not deplete the ozone, they contribute to global warming, along with carbon dioxide (CO₂) and several other compounds released from human activities.

The amendment creates four different groups of countries, each with different baseline volumes and reduction schedules. Unlike the original Montreal Protocol, the amendment does not call for a complete phase-out of HFCs, but a reduction to 15 to 20% of the baseline in 2036 to 2047, depending on the group. There will be a technical review every four to five years to ensure that this is the appropriate level and timing for the phase-down steps. This remaining production extends out indefinitely, a recognition of the importance of HFC use in many critical and/or non-emissive applications.

Like the original Montreal Protocol, this amendment will provide countries an annual combined weighted target volume to meet. For HFCs, however, it will be GWP-weighted and not ozone depletion potential (ODP)-weighted. The amendment does not regulate any specific products, molecules, or applications, but simply aggregates all HFCs into a total GWP-weighted target volume.

Each country will enact its own regulations in order to meet the target levels assigned by the Protocol. Due to its success with chlorofluorocarbons (CFCs), we anticipate national regulatory structures will be similar to those used with the original Protocol. In the United States, we expect the U.S. Environmental Protection Agency (EPA) to operate under the Clean Air Act to allocate GWP volumes to commercial enterprises, consistent with their historical requirements. Those firms would then each manage their mix of products within the GWP allocation to meet specific market demands.

It is important to note that neat hydrofluoroolefins (HFOs) are not included in the phase-down, due to their recognized negligible effect on global warming.

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