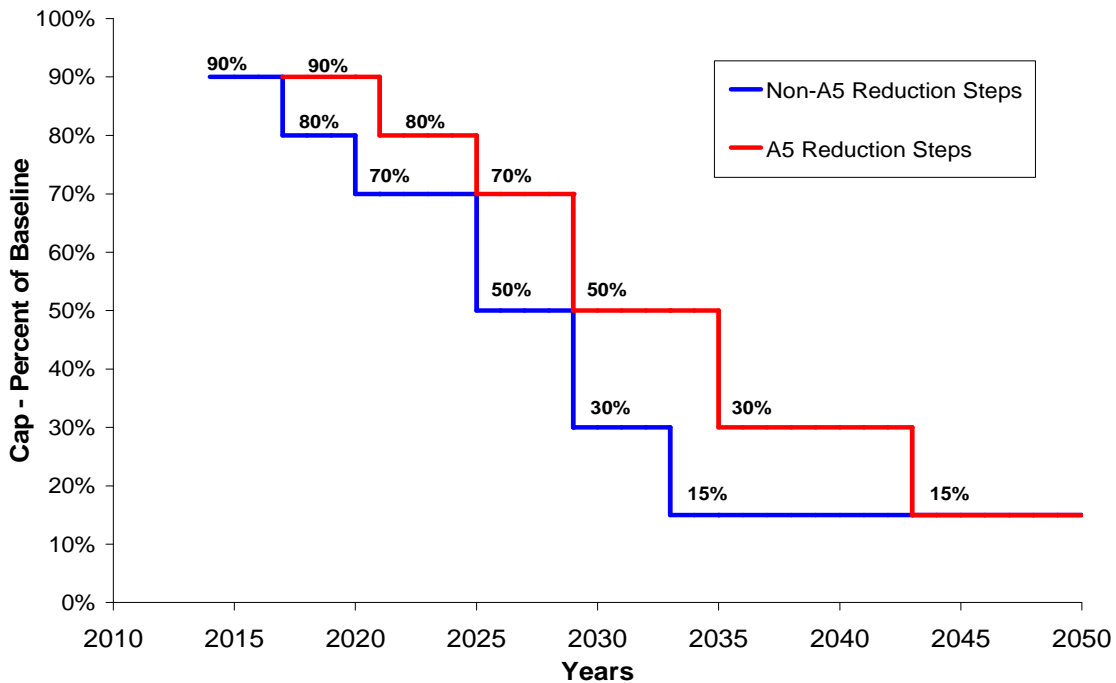


Summary Points: 2010 North American HFC Submission to the Montreal Protocol

The North American proposal includes the following key elements:

- Lists 20 HFCs as a new Annex F, including two substances sometimes referred to as HFOs.
- Recognizes that there may not be alternatives for all HFC applications and therefore utilizes a gradual phasedown mechanism with a plateau, as opposed to a phaseout.
- Establishes provisions for developed country (non-Article 5) and developing country (Article 5) phasedown of production and consumption (see figure below):

**HFC Reduction Steps for Article 5 and Non-Article 5 Countries
(% of HCFCs and HFCs Production and Consumption, averaged over 2004 to 2006)**



Non Art 5: Proposal

- 10% in 2013
- 20% in 2017
- 30% in 2020
- 50% in 2025
- 70% in 2029
- 85% in 2033

Waxman - Markey

- 12.5% in 2012
- 22.5% in 2017
- 33% in 2020
- 54% in 2025
- 70% in 2029
- 85% in 2033

- Uses weighting by Global Warming Potential for HCFCs and HFCs as compared to typical Montreal Protocol practice of Ozone Depleting Potential.
- Includes provisions to strictly limit HFC-23 byproduct emissions resulting from the production of HCFC-22, beginning in 2014.
- Requires licensing of HFC imports and exports, and bans imports and exports to non-Parties.
- Requires reporting on production and consumption of HFCs, and HFC-23 byproduct emissions.
- Makes eligible for funding under the Montreal Protocol's Multilateral Fund the phasedown of HFC production and consumption as well as reduction of HFC-23 byproduct emissions.

Cumulative benefits of the HFC phasedown estimated by the U.S. Government amount to reductions of 3,100 million metric tons of carbon dioxide equivalent (MMT CO₂ eq) through 2020, and around 88,000 MMT CO₂ eq through 2050.

Relationship to HCFC phaseout:

- This amendment is designed to be compatible with HCFC phaseout.
- Recognizes that HFCs are alternatives in many existing HCFC applications. Thus, while the reduction steps apply only to HFCs, the baselines account for some level of transition to HFCs by using the average of 2004, 2005, and 2006 HCFC plus HFC consumption and production.
- The suite of known alternative chemicals, new technologies, and improved process/handling practices can significantly reduce HFC consumption while simultaneously supporting the HCFC phaseout.

Relationship with the United Nations Framework Convention on Climate Change (UNFCCC):

- The proposal is intended to support overall global efforts aimed at climate system protection.
- The proposal constitutes an amendment to the Montreal Protocol, and could be complemented by a related decision by the UNFCCC confirming the Montreal Protocol approach.
- Leaves unchanged the provisions of the UNFCCC / Kyoto Protocol that govern HFC emissions. Parties could follow Montreal Protocol obligations to meet certain UNFCCC obligations.

Decision: Consideration for phase-out of HFC-23 as a byproduct emission of HCFC-22 with high global warming potential.

Recalling decision X/16 which recognizes the importance of implementing the Montreal Protocol and takes note of HFCs and PFCs as replacements for ozone depleting substances that have potentially substantial impacts on the climate system;

Noting with appreciation the special report of the Technology and Economic Assessment Panel and the Intergovernmental Panel on Climate Change, "Safeguarding the Ozone Layer and the Global Climate System: Issues Related to Hydrofluorocarbons and Perfluorocarbons";

Recalling decision XVIII/12 which requested the Ozone Secretariat to facilitate consultations by the Technology and Economic Assessment Panel with relevant organizations to draw on the work already carried out under these organizations, including work relating to HCFC-22;

Recalling also the report of the Technology and Economic Assessment Panel pursuant to decision XVIII/12, in particular the chapter on the role of the Clean Development Mechanism with respect to HFC-23 byproduct emissions resulting from the production of HCFC-22;

Mindful that Parties not operating under paragraph 1 of Article 5 of the Montreal Protocol are obligated to freeze production of HCFCs by 2004 and phase out consumption by 2030 and that Parties operating under paragraph 1 of Article 5 are obligated to freeze production of HCFCs by 2016 and phase out consumption by 2040;

Recognizing the unique relationship of HFC-23 to the controlled substance HCFC-22, given that the production of HCFC-22 results in the by-production of emissions of HFC-23 and that the production of HCFC-22 for feedstock uses, under the Montreal Protocol, is expected to continue beyond the phase-out of production for controlled uses;

Recognizing also the opportunity to facilitate an environmentally responsible approach to managing the production of HCFC-22 for both controlled and feedstock uses;

Acknowledging that emissions of HFC-23 are covered by the Kyoto Protocol to the United Nations Framework Convention on Climate Change, and that actions taken under this decision are not intended to affect this coverage;

Emphasizing the potential implications of Clean Development Mechanism projects in HCFC-22 production facilities and that the value of Clean Development Mechanism credits may exceed 50 times the cost of mitigating the HFC-23 emissions;

Recognizing the need for immediate action to address uncontrolled HFC-23 byproduct emissions to avoid impacts on the climate system from their release, particularly in light of the near-term control measure of January 1st 2014 in the HFC amendment;

The Parties Decide:

1. To request the Executive Committee to review and update information presented in UNEP/OzL.Pro/ExCom/57/62 on HCFC-22 production facilities located in Parties

operating under paragraph 1 of Article 5, including information on location, production capacity for the facility, production capacity for each individual production line, and whether the HCFC-22 production lines have ongoing projects under the Clean Development Mechanism to limit or destroy HFC-23, as well as the end dates of these projects, and present the findings to the Parties by 31st Meeting of the Open-ended Working Group.

2. To request the Executive Committee to develop estimates of the incremental costs, including capital costs and operational costs, associated with the collection and destruction of HFC-23 byproduct emissions from HCFC-22 production in facilities located in Parties operating under paragraph 1 of Article 5.
3. To request the Executive Committee to formulate guidelines for funding projects to collect and destroy byproduct emissions of HFC-23 during the production of HCFC-22, including production for feedstock, by the 64th Meeting of the Executive Committee.
4. To further request, as a matter of urgency, the Executive Committee to facilitate the formulation and implementation of projects to eliminate byproduct emissions of HFC-23 during the production of HCFC-22 for facilities or production lines that are not collecting emissions reduction credits under the Clean Development Mechanism.
5. To Request the Technology and Economic Assessment Panel, in consultation with the Science Assessment Panel, to conduct a study of the potential costs and environmental benefits from the implementation of HFC-23 byproduct control measures related to production of HCFC-22 by facility or production line, excluding the costs and benefits associated with existing Clean Development Mechanism projects when relevant, and to prepare a report 60 days before 31st Meeting of the Open-ended Working Group, in order to assist the Parties in further considering this issue.