



After 22 Years Ozone Treaty Still Going Strong, Key to Tackling Super Greenhouse Gases

Washington, D.C., September 15, 2009 – After 22 years of success protecting both the ozone layer *and* the climate system, the Montreal Protocol on Substances That Deplete the Ozone Layer has the potential to do still more to protect the environment. Hydrofluorocarbons, or HFCs, are super greenhouse gases that were originally developed as ozone-friendly substitutes for CFCs and HCFCs, but now threaten to wreak havoc on the climate system, potentially representing up to 45% of CO₂ emissions by 2050 under a scenario that stabilizes CO₂ emissions at 450 ppm. (See separate release on today’s proposal by U.S., Mexico, and Canada to phase down HFCs under the Montreal Protocol.)

This finding was reported on June 22 in the [*Proceedings of the National Academy of Sciences*](#). The dramatic increase in HFCs projected over the next four decades would threaten efforts to curb climate change unless [production and consumption is phased down](#) in both developed and developing countries.

“Preventing strong growth in HFC use is an important climate mitigation option the world has now,” said lead author Dr. Guus Velders of The Netherlands Environmental Assessment Agency. “Our earlier, 2007, paper on the climate benefits of the Montreal Protocol shows how powerful the stratospheric ozone treaty has been in reducing CFCs, HCFCs, and other chemicals similar to HFCs.” Here, in this latest scientific paper, Dr. Velders and his colleagues show that HFCs are now replacing CFCs and HCFCs as refrigerants and foam-blowing agents.

In 2007, the same team of scientists published another paper in the *Proceedings of the National Academy of Sciences* calculating the climate benefits of the [Montreal Protocol](#). They calculated that the ozone treaty has delivered a net reduction of 135 billion tonnes of CO₂ equivalent between 1990 and 2010, or 11 billion tonnes per year. This is significantly more than the 1-2 billion tonnes per year below 1990 that the Kyoto Protocol is seeking during its initial commitment period of 2008-2012. The Velders team of scientists calculated that this has delayed climate warming by 7 to 12 years. The delay in climate warming is 35 to 41 years when the additional climate mitigation is included from the early voluntary and regulatory efforts in the US and Europe to protect the ozone layer. The early efforts began in 1974 in response to the initial warning by Dr. Sherwood Rowland and Mario Molina that CFCs were destroying the ozone layer.

The Federated States of Micronesia and Mauritius [submitted a proposal](#) in April calling for a mandatory phase-down of HFCs under the Montreal Protocol ozone treaty. The island states assert that fast-action mitigation strategies can delay sea-level rise and other abrupt climate changes. The Australian Senate passed [a resolution](#) on June 25 calling on their government to

support the proposal by Micronesia and Mauritius, although the [government has not yet agreed to do so](#).

“We need the U.S. to lead the battle against HFCs,” said Amb. Yosiwo George, FSM Ambassador to the U.S. “Phasing down HFCs can be a great victory for us and for all other islands threatened by the rising seas, and for the rest of the world too.” On June 15, Micronesia sent a letter to President Obama urging support for the Montreal Protocol HFC phase-down. The Montreal Protocol imposes binding commitments on all Parties, including China and India. Congressmen Waxman and Markey have requested that the Administration support an HFC phase-down amendment under the ozone treaty, and include a [separate section in their domestic U.S. climate bill](#) to phase down HFCs. They also sent a letter to President Obama requesting that the Administration pursue this in the Montreal Protocol, as did Senators Boxer and Kerry.

UNEP Executive Director Achim Steiner emphasized the importance of cutting CO₂ emissions, noting that “there are other low hanging fruit in the climate change challenge and this [new scientific paper spotlights one of them – HFCs](#). By some estimates, action to freeze and then reduce this group of gases could buy the world the equivalent of a decades-worth of CO₂ emissions.”

“If we don’t take out HFCs, we could win the CO₂ battle and still lose the climate war,” said Durwood Zaelke, President of the Institute for Governance & Sustainable Development.

On July 9, in their declaration on “[Responsible Leadership for a Sustainable Future](#),” (paragraph 66) the [Group of Eight leaders](#) committed to supporting efforts to reduce emissions of HFCs and black carbon soot, recognizing that the climate problem consists of several key non-CO₂ climate forcers in addition to CO₂, and also keeping the option open for regulating HFCs under the Montreal Protocol ozone treaty:

“We recognize that the accelerated phase-out of HCFCs mandated under the Montreal Protocol is leading to a rapid increase in the use of HFCs, many of which are very potent GHGs. Therefore we will work with our partners to ensure that HFC emissions reductions are achieved under the appropriate framework. We are also committed to taking rapid action to address other significant climate forcing agents, such as black carbon. These efforts, however, must not draw away attention from ambitious and urgent cuts in emissions from other, more long-lasting, greenhouse gases, which should remain the priority.”

The HFC issue [gained further momentum](#) at the July meeting of the Montreal Protocol Parties in Geneva: the Micronesia/Mauritius proposal to phase down HFCs under the Protocol was well-received and 8 other island nations officially joined as co-sponsors, among them the Seychelles, Kiribati, Samoa, the Cook Islands, Papua New Guinea, Comoros, Madagascar, and Palau. South Africa also supported continuing discussion of the proposal. Representatives from both the Montreal Protocol and the UNFCCC also met during the week to discuss ways to address this pressing issue.

Last month, the North American Leaders of the United States, Canada, and Mexico issued their [Declaration on Climate Change and Clean Energy](#) and committed to [taking action on HFCs](#) under the ozone treaty:

Working in key sectors can help accomplish our emission reduction goals. With this in mind, we will:

- *Work together under the Montreal Protocol to phase down the use of HFCs and bring about significant reductions of this potent greenhouse gas*

UNEP recently came out in full support of reducing non-CO₂ climate forcing agents, including HFCs: Executive Director, Achim Steiner, [urged action on the issue](#) during the last day of the World Climate Conference in Geneva (4 September 09) and [published an op-ed](#) in *The Guardian* on 11 September which focused on the Montreal Protocol's track record of success in protecting both the ozone layer and the climate system for more than two decades.

[“Perfectly Cool,”](#) a new documentary reporting on how HCFC and HFC emissions from air conditioners damage ozone and climate, is being broadcast on [BBC World](#) (produced by the [Television Trust for the Environment](#) with support from IGSD, UNEP, UNDP, GTZ, the World Bank, and UNIDO).

“Tomorrow, on International Day for the Preservation of the Ozone Layer, the world has every reason to celebrate the success of the Montreal Protocol,” added Zaelke. “However, with the threat of abrupt climate change looming in the near future, we cannot be complacent; we need to maximize the full potential of this treaty and start taking aggressive action on HFCs.”

The Montreal Protocol Parties will work toward a decision on phasing down HFCs at the upcoming Meeting of the Parties November 4-8, in Port Ghalib, Egypt.

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