CLIMATE BENEFITS OF ACCELERATED HCFC PHASE-OUT
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1. The Four Independent Calculations of Potential Climate Benefits of an Accelerated HCFC Phase-Out Range from 17.5 to 25.5 $GtCO_2$-eq. Between 2010 and 2050[1]

1.1 The Technology and Economic Assessment Panel (TEAP)[2] calculates a potential climate benefit of greater than 18 billion tons of carbon dioxide equivalent ($GtCO_2$-eq.) between now and 2050 for an accelerated phase-out of HCFCs, including 3.5 $GtCO_2$-eq. of avoided HFC-23 by-product emissions.[3]

1.2 The Government of Brazil calculates a potential climate benefit of 22 $GtCO_2$-eq. between 2010 and 2040,[4] without including the additional 3.5 $GtCO_2$-eq. of avoided HFC-23 by-product emissions,[5] which would bring their total up to 25.5 $GtCO_2$-eq.

1.3 Dr. Guus Velders and colleagues calculate a potential climate benefit of 17.5 $GtCO_2$-eq. between 2010 and 2050,[6] including 3.5 $GtCO_2$-eq. of avoided HFC-23 by-product emissions.[7]

1.4 The U.S. EPA's consultant calculates a potential climate benefit of 17.5 $GtCO_2$-eq. between 2010 and 2030, which does not include the 0.18 $GtCO_2$-eq. it estimates for avoided HFC-23 by-product emissions.[8]

2. The Climate Benefits Actually Realized Will Depend Upon the Success of the Transition from HCFCs into Low GWP Substitutes and Alternatives[9]

2.1 A U.S. EPA consultant calculates that—even without active management or policy leadership—the business-as-usual approach to the transition will result in a net climate benefit of 3.1 $GtCO_2$-eq.[10] This is significant when compared to the 5 $GtCO_2$-eq. reduction mandated by the Kyoto Protocol in its first commitment period (2008-2012),[11] although far below the climate mitigation that can be achieved with policy leadership and active management.

2.2 The Velders team discusses how the transition can be successfully managed to achieve a larger share of the potential climate benefits, emphasizing the importance of policy leadership, as well as the current and future availability of low GWP substitutes:

> With proper regulatory and market incentives, some HCFCs used in non-refrigerant applications can be replaced by not-in-kind options with equal or better energy efficiency. In refrigerant applications, a worst-case scenario, in terms of contributions to climate change, would be to replace a large portion of HCFCs with HFCs (hydrofluorocarbons) that have similar or higher global warming potentials (GWPs) without improvements in refrigerant management practices and no improvements in energy efficiency of the equipment. Fortunately, improvements in refrigerant management practices are possible, existing "natural" refrigerants such as carbon

dioxide and hydrocarbons can replace a portion of HCFC use and newly emerging low-GWP HFC blend refrigerants might replace a large, but now uncertain, additional portion of both HCFCs and HFCs used in current equipment if motivated by regulation and market forces. For example, within weeks of the EC regulation banning HFC-134a from new vehicle air conditioning, fluorocarbon manufacturers announced substitutes promising equivalent energy efficiency with GWP<150. The scenario presented here assumes that the climate contributions due to replacement refrigerants is minimized by technically-feasible measures to reduce refrigerant emissions and is offset by improvements in energy efficiency of the equipment.[12]

3. Significant Additional Climate Benefits Can Be Realized with Policy Leadership[13]

3.1 Significant additional climate benefits can be realized with policy leadership. EPA's consultant noted that their analysis was developed "with all assumptions deliberately chosen to provide conservative results."[14] Their analysis assumes that 80% of HCFCs will be replaced with high GWP HFCs through 2030, with only 20% replaced by "non-GHG or not-in-kind alternatives."[15]

3.2 More realistic assumptions would start with the current availability of low GWP substitutes, the recent development of additional low GWP substitutes, the recent ban on high GWP HFCs in certain applications and the likelihood of more stringently controls under future climate regulations, and the successful history of earlier transitions under the Montreal Protocol.

Low GWP Substitutes Are Currently Available

3.3 Low GWP substitutes, such as hydrocarbons, carbon dioxide, and ammonia, are commercially available and have been used as replacements for HCFCs in air conditioning and refrigeration. Use of these substitutes raise some flammability or toxicity concerns, and in some cases are not yet as energy efficient as HCFC and high GWP HFC refrigerants.

Additional Low GWP Substitutes Have Recently Been Developed

3.4 DuPont, Honeywell, and Ineos recently announced the development of new low GWP refrigerants that can achieve comparable energy efficiency to existing HCFC and HFC refrigerants.[16] In addition, Mack McFarland of DuPont testified before the House Oversight and Government Reform Committee on May 23rd that DuPont intends to adapt its low GWP substitutes to replace high GWP HFCs in refrigeration, A/C, and other applications.[17] A Honeywell representative at the OEWG said: "Tell us the GWP you want and we'll develop the chemicals to rapidly replace HCFCs."

High GWP HFCs Are Already Banned in Some Applications

3.5 The July 2006 European Union's F-Gas regulation banning refrigerants with GWPs greater than 150 in automobile air conditioning by 2011 immediately prompted the development of new low GWP substitutes.[18]

3.6 The TEAP report recognized that external drivers outside the Montreal Protocol will prevent significant use of high GWP HFC substitutes and help spur the development of low GWP substitutes: "Regulatory and/or fiscal incentives (*e.g.* the recent F-Gas regulation in the EU) can assist in creating an appropriate environment for such developments."[19]

3.7 Additional restrictions on high GWP gases are likely, especially HFCs and other Kyoto gases, in light of warnings from NASA climate scientist Dr. James Hansen that the world may have as little as 10 years before climate emissions reach the "tipping point" for abrupt and irreversible climate change.[20]

The Montreal Protocol's Successful Track Record Indicates Larger Climate Benefits

3.8 Past transitions under the Montreal Protocol suggest a more rapid improvement in the environmental performance of substitute chemicals and technologies than considered by EPA's consultant. Under the Montreal Protocol, 80% of CFCs and other ozone depleting substances were replaced with non-fluorocarbon substitutes and alternatives (or contained and recycled), including not-in-kind chemical substitutes, product alternatives (e.g. roll-on deodorant instead of spray), manufacturing-process changes, conservation, and doing without.[21]

3.9 The energy efficiency of refrigeration and air conditioning applications also has improved dramatically more than EPA's consultant assumes. For example, chillers today use 65% less energy than in the 1970s.[22] This provides significant climate benefits, because improving energy efficiency decreases the climate emissions from fossil fuel use, which provides greater climate benefits than reducing direct refrigerant emissions over the life of the equipment or switching to low GWP substitutes.[23] The G8 *Summit Declaration* noted that "improving energy efficiency is the fastest, the most sustainable and the cheapest" way to reduce climate emissions.[24]

3.10 The Montreal Protocol's successful track record will reduce emissions by 135 $GtCO_2$-eq. between 1990 and 2010.[25] This is delaying climate change by up to 12 years. If voluntary reductions in CFCs and domestic regulations since the 1970s are taken into account along with the Montreal Protocol, the delay is up to 41 years.[26]

Use of Low GWP Substitutes To Replace HCFCs Appears Highly Likely

3.11 Given the current and future availability of low GWP substitutes, the immediate response of chemical manufacturers to the F-Gas regulation, and the increasing importance of climate change, regulators, manufacturers, and consumers are unlikely to allow HCFCs to be replaced by high GWP HFCs through 2030, as EPA's consultant assumes.

4. A "Technology Leadership Scenario"

4.1 A "technology leadership scenario" would make more optimistic assumptions for replacing HCFCs with low GWP substitutes, in addition to other not-in-kind alternatives. This will help the Parties to the Montreal Protocol recognize the important role of leadership in seizing this extraordinary opportunity to mitigate climate change, while ensuring additional protection for the ozone layer.

4.2 A technology leadership scenario also will raise awareness of the Montreal Protocol's past, present, and future role in mitigating climate change, and demonstrate the value of a regulatory approach for addressing aspects of the growing climate change challenge, in a way that can be designed to complement market-based approaches such as cap-and-trade.

4.3 The climate benefits identified by a technology leadership scenario will encourage Parties at this year's Meeting of the Parties to accelerate the HCFC phase-out in a way that maximizes climate benefits—implementing the commitment made in the 2007 G8 *Summit Declaration* to "accelerating the phase-out of HCFCs in a way that supports energy efficiency and climate change objectives."[27]

For more information, visit http://www.igsd.org/about/publications/FAQFinal16July.pdf

Notes

[1] Baselines for HCFC consumption and emissions vary among these calculations, as do the phase-out schedules. Accelerating the phase-out of HCFCs will reduce emissions by approximately 468,000 ODP tonnes in Article 5 Parties, and advance recovery of the ozone layer by up to 3.3 years, based on a mid-latitude assessment. UNEP/TEAP, *Response to Decision XVIII/12: Report of the Task Force on HCFC Issues and Emissions Reduction Benefits Arising from Earlier HCFC Phase-out and other Practical Measures* (August 2007), at 13 ("it is clear that the single biggest contributor to cumulative emissions savings both in terms of ozone and climate is an accelerated HCFC phase-out."). *See also, id.* at 7 and 12.

[2] The Technology and Economic Assessment Panel (TEAP) provides, at the request of Parties to the Montreal Protocol, technical information related to the alternative technologies that have been investigated and employed to make it possible to virtually eliminate use of Ozone Depleting Substances (CFCs, Halons, etc.) that harm the ozone layer.

[3] UNEP/TEAP, *Response to Decision XVIII/12: Report of the Task Force on HCFC Issues and Emissions Reduction Benefits Arising from Earlier HCFC Phase-out and other Practical Measures* (August 2007), at 8, *available at* http://ozone.unep.org/teap/Reports/TEAP_Reports/TEAP-TaskForce-HCFC-Aug2007.pdf ("Cumulative savings in climate terms from ODS emissions reductions are potentially in excess of 18 billion tonnes CO_2-eq for the period to 2050 when phase-out is advanced by 15 years (Scenario 2). 3.5 billion tonnes CO_2-eq of this is attributable to avoided HFC-23 emissions, assuming that no HFC-23 mitigation strategy is otherwise in place (as is modelled by the baseline scenario).") [hereinafter TEAP Accelerated HCFC Phase-Out Task Force Report].

[4] Brazilian Ministry of Environment, Powerpoint, *Benefits for the Protection of Ozone Layer and Climate of the Brazilian-Argentinean Proposal*, Fourth Meeting of the Stockholm Group (3 June 2007).

[5] TEAP Accelerated HCFC Phase-Out Task Force Report, *supra* note 3, at 8 ("3.5 billion tonnes CO2-eq of this is attributable to avoided HFC-23 emissions, assuming that no HFC-23 mitigation strategy is otherwise in place (as is modelled by the baseline scenario).").

[6] Guus J. M. Velders, *et al.*, *Climate Benefits of an Accelerated HCFC Phase-out: Addendum* (*forthcoming*) ("In the baseline scenario, the total emission of all ODSs from 2010 to 2050 is 37 $GtCO_2$-eq with the largest contribution from the HCFCs of 27 $GtCO_2$-eq. In the accelerated scenario the total emission of HCFCs decreases by 14 $GtCO_2$-eq to reach a smaller total of 13 $GtCO_2$-eq for the period 2010-2050. To this potential emission reduction can be added a reduction in the emissions of HFC-23, which is an unwanted by-product of HCFC-22 production. These calculated emission reductions depend on the HCFC production in the baseline scenario. In a scenario with larger HCFC production in developing countries in 2015 than used here, the effect of an accelerated phase-out will be larger than estimated above.") [hereinafter Velders, *et al*., Addendum].

[7] The Velders estimate is 14 $GtCO_2$-eq., plus avoided emissions from eliminating the HFC-23 by-product which the TEAP has estimated at 3.5 GtCO2-eq.

[8] The U.S. EPA report was prepared by ICF. *See* U.S. EPA, *Changes in HCFC Consumption and Emissions from the U.S. Proposed Adjustments for Accelerating the HCFC Phase Out* (June 2007) at 8, Table 3-5, *available at* http://ozone.unep.org/Meeting_Documents/mop/19mop/USA-HCFC-Accerelated-phase-proposal.pdf. Option 7 shows the largest potential reduction in HCFC emissions at 4,770 million metric tons of carbon-equivalent (MMTCE). This is converted into carbon dioxide-equivalent (CO_2-eq.) by multiplying by 44/12. Option 7 also shows avoided HFC-23 by-product emissions at -50 MMTCE. [hereinafter EPA Analysis]. Similar calculations were prepared by ICF for the European Commission. *See* ICF International, Memorandum to the European Commission, *Assessment of Reduction of HCFC Production, Consumption, and Emissions under the Proposed Changes to the Montreal Protocol* (23 May 2007), *available at* http://ozone.unep.org/Meeting_Documents/mop/19mop/EC-Submission-on-HCFC-Adjustment-Proposals.pdf.

[9] *See, e.g.,* TEAP Accelerated HCFC Phase-Out Task Force Report, *supra* note 3, at 5 ("The climate benefits of an accelerated HCFC phase-out depend not only on the selection of the earlier freeze date and phase-out schedule, but also on the choice of technology to replace HCFCs in insulating foam and refrigeration and air conditioning sectors where indirect emissions from energy are significant.").

[10] *See, e.g.,* TEAP Accelerated HCFC Phase-Out Task Force Report, *supra* note 4, at 5. Option 3 shows the largest net benefit to the climate, at 850 MMTCE, which has been converted into CO_2-eq.

[11] The required emissions reduction under the Kyoto Protocol is -5.8 percent of its baseline of 18.4 $GtCO_2$-eq. or -0.97 $GtCO_2$-eq yr^{-1} by 2008–2012. UNFCC, *Key GHG Data: Highlights from Greenhouse Gas Emissions Data for 1990-2003* (Nov. 2005). This translates to an aggregate emissions reduction of 5 $GtCO_2$-eq. Correspondence with Dr. Guus J.M. Velders. The actual emissions reduction under Kyoto Protocol is expected to be about 10 $GtCO_2$-eq., if avoided emissions based on a business-as-usual trajectory of 6% growth over that timeframe is considered. Guus J. M. Velders, *et al.*, *The Importance of the Montreal Protocol in Protecting Climate*, 104 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES 4814 (2007) at 4818 ("The adopted CO_2-equivalent emission reduction target is -5.8% (range of -10% to -8% for the individual countries), corresponding to 0.97 $GtCO_2$-eq yr^{-1} by 2008–2012. Because most countries would normally have had increasing greenhouse gas emissions after 1990, it can be argued that the emission reduction necessary to achieve the agreed Kyoto target must be calculated from a business-as-usual scenario between the 1990 baseline and 2008–2012. Projections have total greenhouse gas emissions of Annex-1 parties increasing by 6% (1.06 $GtCO_2$-eq. yr^{-1}) above the 1990 value by 2010. The 6% value reflects large increases in developed countries (e.g., United States of America, 32%; Spain, 47%) offsetting large decreases for countries with economies in transition (e.g., Russia, -19%; Estonia, -57%). Therefore, an arguably more realistic estimate of the greenhouse gas emission reduction that will have occurred by meeting the first Kyoto Protocol target is found by combining the 5.8% decrease and 6% increase for a total of -2 GtCO2-eq. yr^{-1}.") [hereinafter Velders, *et al*.].

[12] Velders, *et al*., Addendum, *supra* note 6.

[13] Additional assumptions are discussed in comments submitted to EPA by the Institute for Governance & Sustainable Development and The Environmental Investigation Agency. *See* Comments on the U.S. EPA report, Changes in HCFC Consumption and Emissions from the U.S. Proposed Adjustments for Accelerating the HCFC Phase-out (IGSD and EIA, 27 July 2007).

[14] EPA Analysis, *supra* note 8, at 12. ("This analysis is based on broad assumptions that have been applied to developed and developing countries without further disaggregation by country; consequently, the results of this analysis should be interpreted as rough approximations of the impact of each policy option. … Lastly, this analysis was developed with all assumptions deliberately chosen to provide conservative results (i.e., to not over estimate climate and ozone benefits of each Option);[9] therefore, certain considerations that imply greater benefits associated with adopting any of these policy options could be made when reviewing the results.").

[15] EPA Analysis, *supra* note 8, at 8 ("Based on the Vintaging Model, on a ton-to-ton basis, approximately 80% of HCFCs are assumed to be replaced with high-GWP HFCs over the long run (through 2030), and the remaining 20% of HCFCs transition to non-GHG or not-in-kind alternatives; these percentages are aggregated across all sectors. The U.S.-based rule of thumb was broadly applied to HCFC consumption in all countries worldwide, without further disaggregation to distinguish between the developed and developing world or relative use of high GWP gases as ODS substitutes in any given country.").

[16] UNEP, *Synthesis Report*, UNEP/OzL.Pro.WG.1/27/3 (22 Feb. 2007), at 6. ("Several low Global Warming Potential (GWP) refrigerant candidates (one with an ozone depleting ingredient --CF3I) are claimed to provide comparable energy efficiency to HFC-134a in vehicle air conditioning. Development of these low-GWP refrigerants may also have major future consequences for (new) refrigerant choices in other sectors and applications. . ..").

[17] Statement of Mack McFarland before the Committee on Oversight and Government Reform, U.S. House of Representatives (23 May 2007) ("[W]here other low GWP refrigerants can be used safely, efficiently and in compliance with local regulations they should be chosen. In this regard DuPont intends to extend our innovative low GWP technologies under development to other applications currently using HFCs, including other refrigerant applications and foam expansion agents for insulating materials.") [hereinafter McFarland Testimony].

[18] UNEP, *2006 Report of the Refrigeration, Air Conditioning and Heat Pumps Technical Options Committee*, 2006 Assessment, at 3, 12 ("Since the recently adopted EU F-Gas Regulation will ban HFC-134a and other refrigerants with GWPs exceeding 150 in new vehicle models by 2011, the industry will be forced to make a second refrigerant change in mobile air conditioning. Several candidates continue to be evaluated, including CO_2 and R-152a as well as new low-GWP refrigerants, some of which may have low ODPs. Development of these low-GWP refrigerants also may have future consequences for the refrigerant choices in other applications. … In early 2006, several chemical companies (others will likely follow) have each announced a new refrigerant blend to replace HFC-134a in Europe. One is an azeotropic blend of CF3I and 1,1,1,2-tetrafluoropropene. Two other formulations have not been publicly released. Since then, due to safety and cost issues of R-744 and R-152a, German carmakers have collectively asked for, and formally organised, a co-operative effort to assess the new candidates with a focus on selecting a replacement for HFC-134a during the second half of 2007. The SAE and Japanese Automobile Manufacturers Association are assisting this effort.") [hereinafter 2006 RTOC Report]. *See also* McFarland Testimony, *supra* note 17 ("Today DuPont and others are developing the next generation of high performance non-ozone depleting compounds with low global warming potentials (GWPs). … In February of 2006 we announced that we had identified low GWP, non-ozone depleting alternatives for HFC-134a used in mobile air conditioning. The leading candidates have GWPs on the order of only 3% that of HFC-134a and can meet the requirements of the European Union fluorinated gases directive that will phase out the use of HFC-134a in new car models beginning in 2011. It is our intent to leverage these non-ozone depleting, low GWP technologies to other applications that currently rely on higher GWP products, including other refrigerant applications and foam expansion agents for insulating materials. Our goal is to provide ever more environmentally sound practices to the market. … ").

[19] TEAP Accelerated HCFC Phase-Out Task Force Report, *supra* note 4, at 8.

[20] Dr. James Hansen, of the NASA Goddard Institute for Space Studies, argues that "[p]ositive climate feedbacks and global warming already 'in the pipeline' due to climate system inertia together yield the possibility of climate 'tipping points' . . . such that large additional climate change and climate impacts are possible with little additional human-made forcing. Such a system demands early warnings and forces the concerned scientist to abandon the comfort of waiting for incontrovertible confirmations. … The nonlinearity of the ice sheet problem makes it impossible to accurately predict the sea level change on a specific date. However, as a physicist, I find it almost inconceivable that BAU climate change would not yield a sea level change of the order of meters on the century timescale. The threat of a large sea level change is a principal element in our argument (Hansen *et al*. 2006a, 2006b, 2007) that the global community must aim to keep additional global warming less than 1°C above the 2000 temperature, and even 1°C may be too great. In turn, this implies a CO_2 limit of about 450 ppm, or less. Such scenarios are dramatically different than BAU, requiring almost immediate changes to get on a fundamentally different energy and greenhouse gas emissions path." James Hansen, *Scientific Reticence and Sea Level Rise***,** ENVIRON. RES. LETT. 2 (2007). *See also* James Hansen, *Why We Can't Wait*, THE NATION (7 May 2007) ("The Energy Department says that we're going to continue to put more and more CO_2 in the atmosphere each year--not just additional CO_2 but more than we put in the year before. If we do follow that path, *even for another ten years*, it guarantees that we will have dramatic climate changes that produce what I would call a different planet--one without sea ice in the Arctic; with worldwide, repeated coastal tragedies associated with storms and a continuously rising sea level; and with regional disruptions due to freshwater shortages and shifting climatic zones."). James Hansen, *Press Conference: Leading Evangelicals, Scientists Launch Environmental Collaboration*, THE NATIONAL PRESS CLUB, THE CENTER FOR HEALTH AND THE GLOBAL ENVIRONMENT AT HARVARD MEDICAL SCHOOL, AND THE NATIONAL ASSOCIATION OF EVANGELICALS (17 January 2007) ("One quarter of carbon dioxide that we put in the air by burning fossil fuel will stay there forever – more than 500 years. If we burn all fossil fuels without capturing and sequestering the CO_2, we will create a different planet. We will destroy Creation."). James Hansen, *A Slippery Slope: How Much Global Warming Constitutes 'Dangerous Anthropogenic Interference'*?, 68 CLIMATE CHANGE 269 (2005).

[21] Velders, *et al*., *supra* note 11, at 4817 ("It is important to note that 80% of ODSs that would be used today without the Montreal Protocol have been successfully phased out without the use of other fluorocarbons. Instead, this ODS use was eliminated with a combination of 'not-in-kind' chemical substitutes, product alternatives, manufacturing-process changes, conservation, and doing without.").

[22] 2006 RTOC Report, *supra* note 18, at 146 ("Today's average chillers use 20% less electricity than the average of chillers produced just two decades ago, and the best chiller today uses less than 65% of the electricity of the average 1976 chiller. Building owners typically can pay back the investment cost of replacing an old CFC chiller in three to five years (or less) in many regions that require cooling for more than three months a year. Replacement chillers integrated with building retrofits can pay for themselves in as little as two or three years, with a typical return on investment of 20 to 35% in locations with high seasonal cooling loads and/or high electricity prices. Generally, the added cost of the highest efficiency chillers is paid back through energy savings alone.").

[23] UNEP, *The Implications to the Montreal Protocol of the Inclusion of HFCs and PFCs in the Kyoto Protocol*, HFC and PFC Task Force of the Technology and Economic Assessment Panel (Oct. 1999), at 36-38 ("When the use of a specific technology creates an incremental energy saving, the reduction in CO_2 emissions from the energy use can far outweigh the direct emissions over the expected life of the product.").

[24] G8 Summit in Heiligendamm, Germany, *Growth and Responsibility in the World Economy, Summit Declaration* (7 June 2007), at paragraph 46 *[G8 Summit Statement*].

[25] 135 $GtCO_2$-eq. between 1990 and 2010 is an aggregated total, including direct and indirect effects. The per-year reduction is 11 $GtCO_2$-eq. yr^{-1} between 1990 and 2010. *See* Velders, *et al*., *supra* note 11, at 4817-4818.

[26] Velders, *et al., supra* note 11, at 4817 ("The RF scenarios in Fig. 2 illustrate the extent to which ODSs reductions, in effect, have delayed the growth of overall anthropogenic RF. A delay is a form of climate protection, because more time is required to reach any given anthropogenic RF increase and its associated climate change risk (37). The delay is expressed here as the years required for the CO_2 RF to increase by the same amount as the ODS RF would have by 2010 in MR74 or NMP87. When using an averaged CO_2 RF growth rate, the MR74 delay is calculated to be 13–18 or 31–45 yr, corresponding to the3%and7% annual growth rates, respectively. Similarly, the delay attributable to the Montreal Protocol (NMP87) is calculated to be 7–12 yr.").

[27] *G8 Summit Statement, supra* note 24, at paragraph 59 ("We will also endeavour under the Montreal Protocol to ensure the recovery of the ozone layer by accelerating the phase-out of HCFCs in a way that supports energy efficiency and climate change objectives. In working together toward our shared goal of speeding ozone recovery, we recognize that the Clean Development Mechanism impacts emissions of ozone-depleting substances."). *See also,* U.S.-Japan Joint Statement on Energy Security, Clean Development, and Climate Change, 27 April 2007 ("We will also endeavor under the Montreal Protocol to ensure the recovery of the ozone layer to pre-1980 levels by accelerating the phase-out of HCFCs in a way that supports energy efficiency and climate change objectives."). U.S.-EU Summit Statement on Energy Security, Efficiency, and Climate Change, 30 April 2007 ("We also commit under the Montreal Protocol to seek to speed up the recovery of the ozone layer by accelerating the phase-out of HCFCs. We will weigh the impact of our proposals on climate change and energy efficiency. In working together toward our shared goal of speeding ozone recovery, we recognize that the Clean Development Mechanism impacts emissions of ozone-depleting substances.")