Subsidiary Body for Scientific and Technological Advice

Relationship between efforts to protect the stratospheric ozone layer and efforts to safeguard the global climate system: issues relating to hydrofluorocarbons and perfluorocarbons

Australian Submission

March 2002

The 15th session of the Subsidiary body for Scientific and Technological Advice invited Parties to submit their views on information aspects noted in decision 17/CP.5 on available and potential ways and means of limiting emissions of hydrofluorocarbons and perfluorocarbons.

[Ref: Document FCCC/SBSTA/2001/L.16, paragraph 3]

Introduction

Recognition of the inter-linkages between stratospheric ozone protection and global climate change, both in terms of the science and policy development, is well established. In this context, Australia supports the general principle that action taken to reduce hydrofluorocarbon (HFC) and perfluorocarbon (PFC) emissions should not undermine the efforts to phase-out ozone depleting substances (ODSs). At the same time, moving from ODSs to replacement gases requires taking account of the need to manage the transition for the best greenhouse outcome.

Both the *Montreal Protocol on Substances that Deplete the Ozone Layer* Technology and Assessment Panel (TEAP) and the Intergovernmental Panel on Climate Change (IPCC) have set out in detail the important scientific, institutional and policy links that exist between these environmental issues. This was stressed most recently in the special appendix on the subject in the IPCC's Third Assessment Report (TAR).

A key message from these reports is that the ongoing phase-out of ODSs and the management of HFC and PFC emissions require coordinated policy responses by governments to foster coordinated action by industry. Australia supports an integrated and streamlined approach to ozone protection and climate change policy development as it is an important means of enabling the comprehensive and effective action required to limit emissions.

Possible areas of international coordination

Australia has identified two particular areas where Parties could work more closely together to assist the development of national policies to limit emissions of HFCs and PFCs. (Details of Australia's domestic response to limiting HFC and PFC emissions are set out in Attachment A.)

1. Development of global "toolbox" of technical and policy information to assist policy development

Given the gaps in current knowledge, it would be useful for Parties to consider the development of appropriate mechanisms for sharing and exchanging relevant information between national policy-makers on ways and means of limiting HFC and PFC emissions.

Australia supports the development of a global "toolbox" of technical and policy information that could be readily accessed by national policy-makers to provide useful guidance and feedback on appropriate mitigation responses. A global "toolbox" could include the following:

- *Emissions data and reporting methodologies*

  Robust emissions data is a key component of effective policy formulation. Given the diffuse nature of sources of HFC and PFC emissions, policy-makers will need to work towards improving the certainty of emissions data and estimates. In particular, this will involve improving reporting methodologies. Experience and methods are evolving as Parties gain experience and improve their knowledge. A network of the evolving inventory data and methodologies used by Parties would be a useful tool to allow Parties to share and compare national approaches and learn about how particular inventory problems have been solved. Such information would be an important means of improving national and global estimates of HFC and PFC emission

- *Policy information on mitigation options, economic aspects and technological developments*

  The IPCC notes in the TAR that a lack of technical data and full access to information on mitigation options can act as a barrier to creating policy certainty in minimising emissions of HFCs and PFCs. Filling the gaps in current knowledge can also capture new mitigation options and the latest technological developments. Key areas identified for further analysis include identification and assessment of HFC and PFC mitigation policies and methodologies for assessing costs of these mitigation technologies and measures, with a particular emphasis on country- or region-specific analysis. In developing effective national policy responses, it is important that Parties are able to develop policies that reflect, and are suited to, their national circumstances.

  Through a network of policy information on national mitigation options, economic aspects and technological developments for HFC and PFC use, Parties would be able to share and exchange relevant information to guide policy responses that best fit their national circumstances and the particular circumstances of their Montreal Protocol industries.

Australia recommends that Parties consider current institutional mechanisms for coordinating compilation of, and access to, national emissions data and reporting methodologies, and policy information on national mitigation options, economic aspects and technological developments for HFC and PFC use (such as a global "toolbox" of technical and policy information).

2. Increased coordination of ozone protection and climate change technology transfer and capacity building to developing countries

The inter-linkages between ozone protection and global climate change are particularly important in developing countries where fundamental choices regarding the means and timing of phase out of ODSs are still being made. Initial steps to link climate change to ozone protection decision-making by developing countries have been taken in cross-focal work being carried out by the IPCC, TEAP and UNEP's OzonAction Programme, as well as some initial coordination of financing by the Montreal Protocol Multilateral Fund (MLF) and the Global Environment Facility (GEF).

The development of transition strategies from ODSs that simultaneously minimise emissions of HFCs and PFCs can deliver 'win-win' outcomes for developing countries. These strategies will need to cover a wide range of policy approaches to suit national circumstances. This will include not only investment in alternative substances and technologies, but also development of policies aimed at containment of HFCs and PFCs through effective life cycle management such as equipment design and installation, technician training and end-of-life recovery and destruction. A key aspect in managing overall reductions in HFC and PFC emissions will be adherence to the concept of Life Cycle Climate Performance to ensure that transitions from ODSs result in the best greenhouse outcome.

The success to which developing countries can optimally transition out of ODSs and minimise HFC and PFC emissions will depend not only on improved information networks regarding technical and policy information. It will also require increased coordination and integration of technology transfer and capacity building functions under the Montreal Protocol and the international climate change regime.

Australia recommends that Parties consider appropriate ways of strengthening institutional links between ozone protection and climate change activities, including increased coordination of MLF and GEF funding for developing countries for technology transfer and capacity building and other mechanisms such as the Clean Development Mechanism. Parties could consider giving guidance through the respective executive bodies to the MLF and GEF on providing enhanced coordination of activities that provide mutual benefits.

Enhancing coordination between Secretariats

In progressing these and other aspects on means of limiting HFC and PFC emissions within the context of the relationship between ozone protection and climate change, Australia recommends that Parties give guidance to the Secretariats of the Montreal Protocol and the UNFCCC on ways of enhancing their level of coordination in pursuing such objectives.

AUSTRALIA'S STRATEGIES FOR MANAGING SYNTHETIC GREENHOUSE GAS EMISSIONS

Given their global warming potency and the fact that their emissions are projected to increase significantly from their current low level, the timing of Australia's management strategies for synthetic greenhouse gases is opportune for cost-effective and efficient abatement. The Australian Government is developing its synthetic gas management strategies within the context of the National Greenhouse Strategy (NGS) – the strategic framework of policies and measures for advancing Australia's domestic greenhouse action across all sectors of the economy. The NGS includes a measure requiring Government to work with industry to develop environmental management strategies for synthetic gases. Australia's strategies include both overarching policy principles and tailored industry responses, with a clear focus on building co-operative partnerships between government and industry.

Overarching policy principles

To guide the further development and implementation of synthetic greenhouse gas policy, and to provide industry and other stakeholders with policy certainty, the Australian Government has developed a set of overarching principles for the management of synthetic greenhouse gas emissions. These include:

- *Responsible use* – ensuring that synthetic gases are used only where the activity is necessary and where they are needed to cost-effectively meet specific requirements for technical feasibility and reliability, health and safety, or reducing overall greenhouse gas emissions.
- *Emissions minimisation* – ensuring that where synthetic gases are used, all practicable steps are taken to reduce emissions through best practice life cycle management – this includes appropriate equipment design and selection; training and certification of suppliers and users in the appropriate handling, installation, maintenance and operation of equipment using synthetic gases; as well as recovery, recycling and or destruction of synthetic gases at the end of their life.
- *Effective monitoring and reporting* – ensuring that information and data on synthetic gas use and emissions is provided by industry to enable ongoing review and monitoring for policy development, inventory compilation and projections analysis and improve environmental understanding.

Specific industry action - Montreal Protocol industries

In putting these principles into practice, the Australian Government recognises the need to tailor its management strategies to the particular circumstances of the various industries that use and emit synthetic greenhouse gases – a "one size fits all" policy approach will not lead to equitable and cost-effective greenhouse outcomes for these diverse industries. By developing new partnerships between government and industry, or building on existing ones, the Government is seeking to deliver flexible, cost-effective abatement action.

Managing the phase-out of ozone depleting substances under the Montreal Protocol has implications for the management of synthetic greenhouse gases. As HFCs are increasingly used as alternatives to CFCs and HCFCs in the Montreal Protocol industries – refrigeration and air conditioning, fire prevention, foam blowing, solvents, aerosols and solvents – it is

appropriate to promote best practice in the management of the synthetic greenhouse gases used in these industries. Approaches to managing synthetic greenhouse gas emissions in Montreal Protocol industries include:

- *Containment of emissions through life cycle management*

  In order to enhance Australia's ability to address the significant and on-going environmental threat of stratospheric ozone depletion, while at the same time better managing the increasingreliance on synthetic greenhouse gases, the Australian Government is currently developing a comprehensive regulatory framework to manage emissions of both synthetic greenhouse gases and ozone depleting substances. The proposed framework, consistent with the overarching principles outlined above, includes the following specific elements:

  - *General requirements to avoid and minimise emissions* aimed at minimising emissions as a result of their supply, handling and use – this will include obligations on suppliers and reclaimers to accept recovered synthetic gases for recycling or destruction, as well as obligations on importers and (future) manufacturers to put mechanisms in place to ensure recovery, recycling and destruction of used gas at the end of its life;
  - *Establishment of a national registration and certification program* for suppliers, purchasers and end-users to ensure adequate environmental and technical training in the appropriate handling and use of synthetic gases and ozone depleting substances.

  A key transition for the refrigeration and air conditioning industry is the establishment of a national training, certification and recovery program aimed at minimising emissions of HFCs to be partly funded under the Australian Government's Greenhouse Gas Abatement Program. In addition to industry co-investment, $3.56 million will be given to the National Refrigeration and Air Conditioning Council and Refrigerant Reclaim Australia for the national program to abate approximately 3.5 Mt CO_2-e between 2008 and 2012.

- *Improved emissions data and reporting*

  Improved emissions data is an important step in Australia's synthetic greenhouse gas policy development. This is being achieved in a variety of ways:

  - The proposed end-use controls will include record keeping and reporting requirements to assist in monitoring consumption and emissions trends of synthetic gases and ozone depleting substances. The Greenhouse Gas Abatement Program funding given to the refrigeration and air-conditioning industry also includes reporting requirements;
  - A study (commissioned by the Australian Greenhouse Office and Environment Australia) has just been completed that compiles data on current use and future trends in supply and emissions of ozone depleting substances and synthetic greenhouse gases used by Montreal Protocol industries in Australia.
  - Australia has reached agreement with domestic industry to report data on synthetic greeenhouse gases annually to enable calculation of emissions using an IPCC Tier 2 approach and for inclusion in the National Greenhouse Gas Inventory and to provide for the calculation of projections of HFCs and PFCs.

- *Support for research into better practices, alternative substances and not-in-kind technologies*

  Under the proposed end-use controls, funding will be made available for research and investigation into the assessment and adoption of better management practices, alternative substances and non-in-kind alternatives to synthetic gases. The Australian Greenhouse Office has also recently commissioned a study into the commercial availability, technical applicability and cost efficiency of alternative substances and technologies. This research is intended to fill the gap in current knowledge on cost estimates for the use of alternative substances and technologies, with a view to supporting policy development for their commercial uptake, where practicable.

Additional information

Additional information on Australia's strategies for managing synthetic greenhouse gas emissions can be obtained by emailing ngs@greenhouse.gov.au. Relevant publications can be downloaded from the Australian Greenhouse Office's website at http://www.greenhouse.gov.au/pubs/index.html.