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UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE Twenty-fifth session Nairobi, 6–14 November 2006

Item 8 (a) of the provisional agenda Methodological issues under the Kyoto Protocol Implications of the establishment of new hydrochlorofluorocarbon-22 (HCFC-22) facilities seeking to obtain certified emission reductions for the destruction of hydrofluorocarbon-23 (HFC-23)

Implications of the establishment of new hydrochlorofluorocarbon-22 (HCFC-22) facilities seeking to obtain certified emission reductions for the destruction of hydrofluorocarbon-23 (HFC-23)

Submissions from Parties

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA), at its twenty-fourth session, noted that the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP) recognized, in its decision 8/CMP.1, that issuing certified emission reductions for the destruction of hydrofluorocarbon-23 (HFC-23) at new hydrochlorofluorocarbon-22 (HCFC-22) facilities could lead to higher global production of HCFC-22 and/or HFC-23 than would otherwise occur, and that the clean development mechanism (CDM) should not lead to such increases.

2. The SBSTA invited Parties, admitted observers and relevant intergovernmental organizations to submit to the secretariat, by 4 August 2006, their inputs elaborating practical solutions to address the implications of the situation referred to in paragraph 1 above, for consideration by the SBSTA at its twenty-fifth session, with a view to preparing a draft decision containing guidance to the Executive Board of the CDM for adoption by the COP/MOP at its second session.

3. The secretariat has received five such submissions. In accordance with the procedure for miscellaneous documents, these submissions are attached and reproduced^{*} in the language in which they were received and without formal editing.

FCCC/SBSTA/2006/MISC.11

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^{*} These submissions have been electronically imported in order to make them available on electronic systems, including the World Wide Web. The secretariat has made every effort to ensure the correct reproduction of the texts as submitted.

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^{*} In the expectation that Parties also wish to be aware of the views of States that are not Parties to the Kyoto Protocol, the secretariat has decided to include a submission from an observer State.

PAPER NO. 1: AUSTRALIA

Implementation of potential project activities under the Clean Development Mechanism, referred to in decision FCCC/SBSTA/2006/L.15.

Submission by Australia

Introduction

The twenty-fourth session of the Subsidiary Body for Scientific and Technical Advice (SBSTA-24) invited Parties, admitted observers and relevant intergovernmental organisations, to submit to the Secretariat input on practical solutions to address the implications of including, under the clean development mechanism (CDM), new hydrochlorofluorocarbon-22 (HCFC-22) facilities seeking to obtain certified emissions reductions (CERs) for the destruction of hydrofluorocarbon-23 (HFC-23) produced as a by-product in HCFC-22 production (FCCC/SBSTA/2006/L.15). Australia welcomes the opportunity to provide its views on this issue.

Background

HCFC-22 is an ozone depleting refrigerant and foam blowing agent controlled under the Montreal Protocol. Developed countries agreed to a freeze on the consumption of HCFCs from 1996 with complete phase out by 2030. In developed countries, consumption levels are projected to drop to 10% of baseline (1989 usage) in 2015 and 0.5% in 2020. Australia continues to be a world leader in the phase out of ozone depleting substances, in many cases well ahead of Protocol requirements. The Australian Government and industry agreed to accelerate its HCFC phase out, to limit consumption to 0.5% by 2015, a 60% reduction on that required by the Montreal Protocol. Developing countries are due to freeze their consumption from 2016 with a view to complete phase out by 2040.

Australia recognises that the production of HCFC 22 generates HFC 23 (a potent greenhouse gas with a GWP 11700) as a waste product, and that practical steps should be taken to reduce its emissions. Some of the HFC 23 may be captured and sold, but generally it is released into the atmosphere because both capture and destruction requires significant capital and operating costs and, in the absence of regulations in the host country, the plant operator has no direct economic incentive to incur these costs.

Australia's Approach

Australia is strongly of the view that the international response to climate change, including through the CDM, should not impact adversely on the achievement of Montreal Protocol objectives by incentivising production of HCFC-22 and thereby obstructing the objectives of the Montreal Protocol. Additionally, any decision taken on this matter should not weaken the effect of the CDM by providing an incentive for the development of new HCFC-22 production plants, and potentially creating a surfeit of CERs from projects to destroy HFC-23 without any additional reduction of emissions.

Australia contends that the overall environmental benefit of HFC-23 incineration projects needs to be carefully considered because:

- if implemented properly, these projects could produce emissions abatement;
- if the baseline against which CERs are allocated is miscalculated, there is a significant risk of creating "certified hot air", which could undermine real abatement opportunities in other sectors and undermine the environmental integrity of the CDM;

- to the extent that these projects prolong the operation of existing HCFC plants or enable plants that would otherwise not be economically viable to become profitable, such projects produce adverse climate and ozone impacts; and
- entities involved in the manufacture of HCFC-22 should adopt current best practice in the abatement of HFC-23, regardless of CDM project opportunities.

The SBSTA itself has previously recognised that issuing CERs for the destruction of HFC-23 at new HCFC-22 facilities could lead to higher global production of HCFC-22 and/or HFC-23 than would otherwise occur and that the CDM should not lead to such increases.

Practical Solutions to Address this Issue

Australia's view is that before providing advice to the CDM Executive Board (EB) on this issue the SBSTA should consider a range of possible solutions to ensure that any decision reached does not lead to higher global production of HCFC-22 and/or HFC-23 than would otherwise occur. The options that Australia sees as potentially useful and would like to see discussed include:

- Advise the EB that no new HCFC-22 facilities should be allowed to access CERs for any HFC-23 destruction. The basis of this argument is that the possible incentivisation of HCFC-22 and/or HFC-23 production through the CDM is inconsistent with the CDM's goals of ensuring the transfer of 'environmentally safe' technology and supporting sustainable development. However, it is recognized that significant abatement opportunities may be missed if this option is followed.
- 2. Advise the EB that no new HCFC-22 facilities should be allowed to access CERs for any HFC-23 activities undertaken. However, also request that the Global Environment Facility (GEF) fund HFC-23 destruction activities at new HCFC-22 facilities in developing countries at cost, as a matter of urgency. This option would allow for the abatement of HFC-23 in developing countries without any perverse outcomes, although there then would be no economic incentive to act for plant owners.
- 3. Advise the EB that any new baseline methodology for new HCFC-22 facilities should ensure that destruction activities at these facilities are reimbursed at a different, discounted rate from existing HFC production levels. This option has a number of possible approaches. Two possibilities are:
 - a. Setting a maximum HFC-23 generation rate that could be eligible for CERs, to encourage the use of best practice in the abatement of HFC-23. While some plants produce 3% of HFC-23 per unit of HCFC-22, many industry participants suggest that 1% is current level best-practice. The EB could mandate that a default factor of 1% (or 0.05%) must be used. This would ensure that CERs are only allocated at the lowest feasible rate and would also promote best practice for HCFC-22 production in developing countries. This approach would ensure that the economic incentive to "over-produce" HFC-23, is reduced.
 - b. Advise the EB to limit the quantity of CERs issued to a new facility to the incremental cost of installing and operating the HFC-23 destruction system, potentially with a small additional component allowed for modest profit. Analysis of these capital costs would need to be done on a case-by-case basis by the project proponent and, while it may lead to additional complexities in the approval of new HFC-23 destruction activities under the CDM, this approach would allow for HFC-23 abatement without incentivising further unnecessary production of HCFC-22.
- 4. Advise the EB to construct a methodology based on combination of options 3(a) and 3(b). This would operate to ensure that new HCFC-22 facilities receive CERs at a different rate to existing

production, <u>and</u> only up to the costs of installing and operating the HFC-23 destruction system. While this may require a complicated methodology to be developed by the EB, it will ensure that no loopholes can be exploited for a commercial advantage to the detriment of the environment.

Australia's Assessment of the Options

The SBSTA should focus its deliberations on options that sensibly reduce the incentive provided under the CDM. B y imposing these additional limitations the CDM will be effective in ensuring that HCFC-22 facilities and HFC-23 production in developing countries meets a standard of 'best practice' well in advance of what may be expected to occur through allowing any and all new HFC-23 destruction facility to access the CDM. This will also help ensure that the CDM's dual goals of ensuring emissions abatement and the transfer of 'environmentally safe' technology are met.

The SBSTA needs to carefully weigh the options available for resolving this issue and must be careful to ensure that a fast decision is not substituted for the right decision.

PAPER NO. 2: CHINA

China's Views on Practical Solutions to Address the Implications of HFC-23 CDM Project

In accordance with FCCC/SBSTA/2006/L.15, China submits the following views on the practical solutions to address the implications as identified in paragraph 2 of Decision 8/CMP.1.

I. China believes that new HCFC-22 production facilities that are legitimate under the Montreal Protocol should be eligible for CDM projects by destruction of HFC-23. Since HFC-23 is a GHG with high GWP, if it is not destructed through CDM projects, it will continue to contribute to the increase of the concentration of GHG in the atmosphere, which is not in line with the objective of the UNFCCC. However, China notices the concerns of relevant Parties on this issue and China believes that the implications can be addressed effectively through the following measures:

- a) HFC-23 destruction CDM projects can be developed only if:
 - i. the new HCFC-22 production facilities where CDM project activity occurs have been in operation for at least 3 years before applying for registration as a CDM project at the Executive Board and where no domestic regulation requires the destruction of the HFC-23 waste generated by HCFC 22 production facilities; and
 - ii. owners/operators of the new HCFC-22 production facilities can provide evidence (for instance, sale records or the final HCFC-22 users) to show that the HCFC-22 production is to meet real market demand and relevant information/document is available to be checked by the DOE selected to perform verification.
- b) The host country government has taken necessary measures to avoid the possible high economic benefits from such projects, for example to charge a large proportion of the revenues from the sales of ensuing CERs, and the charged revenues will be used to support activities addressing climate change in the host country.
- c) To further ensure the real emission reduction benefits of such projects,
 - i. production of HCFCs in the new HCFC-22 production facilities where the HFC-23 waste originates is limited to the maximum historical annual production level at the facilities during the most recent three years, including CFC production at swing plants adjusted appropriately to account for the different production rates of HCFC22 and CFCs;
 - ii. the HFC-23 waste generation rate originated from new HCFC-22 facility should be set at the lowest of the most recent three-year record but is not to exceed 3% under any circumstance.

II. China is now studying its <u>National Strategy on the Phase-out of HCFC-22</u>, and will formulate and implement such strategy in a timely manner.

PAPER NO. 3: JAPAN

UNFCCC Secretariat

Regarding the submission item 4, "Implications of the establishment of new HCFC-22 facilities seeking to obtain certified emission reductions for the destruction of HFC-23", the government of Japan has no new or additional commet to the last submission on the same subject. Thus, we shall not have a submission this time.

Best regards,

Junko NOGUCHI Embassy of Japan (Botschaft von Japan) Economic, Social and Developmental Affairs Division (Abteilung fur Wirtschafts, Sozial und Entwicklungsfragen)

PAPER NO. 4: MEXICO

Implications of the establishment of new hydrochlorofluorocarbon-22 (HCFC-22) facilities seeking to obtain certified emission reductions for the destruction of hydrofluorocarbon-23 (HFC-23)

Submission by Mexico

The SBSTA at its twenty-fourth session noted that the COP/MOP, at its first session, recognized, in its decision 8/CMP.1, that issuing certified emission reductions (CERs) for the destruction of hydrofluorocarbon-23 (HFC-23) at new hydrochlorofluorocarbon-22 (HCFC-22) facilities in developing countries could provide perverse incentives leading to higher global production of HCFC-22 and/or HFC-23 than would otherwise occur, and that the clean development mechanism (CDM) should not lead to such increases.

Consequently, the SBSTA invited Parties, admitted observers and relevant intergovernmental organizations to submit to the secretariat, by 4 August 2006, their inputs elaborating practical solutions to address the implications of the situation referred to in the last paragraph, for consideration by the SBSTA at its twenty-fifth session (November 2006), with a view to preparing a draft decision containing guidance to the Executive Board of the CDM for adoption by the COP/MOP at its second session (November 2006).

Mexico looks forward to analyzing the discussing methodological options submitted by Parties, during the twenty-fifth session of SBSTA. However, as stated in document FCCC/SBSTA/2005/MISC.10¹ and, taking note of decision 8/CMP.1 paragraph 1 (a)², regarding the definition of "new HCFC-22 facilities", Mexico reaffirms that any methodological options to address this issue should ensure the environmental integrity of the climate change regime, achieve the objectives of other environmental conventions and protocols, in particular the Montreal Protocol and avoid perverse incentives for increase capacity to produce HCFC-22 in developing countries.

As proposed in the aforementioned document, Mexico reiterates the need to explore existing and innovative multi lateral and/or bilateral instruments or mechanisms, allowing Annex I Parties to finance ways of addressing this import source of greenhouse gas emissions.

¹ Submission by Mexico, Argentina, Nicaragua and Panama, p. 26. Implications of the establishment of new hydrochlorofluorocarbon-22 (HCFC-22) facilities seeking to obtain certified emissions reductions for the destruction of hydrofluorocarbon-23 (HFC-23). Submissions from Parties.

² (a) For facilities that have an operating history of at least three years between the beginning of 2000 and the end of 2004, "new HCFC-22 facilities" refers to the increased production of HCFC-22 above the maximum historical annual production level - including chlorofluorocarbons production in swing plants, adjusted appropriately to account for the different production rates of HCFC-22 and chlorofluorocarbons - during any of the last three years of operation between the beginning of 2000 and the end of 2004.

PAPER NO. 5: UNITED STATES OF AMERICA

Submission of the United States FCCC/SBSTA/2006/L.15 Views on the implications of the establishment of new hydrochloroflourocarbon-22 (HCFC-22) facilities seeking to obtain certified emissions reductions for the destruction of hydrofluorocarbon-23 (HFC-23).

The Twenty-fourth Session of the Subsidiary Body for Scientific and Technical Advice in May 2006 (SBSTA-24) invited Parties to elaborate practical solutions to address on the implications of the establishment, under the clean development mechanism, of new hydrochloroflourocarbon-22 (HCFC-22) facilities seeking to obtain certified emissions reductions for the destruction of hydrofluorocarbon-23 (HFC-23).

As the United States noted in our earlier submission and in previous interventions, our interest in this topic relates to the potential implications of a COP/MOP decision on the achievement of the objectives of the Montreal Protocol.

Progress on this complex issue is slow because Parties have justifiable concerns about the potential impacts on both the ozone layer and the climate system. One concern – the principal concern, in our view – is that we will undermine our collective efforts under the Montreal Protocol by creating a perverse incentive for the production of HCFC-22. However, the other concern is that, if we were to provide no incentives for the destruction of HFC-23, any new HCFC-22 facilities that may be built would simply emit HFC-23 to the atmosphere, adversely impacting the climate system.

We recommend that discussion proceed based on a foundation of factual information rather than speculation as to the potential implications of this decision – an informed, cautious approach is warranted before proceeding with a decision to grant eligibility.

Several key issues should be addressed before proceeding with a decision on this agenda item, including:

- 1. What is current HCFC-22 global production capacity; and what is the expected global demand between now and 2015?
- 2. Will granting eligibility to these new projects result in increased production of HCFC-22 beyond the expected demand?
- 3. Will inclusion of these projects in the CDM result in a higher HCFC-22 developing country baseline in 2015 and, therefore, adversely affect the phase out of HCFC-22 in developing countries?
- 4. Will granting eligibility affect the use of substitutes for HCFC-22?
- 5. In that HCFC-22 has multiple uses, is there a means by which production for feedstock can be identified separately from use of HCFC-22 for non-feedstock use from the same facility?
- 6. Can provisions be established to demonstrate that the HCFC-22 produced by a given facility only meets a real market demand?
- 7. Can monitoring protocols be established to ensure that there is no arbitrary release of HCFC-22 and HFC-23 into the atmosphere?
- 8. Are there alternative mechanisms for achieving climate benefits of reducing HFC-23 emissions while avoiding an increase in HCFC-22 production?

To address issues such as these, in 2005, the UNFCCC Secretariat prepared two papers which provide background for discussion of this issue: FCCC/TP/2005/1 (*Issues arising from the implementation of potential project activities under the clean development mechanism: the case of incineration of HFC-23 waste streams from HCFC-22 production*) and a paper prepared by Marbury Technical Consulting

(*Incineration of HFC-23 waste streams for abatement of emissions of HCFC-22 production: a review of scientific, technical and economic aspects).* Both papers provide excellent technical background on this issue. As well, both papers highlight issues to be addressed in considering the implications of eligibility and should be used to enable further technical discussion of this issue.

We believe that it is important for Parties to the Kyoto Protocol to determine whether there are viable alternatives for achieving the climate benefit of destruction of HFC-23 from HCFC-22 production that ensure the continued benefit to the stratospheric ozone layer that results from effective implementation of the Montreal Protocol. Some alternatives that may deserve further analysis and consideration include:

- 1. Limiting CERs to the incremental cost of installing and operating an incinerator at a new facility. This has the benefit of ensuring that operators have sufficient incentive to destroy HFC-23 byproduct without either creating a perverse incentive to build HCFC-22 facilities or to overproduce HCFC-22 once the facility is in operation
- Un-optimized HCFC 22 facilities can produce as much as 4% HFC 23. To be considered eligible under the CDM, facilities should reasonably be expected to limit their HFC 23 production to a lower, more efficient level. Limiting CERs for HFC 23 destruction to 1.5% or lower of HCFC 22 production would achieve a desirable environmental outcome without leading to a perverse incentive.
- 3. Identifying options that reduce demand for HCFC-22, and, therefore, reduce the incidental production of HFC-23 byproduct thereby preventing the need for "end-of-pipe" solutions. Parties to the Montreal Protocol and UNFCCC Parties should consider, through domestic policies and programs, the adoption by industry and consumers of equipment using HCFC-22 substitutes where appropriate.

The Secretariat could consider and analyze the impacts of these and any other viable alternatives.

We thank you for consideration of these comments and hope that caution will guide further discussions on this issue.

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