STAGE II GUIDELINES: OPPORTUNITY TO MAXIMIZE THE CLIMATE AND ENERGY BENEFITS OF THE HCFC PHASE-OUT

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I. Stage II HPMP Guidelines – an opportunity to maximize the climate benefits of the HCFC phase-out

At its 53rd and 54th meetings, the Executive Committee (ExCom) decided that all HPMPs should capture the spirit of decision XIX/6 and address the benefits for the climate when looking at alternatives[1]. A majority of stage I HPMPs took into account decision XIX/6 and transitioned to climate-friendly substitutes and technologies. The 25% incentive for transitions to low-GWP alternatives included in the stage I Funding Guidelines was key to many of these transitions but not enough to prevent some transitions to HFCs.

Decision XXI/9(7) requested the ExCom, when developing and applying funding criteria for projects and programs regarding the phase-out of HCFCs:

> (a) to take into consideration paragraph 11 of decision XIX/6;
> (b) to consider providing additional funding and/or incentives for additional climate benefits where appropriate;
> (c) to take into account, when considering the cost-effectiveness of projects and programs, the need for climate benefits; and
> (d) to consider in accordance with decision XIX/6, further demonstrating the effectiveness of low-GWP alternatives to HCFCs, including in air-conditioning and refrigeration sectors in high ambient temperature areas in Article 5 countries and to consider demonstration and pilot projects in air-conditioning and refrigeration sectors which apply environmentally sound alternatives to HCFCs;

Paragraphs 9 and 11 of Decision XIX/6 state:

> 9. To encourage Parties to promote the selection of alternatives to HCFCs that minimize environmental impacts, in particular impacts on climate, as well as meeting other health, safety and economic considerations;
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> 11. To agree that the Executive Committee, when developing and applying funding criteria for projects and programs, and taking into account paragraph 6, give priority to cost-effective projects and programs which focus on, inter alia:
> (a) Phasing-out first those HCFCs with higher ozone-depleting potential, taking into account national circumstances;
> (b) Substitutes and alternatives that minimize other impacts on the environment, including on the climate, taking into account global-warming potential, energy use and other relevant factors;
> (c) Small and medium-size enterprises;

[1] Draft Guidelines for Funding the Preparation of Stage II Of HCFC Phase-Out Management Plans (Decision 66/5(C)), UNEP/OzL.Pro/ExCom/69/33, p.7.

It is critical that the ExCom swiftly adopts guidelines and policies to ensure that stage 2 HPMPs promote transitions to climate-friendly technologies.

The ExCom has been conducting cost-effectiveness calculations solely based upon the cost-effectiveness of the reduction of ozone depleting substances. However, Decisions XIX/6 and XXI/9 make it clear that this analysis should be modified to take into account "… global warming potential, energy use and other relevant factors." Therefore, in the guidelines for stage II HPMPs, we urge the ExCom to develop guidelines that are sufficiently flexible to evaluate the cost-effectiveness in both reducing ozone impact as well as in reducing climate impact.

As part of the development of the guidelines for stage II HPMPs, the ExCom should at a minimum preserve the 25% climate incentive, but should also evaluate this incentive to determine whether it is adequate to fund the transitions to low-GWP alternatives and achieve the climate benefits promised when the accelerated HCFC phase-out was adopted. Additionally, the evaluations should assess whether more can be done to assist small and medium sized enterprises to transition to low-GWP alternatives as directed in paragraph 11(c) of Decision XIX/6, and low and very low volume consuming (LVC) countries as directed in paragraph 6. For example, consideration could be given to providing a choice of a fixed sum or 25%, whichever is higher, or allowing a higher percentage incentive for LVCs. Provision could also be made for countries with servicing only HPMPs to receive the climate incentive if they commit to take practical steps to prevent the phase-in of HFCs as HCFCs are phased-out in servicing.

The Multilateral Fund Climate Impact Indicator (MCII) has been prepared to allow for the consideration of the impact on the climate of different alternative technologies to HCFCs and ExCom has agreed that it should be used in the HPMP process. According to the Secretariat, this tool can easily be adjusted to evaluate new alternative technologies/chemicals as they become available. EIA encourages the use of the MCII to determine climate benefits of all stage II HPMPs which will allow the ExCom to include both GWP and ODP considerations when evaluating and approving stage II HPMPs. The ExCom should refuse to approve HPMPs that propose transitions to HFCs in sectors where there are proven alternatives with a lower climate impact according to the MCII.

In addition to the above, consideration should be given to the results of demonstration projects looking at low-GWP alternatives in facilitating the choice of technology for stage II HPMPs. The Executive Committee should open a limited window to new demonstration projects for new climate-friendly alternatives and technologies that had not been proven, or did not exist when the last pilot projects were approved. These alternatives hold great promise for increasing the transitions to climate-friendly alternatives and delivering the promised climate benefits from the accelerated HCFC Phase-out.

The guidelines should specifically recognize the requirement to use the MCII and the consideration of demonstration projects, and should detail a more flexible

approach to the climate incentive that allows SMEs and LVCs to receive more than 25% additional funding for low-GWP transitions.

RAC Sector Focus

According to the Secretariat, it is expected that for approximately 95 Article 5 countries (80 LVC countries and 15 non-LVC countries), stage II HPMPs will address the remaining HCFC consumption mainly in the refrigeration and air-conditioning servicing sector, and those remaining HCFC-based manufacturing sectors not addressed in stage I for countries with HCFC manufacturing. The availability of low-GWP alternatives has grown considerably in recent years and new alternatives are being rapidly commercialized. This is evidenced by the European Union's current consideration of a revised Regulation to phase-down HFCs including bans on HFCs in certain RAC equipment.

Many climate-friendly alternatives to replace HCFCs have gained a strong foothold in a number of countries. A basic understanding of the current status (level of use, prevalence of knowledge) of different HCFC alternatives in each country is needed by both governments and the ExCom in order to assess the incremental activities necessary to transfer from HCFC to these alternatives. Consequently, information on proven and commercialized low-GWP alternatives needs to be collected and made available. **As part of this, the guidelines should include a requirement for HPMPs to identify technology evaluated and why choices were made. In many stage 1 HPMPs, retrofitting plans did not clearly identify the technologies to be used.** Additional information that could be included in the guidelines will be available at the 70th ExCom meeting when the Secretariat is expected to produce a report on promoting strategies, approaches and technologies to minimize any adverse climate impacts of HCFC phase-out in the refrigeration servicing sector. The ExCom should be in a position to identify the sectors where low-GWP alternatives exist, prioritize those sectors and refuse to fund transitions in these sectors to HFC technologies.

Given the anticipated focus on conversions in the RAC sector, EIA fully supports the technical assistance projects for high-ambient temperature countries in the West Asia region and the mapping of ODS alternatives. These studies will be critical to ensuring that direct transitions to environmentally friendly technologies are maximized. Given the importance of these projects and the relatively small budgets in comparison to the other financial shortfalls, the ExCom should find a way to fully fund these projects.

Co-financing

Countries and agencies were asked in decision 54/39(h) to explore potential financial incentives and opportunities for additional resources to maximize the environmental (including climate) benefits from HPMPs. While many stage I HPMPs noted the need for co-financing, there were very few concrete proposals on how such co-financing may be further explored. The ExCom should consider co-financing further, including discussions at the 24th Meeting of the Parties to the Montreal Protocol on additional funding to maximize the climate benefit of the accelerated HCFC phase-out (see UNEP/OzL.Pro.24/10 paragraph 105). As suggested by the Secretariat, stage II HPMPs

could ensure that sufficient information is provided on co-financing, while the Secretariat could be tasked with submitting a report on co-financing opportunities to the 70th MLF meeting.

The development of the stage I HPMP Guidelines took 2 ½ years resulting in substantial concern for all parties as implementation dates drew near. The late approval of the guidelines also rushed the HPMP development and approval processes. **EIA urges the ExCom to put in place a clear schedule and process for the efficient and rapid approval of stage II HPMP funding guidelines with robust climate incentives in accordance with XIX/6 and XXI/9.**

II. Availability of Funds for the HCFC Phase-out

Decision XIX/6(5) provides that the Parties:

> "agree that the funding available through the Multilateral Fund for the Implementation of the Montreal Protocol in the upcoming replenishments shall be stable and sufficient to meet all agreed incremental costs to enable Article 5 Parties to comply with the accelerated phase-out schedule both for production and consumption sectors …"

The Consolidated Business Plan, UNEP/OzL.Pro/ExCom/69/6, reveals that once again the activities contained in the business plans submitted by the implementing agencies exceed the amount of the replenishment by a substantial margin. The activities in the business plans exceed the overall budget by US$153.8 million as shown in Table 1 and by US$116.1 million after adjustments were made by the Secretariat in accordance with previous decisions of the ExCom, as shown in Table 4.

The Secretariat suggests that this shortfall can be made up by an "adjustment" to the production sector, reducing the amount to be spent in the production sector during this triennium from $223.7 million to $107.5 million.

EIA believes that there is a growing risk of illegal HCFC trade, given low HCFC prices in developing countries compared to very high prices in developed countries that are nearing the end of their HCFC phase-out. As the freeze and 10% reduction in HCFC production and consumption occurs in developing countries in 2013 and 2015, these years will be important in ensuring that developing countries are ready to deal with illegal trade. The problem of illegal trade of CFCs was partly solved by expediting the phase-out of CFC production. Delaying the production sector phase-out increases the risk of over-production and illegal trade in HCFCs, particularly HCFC-22. The Parties need to expedite production sector discussions to find a fair solution to address the production sector or face potentially large-scale non-compliance due to illegal trade in HCFCs.

III. Production Sector Phase-out.

As EIA has noted before, the documents related to the production sector phase-out of HCFCs are not available for review by observers, nor is a summary of these documents and discussions prepared by the Secretariat. We therefore cannot comment on the specific priorities being proposed in the production sector. This departure from the Montreal Protocol's usual practice of transparency and full participation of observers is worrying. Observers have a right to know and comment on how the production sector phase-out is going to be accomplished. These decisions have huge implications for future production of HCFCs, HFCs, HFOs and compliance issues such as illegal trade.

Swinging plants to feedstock use will increase emissions of HCFCs and HFC-23 (GWP 14,800), and dramatically increases the potential for illegal trade in HCFCs, particularly HCFC-22. Every effort should be made to close down the HCFC production sector permanently. If swinging plants to feedstock is considered, it should be dependent on agreement by the HCFC producing country to guarantee capture and destruction of all HFC-23 emissions now and in the future, with or without Clean Development Mechanism (CDM) financing. Both shutting down HCFC-22 capacity and requiring destruction of HFC-23 are both particularly viable given that almost every carbon market has excluded HFC-23 credits and the CDM as a whole is considering excluding HFC-23 destruction as an approved methodology. Anecdotal evidence suggests that feedstock demand for HCFC-22 cannot sustain the actual costs of production without the CDM subsidy and therefore the MLF should focus on closing plants and reducing capacity.

In Decision XIX/6, the Parties directed the ExCom to "make the necessary changes to the eligibility criteria related to the post-1995 facilities and second conversions." To date the ExCom has not established these eligibility criteria, despite the fact that most plants currently producing HCFC-22 are post-1995 facilities, and/or received MLF funding to convert from CFCs to HCFCs. **The ExCom has an obligation to impose appropriate eligibility criteria before funding the conversion of these facilities, and the criteria should include destruction of HFC-23.**

IV. Final Evaluation Report of Multi-year Agreement Projects

EIA appreciates the review and evaluation of multi-year agreement projects (UNEP/OzL.Pro/ExCom/69/12), which is essential for the effective implementation of the HCFC phase-out. EIA supports all of the findings and recommendations, a whilst highlighting below those considered as priorities for immediate action:

The importance of adequate training of refrigeration technicians will grow in the future with multiple alternative refrigerants and technologies to be dealt with. Proper maintenance of refrigeration systems reduces ODS emissions and improves energy efficiency, leading to significant reductions in overall CO_2-eq emissions. It is also essential for dealing with toxic or flammable refrigerants. According to the MYA review, experience from several countries demonstrates that training qualification certificates are

a powerful incentive for potential trainees and EIA supports the inclusion of mandatory training certification for refrigeration technicians within stage II HPMPs.

Efforts should be made to apply lessons learned from the CFC phase-out to prevent illegal trade in HCFCs. Policies should include a system of penalties for illegal import which are significant enough to deter smugglers and licensing systems should include export licensing and licensing of transit trade, not just import of HCFCs.

Customs training is key to monitoring international trade and customs authorities should be encouraged to routinely inspect shipments of HFCs given ODS are commonly mis-declared as these chemicals. Enforcement efforts should focus on potential 'hotspots', for example where neighboring countries with different phase-out schedules or regulations share borders. It is important that the latest ODS identifiers that can identify HCFCs and blends are provided to enforcement personnel. China's experience with the Prior Informed Consent (PIC) system has been very positive and should be shared with NOUs through regional network meetings. All countries should be required to join UNEP's iPIC initiative.

Implementing agencies should include activities to connect customs and NOU databases (using the software developed during the CFC phase-out) as well as consideration of the iPIC system in their phase II activities.

The Executive Committee will also support the Terms of Reference for a study of the preparatory stage of phasing out HCFCs addressing the Freeze and the first 10% reduction step. All of the objectives of the evaluation are valid and should be adopted. EIA recommends that the evaluation determine whether or not the 25% climate incentive is adequate to promote conversions to low-GWP alternatives and whether it is equally effective in small, medium and large consuming countries. It should also evaluate whether the incentive should be redesigned to make it more effective as the phase-out shifts into the refrigeration and air conditioning sectors.

V. Project Proposals

China - China has made good progress in converting its XPF foam sector and it is positive that more enterprises than required to meet the reduction steps for stage I have expressed interest in converting to the CO_2/methyl formate foam blowing methods. EIA is disappointed that the results of the demonstration project will not be available until August 2013. This is in part due to the delay in getting the stage I guidelines approved on a timely basis and speaks to the need for a clear schedule for the adoption of the stage II guidelines

Dominican Republic – The transition to hydrocarbon foam blowing operations in the Dominican Republic demonstrates how deeply these technologies are penetrating and that with proper planning and training they can be safely implemented for small scale as well as large foam blowing operations.

However EIA is concerned that despite the Governments stated intent to transition from HCFCs to low-GWP alternatives, most of the new equipment being imported for the tourist and refrigeration sectors is HFC-based, using HFC-410A and HFC-404A. Implementing agencies and the ExCom should be assisting the Government of the Dominican Republic to implement its stated intention to prevent a transition to HFCs. In the stage II guidelines, provision should be made for countries with HCFC servicing to receive climate benefit funding if they take steps to prevent transition to HFCs as HCFCs are phased-out in servicing.

Proposals by Georgia and European and Central Asia (ECA) Region for ODS Destruction Projects

Georgia has proposed a demonstration project to explore synergies of ODS waste co-disposal with POPs waste in a context of an LVC country where ODS waste is accumulated at a slower pace and in smaller quantities. It will look at opportunities for reaching economies of scale to address such amounts of ODS waste from waste management companies in short time, which could reduce the costs of waste handling and increase cost-effectiveness and efficiency. The Government is committed to ensuring that this synergy is fully institutionalized into its system for chemical waste management and disposal, and would be a priority for implementation.

The objective of the European and Central Asia (ECA) Region project is to demonstrate that a regional approach can be a cost-effective and sustainable solution for ODS waste disposal, particularly in LVC countries, where the amounts of collected ODS are usually insufficient for the establishment of local disposal facilities.

Collection and destruction of unwanted ODS is a critical concern. ODS Banks are steadily being released to the atmosphere, with more than 5 $GtCO_2e$ disappearing from Banks since the TEAP's first estimate of Banks. While the Parties of the Montreal Protocol have discussed what to do about the problem they have failed to take collective action. Both of the pilot proposals are replicable in other LVC countries and approach collection, transportation and destruction of ODS in different ways. Although these projects themselves will not eliminate a substantial amount of ODS, they will demonstrate the feasibility of different options available to Article 5 Parties. The co-financing component may also initiate a greater financial commitment to Banks destruction by the GEF and other funding sources. EIA supports both projects, encourages the ExCom to expand the ODS destruction Pilot Project program and calls on the Parties to collect and destroy Banks before they are emitted into the atmosphere.