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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Eighty-second Meeting  
Montreal, 3-7 December 2018

**Addendum**

**SUMMARY OF THE PARTIES' DELIBERATIONS AT THE 40<sup>TH</sup> MEETING OF THE  
OPEN-ENDED WORKING GROUP AND THE THIRTIETH MEETING OF THE PARTIES TO  
THE MONTREAL PROTOCOL IN RELATION TO THE TECHNOLOGY AND ECONOMIC  
ASSESSMENT PANEL'S REPORT ON ISSUES RELATED TO ENERGY EFFICIENCY  
(DECISION 81/67(b))**

1. This addendum is issued<sup>1</sup> to present the deliberations of the preparatory segment of the Thirtieth Meeting of the Parties under agenda item 8 on issues related to the energy efficiency while phasing down HFCs, which included two sub-items:

- (a) Report by the Technology and Economic Assessment Panel on energy efficiency in the refrigeration, air-conditioning and heat-pump sectors; and
- (b) Access of parties operating under paragraph 1 of Article 5 of the Protocol to energy-efficient technologies in the refrigeration, air-conditioning and heat-pump sectors.

2. Subsequent to deliberations under agenda item 8, the Parties adopted decision XXX/5 on Access of parties operating under paragraph 1 of Article 5 of the Montreal Protocol to energy-efficient technologies in the refrigeration, air-conditioning and heat-pump sectors. This decision supersedes the draft decision submitted by Rwanda on behalf of the African Group to the Thirtieth Meeting of the Parties, contained in Attachment II of document UNEP/OzL.Pro/ExCom/82/65.

3. The text of decision XXX/5 is presented at the end of the extracts of the Parties' deliberations under agenda items 8(a) and (b). For ease of reference, the Executive Committee may wish to note that operative paragraphs 1, 2, 4, 5, 6 and 7 of decision XXX/5 request for actions to be taken by the Executive Committee. This addendum also includes a recommendation.

<sup>1</sup> As indicated in paragraph 14 of document UNEP/OzL.Pro/ExCom/82/65

Pre-session documents of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol are without prejudice to any decision that the Executive Committee might take following issuance of the document.

4. The text of deliberations under sub-agenda items 8(a) and (b) presented below, has been extracted from the report of the meeting contained in document UNEP/OzL.Pro.30/L.1.

**Extract of deliberations under sub-agenda items 8(a) and (b) of the Meeting of the Parties**

**“A. Report by the Technology and Economic Assessment Panel on energy efficiency in the refrigeration, air-conditioning and heat-pump sectors**

87. Introducing the sub-item, the Co-Chair recalled that, in accordance with decision XXIX/10, the Technology and Economic Assessment Panel and its energy efficiency task force had produced a report on issues related to energy efficiency while phasing down HFCs, in September 2018. The executive summary of the report was reproduced in annex III to the addendum to the note by the Secretariat on issues for discussion by and information for the attention of the Thirtieth Meeting of the Parties to the Montreal Protocol (UNEP/OzL.Pro.30/2/Add.1), which also included a summary table of the Panel’s response to each element of the additional guidance by parties on issues related to energy efficiency.

88. Ms. Bella Maranion, Mr. Fabio Polonara and Ms. Suely Carvalho, co-chairs of the decision XXIX/10 task force on issues related to energy efficiency while phasing down HFCs, gave a presentation on the main elements of the report. A summary of the presentation, prepared by the presenters, is set out in section [XX] of annex [XX] to the present report.

89. The presentation was followed by a question-and-answer session on matters highlighted during the presentation or in the report.

90. One representative expressed concern at the incompatibility of technologies for conversion projects, which, along with the shortfall of funding identified by the Technology and Economic Assessment Panel, meant that many Article 5 parties were facing difficulties in implementing conversion projects. Another representative, noting the growing threat of rising temperatures and rising sea levels to low-lying island communities, said that parties needed to redouble their efforts to put the Kigali Amendment into effect. Regarding the financing needed to accelerate that process, she asked what obstacles were obviating the flow of funding to the refrigeration, air-conditioning and heat-pump sectors; whether research could be undertaken to assess how funding institutions could support energy-efficient actions in the context of HFC-related projects in Article 5 parties; and what lessons could be drawn from existing examples of partnerships between the Multilateral Fund and other institutions that financed multidimensional projects. One representative stressed the urgency of setting up mechanisms to improve the flow of funds in order to facilitate the transition to low-GWP alternatives. Another representative asked whether there was a globally acceptable threshold for defining energy efficiency, and also sought suggestions on how to overcome the safety concerns hindering the adoption of certain technologies.

91. On the matter of conversion technologies, Mr. Polonara said that the transition to energy-efficient production was addressed in many different ways around the world, and any advice on the matter would depend on the specific circumstances. On the question of establishing whether a system was energy efficient or not, he said that it would require an energy audit, for which there were well-established procedures. Standards for energy audits were also well established, though at the national, industry level rather than at the global level. Regarding the risks posed by certain refrigerants, current efforts were focused on updating standards, although different national specifications on flammable refrigerants remained a challenge to their acceptability and use. The training of personnel to handle those refrigerants was an important factor.

92. On the issue of partnerships and funding, Ms. Carvalho proffered the example of projects implemented by the Montreal Protocol in partnership with the Global Environment Facility (GEF), which had proved successful in the case of larger projects such as chiller replacement. Co-financing partnerships with the private sector was another promising means of funding large projects. On the matter of obstacles to the flow of funding, she said that funding could be difficult to coordinate in instances where funding institutions had different financing cycles, timelines, strategic focal areas, and rules and procedures, as was the case with the Montreal Protocol and GEF. It would be advantageous, therefore, to work on developing more streamlined processes to enable timely access to funding. How to ease the flow of funding deserved more intense investigation, which had been beyond the remit of the task force.

93. In a further round of queries and comments, one representative raised questions over the eligibility of energy efficiency projects for funding under the Montreal Protocol; that issue needed to be addressed before deciding on the modalities of any funding. Another representative, noting that energy efficiency was a new field for the Montreal Protocol, expressed the hope that the pace of research could be quickened so that concrete advice could be made available, while recognizing the challenges posed by different national conditions, requirements and demands, and the current shortfalls in funding for research. Another representative highlighted the problems faced by countries with high ambient temperatures in identifying and implementing alternative technologies. While some recent projects involving smaller units had achieved positive results, there was a need for larger-scale projects addressing industrial units in countries with high ambient temperature conditions, including through public-private partnership.

94. Responding to the query on the scale of projects, Mr. Polonara said that projects for smaller units tended to be easier to implement and the relative benefits were considerable, given that they accounted for a large proportion of refrigerant consumption, while projects for larger units could be financed by companies and research centres. In addition, lessons learned from projects improving the quality and efficiency of small units could inform projects involving larger systems.

95. In the next round of queries and comments, one representative highlighted the important role played by the government in establishing regulations and standards to ensure quality in the refrigeration, air-conditioning and heat-pump sectors, and to encourage the adoption of environmentally friendly alternatives. Further funding was required to support such efforts. Another representative sought clarification on the economic benefits to the consumer of energy savings in the air-conditioning sector under the European Union Ecodesign project, and on the location of funds that could potentially be accessed to finance energy efficiency projects. One representative requested additional information on the focus of funding for energy efficiency, other than the refrigeration, air-conditioning and heat-pump sectors. Another representative said that previous energy sector funding in developing countries had often focused on increasing energy access or supply; more focus should be placed on the multiple benefits that could be derived from financing projects linking energy access with energy efficiency.

96. One representative said that innovative solutions were needed to combat the challenges posed by the huge projected increase in demand in the refrigeration and air-conditioning sector, particularly in countries with high ambient temperatures. Another representative highlighted the importance of measuring energy efficiency in different countries and projects in order to improve understanding of performance levels.

97. One representative raised queries on a number of issues arising from the report, such as the difference between “savings in energy” and “operating cost to the consumer” as benefits of higher energy efficiency; the use of the term “energy poverty” rather than “energy access”; the differentiation between energy efficiency and cooling; the environmental benefits of

energy-efficient equipment, as shown in table 2.6 of the report; the ability of manufacturers to absorb the costs of the transition to energy-efficient equipment; the relative proportion of funding being allocated to the transition to energy-efficient equipment in the air-conditioning sector; and what constituted the “funding architecture” for energy-efficient equipment.

98. On the matter of the sources of funds, Ms. Carvalho said that the task force had looked at funds channeled to energy efficiency in the refrigeration, air-conditioning and heat-pump sector as a percentage of the total official development assistance available, rather than the amount of funds available in each institution. However, table 3.2 in the task force report, showing funding sources for mitigation-focused cooling projects, indicated that most funding was provided through bilateral projects, followed by foundations. While the task force had found sources of funding for energy efficiency in different institutions, including the Climate Investment Funds, it was not always possible to identify how those funds were allocated. Regarding the funding architecture, she said that two approaches could be adopted, the first looking at the present funding institutions and analysing how to address the barriers and streamline funding processes, and the second considering whether those funds might operate more efficiently within a different funding architecture. However, an in-depth analysis of the issue lay outside the mandate of the task force. On the matter of the focus of energy efficiency funding sources, she said that most funding was for large infrastructure projects, including energy access and renewable energy transmission.

99. Various members of the task force responded to the other issues raised. For the European Union Ecodesign project, the benefit to consumers over the lifetime of the project had been estimated at 340 euros per item of equipment. On the question regarding the difference between energy savings and operating costs to the consumer, the two were related, but as a function of the electricity tariffs and country policies; some countries, for example, may offer electricity subsidies to the consumer, affecting that relationship. Table 2.6 in the report showed how energy efficiency related to energy consumption, which could be converted to environment benefits in terms of CO<sub>2</sub> equivalent. Regarding the terms “energy poverty” and “energy access”, both were used in the literature, and they had a reciprocal relationship, in that lower energy poverty meant greater energy access. On the matter of the degree to which the costs of conversions could be internalized, for certain options costs could be absorbed more easily, while for other options more time was needed. For small air-conditioning systems, for example, simple, cheaper options were available that allowed costs to be recouped relatively quickly, while options aiming at greater energy efficiency could prove more costly and thus constitute a greater barrier to adoption.

100. The parties took note of the information presented.

**B. Access of parties operating under paragraph 1 of Article 5 of the Protocol to energy-efficient technologies in the refrigeration, air-conditioning and heat pump sectors**

101. The parties agreed to widen the scope of the discussion to be held under the present sub-item to encompass general statements and proposals deriving from the report of the Technology and Economic Assessment Panel (sub-item 8 (a)) as well as the specific question of the access of parties to energy-efficient technologies (sub-item 8 (b)).

102. The Co-Chair recalled that at the fortieth meeting of the Open-ended Working Group, the representative of Rwanda, on behalf of the African Group, had introduced a draft decision on the issue, and a contact group had been established to discuss it in detail. Following the discussions in the contact group, the representative of Rwanda had produced a revised draft decision, which had been made available as a conference room paper.

103. The representative of Rwanda, speaking on behalf of the African Group, introduced her proposal for a draft decision, which had been revised after the fruitful discussions at the fortieth meeting of the Open-ended Working Group. She said that it was intended to provide the basis of a renewed discussion at the current meeting, to enable the parties to discuss the crucial issue of energy efficiency and how it could be addressed under the institutions of the Montreal Protocol. She noted that the Scientific Assessment Panel had confirmed that improvements in the energy efficiency of refrigeration and air-conditioning equipment during the transition to low-GWP alternatives could double the climate benefits of the Kigali Amendment. She also drew attention to the problems caused by the dumping of obsolete and inefficient equipment in African markets, which undermined efforts by African countries to meet the climate challenge.

104. Many representatives expressed their support for the proposed draft decision, saying that it was clearly desirable to promote improvements in energy efficiency in the process of converting equipment from using HFCs to low-GWP alternatives. That was important not only for reducing greenhouse gas emissions but also in terms of other co-benefits, such as improving air quality, providing energy security and realizing economic benefits for consumers. New technology needed to be introduced which would prove attractive to consumers irrespective of the environmental benefits. The support for energy efficiency was not, however, reflected in the current system of financial assistance, and parties needed to consider carefully how technical, financial and capacity-building support could be delivered under the Montreal Protocol. One representative stressed the need to incorporate energy efficiency improvements in the process of replacing HCFCs, as well as HFCs.

105. Several representatives said that it would be helpful if the Technology and Economic Assessment Panel could provide more information on exactly how support for energy efficiency improvements could be delivered, the cost-effectiveness of such support, and what technical and financial barriers needed to be overcome.

106. Other representatives, however, while acknowledging the importance of energy efficiency improvements, and the obvious linkages with the HFC phase-down agreed in the Kigali Amendment, said that the extent to which the objective could be pursued under the Montreal Protocol was not yet clear. In particular, they noted that while some elements of the proposed draft decision were very welcome, other elements might fall outside the scope of the Protocol and the Multilateral Fund. It was important to stay within the core competencies and expertise of the Protocol and to focus on activities where the institutions of the Protocol could make a real difference.

107. The proposal needed to be viewed against the background of decision XXVIII/2, in which the parties had requested the Executive Committee to develop guidance associated with maintaining and/or enhancing the energy efficiency of low-GWP or zero-GWP replacement technologies and equipment, when phasing down HFCs, while taking note of the role of other institutions addressing energy efficiency. The Executive Committee was in the process of implementing that decision and it was important not to hamper its efforts.

108. Several representatives said that it would be important to identify how the institutions of the Montreal Protocol could work together with other entities, such as the United Nations Framework Convention on Climate Change, the various climate funds and the multilateral development banks, in accessing and delivering financial support for energy efficiency improvements. It was clear that many of those bodies had not so far included the refrigeration and air-conditioning sector in their activities.

109. One representative expressed the view that even if the topic did not fall precisely within the mandate of the Montreal Protocol, it was covered by the broader framework of the Vienna Convention for the Protection of the Ozone Layer. He highlighted the way in which other multilateral environmental agreements, such as the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants, had demonstrated how to work together on issues which did not quite fall under the remit of any one of them but were of importance to them all.

110. Representatives welcomed the changes that had been made to the draft decision following the discussions at the fortieth meeting of the Open-ended Working Group, and looked forward to careful consideration of its content in further discussions in a contact group.

111. The parties agreed to re-establish the contact group that had held discussions on the issue at the fortieth meeting of the Open-ended Working Group, co-chaired by Mr. Patrick McInerney (Australia) and Mr. Leslie Smith (Grenada).

112. *[to be completed]*

**Decision XXX/5: Access of parties operating under paragraph 1 of Article 5 of the Montreal Protocol to energy-efficient technologies in the refrigeration, air-conditioning and heat-pump sectors**

*Noting* that the Kigali Amendment to the Montreal Protocol will enter into force on 1 January 2019,

*Noting* the opportunities cited by the Technology and Economic Assessment Panel in its May 2018 report and the September 2018 revision of that report, where it is noted that several categories of enabling activities can potentially serve to promote energy efficiency,

*Acknowledging* the *Scientific Assessment of Ozone Depletion:2018*, which notes that improvements in the energy efficiency of refrigeration and air-conditioning equipment during the transition to low-global-warming-potential alternative refrigerants can potentially double the climate benefits of the Kigali Amendment,

*Noting* paragraphs 16 and 22 of decision XXVIII/2,

1. To request the Executive Committee of the Multilateral Fund to consider flexibility within the financial support provided through enabling activities for HFCs to enable Parties operating under paragraph 1 of Article 5 of the Protocol, who wish to do so, to use part of this support for energy efficiency policy and training support as it relates to the phasedown of controlled substances, such as:

- developing and enforcing policies and regulations to avoid the market penetration of energy-inefficient refrigeration, air-conditioning and heat-pump equipment,
- promoting access to energy-efficient technologies in these sectors;
- targeted training on certification, safety and standards, awareness-raising and capacity-building aimed at maintaining and enhancing the energy efficiency;

2. To request the Executive Committee of the Multilateral Fund to consider, within the context of paragraph 16 of decision XXVIII/2, increasing the funding provided to low-volume consuming countries to assist them in implementing the activities outlined in paragraph 1 of this decision;
3. To request the TEAP to prepare a report on the cost and availability of low-GWP technologies/equipment that maintain/enhance energy efficiency, inter alia, covering various RACHP sectors, in particular, domestic air-conditioning and commercial refrigeration taking into account geographical regions, including countries with HAT conditions;
4. To continue supporting stand-alone projects in Article 5 parties in accordance with Executive Committee decision 79/45;
5. To request the Executive Committee of the Multilateral Fund to build on its ongoing work of reviewing servicing projects to identify best practices, lessons learned, and additional opportunities for maintaining energy efficiency in the servicing sector, and related costs.
6. To request the Executive Committee of the Multilateral Fund to take into account the information provided by demonstration and stand-alone projects in order to develop cost guidance related to maintaining or enhancing energy efficiency of replacement technologies and equipment when phasing-down hydrofluorocarbons.
7. To request the Executive Committee of the Multilateral Fund, in dialogue with the Ozone Secretariat, to liaise with other funds and financial institutions to explore mobilizing additional resources and, as appropriate, set up modalities for co-operation such as co-funding arrangements to maintain or enhance energy efficiency when phasing down HFCs, acknowledging that activities to assist Article 5 parties comply with their obligations under the Montreal Protocol will continue to be funded under the Multilateral Fund in accordance with its guidelines and decisions;”

### **Recommendation**

5. The Executive Committee may wish:
    - (a) To note the Summary of the Parties’ deliberations at the 40<sup>th</sup> Meeting of the Open-Ended Working Group and the Thirtieth Meeting of the Parties to the Montreal Protocol in relation to the Technology and Economic Assessment Panel’s report on Issues related to energy efficiency (decision 81/67(b)), contained in documents UNEP/OzL.Pro/ExCom/82/65 and Add.1. and
    - (b) To consider the information contained in documents UNEP/OzL.Pro/ExCom/82/65 and Add.1 during its deliberations on the development of the cost guidelines for the phase-down of HFCs in Article 5 countries: draft criteria for funding, under agenda item 11(d).
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