



**United Nations
Environment
Programme**

Distr.
GENERAL



UNEP/OzL.Pro/ExCom/91/63
7 November 2022

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-first Meeting
Montreal, 5-9 December 2022
Item 11(b)(i) of the provisional agenda¹

**CRITERIA FOR PILOT PROJECTS TO MAINTAIN AND/OR ENHANCE ENERGY
EFFICIENCY OF REPLACEMENT TECHNOLOGIES AND EQUIPMENT IN THE CONTEXT
OF HFC PHASE-DOWN (DECISION 90/50(b)(i))**

Introduction

1. At their Twenty-Eighth Meeting, the Parties adopted the Kigali Amendment to the Montreal Protocol² and adopted decision XXVIII/2 on issues related to the phase-down of hydrofluorocarbons (HFCs). In paragraph 22 of that decision, the Parties requested the Executive Committee to develop cost guidance associated with maintaining and/or enhancing the energy efficiency of low-global-warming-potential (GWP) or zero-GWP replacement technologies and equipment, when phasing down HFCs, while taking note of the role of other institutions addressing energy efficiency, when appropriate.³

2. At the 89th meeting, the Executive Committee decided *inter alia* to provide additional funding for the introduction of alternatives to HCFCs with low- or zero-GWP and for maintaining energy efficiency in the refrigeration servicing sector for low-volume-consuming (LVC) countries, under the existing and future stages of HCFC phase-out management plans (HPMPs).⁴ Further, after discussions relating to mobilizing financial resources for maintaining and/or enhancing energy efficiency when replacing HFCs with alternatives, the Executive Committee, at its 90th meeting, requested the Secretariat to develop, for consideration by the Executive Committee at its 91st meeting, criteria for pilot projects to maintain and/or enhance energy efficiency of replacement technologies and equipment in the context of HFC phase-down (decision 90/50(b)(i)). This document is prepared pursuant to the decision.⁵

¹ UNEP/OzL.Pro/ExCom/91/1

² Decision XXVIII/1

³ A summary of the decisions and discussions held on this issue up to the 87th meeting is presented in Annex I to document UNEP/OzL.Pro/ExCom/89/12.

⁴ Decision 89/6(b) and (c)

⁵ Two documents (UNEP/OzL.Pro/ExCom/91/64 and UNEP/OzL.Pro/ExCom/91/65) are also prepared in response to sub-paragraphs (b)(ii) and (b)(iii) of the same decision, which requested the Secretariat to prepare an operational

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.

3. In preparing this document, the Secretariat reviewed criteria for similar previous projects covering specific activities (e.g., ODS destruction,⁶ demonstration projects for climate-friendly and energy-efficient alternative technologies to HCFCs)⁷ agreed by the Executive Committee and received input from the implementing agencies on their experience in implementing activities that maintained and/or enhanced energy efficiency during the implementation of conversion projects to low-GWP alternative technologies as part of HPMPs, and projects for conversion from HFCs to low-GWP technologies under decision 78/3(g). The Secretariat consulted technical experts to identify the sectors/applications for potential pilot projects and factors to consider in order to ensure optimum results from these projects.

4. The present document consists of the following sections:

- I. Current context and main objectives for implementing pilot projects for maintaining and/or enhancing energy efficiency of replacement technologies and equipment in the context of HFC phase-down
- II. Qualifying and evaluation criteria for the selection of such pilot projects
- III. Recommendation.

I. Current context and main objectives for implementing pilot projects for maintaining and/or enhancing energy efficiency of replacement technologies and equipment in the context of HFC phase-down

I.1 Current context

5. The Executive Committee approved guidelines for the preparation of Kigali HFC implementation plans (KIPs) at the 87th meeting in July 2021.⁸ KIPs are expected to be developed based on the country's priorities for achieving HFC phase-down. Generally, KIPs *inter alia* are expected to include the overarching strategy for the phase-down of HFCs and a plan of action that would include the refrigeration servicing sector for stage I of the KIPs to address the freeze and 10 per cent reduction in HFC consumption.

6. Guidelines for the preparation of KIPs also allow countries that wish to do so, to describe the national initiatives, policies, regulations, and standards associated with maintaining and/or enhancing energy efficiency in their overarching strategies for stage I of KIPs (decision 87/50(b)(v)).

7. Further, decision 87/50(e) also provides countries that chose to implement individual HFC investment projects or sector plans in advance of submission of stage I of the KIPs, the opportunity to do so, provided that the approval of each project should result in a phase-out of HFCs to count against the eligible consumption identified in the KIPs and should indicate how the investment project would relate to meeting the overarching strategy for the country and when the KIPs would be submitted.

8. The pilot projects are expected to be included as additional activities relating to energy efficiency components for specific projects submitted under KIPs, and/or energy efficiency related components

framework to further elaborate on institutional aspects and projects and activities that could be undertaken by the Multilateral Fund for maintaining and/or enhancing the energy efficiency of replacement technologies and equipment in the manufacturing and servicing sector when phasing down HFCs; and to continue its consultations with the secretariats of the Global Environment Facility and the Green Climate Fund and other relevant funding institutions on opportunities for sharing information on policies, projects and relevant funding modalities relating to maintaining and/or enhancing energy efficiency while phasing down HFCs, and to report back, respectively.

⁶ Decision 58/19, paragraphs 90-95 of document UNEP/OzL.Pro/ExCom/58/53.

⁷ Decision 72/40, paragraphs 165-170 of document UNEP/OzL.Pro/ExCom/72/47.

⁸ Decision 87/50, paragraphs 185-187 of document UNEP/OzL.Pro/ExCom/87/58.

identified in investment projects or sector plans submitted pursuant to decision 87/50(e). Article 5 countries could submit these pilot projects if they wish to do so.

I.2 Manufacturing sector

9. In countries with significant HFC consumption in the manufacturing sector, this consumption is expected mainly in manufacturing domestic refrigerators, commercial refrigeration equipment, residential and commercial air-conditioning equipment and heat-pumps, with relative proportions of the HFC consumption varying depending upon the industry structure. These sectors also provide opportunities for implementing activities for maintaining and/or enhancing energy efficiency due to availability of energy efficient components and applicability of standards (e.g., minimum energy performance standards (MEPS)) for maintaining and/or enhancing energy efficiency.

10. In certain categories of equipment which have high energy consumption levels due to their considerable cooling capacities and levels of use, such as refrigeration equipment in supermarkets and air-conditioning in large commercial buildings (i.e., many of which is used continuously throughout the day), energy-efficient operations for the same levels of cooling demand can be achieved through a wider set of interventions, particularly at the design and fabrication, installation, and operation levels. Through capacity building of enterprises assembling and installing this equipment on energy-efficient components and other design features, opportunities for maintaining and/or enhancing energy efficiency while phasing down HFCs can be realised.

I.3 Servicing sector

11. In the case of the servicing sector, a number of activities relating to maintaining energy efficiency, such as training and capacity building of the service sector on energy efficiency while installing, maintaining and servicing equipment, including certification programmes; policy and regulatory measures for promoting energy efficiency standards for equipment imported and being used in the market; and awareness and information outreach on energy-efficient alternative refrigerant-based equipment, may be developed as pilot projects. In addition, other measures to create a higher demand for energy-efficient technologies (e.g., green labelling and green procurement schemes, low-cost financing of energy-efficient alternative refrigerant-based equipment, sectoral incentives for promoting energy-efficient alternative refrigerant-based equipment), could contribute to adoption of energy-efficient technologies.

I.4 MEPS and labelling schemes

12. Currently, MEPS and labelling schemes allow for supply of equipment (i.e., manufactured and/or imported) at different energy efficiency standards; they also allow consumers to choose energy efficient products, thus creating a demand for such products. MEPS are essential to promote the broader uptake of equipment with higher energy efficiency ratings for Article 5 countries that manufacture and/or import refrigeration, air-conditioning and heat-pump (RACHP) equipment. If appropriately designed, higher MEPS could also facilitate faster adoption of alternatives to high-GWP refrigerant-based equipment and avoid lock-in of those high-GWP refrigerant-based equipment for servicing, which may pose future compliance challenges relating to HFCs.

13. For countries where MEPS are not established and operational, it would be essential to first provide assistance to build the country's capacity to develop these standards to support future energy efficiency related interventions.

14. For implementation of MEPS, processes for monitoring energy efficiency of equipment and establishing testing and certification processes for these equipment need to be developed.

I.5 Institutional coordination

15. Institutional coordination of national ozone units (NOUs) with the country's energy efficiency authorities including standards bodies is critical to ensure that the energy efficiency-related policies and measures implemented in the country take into account HFC phase-down obligations and priorities under the Kigali Amendment. Sustained coordination is essential to ensure that Article 5 countries' obligations and priorities related to HFC phase-down are appropriately considered during the development of national energy efficiency policies and regulations on an ongoing basis, especially provisions relating to the inclusion of the GWP of the refrigerant in the energy efficiency standards, and/or design of other measures such as green labelling and green procurement, for energy efficient products not using high-GWP refrigerants. This coordination will facilitate faster adoption of alternatives to high-GWP refrigerants, development of comprehensive energy efficiency policies, implementation of energy efficiency promotion activities including those funded with non-Multilateral Fund (MLF) funding, and avoid unintended growth in high-GWP HFC-based energy efficient equipment that may cause compliance challenges for achieving Kigali Amendment targets. This sustained collaboration could be achieved through capacity building of the NOUs and relevant energy efficiency authorities on the requirements of the Kigali Amendment and HFC phase-down, and information sharing on the energy efficiency and product and technology development related to alternative technologies, on a regular basis.

I.6 Objectives for the implementation of pilot projects

16. The main objectives of the pilot projects are:
- (a) Understanding benefits and risks based on experience gained from implementing the pilot projects that maintain and/or enhance energy efficiency while phasing down HFCs, in both the manufacturing and servicing sectors and costs of relevant energy efficiency related interventions;
 - (b) Understanding how the introduction of regulatory and policy measures would support adoption and market acceptance of energy efficient alternatives to high-GWP refrigerants;
 - (c) Identifying challenges and opportunities related to institutional coordination with other stakeholders, including capacity of NOUs in handling energy efficiency related activities; and
 - (d) Identifying challenges and opportunities related to monitoring performance of energy efficient technologies/equipment.

17. The outcomes of these pilot projects will demonstrate approaches to maintain and/or enhance energy efficiency in the context of HFC phase-down, which will also contribute to additional reductions in greenhouse gas emissions consistent with goal 13 as well as other goals of the UN Sustainable Development Goals.⁹

II. Qualifying and evaluation criteria for the selection of pilot projects

18. The following qualifying and evaluation criteria may be considered when identifying pilot projects based on the objectives listed in paragraph 16 above.

⁹ Sustainable Development Goal 13 aims to "take urgent action to combat climate change and its impact".

II.1 Qualifying criteria

19. Projects related to the activities listed below may be considered for pilot projects:

Manufacturing activities

- (a) Conversion projects in manufacturing domestic refrigeration, standalone commercial refrigeration, residential and commercial air-conditioning and heat-pumps to maintain and/or enhance energy efficiency while converting from HFCs, can be considered on priority;
- (b) Conversion projects in other sectors such as mobile air-conditioning, transport refrigeration, can be considered on a case-by-case basis;

Assembly and installation activities of large commercial and industrial RACHP equipment

- (c) Projects for technical assistance to assembly and installation of equipment that would result in adoption of technologies to maintain and/or enhance energy efficiency while converting from HFCs and demonstrate replicability and scalability in the country or region can be considered on priority;

Servicing activities

- (d) Projects in the servicing sector including, but not be limited to, activities identified in decision 89/6(b) can be considered on priority in the context of KIPs, except for those activities that had already been funded under decision 89/6(b) in the context of the relevant HPMP of the country;

Technical assistance for small and medium enterprises (SMEs) in manufacturing and assembly/installation

- (e) Projects for technical assistance for SMEs to support the adoption of energy efficient technologies and alternatives while phasing down HFCs can be considered on a case-by-case basis, provided such technical assistance projects assist these beneficiaries in maintaining and/or enhancing energy efficiency while phasing down HFCs;

Testing, monitoring and certification centres

- (f) Establishment of national/regional energy efficiency testing, monitoring and certification centres may be considered on priority, provided they demonstrate direct linkages with maintaining and/or enhancing energy efficiency while phasing down HFCs, in the country/region and mechanisms for sustainable operation of the centre(s).

20. In addition, these projects are also expected to meet all the conditions listed below:

- (a) That these are submitted in the context of HFC phase-down of KIPs, as a part of KIPs and/or as an individual stand-alone project in the manufacturing, assembly/installation, and servicing sectors;¹⁰
- (b) That there is confirmation from the Government concerned that:
 - (i) The country has MEPS and a mechanism to monitor and assess their

¹⁰ Decision 87/50(e)

implementation, for the relevant sector/application;

- (ii) The NOU would coordinate with relevant energy efficiency authorities to include the GWP of the refrigerants in the energy efficiency standards for the sector and to improve the energy efficiency standards sustainably, beyond the project timeframe, in the relevant sectors/applications, where feasible;
 - (iii) The project would not result in duplication of MLF-funded activities with those funded from non-MLF sources, if recipient Article 5 countries have mobilized or will mobilize funding from non-MLF sources for energy efficiency components;
 - (iv) The information on the project progress, results and key learnings would be shared in the relevant tranche or project progress reports, annual financial progress reports, and network meetings;
 - (v) The date of completion would be set no later than 36 months from the date of approval by the Executive Committee and a detailed project report would be submitted to the Executive Committee, within six months from the date of completion of the project; and
- (c) For countries that do not have MEPS, only those projects that would contribute to MEPS development and initial awareness and capacity building initiatives for enforcement would be considered on the understanding that the conditions referred to in sub-paragraphs b(ii) to b(v) above will apply.

II.2 Evaluation criteria

21. The Secretariat will consider the following criteria for evaluating the pilot project proposals that may be submitted for consideration by the Executive Committee, and summarize the outcome of the evaluation in the relevant project document for the Committee's consideration:

- (a) Defined targets for:
 - (i) Percentage increase in energy efficiency levels compared to baseline levels; and
 - (ii) Total energy consumption reduction impact in kWh;
- (b) Replicability in the relevant sector/application in the country and/or beyond geographic boundaries; and
- (c) Ratio of funding requested to estimated kWh of energy saved (US \$/kWh).

22. In the case of projects that cannot be directly linked to conversion to energy efficient technologies and targets of energy efficiency improvement, the information on the project activities along with the need for these activities, the activities' outputs (e.g., number of respondents covered under awareness programmes, number of trainees trained) and broader impact based on project review process could be considered by the Secretariat for evaluation.

III. Recommendation

23. The Executive Committee may wish:

- (a) To note the information provided in criteria for pilot projects to maintain and/or enhance energy efficiency of replacement technologies and equipment in the context of HFC phase-down (decision 90/50(b)(i)) contained in document UNEP/OzL.Pro/ExCom/91/63;
- (b) To consider the following criteria when selecting pilot projects to maintain and/or enhance energy efficiency of replacement technologies and equipment in the context of HFC phase-down:
 - (i) To support only projects related to activities included in sub-paragraph 19(a) to (f) of document UNEP/OzL.Pro/ExCom/91/63;
 - (ii) That those projects are submitted in the context of HFC phase-down, as a part of Kigali HFC implementation plans and/or as investment projects or sector plans in the manufacturing, assembly/installation, and servicing sectors;
 - (iii) That projects submitted for consideration should include a confirmation from the Government concerned that:
 - a. The country has minimum energy performance standards (MEPS) and a mechanism to monitor and assess their implementation, for the relevant sector/application;
 - b. The national ozone unit would coordinate with relevant energy efficiency authorities to include the global warming potential of the refrigerants in the energy efficiency standards for the sector and to improve the energy efficiency standards sustainably, beyond the project timeframe, in the relevant sectors/applications, where feasible;
 - c. The project would not result in duplication of Multilateral Fund (MLF)-funded activities with those funded from non-MLF sources, if recipient Article 5 countries have mobilized or will mobilize funding from non-MLF sources for energy efficiency components;
 - d. The information on the project progress, results and key learnings would be shared particularly in relevant tranche or project progress reports, annual financial progress reports, and network meetings;
 - e. The date of completion would be set no later than 36 months from the date of approval by the Executive Committee and a detailed project report would be submitted to the Executive Committee, within six months from the date of completion of the project;
 - (iv) For countries that do not have MEPS, to consider only projects that support MEPS development and initial awareness and capacity building initiatives for enforcement on the understanding that the conditions referred to in sub-paragraphs b(iii)b. to b(iii)e. above will apply; and

- (c) To consider whether to establish a funding window for pilot projects to maintain and/or enhance energy efficiency of replacement technologies and equipment in the context of HFC phase-down, following the criteria identified in sub-paragraph (b) above.
