



Multilateral Fund

for the Implementation of the Montreal Protocol

Key considerations for the refrigeration servicing sector

Presented by the Fund Secretariat

Joint Network Meeting of Ozone Officers of Latin America and the Caribbean

Kingston, Jamaica, 1-4 October 2013



Multilateral Fund

for the Implementation of the Montreal Protocol

Context

- Decision 68/11
 - The Executive Committee decided to request the Secretariat, in consultation with the bilateral and implementing agencies, to prepare a discussion paper for the 70th meeting outlining key issues and considerations involved in further promoting strategies, approaches and technologies to minimize any adverse climate impacts of HCFC phase-out in the refrigeration servicing sector in the context of decision XIX/6 of the Nineteenth Meeting of the Parties.
- A paper was prepared and presented to the 70th Meeting which generated extensive discussions among members.
- The Executive Committee subsequently agreed to defer consideration of the discussion paper on minimizing the adverse climate impact of HCFC phase-out in the refrigeration servicing sector to its 71st meeting.



Multilateral Fund

for the Implementation of the Montreal Protocol

Doc 70/53 - MINIMIZING ADVERSE CLIMATE IMPACT OF HCFC PHASE OUT IN THE REFRIGERATION SERVICING SECTOR

- Document was well received by members of the ExCom
- Recommendation (c) of the document which stated:
 - (c) Encourage Article 5 countries to consider during the implementation of their HPMPs:
 - (i) The development of regulations and codes of practice, and the adoption of standards for the safe introduction of flammable refrigerants given the potential risk of accidents associated with their use; and
 - (ii) Measures to limit the import of HCFC-based equipment and to facilitate the introduction of energy efficient and climate friendly alternatives.



Multilateral Fund

for the Implementation of the Montreal Protocol

Doc 70/53 - MINIMIZING ADVERSE CLIMATE IMPACT OF HCFC PHASE OUT IN THE REFRIGERATION SERVICING SECTOR

- Some concerns expressed by Article 5 countries on the recommendation:
 - Article 5 countries felt that technical support would be required to meet these recommendations, if adopted;
 - Difficulties in setting standards if international standards do not yet exist;
 - Technical assistance would also be required for technician certification and such measures;
 - Limiting import of HCFC-based equipment might result in perverse incentives for importing equipment using high-GWP substances;
 - Concern over lack of mature technology to replace HCFC-equipment.



Overview of HPMP approvals globally

- 138 countries have received funding for stage I of their HPMP
 - 86 are LVCs
 - 52 are non- LVCs
- All stage I HPMPs contain activities for the refrigeration servicing sector, for many LVCs, this is what constitutes their HPMP.
- Most LVC countries have committed in their Stage I HPMP to meet the 35 per cent reduction target under the Montreal Protocol
- Almost all LVC countries use HCFC-22 only for servicing, and where it is used in some manufacturing, it will lead to eventual service use in the future.



Multilateral Fund

for the Implementation of the Montreal Protocol

Components currently part of stage I HPMP for the servicing sector

- ODS related policy and customs training;
- training of refrigeration technicians;
- recovery, recycling and reclamation; and
- retrofit and equipment replacement



Multilateral Fund

for the Implementation of the Montreal Protocol

Using existing activities, Article 5 countries can already start thinking of ways to minimize climate impact for the servicing sector.

HOW?



Multilateral Fund

for the Implementation of the Montreal Protocol

Key considerations when deciding/implementing activities in the servicing sector

- On minimizing adverse climate impact
 - Does the servicing sector strategy contain activities that would influence technology change especially for new, factory charged equipment (including assembly)?
 - Are there any activities or initiatives that encourage the reduction of charge size during the design, assembly and installation of refrigeration equipment?
 - What incentives are in place to encourage equipment owners to improve equipment performance and energy use?
 - For larger systems, is there a way to measure and identify main sources of refrigerant loss?
 - Have the difficulties to reduce leaks been identified?



Multilateral Fund

for the Implementation of the Montreal Protocol

Key considerations when deciding/implementing activities in the servicing sector

- On introducing alternatives that minimize climate impact
 - What are the alternatives being promoted as part of the HPMP in:
 - New refrigeration systems
 - Servicing of existing refrigeration systems
 - Are the main barriers to the introduction of alternative refrigerants and technologies identified, and are there activities in the HPMP that could remove these?



Multilateral Fund

for the Implementation of the Montreal Protocol

Key considerations when deciding/implementing activities in the servicing sector

- On enhancing local capacity to operate with alternatives that minimize climate impact
 - Legislative measures
 - Regulations, codes of good practice and standards for refrigerants that may be difficult to handle (i.e. flammable) so that these may be used for servicing or in new systems based on these.
 - Collaboration with the Customs authority for systematic and proper recording of these refrigerants and their handling;
 - Other measures (i.e. mandatory reporting, fees for imports, bans on uses of certain substances, licensing systems, etc)
 - How is LPG regulated today in your country? Who is involved and how does it work?



Multilateral Fund

for the Implementation of the Montreal Protocol

Key considerations when deciding/implementing activities in the servicing sector

- Training and certification
 - Long term sustainability of training programmes, proposals on how these may be fully institutionalized under the formal or vocational curriculum;
 - Consideration not only of mandatory technician certification but ensuring that only certified technicians could handle and access such refrigerants. Barriers to this to be identified and resolved.

- Refrigeration associations
 - Are there any established? What is the size and influence and how are these associations related to HPMP implementation? Are these considered in the HPMP?



Multilateral Fund

for the Implementation of the Montreal Protocol

Key considerations when deciding/implementing activities in the servicing sector

● Recovery, Recycling, and Tooling

- Consideration of the lessons learned from the CFC phase-out on these activities, and how these lessons are integrated into the HPMP
- Possible opportunities for energy-efficiency programme aimed at exchanging old inefficient equipment with energy efficient ones (i.e. GEF projects such as those EE programmes in Brazil, Cuba, Colombia)
- Understanding the share of energy use associated with RAC for households as well as with total energy use would help develop domestic programmes with energy authorities



Multilateral Fund

for the Implementation of the Montreal Protocol

Key considerations when deciding/implementing activities in the servicing sector

- **Retrofitting**

- Sustainability - page 7 of Annex III of doc 70/53

- Safety

- To what extent are equipment currently being retrofitted with flammable refrigerants. Has an analysis been done on the scope of current use versus potential future use?



Multilateral Fund

for the Implementation of the Montreal Protocol

Key considerations when deciding/implementing activities in the servicing sector

- If this is current practice (i.e. use of flammable refrigerants), it might be important to understand the following:
 - Type of equipment being converted
 - Alternatives being used and their price
 - Safety protocols being currently used (formal or informal)
 - Performance of converted equipment versus original
 - Who does retrofits? Certification required? Are formal trainings in place?
 - What is done in case of an accident? Have there been such cases?
- To what extent can this be replicated in the country and under which conditions



Multilateral Fund

for the Implementation of the Montreal Protocol

These are ideas that can start the thinking process for activities specific to the servicing sector, and are meant for guidance only. Each country will have to design their activities according to needs and situations.

Thank you for your attention.