HCFC Phase out Management Plan (HPMP) Stage-II for Compliance with the Post 2015 control targets for Annex-C, Group-1 substances in Lebanon.

General Information

Short Title: HCFC Stage II
UNDP Programme/Portfolio: Environment & Energy
Geographic Coverage: Lebanon
Project Status: Ongoing
Start Date: 15 August 2016
Expected End Date: 31 December 2025
Implementing Agency: Ministry of Environment (MoE)
Last Updated: 01 November 2019

Contact Information

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Classification

MDG Goal: 11. Sustainable cities and communities

Donors & Budget

MP $4,203,826.00
Total $4,203,826.00

Target Groups /Beneficiaries
- Industries

Project Details

Background
Hydrochlorofluorocarbons (HCFCs) are classified as controlled substances under Annex-C Group-I of the Montreal Protocol and are subject to the adjusted control schedule for Article-5 countries; to freeze the consumption at baseline levels from 2013 and reduction of 10% from baseline levels from 2015.

HCFCs are used in Lebanon in various industry sectors, such as Air Conditioning, Refrigeration, and Foams. The predominant HCFC used is HCFC-22 mainly in the Refrigeration and Air Conditioning Sectors. HCFC consumption in Lebanon increased from 413 metric tons in 2008 to 941 metric tons in 2014, indicating an average annual growth rate of about 15%. The main reason for this growth is the sustained economic development and resulting increase in demand for consumer, commercial and industrial products that use HCFCs.

In order to meet the reduction targets for the years 2020 and beyond, the industry, consumers and government will need to make tremendous efforts. This will involve phasing out HCFC use in major manufacturing sectors as well as the servicing sector and reducing dependence on HCFCs and controlling and reducing HCFC use wherever possible in the servicing sector. The main constraints for transitioning from HCFCs to alternative environment-friendly substitutes is the dependable and economic availability of benign and sustainable substitutes and the limited time available for implementing phase-out actions for compliance. Extraordinary efforts will be needed to curb the momentum of inevitable growth in HCFC consumption in sectors, mainly the Servicing Sector, that are not addressed through this proposal. Besides, this phase-out has to be achieved with minimum or zero phase-in of high GWP substances such as HFCs/HFC blends and energy efficient solutions.

For achieving HCFC phase-out, HPMP Stage-I was prepared and approved in the year 2011 for achieving phase-out targets up to 2017. This was successfully implemented and Lebanon is at final stages of implementation. HPMP Stage-II for achieving phase-out targets up to 2025 was approved in the 75th meeting of the Executive Committee held in Montreal in November 2015 and would help Lebanon progress towards complete phase-out of HCFCs by 2025.

Achievements & Expected Results

1. Achievements
   - The HPMP Stage-II preparation fund resulted in the preparation of the final strategy of the phase-out of the remaining HCFCs consumption in all sectors (foam, air-conditioning, refrigeration and servicing sectors);
   - The first and second milestones activities related to the Foam and Air-conditioning enterprises under the context of the MOAs were completed and delivered on time;
   - Coordination and follow up with the beneficiaries of the work to be done in meeting the last milestone;
   - Preparation of a strategy and plan of activities to address the air-conditioning and refrigeration service sector.
   - Preparation for Kigali Amendment signature.

2. Expected Results
In addition to the technical and financial support that will be provided to the industries, the project will provide technical support to over 500 technical workshops, 11 vocational schools and 1000-1500 technicians in the air conditioning and refrigeration servicing sector through the following indicative actions:
a) Equipment support to servicing workshops (400-500 workshops) and vocational schools (2 schools)
b) Training on good servicing practices, particularly on recovery and reclamation programs:
   - Train the trainers’ program (this training will take place in Germany for a total number of 3 trainers). This will be done in 2017 and another one probably by 2020-2022.
   - Training on good practices addressed to service technicians (1000 technicians), an estimated number of 40-50 training sessions (2-3 days per session). This program is scheduled to be conducted before 2020. In 2025, a similar activity will be planned depending on the new hydrocarbon technology that will be introduced in this sector.
   c) Equipment support to service technicians (100-200 technicians)
   d) Production of training manuals to service technicians (1000 copies), containing all applications of non-ODS refrigerants for the RAC sector in general and focusing on theoretical and practical applications and training on ODS alternatives.

**Issues & Difficulties**
- Delay in importation, installation and commissioning and start-up of equipment, leads to delays in commissioning the industries beyond end of year;
- The MAC servicing sector in Lebanon is an informal sector, therefore the data collected will be "best of"
- Legislations are time-consuming, therefore delays are anticipated