

TERMS OF REFERENCE (TOR)

17 September 2019

Pilot Demonstration Project for Refrigerant Recovery and Reclamation (RRR) Service for Egypt

General Background Information

As a signatory to the Montreal Protocol, Egypt is required by the international agreement, to control the import and use of ozone depleting substances and to phase out the use of these substances over prescribed period of time. A group of such substances includes hydrochlorofluorocarbons (HCFC) refrigerants such as R-22.

The HCFC Phase-out Management Plan (HPMP) Stage II was approved at the 79th meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol in July 2017. Activities of the first Tranche of the HPMP Stage II focus on the foam sector and refrigeration service sectors, as well as policy and enforcement measures for improved control of HCFCs that fall under the several Ministries and industries.

To implement the control and phase out of HCFCs a number of legal provisions will be put in place including the control of import and sale of HCFCs through a reducing quota system and the anticipated regulations to make the recovery and reclamation of refrigerants mandatory for all refrigeration service operations.

An evaluation was undertaken by UNIDO to assess the viability of the market in Egypt to set-up a refrigerant reclamation center. Mandatory regulations will be developed to encourage the recovery and reclamation of refrigerants. A pilot demonstration project for refrigerant recovery and reclamation service is to be implemented within the HPMP to demonstrate the feasibility and operability of a successful RRR facility. The success in establishing and operating a RRR facility will lead to smoothening of the phase-out of HCFC-22.

I- Scope of the proposed Contracted Services

Since Recovery, Recycling and Reclaim of HCFC refrigerants will be made mandatory, the project will implement a pilot project for the HCFC (R-22) Reclamation in Egypt. The objective is to ensure supply of recovered and reclaimed HCFC-22 to local servicing market, thereby reducing demand for virgin HCFC-22 and reducing the consumption. The success in establishing and operating of the center can lead to smoothening of the phase-out of HCFC-22.

The reclaim center, when operating, will set a solid foundation for the promotion of the recovery/recycling/reclaim business of HCFC-22 in Egypt and assist in reducing consumption and remaining in compliance

Bidders are invited to submit a proposal for the provision of a centralized pilot reclaim facility and the operation of a refrigerant recovery and collection network for Egypt, including the logistics of getting the refrigerant from and to the market.

Basic capital equipment including the reclaim machine, storage cylinders and recovery equipment to be used in the field will be supplied free of charge. Additional equipment may be required – this is at the expense of the center itself. The entity awarded the contract will be responsible for the provision of suitable premises, work force and all resources required for the day to day operation of the scheme.

Any revenues and profits generated by the service will be retained by the operating entity.

Bidders are requested to provide a proposal with the following sections, any other relevant information not covered by the following headings can be added in the final section:

1. Company description

Provide a description of your company including the following information: History, line of business, affiliations, financial strength, ownership, facilities.

2. Motivation

Motivate your intention to operate the reclaim center.

3. Approach

Describe your overall approach to setting up and operating a refrigerant recovery and reclaim scheme. Who are the key stakeholders, how will you engage with them and what problems do you foresee in establishing the scheme? How will you ensure that the scheme becomes well known to users and is available to any company or individual that has refrigerant to be recovered. Who would be the target customers / users, how would you prioritize recovery activities to maximize recovery volumes?

4. Operating Model

Describe how you foresee the scheme working; in particular how will recovery equipment (machines and cylinders) be managed, how will recovered refrigerant be collected and transported to your reclaim plant.

5. Equipment

Equipment for the establishment of 1 Refrigerant Recovery and Reclaim Centre will

include the following:

Item	Name and required parameters	QTY
	I. Equipment, parts, supplies	
1	High flow rate recovery units	2
2	Portable recovery units	20
3	Reclamation unit with 2HP compressor	1
4	1000 lbs tanks	2
5	500 lbs tanks	4
6	100 lbs tanks	15
7	Assorted refrigerant storage tanks	50
8	Evacuation and cleaning/drying station for the cylinders	1
9	Advanced type of identifier to test the quality of the refrigerant	1

Describe the facilities and network you currently have available for the reclaim project; as well as the facilities/ equipment you will procure for the project.

6. Commercial Model

Provide an outline of the commercial model you envisage; how will recovery be incentivized, what price (or range) will be paid for recovered refrigerant, what price would be charged for reclaimed refrigerant; what price would be charged for a "reclaim only" service where a customer brings refrigerant to the reclaim plant directly. What, if any, deposit would be required for cylinders.

7. Estimated / Target Recovery Volumes

Based on your knowledge of the refrigeration service sector in Egypt and your approach to setting up a reclaim scheme what are your estimated target recovery volumes for years 1, 2 and 3 of operation of the scheme. Please also indicate the main risk factors in achieving these targets and in operating a sustainable system.

8. Disposable (non-refillable) Cylinders

Please comment on the impact for the scheme you would foresee if disposable refrigerant cylinders were banned in Egypt. Would it make the scheme more or less sustainable, please explain your reasoning?

9. Time schedule

Advise the time frame you will need to get the project up and running.

10. Other Considerations

Please provide any further relevant information.

II- Evaluation

A group of experts under the auspices of the National Ozone Unit - Egyptian Environmental Affairs Agency will evaluate the bids received on the basis of:

- The current position in the refrigerant market place of the bidder
- The plan to go forward on the reclaim project
- The motivation of the bidder
- Available facilities
- Personal interviews

Note:

Please note that whichever company receives the equipment will need to report periodically on the implementation of the project. The NOU can make site visits to the company which receives the equipment for verification/inspection on the operations. The company which receives the equipment must use the equipment for the purpose of the project and should not dispose/move the equipment unless agreed by the NOU. In case the company does not use the equipment for the purpose of the project, the NOU can decide to retrieve the equipment to be used at another entity.

The proposal may be submitted in either English or Arabic.

Please submit your proposal to the attention of the National Ozone Office (EAA) at the following address office.egypt@unido.org by Oct. 20th, 2019.