

## **Terms of Reference and Scope of Services**

### **Term of Reference (TOR)**

#### **Technical Officer**

#### **(DIW-HPMP-CS-19)**

### **HCFC Phase out Management Plan (HPMP)**

#### **A. Introduction**

1. Thailand ratified the Montreal Protocol in 1989, and ratified the London Amendment of the Montreal Protocol on Substances that Deplete the Ozone Layer in 1991. The Department of Industrial Works (DIW) has been empowered by the Government of Thailand as the focal point to the Montreal Protocol on Substances that Depletes the Ozone Layer, which aims to phase-out consumption of ozone depleting substances (ODS) within specific date under the Protocol. The National Ozone Unit (NOU) was established within DIW to be responsible for the implementation of the Montreal Protocol-related activities to ensure that Thailand would fulfill all obligations under the Montreal Protocol.

2. The Executive Committee (ExCom) of the Multilateral Fund for the Implementation of the Montreal Protocol (Multilateral Fund) approved financial assistance to Thailand through the Institutional Strengthening Project (IS Project) to strengthen capacity of the NOU. At the 68<sup>th</sup> Meeting of the ExCom in December 2012, a request for renewal of the IS project has been approved to Thailand. The IS Project would enable the NOU to (i) monitor import and export of ODS and to report to the UNEP Ozone Secretariat in accordance with Article 7 of the Montreal Protocol, (ii) establish import/export quotas of ODS for all importers/exporters and liaising with other government agencies including the Customs Department to ensure the effective control of the borders to preempt any illegal shipments of ODS in and out of the country, (iii) provide progress reports in the implementation of the country program, national ODS phase-out program, on an annual basis, (iv) carry out public awareness activities, information exchange with stakeholders in the country, including both public and private sectors, and stakeholders in other Article 5 countries within the region and (v) participate in all international meetings related to the Montreal Protocol, including meetings of the Parties, UNEP networks of ozone officers, and other meetings organized by all implementing agencies of the Multilateral Fund.

3. At the same meeting, the ExCom also approved the HCFC Phase-out Management Plan Stage I (HPMP) to Thailand to enable Thailand to freeze HCFC consumption at the baseline level in 2013, 10% reduction from the baseline level in 2015 and 15% reduction from the baseline level in 2018. HPMP Stage I will phase-out the use of HCFC-22 as refrigerants used by 12 air conditioners manufacturing by converting to the use of HFC-32 as refrigerant. The Project will also phase-out the use of HCFC-141b in the entire polyurethane (PU) foam sector, except for the spray foam sub-sector where low carbon alternatives are not yet available. The proposed alternatives for Stage I of the PU foam sector are hydrocarbons, water and HFCs. The HPMP Stage I comprises of (i) investment component to assist HCFC consuming industry to convert to non-HCFC and low GWP alternatives to reduce HCFC consumption in foam and air-conditioning manufacturing sector, (ii) technical assistance activities to assist concerned stakeholders to support the expeditious conversion from HCFC to non-HCFC technology and to ensure sustainability of this transition and

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(iii) project management at DIW and the Government Savings Bank (GSB) to manage and coordinate implementation of the Thailand HPMP Stage I.

4. Both HPMP Stage I and IS Project are implemented through the World Bank and in accordance with the World Bank Policies and Guidelines and the guidelines of the Montreal Protocol. To channel funding from HPMP Stage I and IS Project to Thailand, the new Grant Agreement for HCFC Phase out Project between Thailand and the World Bank was signed for the implementation on November 13, 2014.

5. DIW will hire an individual consultant as the **Technical Officer** under the HPMP Project to assist the NOU in the implementation HPMP Stage I. Overall and specific responsibilities of Technical Officer are described below.

### **B. Overall Responsibilities**

6. The Technical Officer will work under supervision of the NOU, the International Strategies and Treaties Bureau, Department of Industrial Works. The overall responsibility of the Technical Officer is to carry out day-to-day management and to assist the NOU in (i) preparation, implementation and monitoring of investment sub-project in air-conditioning, commercial refrigeration and foam sectors, (ii) preparation, implementation and monitoring of technical assistance activities in the air-conditioning sector and foam sector (iii) undertaking other assignments as assigned by NOU.

### **C. Specific Responsibilities**

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Details of the specific responsibilities are described in this Section:

- Review ExCom's and MOP's decision and provide summary and recommendation to DIW
- Develop of annual plan for monitoring and implementation of HPMP
- Prepare semi-annual and annual reports, e.g. Semi-annual Progress Report, Annual Progress Report, HPMP Project Completion Report, and Other Report as required by World Bank/ExCom
- Compile and prepare the relevant data for refrigerants being used in relevant industry
- Liaise with local industry and technical team of relevant IAs
- Facilitate development of a large number of small foam projects
- Review, follow-up, and monitoring safeguard plan/implementation by beneficiary enterprises
- Prepare the progress activity reports of beneficiary enterprises
- Support the technical assistance activities for air-conditioning and foam sectors; liaise with the beneficiary enterprises that have participated with HPMP; monitor and follow-up the plans/activities
- Develop an action plan to assess the HCFC demand in the spray foam; assess the market network situations and develop monitoring plan to ensure no diversion of HCFC to banned application



- Co-ordinate, support, and work with local authorities concerned and designated consultant for Technical Assistance (TA) activities to promote public awareness for non-HCFC refrigerants in refrigeration and air-conditioning systems
- Support and assist in Risk Assessment Study for spray foam industry
- Support and co-ordinate with local authorities and stakeholders concerned for the procurement of necessary equipment required for training center, institutions, etc.
- Prepare the report of the meetings (if necessary)
- Others – any other assignments as assigned by the NOU

#### **D. Experience and Qualifications**

7. The Technical Officer should have at least a Bachelor degree in the area of science, engineering, environment or other related fields. Computer skill, willingness to work hard, and good command of English (writing and speaking) are considered essential. The Technical Officer should have at least 3 years of working experiences as an engineer or a technical officer with project implementation skills.

#### **E. Duration and Performance Evaluation**

8. This is 21 months assignment from April 1, 2017 to December 31, 2018. The consultant will be responsible for the tasks indicated in this TOR.

9. Performance of the consultant will be evaluated on the annual basis at the end of each calendar year. Depending on the performance of the consultant, there is possibility of contract renewal, but subject to the World Bank no objection.

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