**Terms of Reference for**

**Investigation of HCFCs dealers in 2020-2021**

**Ref No.: Pro-CS-3**

A. Background

At the 19th Meeting of the Parties in September 2007, the Parties agreed to accelerate the HCFCs phase-out schedule. As an Article 5 Party, China is required to freeze the production and consumption of HCFCs at the average level of 2009 - 2010 (baseline) by 2013, realize 10%, 35%, and 67.5% reduction in 2015, 2020 and 2025, respectively, and completely phase out HCFCs in 2030 with a limited production and consumption to meet residual demand in the service sector during the period 2030 – 2040.

At its 69th Meeting, the Executive Committee, approved the HCFC Production Phase-out Management Plan (HPPMP) for China. The total compensation for the complete phase-out of HCFC production for controlled uses in accordance with the Montreal Protocol phase-out schedule was approved, in principle, and is not to exceed US $ 385 million according to Executive Committee Decision 69/28(e). US $ 95 million, which was approved for the Stage I HPPMP, covered the reduction of HCFC production for controlled uses from the starting point, 2010 level, to the baseline level by 2013 and to 90 per cent of the baseline by 2015. The Stage I HPPMP was completed at end of 2018.

To maintain HCFC production phase-out momentum of the Stage I HPPMP, China submitted the Stage II HPPMP Project addressing production reduction to meet the 35% and 67.5% production reduction targets in 2020 and 2025, for ExCom’s consideration. At its 81st meeting, the ExCom has not yet approved the resubmitted Stage II HPPMP for China, but approved, on an exceptional basis, $23 million for China to continue its production reduction to 22,742 ODP tons by 2018.

At its 86th meeting, the ExCom has approved, in principle, the revised Stage II HPPMP for China for the period 2018-2026 to reduce HCFCs production for controlled uses by 67.5 percent and 71.5 percent of the baseline, by 2025 and 2026, respectively, in the amount of US $ 67 million and including the sum of $ 23 million already approved in Decision 81/71(b).

There are 40 categories of HCFCs controlled under the Montreal Protocol. Currently, HCFCs produced and consumed in China include: HCFC-22, HCFC-123, HCFC-124, HCFC-141b, HCFC-142b and HCFC-133a These HCFCs are trading in the chemical industrial market through producers to dealers and consumers for refrigerant, blowing agent, solvent controlled uses and chemical industry feedstock uses.

HCFCs purchase and sale process management is a very important part of HCFCs management system. Dealers are an important connection between the production and consumption of HCFCs. In order to achieve the compliance targets of HCFC production sector, China issued specific policies relevant to HCFCs dealers to manage the circulation of HCFCs and ensure the implementation of HPPMP, including registration mechanism and data reporting mechanism for HCFC dealers. The HCFCs dealers which have a trade amount over 1,000MT annually should register in MEE while having a trade amount less than 1,000MT annually should do registration in local EEBs. Moreover, China has undertaken the Investigation of CFCs and HCFCs dealers in 2010 to understand the trading process network of these chemical substances. In the year of 2010, there were 42 HCFCs dealers participated in the investigation, covered all kinds of HCFCs and six consumption sectors for ODS use and for feedstock use including PTFE, PVDF.

As per the 2020-2022 Technical Assistance Activities Implementation Plan of resubmitted Stage II HPPMP, China should ensure the following up with HCFCs dealers current practice and related data by conducting the comprehensive investigation of HCFC dealers in China in the year of 2020 and 2021. The recommendations and suggestions for the management and supervision of HCFCs dealers will be put forward as well.

B. Objectives

The main objectives of the investigation are to:

* Have a broad understanding of HCFCs dealers’ distribution in China in 2020 and 2021;
* Have a full understanding of HCFCs dealers registered in MEE (Primary Dealer) in China in 2020 and 2021;
* Have a broad understanding of HCFCs dealers registered in provincial departments, that have directly traded with dealers registered in MEE (Secondary Dealer) in China in 2020 and 2021;
* Establish the purchase and sale amount for both ODS and feedstock use;
* Investigate whether there is any reselling of HCFCs for ODS use by the feedstock dealers or any reselling of HCFCs for feedstock use by the ODS dealers;
* Analyze the flow of the HCFCs purchase and sale process from the dealers and briefly expected the trend of the chemical industrial market of HCFCs for ODS use and feedstock use in the future three years(2022-2024), as well as to put forward suggestions to strengthen the management of HCFCs purchase and sale.

In this investigation, Primary Dealer means the HCFCs dealers registered in MEE with a total amount of HCFCs dealing equal to or more than 1,000 MT in 2020 and 2021. There are 105 Primary Dealers in 2020 and 112 Primary Dealers in 2021. Secondary Dealer means the HCFCs dealers have directly traded with Primary Dealers and registered in local EEBs with a total amount of HCFCs dealing less than 1,000 MT in 2020 and 2021. Producer means the HCFCs producers in HPPMP with the right to purchase and sale both ODS use and feedstock use of HCFCs.

C. Scope of Work

The work under this project will include the following parts:

1. **Questionnaire preparation, distribution and collection**

The consultant should develop comprehensive questionnaires for primary dealers and secondary dealers respectively and secure endorsement of FECO/MEE prior to distribution of such questionnaires to dealers. Once the endorsement is secured, the consultant will initiate the survey by distributing the questionnaires to all MEE registered dealers in the years of investigation and ensure that proper feedbacks are provided by the targeted group. The content of questionnaire should cover, but not limited to, the information as shown in Section 2) below.

The consultant should communicate with the primary dealers by telephone, mail or fax, to ensure that the questionnaires are filled out correctly and include all key information and are returned on a timely manner. The questionnaire recovery rate of primary dealers should be 100%.

Based on collected information from questionnaires about the directly trades between HCFCs primary dealers and secondary dealers, the consultant should broaden the list of HCFCs dealers and distribute the questionnaires to the secondary dealers and get proper feedbacks from them. The questionnaire recovery rate of secondary dealers should be at least 60%.

Based on collected information and feedbacks from HCFC dealers, the consultant should conduct a desk review and prepare a list of primary dealers to be visited on site. On-site visits/investigation should cover at least 40% of HCFCs primary dealers in the year of investigation.

1. **Site Visit and Investigation**

The consultant should visit at least 40% of the Primary Dealers in the years of investigation, to collect the information as below:

1. Information about the HCFCs primary/secondary dealers
	* Enterprises’ general situation;
	* The kinds of HCFCs of purchase and sale for ODS/feedstock use, including HCFCs mixtures (if any);
	* The internal management and related professional staff of HCFCs purchase and sale process;
	* Purchased HCFCs warehouse location and capacity (if any), warehouse establishment date, the number and capacity of storage tanks, latest warehouse modifications and/or expansions;
	* The MEE registration number in the year of investigation of primary dealers;
	* The provincial registration certificate in the year of investigation of secondary dealers;
	* The list of HCFCs producers/secondary dealers/consumers that have direct trades with primary dealers;
	* The list of HCFCs dealers that have direct trades with secondary dealers (Tertiary Dealers);
	* The distribution and cooperation situation of the HCFCs producers/secondary dealers/consumers that have direct trades.
2. Information about the HCFCs purchase and sale process
	* From where they purchase the HCFCs (producers/primary dealers/secondary dealers);
	* To where they sale the HCFCs (primary dealers/secondary dealers/consumers);
	* The BOY and EOY inventory of the primary dealers;
	* HCFCs purchase amount of ODS/feedstock use in the year of investigation from the producers/dealers;
	* HCFCs sale amount of ODS/feedstock use and different consumption sectors in the year of investigation to the dealers/consumers;
	* The HCFCs purchase and sale process originated from primary dealers;
	* The HCFCs mixtures sale process, HCFCs ratio and amount(if have);
	* Prospective HCFCs purchase and sale in the future three years;
	* Other information as necessary for a complete picture of the dealer and its purchase and sale process of HCFCs.

Additionally, in the process of analyzing the questionnaires, the data confirmation should be implemented as below:

* + The check and review of data will be conducted onsite on both HCFCs purchase and sale data provided by primary dealers and provided by secondary dealers to ensure the data consistency. If possible, the difference will be explained in the Individual Reports.
	+ Through check original records of dealers to ensure that HCFCs purchased and sold for ODS/feedstock use was not embezzled for other applications. Any losses of HCFCs during the process should be reported.
	+ HCFCs purchase data of primary dealers directly from HCFCs producers should be compared with the HCFCs sale data of HCFCs producers for ODS/feedstock uses; HCFCs sale data of primary/secondary dealers directly to HCFCs consumers should be compared with the HCFCs purchase data of HCFCs consumers. The data of HCFCs producers and consumers should be indicated from HCFC production and consumption verification reports, the Article 7 data by the related enterprises in the years of investigation.

The on-site visit of Secondary Dealers will be designed and implemented on several cases considering the conditions of the collected questionnaires and the process of the investigation.

Considering the COVID-19 pandemic circumstance, the on-site visits/investigation should follow the epidemic prevention policy of China. If needed and in agreement with FECO, the on-site visits/investigation can be changed to online conference calls if necessary.

1. **Data summary and market prediction**

The consultant should analyze and summarize the questionnaire and survey results, and carry on the classification and summary of HCFC dealers on ODS/feedstock use, trades of mixture/HCFCs substances, consumption sectors in the year of investigation.

The consultant should take the summary report of China 2020 HCFC production and consumption verification, the survey report of China HCFC feedstock use in 2020, data reported by the dealers to the ODS production and consumption information management online system in 2020 as references for the data analysis.

The consultant should provide a three-year (2022-2024) forecast of the HCFCs purchase and sale trend by taking consideration of the development progress of the whole chemical industrial market.

1. **Submission of Investigation Report**

After investigation, the consultant needs to submit an investigation report of HCFCs dealers in 2020-2021 to FECO/MEE for review. The report should consist of, but not limited to the following parts:

* + Background and introduction to the investigation;
	+ Findings at every primary dealer according to the contents of the above 1);
	+ List and distribution of all HCFCs dealers registered in MEE(Primary Dealer) with the key information in the year of investigation;
	+ List and distribution of HCFCs dealers registered in provincial departments have direct trades with primary dealers (Secondary Dealer) in the year of investigation;
	+ Statistic report on annual purchase and sale of HCFCs from primary dealers and secondary dealers in the year of investigation;
	+ Prediction of purchase and sale level for the future three years (2022-2024) in an aggregate form;
	+ Evaluating the performance of current management system for HCFCs purchase and sale, finding any omission of management, and estimating the current policy implementation of primary dealers;
	+ Suggestion for management policy of HCFCs dealers, as well as the recommendations of solutions (including policies and implementation measures) for the existed problems.
1. **Review meeting**

A review meeting is to be organized to review the draft investigation report and recommendations submitted by the consultant for the investigation implementation period. The representatives from the related industry associations, enterprises, research institutes and FECO/MEE would be invited to be participated in the meeting. The comments and suggestions from the review meeting are to be reflected in the final report and the executive summary.

D. Deliverable

The main deliverables of the project would be the draft and final Investigation Reports on HCFCs dealers as the requirements of above 4) in the investigation implementation period.

The report should be made in Chinese and translated in English, and with an executive summary in English.

The report should be prepared and submitted by the consultant and satisfied by FECO/MEE.

1. Work Schedule

The work schedule of the investigation implementation is as follow.

|  |  |
| --- | --- |
| **Date** | **Work Items** |
| 40 workdays after contract signed | * Submit the designed comprehensive questionnaires and a list of planned field investigation HCFCs primary dealers.
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| 120 workdays after contract signed | * Complete site investigation to HCFCs primary dealers.
 |
| 150 workdays after contract signed | * Submit a draft investigation report of HCFCs dealers.
 |
| Before September 15, 2022 | * Submit revised final investigation report of HCFCs dealers in Chinese and English versions, the executive summary and all other required documents.
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1. Procurement Method

A consulting entity will be selected through Selection based on Consultant’s Qualification (CQS). It will organize an expert working group to undertake the tasks specified in this TOR. The consultant team must be a qualified working staff and experts team. It should have an experienced team leader and consist of at least 3 experts. The consultant team must have sufficient time to devote to the assignment so that the required outputs can be submitted on time.

1. **Consultant’s Qualification**

**Minimum requirements for the consulting entity’s qualification:**

1. Has to be familiar with the chemical industry and has at least five years experiences and background in chemical engineering and technology or similar project implementation;
2. Has rich experiences on data and information collection in chemical industry;
3. Has knowledge of purchase and sale market of chemical industry;

**Minimum requirements for key personnel:**

1. The team leader should:
2. Has at least 6 years of relevant experience, including chemical technology, chemical engineering, chemical industry and project management, etc.;
3. Has sound knowledge of Montreal Protocol requirements for the purchase and sale of HCFCs;
4. Be familiar with the national ODS phase-out plan and national ODS circulars especially the HCFCs phase-out strategy and management policies in China;
5. Has experience from managing similar investigation project and be responsible for the quality of the project results;
6. Estimated total working days: 170 working days.
7. The team members should:
8. Has chemistry or chemical engineering education background;
9. Has at least 2 years of relevant experience in research, chemical industry;
10. Be familiar with the national ODS phase-out activities and national ODS management circulars or ozone protection related issues.
11. Estimated total working days per team member: 140 working days.

### Payment Schedule

The consultant payment terms of this project are as follows:

1. First payment: 10% of total amount upon the contract signed;
2. Second payment: 40% of the total amount upon acceptance of the designed comprehensive questionnaires and the list of planned field investigation dealers;
3. Third payment: 40% of the total amount upon acceptance of the draft report for investigation;
4. Last payment: 10% of the total amount upon acceptance of the final report, the executive summary and all other required documents for the investigation...

The table of all the outputs as required for making each payment is below.

|  |  |
| --- | --- |
| **Payment** | **Outputs** |
| 10% | * The signed contract.
 |
| 40% | * The designed comprehensive questionnaires, the list of planned field investigation dealers.
 |
| 40% | * The draft report..
 |
| 10% | * The final report, the executive summary, all other required documents.
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\* No facilities will be provided by FECO/MEE.

\*The facilities provided by the consulting firm will be specified in the Project Proposal including but not limited to meeting room and equipment, consumptive material, printing, translation and communication.