ESTIMATION ON REDUCTION OF GREENHOUSE GAS EMISSIONS (GHGs) OF OZONE-DEPLETING SUBSTANCES BY IMPLEMENTATION OF VIENNA CONVENTION AND ITS MONTREAL PROTOCOL IN INDIA

Terms of Reference (TOR)

1. Background

India is a Party to the Montreal Protocol since 1992 and has been implementing phase-out of production and consumption of Ozone Depleting Substances (ODSs).Chlorofluorocarbons (CFCs), Carbon tetrachloride (CTC) and Halons which are known to damage the ozone layer in the stratosphere, were widely used as refrigerants, blowing agents, cleaning agents, aerosols, fire-extinguishing agents and spray products. Under the implementation of Montreal Protocol these ODSs were phased out globally.

The production and consumption of CFCs, CTC and Halons has been successfully phased out in India as of 1st January, 2010.The phase-out of Hydrochlorofluorocarbons (HCFCs) is ongoing as per the accelerated phase-out schedule of HCFCs under the Montreal Protocol. The HCFC Phase-out Management Plan (HPMP) is being implemented in the country.

The primary role of the Vienna Convention and its Montreal Protocol and all its amendments was to protect depletion of the stratospheric ozone layer. However, the ambition to reduce and eventually eliminate the use of ozone-depleting substances (ODS) has also produced co-benefits for greenhouse gas reduction.

CFCs and HCFCs and other halogen gases typically have a high global warming potential (GWP): they are powerful greenhouse gases with a high capacity to trap heat in the Earth's atmosphere. With a GWP up to 10,000 times higher than carbon dioxide (CO2), these gases can have a notable impact on total greenhouse gas emissions, even in very small concentrations.The reduction in ODS, in particular CFCs has therefore had a significant impact on greenhouse gas reduction in recent years.

The Kyoto Protocol was the international treaty for the United Nations Framework for Climate Change adopted in 1997, specifically designed to reduce greenhouse gas emissions

2. Objective

To undertake a study on the estimation on reduction of Green House Gas (GHGs) emission as a result of the implementation of the Vienna Convention and its Montreal Protocol in India.

3. Scope of Work

To undertake a study on the estimation on reduction of Green House Gas (GHGs) emission as a result of the implementation of the Vienna Convention and its Montreal Protocol in India involving collection, collation and analysis of information through desk study as well as field visit, as required, inter-alia covering the following:

i. Data Collection and Assessment should be carried out for the past fifteen calendar years (2005-2020).

ii. Analysis of consumption and production of ODSs by application sectors such as Refrigeration and Air Conditioning (RAC)sector, Foam sector, Fire extinguishing sector, Aerosol and Solvent Cleaning sector, Mobile Air-conditioning (MAC) sector, Metered Dose Inhalers (MDIs) sector etc.

iii. Estimation of GHG Emissions of ODS used for the applications mentioned in point (ii) above for the year 2005.

iv. Estimation of GHG Emissions of ODS used for the applications mentioned in point (ii) above and preparation of status of the same for the years 2005-2020.

v. Estimation of the projection GHG Emissions of ODS used for the applications mentioned in point (ii) above for the year 2030 taking into consideration the implementation of the recommendations of the India Cooling Action Plan (ICAP).

vi. Collection of data on production, consumption, import and export of ODSs.

vii. Estimation of GHG Emissions of ODS used for the applications mentioned in point (ii) above.

viii. Estimation of GHG Emissions Reduction due to switch-over to non-ODS technology for the applications mentioned in point (ii) above through the Research Data.

ix. Other points, if any, that came out during inception meeting.

4. Schedule

The duration of completion of all the activities as per the scope of work is 4 months from the date of award of the assignment.

5. Timeline and reporting

1. Inception report– Within 15 days of project inception, covering the exact scope for study and timeline for completion of study.

2. Mid-term report– End of 3rdmonth, submission of draft study report.

3. Final report - End of 4thmonth - submission of final study report.

6. Terms of Payment

a. 50% after signing the agreement.
b. 30% after submission of mid-term report.
c. 20% after submission of final report and WCR and acceptance by MoEF&CC.

7. Eligibility Criteria

a. Average Annual financial turnover/ grants received/research projects/income from consultancy and industry projects during the last three years, ending 31st March, 2020, should be at least INR 15 lakhs (to be supported with financial statements / audited balance sheets/sanction letter/letter of award of the last three financial years). Financial reporting for institutions created under statute and /or recognized by regulatory bodies are as per applicable rules/guidelines.

b. Minimum 3 years' experience working in the field of Montreal Protocol/ Kyoto Protocol and related areas such a policy formulation and development sector based strategy for ODS phase-out, industry sector survey including collection, analysis of data from stakeholders and preparation of reports for government/ PSUs, autonomous bodies, international organizations, bilateral and multilateral bodies (to be supported by letter of award and contract).

c. Experience of executing at least 3 assignments of order value INR 10 lakhs in the field of Montreal Protocol/ Kyoto Protocol, international/ multilateral conventions, ecology and environment, sustainability, market survey and industry profile and related areas for government/ PSUs, autonomous bodies, international organizations, bilateral and multilateral bodies (to be supported by Sanction letter /letter of award / contract etc.).

8. Submission of Proposal

The proposal will be submitted in two parts involving Technical and Financial Proposals in two separate sealed envelopes. Proposal sent by Email/Fax will not be entertained. Last date of acceptance of the duly filled and completed bids is 1st December, 2020 by 17:30 Hours at the following address:

The Additional Director
Ozone Cell
Ministry of Environment, Forest and Climate Change (MoEF&CC)
Government of India
Core 4B, 2nd Floor, India Habitat Centre, Lodhi Road
New Delhi - 110 003

a. **Technical Proposal**

The Technical Proposal should include the following:

i. Introduction.
ii. Details of experience of similar work.
iii. Approach and Methodology.
iv. Work Plan.
v. Details of Technical Team (include one page CV each of the persons to be associated) including qualification in relevant areas.

b. **Financial Proposal**

The Financial Proposals should include the total lump-sum cost in INR inclusive of all taxes, travel and other expenses related to the assignment.

9. Evaluation and Selection

Evaluation Criteria (will be applied only to those who meet the eligibility criteria)
Criteria and their marks

Sr. No.	Criteria	Marks	
	Sub-criteria	Total criteria	Sub-criteria
1	Past Experience of the Firm	40	

	• Number of years relevant experience
	  ○ 3 -6 Years
	  ○ More than 6 Years
	• Experience of working with government/ PSUs, autonomous bodies, international organizations, bilateral and multilateral bodies
	• 3 -6 Assignments
	• More than 6 Assignments
			20
			
			10
			20
			
			20
			
			10
			20

2	Methodology, Work Plan and Understanding of TOR	20	
	• Understanding of TOR • Approach and methodology • Work plan with timelines		06 08 06
3	General profile of qualifications, experience and number of key staff	25	
	• Qualifications • Relevant experience		10 15
4	Overall financial strength of the firm in terms of turnover, profitability and cash flow (liquid assets) situation	15	
	Turnover figure for last three years • 5-10 lakhs • 10 - 15 lakhs • 15 lakhs and above		 5 10 15
5	Total	100	

The minimum cut off will be75 (Seventy Five) marks for Technical proposal and competency.

Selection Methodology

Quality and cost based selection

a. Technical proposal -70%
b. Financial proposal -30%

Financial proposals will be opened only for the technically qualified bidders and will be given cost score based on relative ranking of prices, with 100 marks for the lowest bidder and pro-rated lower marks for higher priced offers. The total score shall be obtained by weighting the quality and cost scores and the bidder that obtains the combined highest score will be considered for award.

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