GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(OZONE CELL)

ENABLING ACTIVITIES UNDER THE NON INVESTMENT COMPONENT OF INDIA'S HCFC PHASE-OUT MANAGEMENT PLAN (HPMP) STAGE-II PROJECT

REQUEST FOR PROPOSAL

1. Introduction

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). The production and consumption of Chlorofluorocarbons (CFCs), Carbon tetrachloride (CTC) and Halons have 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 Executive Committee (ExCom) of the Multilateral Fund (MLF) in its 77th meeting vide decision 77/43 approved the HPMP Stage-II for India. The UNDP is the lead implementing agency for implementation of HPMP Stage-II. United Nations Environment Programme (UNEP) and Deutsche Gesellschaftfür Internationale Zusammenarbeit, (GIZ) Proklima, Government of Germany are the cooperating agencies.

UNEP is the implementing agency, to implement the enabling activities under the non- investment component of India's HPMP Stage-II. The funding for implementation of the third tranche was approved at the 86th meeting of the Executive Committee. Tranche 3 of HPMP Stage-II focuses on key activity areas of project, such as:

- Policy and enforcement capacity building;
- Sector-based ODS policy development;
- Strengthening of Refrigeration and Air-conditioning (RAC) Servicing Sector;
- Awareness, outreach and communication; and
- Monitoring, coordination and management.

UNEP implements the programme through the Project Management Unit (PMU), Ozone Cell, Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India.

2. **PMU, Ozone Cell, MoEF&CC invites proposals for the following activities:**

   i. **Development of a guidebook for procurement of Refrigeration and Air Conditioning (RAC) equipment based on sustainable cooling technologies.**
   ii. **Development of a guidebook on sustainable technologies for new and retrofitting of existing buildings and space cooling.**
   iii. **Development of a guidebook on sustainable technologies for new and retrofitting of existing cooling equipment/ storage infrastructure relating to cold chain sector.**
   iv. **To develop framework for establishment of an e-platform for refrigeration and air conditioning (RAC) service technicians.**

3. **Procedure for submission of proposals**

   i. Separate proposal must be submitted for each of the activities mentioned above at para 2.
   ii. Each proposal shall have a separate technical and financial bid sealed in separate envelopes. The two envelopes should be put in a separate third envelope (outer envelope). PMU, Ozone Cell reserves the right to straight away reject the proposals which are not submitted in this form.
   iii. Both technical and financial proposals are to be submitted strictly as per requirement indicated in Section 7.
   iv. The outer envelope of each proposal should clearly specify the title for which the proposal is being submitted and should also have name and stamp of the enterprise submitting the proposal, without which PMU, Ozone Cell reserves the right to reject the proposal.

4. **The objective, scope of work and deliverables for each of the above mentioned 4 activities are presented below:**

i. Development of a guidebook for procurement of Refrigeration and Air Conditioning (RAC) equipment based on sustainable cooling technologies.

Objective: To develop a guidebook for procurement of Refrigeration and Air Conditioning (RAC) equipment based on sustainable cooling technologies.

Scope of work:

I. This guidebook includes collection, collation and analysis of information through desk study as well as field visits, where required inter-alia covering the following:

   a. Overview of Refrigeration and Air-conditioning equipment used in the various subsectors for cooling.
   b. Mapping of subsector wise sustainable refrigerants and technologies for refrigerant based cooling equipment.

c. Selection criteria in procurement of sustainable technologies-based refrigeration and air conditioning equipment.
d. Environmental and economic benefits of various sustainable technologies-based refrigeration and air conditioning equipment.

II. Organize two (2) workshops (virtually) for the creating mass awareness among the Government departments/ organizations and stakeholders on the use of sustainable technologies-based refrigeration and air conditioning equipment with participation from concerned stakeholders including representatives from Government departments, E marketplace (GeM), manufacturers of RAC equipment, etc.

Deliverables: A guidebook providing comprehensive information on sustainable technologies for refrigeration and air conditioning equipment used in various sectors of cooling.

ii. Development of a guidebook on sustainable technologies for new and retrofitting of existing buildings and space cooling.

Objective: To develop a guidebook on sustainable technologies for new and retrofitting of existing buildings and space cooling.

Scope of work:

I. This guidebook includes collection, collation and analysis of information through desk study as well as field visits, where required inter-alia covering the following:

a. Overview of current energy and refrigerant consumption in space cooling sector in India.
b. Overview of conventional building designs and construction practices used for residential buildings.
c. Passive cooling methods for new and existing residential buildings including affordable housing for sustainable comfort cooling for all.
d. Overview of conventional building designs and construction practices used for commercial buildings.
e. Passive cooling methods for new and existing commercial buildings for sustainable cooling in line with ICAP and ECBC 2017.
f. Cost benefit analysis of retrofitting of existing commercial buildings to reduce cooling requirements and energy consumption and identification of cost-effective passive cooling methods for such buildings.
g. Overview of refrigerant based cooling technologies and equipment used for residential and commercial buildings including type of refrigerants and technologies deployed.
h. Mapping of refrigeration-based cooling technologies for residential and commercial buildings for sustainable cooling.
i. Selection criteria for sustainable technologies for new and existing buildings.

II. Organize two (2) workshops (virtually) for creating mass awareness among the Government departments/ organizations and stakeholders including building developers/ contractors and owners on sustainable technologies for new and retrofitting of existing buildings and space cooling.

Deliverables: A guidebook on sustainable technologies for new and retrofitting of existing buildings and space cooling to enable building developers, building owners and policy makers adoption in the construction of residential and commercial buildings.

iii. Development of a guidebook on sustainable technologies for new and retrofitting of existing cooling equipment/storage infrastructures relating to cold chain sector.

Objective: To develop a guidebook on sustainable technologies for new and retrofitting of existing cooling equipment/storage infrastructure relating to cold chain sector.

Scope of work:

I. This guidebook includes collection, collation and analysis of information through desk study as well as field visits, where required inter-alia covering the following:

a. Overview of current cold chain infrastructure including vaccine cold chain; refrigerant and energy consumption in the cold chain sector in India.
b. Overview of conventional technologies used for cold storages and other cold chain components.
c. Mapping of subsector wise sustainable technologies for cold chain components including vaccine cold chain.
d. Cost benefit analysis of retrofitting of existing cold storage infrastructure to sustainable technologies for reducing cooling requirements and refrigerant and energy consumption.
e. Selection criteria for sustainable technologies for new and existing infrastructure for cold chain including vaccine cold chain.

II. Organize three (3) workshops (virtually) for creating mass awareness among the Government departments/ organizations and stakeholders including cold chain developers and owners on sustainable technologies for new and retrofitting of existing cooling equipment/storage infrastructures relating to cold chain sector.

Deliverables: A guidebook on sustainable technologies for new and retrofitting of existing cooling equipment/storage infrastructure to enable cold chain infrastructure developers and owners in the setting up of new infrastructure and retrofitting of existing storage infrastructure of cold chain including vaccine cold chain.

iv. To develop framework for establishment of an e-platform for refrigeration and air conditioning (RAC) service technicians.

Objective: To develop framework including the software requirement specification (SRS) format providing general description, functional requirements, interface requirements, performance requirements etc. for an e-platform for enrollment, training and certification of RAC service technicians of various subsectors.

Scope of work:

The framework should be comprehensive to enable development of e-platform including providing information on software and hardware requirement, estimates of costs implications and the following modules:

a. Module for enrolment application, uploading of enrolment application by RAC service technicians that need training, scrutiny of application, approval, notification, etc., to the candidate from different skill levels:

    - RAC service technicians (informal sector: self-employed, employed in private workshops, etc.);
    - Technicians trained by Industrial training institutes (ITIs) and engaged in the trade;
    - Technicians engaged with Original Equipment Manufacturers (OEM) service workshops and dealers;
    - Technicians working for service provider companies.

b. Module covering list of training providers and their profiles, type of training programmes, duration of training, training centres with location, training schedule, etc. and linkage of trainings with skill levels.
c. Module for recognition of service technician's accreditation and certification including online testing accrediting/certification organizations, prerequisites, procedures, guidance to the technicians for facilitating the certification, sample tests, etc.
d. Institutional structure of Committee/ Body deciding the training curriculum for various levels of trainings and modules of trainings.
e. Modalities for establishment and operationalization of e-platform:

    - Technical specifications for developing the e-platform
    - Hardware and software requirements
    - Support for maintenance

f. Estimated capital and recurring cost for development and operationalization of e-platform.

Deliverables: A report covering all the elements listed above along with models/ algorithms for establishment of an e-platform for RAC service technicians.

5. Schedule:

- The duration of completion of all the activities as per the scope of work is 6 months from the date of award of the assignment.

6. Eligibility Criteria

i. Eligibility criteria for activities mentioned at para 4 (i) (ii) and (iii):

a. Average Annual financial turnover/ grants received/research projects/income from consultancy and industry projects during the last three years, ending 31st March, 2022, 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 and/or related areas such as Refrigeration and Air-conditioning (RAC) servicing sector, passive cooling technologies for the building sector, cold chain sector, public procurement policies, energy efficiency, activity specific experience, ODS phase-out, awareness generation and content development for ODS phase-out, monitoring and verification of ODS phase-out projects 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 in the field of Montreal Protocol/ international/ multilateral conventions for government/ PSUs, autonomous bodies, international organizations, bilateral and multilateral bodies (to be supported by Sanction letter /letter of award / contract etc.). The average value of the 3 assignments should be at least INR 15 Lakhs with each assignment of at least INR 5 lakhs.

ii. Eligibility criteria for activities mentioned at para 4 (iv):

a. Average Annual financial turnover/ grants received/research projects/income from consultancy and industry projects during the last three years, ending 31st March, 2022, 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 and/or related areas such as Refrigeration and Air-conditioning (RAC) servicing sector, energy efficiency, activity specific experience, ODS phase-out, awareness generation and content development for ODS phase-out, for government/ PSUs, autonomous bodies, international organizations, bilateral and multilateral bodies (to be supported by letter of award and contract). In addition experience in the field of software development is also required.
c. Experience of executing at least 3 assignments in the field of Montreal Protocol/ international/ multilateral conventions for government/ PSUs, autonomous bodies, international organizations, bilateral and multilateral bodies (to be supported by Sanction letter /letter of award / contract etc.). The average value of the 3 assignments should be at least INR 15 Lakhs with each assignment of at least INR 5 lakhs.

7. Evaluation Criteria

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

i. The **Technical Proposal** should include the following:

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

ii. 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.

A. Technical proposal including competency

Sr. No.	**Criteria**	**Marks**	
	Sub-criteria	**Total criteria**	**Sub- criteria**
1	Past Experience of the Firm	40	
	Total experience in number of years o 3-6 years o Above 6 years At least 3-6 years of experience: 10 marks, for every additional year of experience beyond 6 years: 5 mark each up to a maximum of 10 marks		20
	Experience of working with government/ PSUs, autonomous bodies, international organizations, bilateral and multilateral bodies o 3-6 assignment o More than 6 assignment At least 3-6 assignment: 10 marks, for every additional assignment beyond 6, 5 marks each up to a maximum of 10 marks		20

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

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

8. Payment Terms

i. 50% after signing the agreement.

ii. 30% after submission of mid-term report.

iii. 20% after submission of final report and WCR and acceptance by MoEF&CC.

9. Last date

Last date of acceptance of the duly filled and completed bids is 30th March 2023 by 17:30 Hours at the following address:

The Additional Director
Ozone Cell
Ministry of Environment, Forest and Climate Change
1st Floor, 9 Institutional Area, Lodhi Road,
New Delhi -110003

10. Selection Methodology

Quality and cost based selection

i. Technical proposal -70%

ii. 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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