



Ministry of Environment and Energy

Male', Republic of Maldives.

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Advertisement Reference: (IUL)438-ENV/1/2017/33

TERMS OF REFERENCE

Recruitment of a Technical consultant for research and analysis of low GWP alternatives and retrofit of equipment

Background

Maldives is a Party to the Montreal Protocol on Substances that Deplete the Ozone Layer and has acceded to the Vienna Convention and Montreal Protocol in May 1998. As a party to the Vienna Convention and Montreal Protocol on Substances that Deplete the Ozone Layer, Maldives has phased out several ozone depleting substances including the early phase-out of CFCs in 2008. To comply with its obligations under the Montreal Protocol, Maldives is currently implementing the phase-out of HCFCs by 2020.

At the 60th Meeting of the Executive Committee, the HCFC Phase-out Management Plan (HPMP) of Maldives was approved, for an accelerated phase-out, 10 years earlier than the dates set in the accelerated phase-out schedule agreed in the 19th Meeting of the Parties (Decision XIX/6).

HCFC is the most commonly used refrigerant in the Maldives. In early 2006, HCFC accounted for over 85% of the total refrigerant consumption in refrigeration and air-conditioning sector in the Maldives. The consumption of HCFC-22 in the year 2013 was about 60.3 MT. Of this total consumption, fisheries sector applications consume about 15-20% of the total consumption.

Fisheries sector is an important sector for Maldives economy. The fish catch of Maldives is stored and processed and exported to different countries across the globe. HCFC-22 is consumed in fisheries sector in a range of applications and predominantly in fishing vessels, processing and storage applications.

The fisheries enterprises have various types of facilities - namely, shore-based facilities, factories/processing units, cold storages, and off-shore platforms such as collecting vessels and mother vessels. Cold storages in the various facilities owned by the enterprises use HCFCs, HFCs, ammonia and other refrigerants. However, vessels used by these companies

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މިނިސްޓްރީ، ޕްރޮޓެކްޝަން، 20392، ދިވެހިސަރުކާރުގެ ގެޒެޓް

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8. Advise Ozone unit on selecting the beneficiaries based on the detail research and analysis of the existing equipment in the fisheries sector and on project implementation.
9. Identification of regulatory barriers that could affect implementation of new technologies, particularly relating to occupational safety, health, regulations governing shipping, regulations relating to fish quality and standards for processing storage etc.
10. Visit equipment location of the beneficiary enterprises (islands) and follow-up monitoring of the operation and maintenance of the equipment as requested by the Ozone Unit;
 - a. A minimum of atleast 2 visits per year after the completion of the demonstration project for 2 years.
 - b. Prepare and submit reports upon completion of monitoring visits to Ozone Officer
11. Demonstrate the use of the selected substitutes in the selected three equipment;
12. Study on Energy Efficiency comparison of the equipment prior and after
13. Develop manuals for the selected three equipment for demonstration; this should include a checklist for replacement or drop-in activities; operation and maintenance on servicing.
14. Undertake trainings to the technical staff of the selected three beneficiary enterprises on replacement, drop-in, and the selected technology options, and on maintenance and servicing including good practices for minimizing refrigerant leakage
15. Take pictures of all the important steps needs due consideration for future retrofitting.
16. Develop 3 separate reports on;
 - a. the technology research and analysis conducted
 - b. the technology choice and retrofit options using low GWP technologies identified
 - c. the compilation of findings of demonstration project and information dissemination to be disseminated to countries in the region and for the countries like Maldives





17. Carryout a stakeholder workshop to disseminate the findings of the detail research and analysis
18. Carryout a stakeholder workshop to disseminate the findings of the demonstration project after the completion of one project;
19. Involve in all the activities related to the demonstration project.

Qualifications

- Hold an undergraduate degree in a relevant field.
- Must have at least 5 years' experience in RAC field.
- Excellent verbal and written skills in English
- Sound understanding of Montreal Protocol targets and the schedule of phase out activities carried in Maldives.
- Demonstrated experience in HCFC phase-out project activities.
- Ability to work in close cooperation with all key stakeholders including the fisheries enterprises, government authorities and other stakeholders.

Financial Proposal

The consultant is expected to include in his/her proposal a lump sum fee in MVR for carrying out the tasks.

Schedule for the assignment

The consultant is expected to complete the tasks within 10 months

Institutional Arrangement

The Consultant will report directly to Ozone Unit at MEE.

Once a week a meeting will be scheduled at MEE with Ozone Unit and UNDP and other required institutions to provide updates, targets for the week, share and gather information and discuss way forward.

Local travel will be arranged by MEE. A field visit report will have to be submitted to the Ozone Unit, MEE no later than 3 days after every field visit.





Selection Criteria

Selection will be based on academic qualification and experience. The consultant will be selected based on the following criteria:

Criterion	Weightage
Academic qualification	30%
Experience in (number of years) with Montreal Protocol activities relating to HCFC phase-out	30%
Record of successful implementation of similar projects	20%
Financial Proposal	20%

Application and Submission

Interested consultant/firm may submit their proposals in a sealed envelope indicating the following:

- Summary of similar assignments performed in the past
- Curriculum Vitae of the consultant
- Attested copies of the academic certificates
- Financial proposal (fees for the assignment)

Interested consultants/firm may submit their proposals on 1100hrs of 10 May 2017 to the following address. Electronic bidding is not permitted. Late bids will be rejected. Bids will be opened in the presence of the bidders' representatives at the address below on 10th May 2017 at 1100 hours.

Procurement Section
Ministry of Environment and Energy
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