

TERMS OF REFERENCE

Development of Guideline on the Code of Good Practices for Practitioners/Technicians in RAC and MAC sectors

1. BACKGROUND

Sri Lanka, as a Party to the Montreal Protocol on Substances that Deplete the Ozone Layer, is committed to phasing out hydrochlorofluorocarbons (HCFCs) and phasing down hydrofluorocarbons (HFCs) in line with its obligations under the Kigali Amendment. The Refrigeration and Air Conditioning (RAC) and Mobile Air Conditioning (MAC) servicing sectors are crucial to achieving these national and international commitments.

Technicians and practitioners in these sectors are directly involved in refrigerant handling, recovery, and the maintenance and servicing of RAC and MAC equipment. Their practices significantly impact environmental protection, energy efficiency, and occupational safety. Enhancing awareness and adherence to the Code of Good Practices (CGP) is therefore essential to promote responsible and sustainable servicing practices across the country, in alignment with the Green TVET policy and national/international standards, including SLS standards for the RAC and MAC sectors.

The CGP serves as a comprehensive reference for technicians to ensure environmentally sound refrigerant management, leak prevention, improved system performance, energy efficiency, personal/occupational safety measures and standards. However, there is a need to develop a user-friendly, illustrated guideline tailored for practitioners/technicians to support effective implementation of the CGP across the RAC and MAC servicing sectors.

This initiative, implemented under the Hydrochlorofluorocarbon Phase-out Management Plan (HPMP) Stage II and HFC Phase-down Management Plan, aims to strengthen national capacity by promoting standard servicing procedures, improving compliance with environmental standards, enhancing energy efficiency and other related protocols within the sector.

2. OBJECTIVE OF THE ASSIGNMENT

The main objective of this assignment is to develop a comprehensive and practical guideline for practitioners/technicians in the RAC and MAC sectors, based on the Code of Good Practices, to ensure safe, energy-efficient, and environmentally sound refrigerant units & systems servicing practices.

3. SCOPE OF THE ASSIGNMENT

The consultant is expected to undertake the following tasks:

- Review existing Code of Good Practices (CGP) documents, relevant national and international standards (e.g., SLS, ASHRAE, ISO, EN, IEC), Green TVET policy, existing National Competency Standards & curriculums and national technical training materials.
- Conduct consultations with key stakeholders including Tertiary and Vocational Education Commission (TVEC), National Apprentice and Industrial Training Authority (NAITA), Vocational Training Authority (VTA), Ceylon German Technical Training Institute (CGTTI), Department of Technical Education & Training (DTET), University of Vocational Technology (UNIVOTEC), industry associations (ASHARE, IMechE, GBCSL, IIESL, IESL, LABSE and etc) and the National Ozone Unit (NOU).
- Identify key thematic areas relevant to technicians/ practitioners (e.g., refrigerant handling, leak testing, leakage prevention, charging, recovery, safety procedures, energy-efficient servicing).
- Ensure the guideline aligns with national certification standards and is compatible with NVQ-level competencies.
- Integrate gender-responsive and inclusive perspectives, ensuring equal accessibility and applicability to both male and female technicians.
- Conduct one stakeholder workshop and one validation workshop to review and finalize the guideline content.
- Provide recommendations for awareness programs and integration into national training programs.
- Offer guidance for continuous public awareness and institutional support for guideline implementation.
- Develop a technician/practitioner-focused guideline that includes simplified instructions, diagrams, and illustrations for practical use.

4. METHODOLOGY

The consultant shall adopt a **participatory and structured approach**, ensuring technical accuracy and stakeholder validation. The key steps include:

- Desk review/Literature review and data collection.
- Develop formats of Data collection.
- Development of draft structure and content for the guideline.
- Consultation with training institutions and industry representatives.
- Conduct of one stakeholder workshop and one validation workshop with stakeholders.
- Incorporation of feedback and submission of final deliverables.

5. PERIOD OF THE ASSIGNMENT AND DELIVERABLES

5.1 Period of Assignment

The assignment shall be completed within **3 months** (12 weeks) from the date of contract commencement.

5.2 Deliverables

Deliverable	Description	Timeline	Payment
1st Deliverable: Inception Report	Detailed methodology, timeline, structure of guideline	1 st week	20%
2nd Deliverable: 1st Draft Guideline	First Draft of the illustrated CGP guideline for technicians/practitioners after incorporating comments of NOU with CPCP (Draft 1)	6 th week	30%
3rd Deliverable: Stakeholder Workshop and 2nd Draft Guideline	Conduct one stakeholder workshop & submit second draft report after incorporating comments of UNEP, NOU with CPCP & stakeholders (Draft 2)	9 th week	30%
4th Deliverable: Validation Workshop and Final Guideline	Conduct one validation workshop & Finalized guideline after incorporating stakeholder feedback.	12 th week	20%

6. GENERAL CONDITION OF THE ASSIGNMENT

- The consultant shall complete the work in accordance with the agreed scope and timeline to the satisfaction of the UNEP, NOU with Project Consultancy Procurement Committee (CPCP).
- Regular progress meetings will be held with the UNEP, NOU with CPCP for review and feedback.
- The consultant shall facilitate one stakeholder workshop and one validation workshop to obtain sectoral consensus on the proposed guideline.
- Interim updates shall be provided at agreed intervals.
- All outputs shall be submitted in English (with translation to Sinhala/Tamil as applicable) in both electronic and print formats.
- Intellectual property of all outputs shall remain with the Ministry of Environment and National Ozone Unit (NOU).

7. METHOD OF SUBMITTING THE APPLICATION

The interested consultants should submit their applications along with the Request For Proposal (RFP). The budget must indicate the assignment fee including expected taxes.

8. SELECTION

Selection will be conducted by the CPCP based on technical capability, experience, and financial feasibility. Eligible candidates will be invited for an interview and requested to provide additional information. The most suitable candidate will be awarded the contract based on CPCP's decision.

9. QUALIFICATION OF THE CONSULTANT

- Bachelor's degree in Mechanical Engineering or Diploma in Refrigeration and Air Conditioning technology, or a related technical field.
- Post graduate qualifications will be an added advantage
- Minimum 3 years of professional experience in the RAC and MAC sector, including servicing, maintenance, or technical oversight.
- Proven experience in developing training materials, technical guidelines, manuals, or standard operating procedures for technicians/practitioners.
- Knowledge of TVET systems and NVQ framework.
- Knowledge of gender mainstreaming will be an added advantage.
- Strong analytical, report-writing, communication, and facilitation skills.
- Ability to simplify technical content into user-friendly, illustrated guidelines.

10. EVALUATION

Applications will be screened for eligibility, and only candidates meeting minimum criteria will be shortlisted. Shortlisted candidates must score a minimum of 70 points based on technical evaluation criteria.

11. SUBMISSION OF INTERESTS

Submission of Interest to undertake this consultancy work must be addressed to the following.

12. DEADLINE FOR SUBMISSION OF PROPOSAL

Submissions must be received by the Air Resource Management and National Ozone Unit, Ministry of Environment at the address of No.416/C/1, "Sobadam Piyasa" Battaramulla no later than date. The Ministry of Environment will not consider any submission received after the deadline.