Terms of Reference (ToR): Individual Consultant – Energy Efficiency and Carbon Trading Expert (Industry, Building etc.)

Item	Details
Assignment Title	Individual Consultant – Energy Efficiency and Carbon Trading Expert (Industry, Building etc.) (National)
Project	Promoting Energy-Related Low Carbon Urban Development (LCUD) in Bangladesh (UNDP/GEF)
Implementing Agency	Sustainable and Renewable Energy Development Authority (SREDA), Power Division, Ministry of Power, Energy and Mineral Resources
Contract Type	Time-based individual consultancy contract (Selection of Individual Consultant – SIC)
Level of Effort	Up to 140 person-weeks (intermittent, not full-time), from contract signing to 31 March 2029 [extendable subject to need, performance, and approval]
Team Composition	The consultant (intermittent input), supported by one full-time Research Engineer fielded by the consultant, who will work full time with the project team at the PMU
Duty Station	Project Management Unit (PMU), LCUD Project, SREDA, Dhaka, with travel to partner cities, buildings and industries as required
Supervision	Overall guidance of the Project Directorate, LCUD Project; Day-to-day supervision and reporting to the Project Manager

1. Background

The LCUD Project is implemented by SREDA with grant support from the Global Environment Facility (GEF-LDCF) through UNDP. It aims to promote energy-related low-carbon urban development in Bangladesh through energy efficiency and conservation (EE&C), renewable energy (RE) in buildings and industry, waste management and waste-to-energy, GHG accounting, and supporting policy, finance and capacity-building measures.

Buildings and industry are major energy consumers in Bangladesh's cities. The project will therefore engage a national Energy Efficiency and Carbon Trading Expert to advise on EE in buildings and industry, compliance with BNBC 2020 and the BEEER guideline, energy audit policies, and carbon trading, including a digital MRV (dMRV) system, carbon methodologies, and a carbon registry and approval system for projects and partners supported by LCUD.

2. Objective of the Assignment

The objective is to provide technical expertise on energy efficiency in buildings and industry, energy audit policy and carbon trading, so that SREDA, City Corporations and project proponents can design, assess and implement EE measures and related policies, and so that LCUD-supported projects and partners can measure, verify and access carbon finance for their emission reductions.

3. Scope of Services and Key Responsibilities

The consultant will carry out the following tasks. The Project Directorate and Project Manager may adjust tasks and inputs as needed.

3.1 EE and Green Building Design and Compliance

- Advise on the design and software modelling of EE and green buildings that comply with the mandatory BNBC 2020 and the voluntary BEEER guideline and rating systems.
- Support implementation, monitoring and elaboration of energy performance benchmarks for different categories of buildings.

3.2 Technical EE Advisory

- Advise on selected technical aspects of EE (lighting, air conditioning, ventilation, etc.) in buildings and industry.
- Work with City Corporations on EE improvements in existing buildings and state-of-the-art EE technology in new buildings.
- Provide technical inputs (construction and technology design, calculations, international experience) to project proponents on feasibility assessment, and to IDCOL for techno-economic assessment of proposals.

3.3 Carbon Trading, dMRV and Carbon Market Readiness

- Assess carbon trading opportunities for EE projects in buildings and industry.
- Support formulation of related policy and guidelines, in coordination with the PPP, ESCO and Green Finance Expert and the GHG Inventory, Reporting and Databases Expert.
- Design and develop or adapt a digital Measurement, Reporting and Verification (dMRV) system for EE, RE and other low-carbon interventions supported by LCUD, covering monitoring parameters, data collection tools, data architecture, QA/QC and verification procedures, and linked with the project GHG inventory database.
- Develop or adapt carbon methodologies (baseline and monitoring) for EE and RE interventions in buildings and industry, aligned with internationally recognised standards (e.g., Article 6.4 mechanism, Verra VCS, Gold Standard) and national requirements.
- Develop a carbon registry and a project approval system (procedures, eligibility criteria, workflow and templates) for projects and partners supported by LCUD, in line with national rules on carbon markets and Article 6 authorisation, as applicable.
- Identify and develop carbon project developers among LCUD partners (City Corporations, industries, building owners, ESCOs and other project proponents), and support them in preparing carbon project concepts and project design documents.

- Support capacity development of SREDA, partner institutions and carbon project developers on carbon markets, carbon methodologies, MRV/dMRV, and registry and approval procedures, including training materials.

3.4 Energy Audit Policy

- Support review and updating of energy audit policies and procedures.

3.5 Capacity Building

- Support the project in training on selected EE topics and prepare training materials.
- Participate in or lead workshops and seminars.

3.6 Research Engineer Support

- The consultant shall field one full-time Research Engineer, who will work full time with the project team at the PMU and assist the consultant and other project consultants to ensure timely delivery of outputs.
- The Research Engineer will support data collection, site visits, technical analysis and modelling, maintenance of dMRV and carbon project data, drafting of technical notes and reports, record keeping, and organisation of trainings and workshops.
- The Research Engineer will work under the technical direction of the consultant and the day-to-day supervision of the Project Manager, and shall observe regular office hours at the PMU.
- The cost of the Research Engineer shall be included in the consultant's financial proposal. Any replacement of the Research Engineer shall require prior written approval of the Project Directorate.

3.7 Other Duties

- Contribute to project progress reports.
- Perform any other related duties assigned by the Project Directorate and Project Manager.

4. Deliverables

The consultant shall provide the following deliverables:

SL	Deliverable	Timeline
1	Inception note and work plan	Within 15 working days of joining
2	Guidance notes on EE building design and BNBC 2020/BEEER compliance, and building energy performance benchmarks	As per work plan
3	Technical review notes on feasibility and techno-economic assessment of EE proposals	As assigned
4	Carbon trading opportunity assessment and draft	As per work plan

SL	Deliverable	Timeline
	policy/guideline inputs	
5	Review of energy audit policies and procedures, with recommendations	As per work plan
6	dMRV system design document and operational dMRV platform for LCUD-supported projects	As per work plan
7	Carbon methodology (baseline and monitoring) for EE/RE interventions in buildings and industry	As per work plan
8	Carbon registry and project approval system (procedures, criteria, workflow and templates)	As per work plan
9	Carbon project concepts/PDD support for identified carbon developers, and capacity development materials and training reports	As per work plan
10	Training materials and workshop reports on selected EE topics	As per training plan
11	Prepare a monthly work plan in consultation with the Project Manager and Project Directorate, and share a monthly progress report with timesheets of the consultant and the Research Engineer	Monthly
12	Final assignment report summarising work completed, outputs, lessons learned, and recommendations	At contract completion
13	Support any other project activities and documentation assigned by the Project Manager and Project Directorate	As assigned

5. Reporting Arrangement

The consultant shall work under the overall guidance and supervision of the Project Directorate, LCUD Project, and shall report to the Project Manager for day-to-day supervision. S/he shall coordinate closely with SREDA officials, City Corporations, IDCOL, the Technical Experts, the PPP, ESCO and Green Finance Expert, other project consultants, project associates and partner institutions.

Input days shall be agreed in advance with the Project Manager in line with the monthly work plan, and on those days the consultant shall work from the project office at SREDA/Home or on approved field visits. The consultant and the Research Engineer shall comply with the SREDA and UNDP codes of conduct.

The Research Engineer shall work full time from the project office at SREDA and observe regular office hours. Any absence of the Research Engineer on a working day shall require the prior written approval of the Project Manager.

6. Inputs and Facilities to be Provided by the Procuring Entity

- Access to the Project Document, Annual Work Plan, and relevant EE policy, audit and building data.
- Introductions and official letters to City Corporations, building owners, industries and IDCOL.
- Office space at the PMU, with computer, internet, and office logistics, subject to project policy.
- Travel and daily subsistence for approved field visits, as per project and GoB/UNDP rules.

7. Required Qualifications and Experience

7.1 Education

- A master's degree or bachelor's degree (BSc) or higher in Renewable Energy, Electrical or Energy Engineering, Mechanical Engineering, or a closely relevant field from a recognized university.
- Certified Energy Auditors will be given priority.

7.2 Experience

- Minimum 7 years of experience in energy efficiency.
- Experience in buildings and industrial sector EE project design is preferable.
- Demonstrated experience in carbon markets, carbon crediting methodologies and MRV/dMRV systems; experience with carbon registries, project approval processes or Article 6 will be an advantage.

7.3 Skills and Competencies

- Fluency in reading, written and spoken Bangla & English.
- Proficiency in building energy modelling or EE analysis tools, and Bangla typing.
- Training, facilitation and technical report writing skills.
- Good command of report writing in both English and Bangla will be an advantage.

7.4 Research Engineer (to be fielded by the consultant)

- A bachelor's degree (BSc) in Electrical/EEE, Mechanical, Energy, Renewable Energy or Environmental Engineering, or a closely relevant field, from a recognized university.
- At least 2 years of experience in energy efficiency, energy audit, energy data analysis or carbon/GHG accounting.
- Proficiency in MS Office and energy or data analysis tools; familiarity with MRV or database systems will be an advantage.
- Good written and spoken Bangla & English, and Bangla typing.

8. Contract Type and Payment Modality

The consultant shall be engaged under a time-based individual consultancy contract on an intermittent basis, with total input not exceeding 140 person-weeks. Payment shall be made monthly for person-weeks actually worked, together with the Research Engineer's input, upon submission of a monthly progress report and timesheets and their approval by the Project Manager and the Project Director.

Continuation of the assignment shall be subject to certification of satisfactory performance by the Project Directorate and the Project Manager.

9. Confidentiality and Ownership of Outputs

All reports, data, drafts, correspondence, and outputs produced under this assignment shall remain the property of the Procuring Entity. The consultant shall maintain strict confidentiality regarding all official information, including building and industry energy data, and shall not disclose any information without prior written approval of the competent authority.

10. Conflict of Interest

The consultant must disclose any actual or potential conflict of interest, including any engagement with developers, suppliers, ESCOs or carbon market actors whose proposals may be assessed under the project. S/he shall comply with applicable ethics, integrity, and procurement requirements throughout the engagement.