

## **Terms of Reference**

### **FOR ELECTRICAL & INSTRUMENTATION ENGINEERING CONSULTANT**

#### **UNDER THE GREATER COLOMBO WASTEWATER MANAGEMENT PROJECT**

**Expertise** : **Electro Mechanical Engineering including Instrumentation**

**Expertise Group** : **Electrical and/or Electronic Engineering**

**Source** : **National**

**Contract No** :

**Scope of the Project:** Rehabilitation and new construction of sewerage pump stations;  
Laying of sewer pipes using open cut and trenchless technologies;  
Rehabilitation of sewer systems using open cut and trenchless technology.

#### **Brief Description of the Project:**

The Greater Colombo Wastewater Management Project is a Project funded by the government through a loan obtained from the Asian Development Bank to rehabilitate 100 years old city sewerage system. The Project is executed by the Ministry of Public Administration, Home Affairs, Provincial Councils and Local Government and implemented by Colombo Municipal Council. The Project commenced in year 2011. Bulk of the work has been completed and two civil work contracts are under implementation and one civil contract is under the bidding stage. Out of the two contracts under implementation, the contract for rehabilitation of wastewater pumping stations is a Design and Built type contract whilst the other contract under implementation, sewer pipe line rehabilitation combined with carrying out a condition assessment of existing sewers is an add-measurement type contract. The contract under bidding is an add-measurement type contract. The Design and Built Contract is based on the Conditions of Contract of Engineering Advancement Association of Japan (ENAA) and the add-measurement Contract is based on the Conditions of Contract of FIDIC 2010 MDB version.

The locations of project sites are within Colombo Municipal Council area. The consultants' office is located at No. 86, Ananda Kumaraswamy Mw., Colombo 7.

## **Scope of work including but not limited to:**

1. Review of contractor submitted Electrical and Instrumentation designs/SCADA Systems, drawings, shop drawings, method statements, Sample and Material inspection and provide design and drawings reviews related to designs and installation work
2. Supervision of installation work related to Electrical and Instrumentation works
3. Prepare specifications for witness testing and provide technical assistance to CMC witness testing engineers
4. Carry out Energy Auditing, efficiency improvement of Electro mechanical systems, Power Factor corrections, performance monitoring.
5. Assist the Technical Team Leader in all work related to testing, verification and commissioning of pump stations
6. Review as built drawings, O&M manual, warranty certificates and all other handover documents required by the Contract and confirm their compliance with the requirements of the Contract
7. Assist Technical Team Leader in any other work related Electrical and Instrumentation designs and installations, and other technical inputs related to the GCWMP
8. Any other work related to the overall project as requested by the Employer or his representative, Project Manager/Engineer Technical Team Leader

## **Minimum Qualification Requirements**

**Minimum Educational Qualifications** : Degree in Electrical / Electronic preferably with postgraduate qualifications in Electrical & Electronics or Instrumentation Engineering. Corporate membership of a professional engineering body shall be preferred but not essential.

**Minimum General Experience** : 15 years in Electrical Engineering

**Other Specific Experience (relevant to assignment)** : Need previous experience in water/wastewater pump station electro-mechanical equipment installation, designing and design reviews and installation of Electrical equipment in water and wastewater pump stations, review of method statements and other design submittals related to electro-mechanical works

**Work Arrangement:** Engineer shall report to the **Project Director** of the Greater Colombo Wastewater Management Project or an officer assigned by him/her and Technical Team Leader to carry out the work coming under this assignment.

**Deliverables:** As directed by the Project Director/Project Manager/Engineer or his/her representatives and the Technical Team Leader.

**Office & Facilities**

- 1) Office space and necessary facilities will be provided by the Employer
- 2) Field (office – field – office) transport provided by the Employer
- 1) If requested by the Employer or his representative, Project Manager/Engineer the Consultant is required to attend meetings and field visits in weekends and holidays

**Assignment period:** From 01<sup>st</sup> May 2021 to 30<sup>th</sup> June 2021 (Extendable)

**Termination of the agreement:** One (01) month notice shall be served by either party

**Payment Terms:** Remuneration to the Consultant will be paid on daily rate basis for each workday except for weekends and Public Holidays unless work carried out on such days was on the request of the Employer, such as to attend meetings or field visits. Consultants shall submit a monthly time sheet giving the details of work carried out by him/her in each working day approved by the Technical Team Leader to the Project Director for payments.