

## **Terms of reference**

**For engaging a Consulting firm for Civil, Hydro-mechanical, Financial, Procurement, Dispute & Settlement, Environment & Social Safeguards and Quality Assurance & Quality Control for supervising and reporting the daily progress of work under Dam Rehabilitation Improvement Project Phase-II&III in Meghalaya Power Generation Corporation Limited, Meghalaya.**

### **1. Back ground**

- i. Meghalaya Power Generation Corporation Limited (MePGCL) is carrying out various construction works (mainly civil, Hydro-mechanical, instrumentation) at 4 (dams) i.e. Umiam Stage-I, Umiam Stage III, Umiam Umtru stage IV at Ri-Bhoi District and Myntdu Leshka Stage I at Jaintia Hills District as listed in Appendix I under Dam Rehabilitation & Improvement Project (DRIP) Phase II & III. The project is funded by World bank.
- ii. Meghalaya Power Generation Corporation Limited (MePGCL) desires to engage consultancy firms to take up the work for supervising and reporting the daily progress of the DRIP works.

### **2. Objective**

The main objective of the consulting firm will be to supervise and to report all the activities related to **Civil, Hydro-mechanical, Financial, Procurement, Dispute & Settlement and Quality Assurance & Quality Control, Environment & Social Safeguards under DRIP Phase-II&III in Meghalaya Power Generation Corporation Limited, Meghalaya** as per their respective Contract agreements of the works.

### **3. Scope of Work**

#### **3.1. Civil Works:**

- i. To supervise and report that construction is carried out as per the relevant BIS code, the specifications prescribed and guidelines issued by Central Water Commission Standard Specifications, Bureau of Indian Standards, IRC, MoRTH, ASTM, EU ACI and other international codes may also be referred and seek clarifications of IS specifications.
- ii. To inspect and report to the site on daily basis, generate progress reports and highlight areas of concern w.r.t timely completion of the works, quality of materials, workmanship and finishing at all stages of construction and report to the Project Director i.e. the Chief

Engineer (C), HP&HC, MePGCL, Shillong if the construction is not being carried out as per drawings & specifications approved by the MePGCL.

- iii. To inspect, that construction/works are carried out as per approved methodology, sequence of works, drawings & specifications approved by MePGCL.
- iv. To monitor dimensional and geometrical integrity, material and system integrity, performance and constructional integrity and visual and textural integrity, etc.
- v. To submit the daily progress report to the Project Director on daily basis. These reports should highlight any non-conformity, deviation & shortfalls in the processes, sequencing, and method statements.
- vi. At every stage of construction, the Project Director shall be kept informed of the progress of the work.
- vii. Periodically inspect report and to recommend to the Project Director, the adequacy and competence of Contractor's site engineers, skilled labor and constructions tools and recommend changes for improvements.
- viii. To assist the site engineers of MePGCL in regards to the works during execution stage as well as commissioning stage
- ix. To plan, design, estimate and submit the drawings of the civil related works .
- x. Preparation of Operation and maintenance manual for the hydropower project.
- xi. To impart capacity building to the officers of MePGCL.
- xii. Any other works related to civil works.

### **3.2. Hydro-mechanical works:**

- i. To supervise and report that construction and erection/installation of all hydro-mechanical works are carried out as per the relevant BIS code, the specifications prescribed and guidelines issued by Central Water Commission Standard Specifications, Bureau of Indian Standards, and other international codes may also be referred and seek clarifications of IS specifications.
- ii. To inspect and report to the site on daily basis, generate progress reports and highlight areas of concern w.r.t timely completion of the works, quality of materials, workmanship and finishing at all stages of construction and report to Project Director if the construction/erection/installation is not being carried out as per drawings & specifications approved by the MePGCL.

- iii. To inspect, that works are carried out as per approved methodology, sequence of works, drawings & specifications approved by MePGCL.
- iv. To monitor dimensional and geometrical integrity, material and system integrity, performance and constructional integrity and visual and textural integrity, etc.
- v. To submit the daily progress report to the Project Director on daily basis. These reports should highlight any non-conformity, deviation & shortfalls in the processes, sequencing, and method statements w.r.t workmanship & quality control and quality assurance measures.
- vi. At every stage of construction, the Project Director shall be kept informed of the progress of the work.
- vii. Periodically inspect and report to Project Director, the adequacy and competence of Contractor's site engineers, skilled labor and constructions tools and recommend changes for improvements.
- xiii. To assist the site engineers of MePGCL in regards to works during execution stage as well as commissioning stage
- xiv. To plan, design, estimate and submit the drawings of the hydro mechanical related works.
- viii. Review analysis and design of hydro mechanical appurtenant (penstocks, gates,
  - ix. valves cranes Trash racks and other mechanical parts) of dams
  - x. Review and analysis of contractors' hydro-mechanical designs.
  - xi. Preparation and review of Operation and maintenance manual for the hydro-mechanical equipment.
  - xii. Providing mechanical advice to the office head.
  - xiii. Trouble shooting and emergency visit to sites and find out the fault and manage repair;
  - xiv. Inspect repair service and start-up load bank test requirements on equipment.
  - xv. Preparation of the Terms of reference for Hydro-mechanical part
  - xvi. Review and preparation the Hydro-Mechanical part of the technical specification.
  - xvii. Any other task assigned by the technical board coordinator/Supervisor of MePGCL
- xviii. Technical review/ appraisal of documents for HM equipment.
- xix. Prepare and Review of quality assurance program (QAP) for HM works.
- xx. To impart capacity building to the officers of MePGCL.
- xxi. Any other works related to Hydro-Mechanical.

### **3.3. Financial work:**

- i. Prepare and review financial reports as per the World Bank guidelines for DRIP Phase II & III
- ii. Complete financial due diligence, as per client requirements
- iii. Prepare, review and evaluate all budgets, all financial reports and associated financial documents.
- iv. Offer quality advices regarding financial management information
- v. Work towards improving the standards of compliances of MePGCL, World Bank (IBRD and AIIB)
- vi. Support the MePGCL in developing the daily financial accounts report;
- vii. Follow up with our tax accountant on any tax payment due and prepare documents for the payment of these taxes;
- viii. Monitor the administrative budget for overspending;
- ix. Review on behalf of the MePGCL, some of the daily bookkeeping entries;
- x. To take up the tasks as directed by the MePGCL.
- xi. To impart capacity building to the officers of MePGCL
- xii. Any other works related to financial matters.

### **3.4. Procurement:**

- i. Periodic Examination/ guidance on the Procurement Plans.
- ii. Examination/ guidance of the completeness of rehabilitation proposals in work package of dam/s, proper procurement documentation, bid document and processes, bid evaluations, contract award and management of commercial aspects;
- iii. Examination/ guidance on Quality checking and recommendation on the bid proposals/submissions (Technical bid evaluation)
- iv. Assistance in Financial Bid Evaluation, recommendation for award of works and submission of Bid evaluation reports to the competent authorities
- v. Monitoring and appraisal of prior and post review proposals, as per financial threshold
- vi. Facilitate uniformity and consistency in the work specifications, procurement procedures and documents of all implementing agencies.
- vii. Coordination and follow up with concerned dam officials, CPMU; for preparation of bid documents, compilation of technical data / procedures, bid evaluations etc.; as and when required.
- viii. Plan, coordinate, implement and monitor an annual procurement plan as part of annual planning and budget process
- ix. To have the experience working on World Bank project and other donor funded projects.

- x. To have the experience working on World Bank procurement guidelines.
- xi. To have the experience working on Government of India Procurement guidelines and General Financial Rules (GFR)
- xii. To be responsible for the creation of tender documents for Goods, Works and Services as per the guidelines of the World Bank
- xiii. Responsible to spearhead the entire Procurement management process and contract management
- xiv. To have knowledge on STEP which is the World Bank Procurement & Contract Management tool
- xv. Responsible for evaluation of bids and award of contracts and coordination with the tender evaluation committee nominated by MePGCL.
- xvi. Any other issues related to procurement matters.

### **3.5. Dispute and Settlement.**

- i. To resolve any dispute matters invited by individual or parties or other stakeholders.
- ii. To understand the issues and perspectives that cause to the disputes and to solve the issue for settlement.
- iii. To communicate, negotiate and intervene in a dispute to bring about an agreement or reconciliation.
- iv. To set up negotiation strategy and scenario planning; collecting and exchanging relevant data and information; developing options for possible settlement; weighing alternatives; drafting of agreement, preparation of documents etc. .
- v. To assist, guide and support MePGCL in any other issues related to legal matters.

### **3.6. Quality Assurance & Quality Control.**

**The works include both that of Civil Works (Major, Basic facilities, etc) and Hydro-Mechanical Works.**

For ensuring good quality of construction and improving efficiency, the Consultant should set up an Office at Shillong.

- i. To monitor that construction is carried out as per the relevant BIS code, the specifications prescribed and guidelines issued by Central Water Commission Standard Specifications, IRC, MoRTH, ASTM, EU ACI and other international codes may also be referred and seek clarifications of IS specifications.
- ii. To inspect the site on daily basis, generate progress reports and highlight areas of concern w.r.t timely completion of the works, quality of materials, workmanship and finishing at

all stages of construction and report to the in-house 2<sup>nd</sup> Party QA&QC of MePGCL if the construction is not being carried out as per drawings & specifications approved by the MePGCL.

- iii. To inspect, that construction/works are carried out as per approved methodology, sequence of works, drawings & specifications approved by MePGCL.
- iv. To monitor dimensional and geometrical integrity, material and system integrity, performance and constructional integrity and visual and textural integrity, etc.
- v. To submit the progress report to the in-house 2<sup>nd</sup> Party QA&QC of MePGCL on daily basis. These reports should highlight any non-conformity, deviation & shortfalls in the processes, sequencing, and method statements w.r.t workmanship & quality control and quality assurance measures.
- vi. At every stage of construction, the in-house 2<sup>nd</sup> Party QA&QC of MePGCL shall be kept informed of the progress of the work.
- vii. Periodically inspect and report to in-house 2<sup>nd</sup> Party QA&QC of MePGCL, the adequacy and competence of Contractor's site engineers, skilled labor and constructions tools and recommend changes for improvements.
- viii. To assist the in-house 2<sup>nd</sup> Party QA&QC of MePGCL in complying to the QA&QC of CPMU with regards to that of contractors.
- ix. Any other related to QA & QC matter.

### **3.7. Environmental & Social Framework.**

**The works include both that of Civil (major, Basic facilities, etc) and Hydro-mechanical.**

- i. Analyse, evaluate and propose measures to avoid, control, mitigate, restore and/or compensate the proposed project's anticipated environmental and social risks and impacts to comply with World Bank Environmental and Social Framework, IOM Environmental and Social Safeguards requirements and national legislation.
- ii. To design appropriate environmental and social management tools and monitoring plans to manage environmental and social risks under the project.
- iii. To be responsible for carrying out all necessary preparatory studies, fieldwork, to compile the information and to be provided for Environmental & Social related activities; to MePGCL, which is Project Implementing Agency DRIP-II&III.

- iv. To identify, evaluate and manage the environment and social risks and impacts of the sub-project in a manner consistent with the ESSs;
- v. To adopt a mitigation hierarchy approach to the project's E&S risks i.e. a) anticipate and avoid risks and impacts; b) minimize or reduce risks and impacts to acceptable levels, if not avoidable; c) once risks and impacts have been minimized or reduced, mitigate; and (d) where significant residual impacts remain, compensate for or offset them, where technically and financially feasible.
- vi. Responsible for periodic examination and providing necessary guidance, suggestions and recommendations on the matters related to Environmental and social issues.
- vii. Coordination and follow up with concerned dam officials, CPMU; for preparation and compilation of any E& S matters.; as and when required.
- viii. Should have experience working on World Bank project and is aware with all the WB guidelines.
- ix. Responsible for the preparation and submission of all the compliance related to E & S works as sought by the World Bank and CPMU.
- x. Responsible for monitoring, evaluation on matters related to E & S.
- xi. To coordinate and work with various entities/divisions in MePGCL in understanding the various works including the officials from CPMU and World Bank.
- xii. To develop checklists and guidelines for effective and efficient flow of work.
- xiii. To Assist and support the officials of MePGCL and review performance and address gaps and inconsistencies as required.
- xiv. Frequent field/site visits for all the 4(four) dams should be carried out.
- xv. To prepare Annual Audit Report, Quarterly ESCP, and Monthly checklist in regard to E&S safeguard measures implementation at site, capturing details on E&S performance of the project. Details will include implementation status of the following
  - a. Environmental and Social Commitment Plan
  - b. Environmental and Social Management Plan (ESMP, GBV framework and LMP).
  - c. Compliance to Environmental and Social statutory requirements
  - d. Design modification or change in scope brought to Bank notice
  - e. Assessment of changes and updating/addendum to ESIA/ESMP
  - f. Site observations on Contractor's performance on Environmental Social Health and Safety (ESHS) and other plans in ESMP.
  - g. Summary of Stakeholder Engagement activities as stated in the SEF

- h. Summary of Grievances received and redressed for each scheme
  - i. Corrective Actions and planned E&S activities for next quarter.
- xvi. To assist in other activities, information and reports requested by the World Bank, CPMU and MePGCL.

**3.8** MePGCL has the right to terminate the Contract if the firm does not follow the Terms of References mentioned.

#### **4. Deliverables & Schedule**

- i. The Consultants (Technical Personnel) should be available at site. The consultant shall inspect the site regularly and submit the report to 2<sup>nd</sup> party MePGCL.
- ii. Develop and prepare all inspections, documenting & reporting formats and follow the same for the entire period of contract.
- iii. The inspection reports in case of non-compliances of serious nature having consequential effects on quality of work should be submitted to 2<sup>nd</sup> party MePGCL within 1 day.
- iv. To attend the meetings as and when required by 2<sup>nd</sup> party MePGCL and to present the periodical report and discussions.
- v. Post construction completion: Undertake final inspection and declare the construction of the building / services fit for use with the intended level of workmanship and finishing.

#### **5. Duration of the Assignment:**

The period of contract will be for a period of one year from the effective date of the Contract. The same may extended further on mutually agreed terms and conditions.

#### **6. Transportation:**

Conveyance/transportation of personnel to different sites will be under the scope of this work.

#### **7. Schedule of Completion of Tasks:**

Consultant will prepare and submit an inspection report within 15 days of mobilization, submit periodic reports (as stated above) and post project completion report. The consultant shall also make final inspection and declare the works fit for operation, ensuring that the intended level of workmanship and finishing has been achieved.

**8. Data and services to be provided by the MePGCL:**

MePGCL will provide all information related to the works such as contract documents between MePGCL and contractors, drawings and MePGCL will provide access to all work sites under the project.

**9. Review and monitoring of consultants' work:**

Consultants will be monitored at various stages by MePGCL 2<sup>nd</sup> party QA&QC through periodic reviews. The assignment/ implementation period is envisaged to be the same as the contract period. The consultant through the periodic performance reports, would point out delays observed, if any and suggest measures to adhere to the time schedule. In case, performance of the consultant is assessed as unsatisfactory, the contract would be deemed closed.