
SECTION: 5**LIST OF ACTIVITIES, QUANTIFICATION OF WORK
AND BROAD SCOPE OF WORK***R&M of Electro-Mechanical Components of Tuipanglui SHP***1.0 BROAD SCOPE OF WORK**

Design, engineering, manufacture, assembly, inspection, testing at manufacturer's works before dispatch, packing, supply, delivery at site, subsequent storage, erection and commissioning at site including insurance during transit and storage of all materials as shown in **Quantification of Works**.

2.0 ACTIVITY INVOLVED FOR CONTRACTOR (Envisaged but not limited to)

The Contractor is required to facilitate visit by The Owner, representatives to the sites of procurement of various equipment as relevant for witnessing/ inspection of the equipment/ tests etc.

- 2.1 POWER HOUSE: Renovation and modernization of the building including internal wiring by replacing old type of wooden batten by a new type of casing capping including re-installation of exhaust fans, replacement of damaged flood lights by CFL is included in the work proposal.
- 2.2 TURBINE : All the 2 sets of GILBERT GILKES & GORDON LTD., KENDAL, England. Turbine needs major-overhauling including replacement of damaged 2 nos of Bearing and runner assembly. Further, replacement of water cooling system is proposed.
- 2.3 ALTERNATOR : All the 2 nos. of Crompton Greaves make alternator needs major over hauling including replacement of damaged bearings and included in the work proposal.
- 2.4 PANEL : Most of the panels require renovation by replacing many of their components by new ones including painting of the surface of the panels. Further, replacement of damaged Float-cum-Boost charger is also included in the Scheme.
- 2.5 FOOTH PATH : A link between the Power House and the forebay with stone steps of 30m long , a foot path of 60m long between the forebay and the weir on power channel and approach steel steps of 4m long to the weir is used for day to day operation and maintenance of water flow by the duty personnel. The condition of the stone steps and steel steps are very bad and required renovation.
- 2.6 VERTICAL LIFT GATE AND HOIST ARRANGEMENT: Steel Decking and support having plate thickness of 6mm of vertical lift and hoist arrangement are required renovation due to rusting.
- 2.7 The Scope of Work shall include delivery at site, erection and commissioning and testing at site of construction materials and equipments, including insurance during transit and storage.
- 2.8 The materials/equipment covered here under this package shall be supplied complete in all respects, for completion of erection in all respect, including all components, fittings and accessories which are necessary or are usual for their efficient performance and satisfactory maintenance under the various operating and atmospheric conditions. Such parts shall be deemed to be within the scope of the contract, whether specifically included or not in the specification or in the Contract Schedules. The Contractor shall not be eligible for any extra charges for such fittings, etc.

- 2.9 Transport of all materials required for execution of the work to designated locations & stacking neatly and responsible for the safe custody of the same.
- 2.10 Submission of completion and commissioning report to P&E Dept., Mizoram. The contractor should obtain inspection certificate from the Electrical Inspector, Government of Mizoram before handing over to the owner.
- 2.11 The Contractor is required to document & submit feeder wise pre and post photographs of major equipments erected during the execution of project.

3.0 ACTIVITY SUPPORT FROM P&E Dept., Mizoram (Envisaged but not limited to)

- 3.1 Identification of locations for the project to enable the contractor to conduct the detailed survey and proceed with the work.
- 3.2 Accord approval for the work to enable the Contractor to commence the work.
- 3.3 Arranging for shut downs on HT and LT lines, necessary facilities at source Substations, whenever necessary with prior intimation from contractor.
- 3.4 Accord approval for Site layout, Structural layout, foundation details and Single line diagram upon submission by the Contractor.
- 3.5 Close liaison and monitoring for proper implementation of the Work Schedule. To conduct Statutory Inspection before Commissioning of all equipments.
- 3.6 Witness all the pre-commissioning tests conducted by the contractor. The owner is responsible for this activity.
- 3.7 Witness commissioning the new lines and Sub-stations and certify the same.
- 3.8 Supervising the progress and quality of work and Approval of Monthly Progress Report submitted by the Contractor as appropriate.

4.0. QUANTIFICATION OF WORK

A. Supply Contract : All the materials supplied shall be delivered to the Consignee.

B. Erection Contract : The quantification of erection work shall be as follows :

Sl. No.	Name of Work	Unit	Qty	Consignee/In-charge Engineer	Bill Passing Authority
1.	Electro-Mechanical Components (a) Renovation of Power House equipments like Turbine, generator, governing system etc.	LS	LS	Sub-Divisional Officer, Tuipang 'V' Power Sub-Division	Executive Engineer, Power Division Saiha