



Bill of Quantity

Rehabilitation of the Electrical Transformers in Ramadi City

Ramadi - Anbar

General Obligations Included within the Contract Cost:

- 1- All required works in the project, materials are subjected to the specifications of the Iraqi Ministry of Electricity. The measurements of all quantities of the implemented works will be calculated based on the actual findings and dimensions according to the engineering specifications.
- 2- All used materials, must be new and subjected to the necessary laboratory tests both inside and outside the country as required. Mercy Corps engineers have the right to re-test any materials in the project in a different laboratory for some cases.
- 3- The contractor is required to obtain an official approval by the supervisory committee and MC engineer before supplying any required materials, devices, systems...etc. or starting the implementation of any new items; including the provision of samples, mockup, catalogues for testing/inspection required to obtain this official approval.
- 4- The contractor is responsible for the safety of all activities in the site including the provision of all occupational safety requirements for all employees and workers (PPE).
- 5- The contractor cannot demand all the quantities mentioned in the BOQ, if the final measurement will show less quantities.
- 6- The contractor is required to provide and Install a prefabricated office of two rooms at least including kitchen and toilet for the supervisory committee of the project with all required furniture, electrical, mechanical and communications services. Also, it is required to provide only a one means of transport with its driver for the following-up of the project implementation by the committee.
- 7- The contractor is responsible for repairing and maintaining for any damage that occurs in roads or in the networks of the communications, water, sewage or postal service when installing the electrical materials which mentioned in the BOQ during the implementation of the project.
- 8- The maintenance works of the defect liability period (12 months) includes all civil and electrical works.

#	Item	Unit	Quantity
A- Dismantling and Removing Old and Damaged Transformers Accessories			
1	Dismantling and Removing The Old Accessories of Transformers Supply materials, tools and manpower to dismantle and remove the damaged transformers accessories, insulators with their accessories, the old and damaged boards with their accessories, damaged steel channels , surge arresters, expulsion fuse cutouts and all of the old and damaged accessories of transformers. Uploading, transportation, offloading and delivering all dismantled and removed electrical materials and all their accessories to the End User warehouses of the Electrical Directorate and delivering them by official storage documents according to the supervisory committee instructions, and all the works required to complete the Job.	No.	185.0
B- Supply, Install, Connect, and Test Accessories for Electrical Transformers			
2	Electrical Distribution Board Supply, install, connect, test and operate low voltage electrical distribution board of 400V capacity, consist of metal box, circuit breaker of 3 phases and 400 Amp capacity, busbars, voltage/ampere meters, glands and all accessories, preferred brand is ABB, Schneider, Siemens or equivalent which should be approved by the supervisory committee before starting supplying process. The metal box must be suitable to be fixed on tubular pole and made of steel plate of 2mm thickness and waterproofing. The electrical distribution board and its accessories should be suitable to operate under heavy load and short circuit system. See the electrical distribution board specifications in the SOW	Ea.	370.0

3	Expulsion Fuse Cutout of 11 KVa Supply, install, connect, test and operate expulsion fuse cutout of 11kVa capacity and Turkish origin or equivalent which should be approved by the supervisory committee before starting supplying process, with all connection and installation accessories and all the required works to operate the fuse cutout.	Set	25.0
4	PVC Insulated Single Core LV Cu Cable of 1x50 mm2 Supply, install and connect PVC insulated single core LV Cu cable of 1x50 mm2 and cable color is (G/Y) of Turkish origin or equivalent which should be approved by the supervisory committee before starting supplying process to connect the surge arrester set and electrical transformer with the earth rod copper bars, with all connection and installation accessories, cable terminals (lugs), metal parallel groove connectors (Aluminum-Copper) according to the cable size, stainless steel T-bolt and preformed band clamps and all the required works to complete the activity. See the cable specifications in attached SOW.	M.I	400.0
5	PVC Insulated Single Core LV Cu Cable of 1x95 mm2 Supply, install and connect PVC insulated single core LV Cu cable of 1x95 mm2 of Turkish origin or equivalent which should be approved by the supervisory committee before starting supplying process to connect between the transformer and the electrical distribution board under the transformer, with all connection and installation accessories, cable terminals (lugs), stainless steel T-bolt and preformed band clamps and all the required works to complete the installation. See the cable specifications in the SOW.	M.I	4,000.0
C- Rehabilitation of Transformers and its H-poles			
6	Rehabilitating The Existing Electrical Transformers in The Electrical Network and its poles and Reinstalling Them Again Supply materials, tools and manpower to dismantle and remove the dirty or damaged electrical transformers of 250 and 400 KVA which existing in the electrical networks, the work includes dismantling, cleaning, washing, uploading, transportation, offloading and reinstalling, testing and operating them in the electrical networks with all installation and connection accessories according to the supervisory committee directions, with all requirements to complete the job .	Ea.	25.0
7	Rusted and Damaged Poles: Supply materials, tools , and manpower to repair the rusted or damaged poles in the electrical network. The work shall include repairing and painting the rusted and damaged steel (non-galvanized) poles by three layers of anti-rust paint for insulation and safety, and according to supervisory committee directions, with all requirements to complete the job.	Ea.	140.0