



**UNITED NATIONS DEVELOPMENT PROGRAMME**

**Project No : PAL 10-00121131**

**RFQ: PAL-0000156974 - Installation of MV network for the medical waste treatment unit at Johor Al Dik**

**Bill of Quantity**

Item No.	Description	Unit	Qty	Unit Price-US\$	Total-US\$
<b>Installation of MV network for the medical waste treatment unit at Johor Al Dik</b>					
	<p>Notes:</p> <p>All installation works must be according to technical specifications, drawings, and engineer's instruction. Price shall include the following :</p> <p>1- All equipments, machines,materials ... etc. needed for proper execution and completion of work activities.</p> <p>2- Excavation, Backfilling, and casting concrete B250 for steel poles bases along with relevant tests of concrete compressive strength cubes.</p> <p>3- Wooden shutter to all concrete bases of the steel poles in all soil types.</p> <p>4- Encasing all water, sewage water pipes or any other facilities intersects with the concrete foundations of the steel poles with UPVC SN8 pipes of diameters 2" more than the diameter of the existing facilities. In case of important facilities such as pressure lines the encasement must be steel sheets of 2 mm thickness Ω-shape over the existing facilities as per supervisor instruction.</p> <p>5-Excavation and backfilling with approved material for wooden poles.</p> <p>6-Leveling, adjusting and tiling the top surface of the foundations for the removed steel or wooden poles to match the existing status.</p> <p>7- Preparation of proper access to the work site as may deem necessary.</p> <p>8- Repairing of all damages may occur to the existing facilities during the implementation including all the required tests according to the technical specification and the engineer's instructions.</p> <p>9- Dismantle and removal of any damaged poles , wires, surplus materials,... etc. then transport to locations nominated by engineer.</p> <p>10- All necessary tests according to the technical specification and the engineer's instructions.</p> <p>11-Transfer all surplus materials to the agreed dump sites according to supervisor instruction.</p> <p>12- All necessary shop drawings and as built drawings to the engineer's approval.</p>				
<b>A</b>	<b>Lattice Steel Pole</b>				
1	Supply and install hot dip galvanized Lattice steel pole 70/80 12m long , the Item includes hot dip galvanized steel base 2.25 m long with pouring concrete foundation (1.7*1.7*2) m³ , steel bolts , nuts , washers and all needed accessories for fixing & installation .	Unit	1		-
	<b>Total (Lattice Steel Pole)</b>				-
<b>B</b>	<b>Steel Arms</b>				
2	Supply and install complete Hot Galvanized Auxiliary Steel Arm K160/3A with Steel Bolts, Nuts & Washers and all needed materials, fittings and accessories for fixing and installation. (The supply and installation shall be according to GEDCO specifications and instructions)	Unit	1		-
3	Supply and install complete Hot Galvanized Auxiliary Steel Arm K160/3-B with Steel Bolts, Nuts & Washers and all needed materials, fittings and accessories for fixing and installation. (The supply and installation shall be according to GEDCO specifications and instructions)	Unit	4		-
4	Supply and install complete Hot Galvanized M.V Isolating Switch Side Arm , K1558 with Steel Bolts, Nuts & Washers and all needed materials, fittings and accessories for fixing and installation. (The supply and installation shall be according to GEDCO specifications and instructions)	Unit	2		-
5	Supply and install complete Hot Galvanized L.V Network Steel Arm,120cm long with Steel Bolts, Nuts & Washers and all needed materials, fittings and accessories for fixing and installation. (The supply and installation shall be according to GEDCO specifications and instructions)	Unit	2		-
6	Supply and install complete Hot Galvanized Anti-Climbing Steel Arm K113/8 , for L.S.P with all needed materials, fittings and accessories for fixing and installation. (The supply and installation shall be according to GEDCO specifications and instructions).	Unit	1		-
7	Dismantling existing galvanized steel arm and deliver to GEDCO store, The item includes all required material and workmanship to complete the job as per the engineer instructions.	Unit	2		-
	<b>Total (Steel Arms)</b>				-
<b>C</b>	<b>M.V Switches &amp; Insulators</b>				
8	Supply and install complete Overhead Line Pin Type Polymer Insulator with Creepage Distance 800 mm Complete (Set for one Phase) and all needed materials, AI distribution ties, fittings and accessories for fixing and installation. (The supply and installation shall be according to GEDCO specifications and instructions)	SET	3		-
9	Supply, install, test and operate complete 3 Phase 36 kV Isolating Switch with built-in arc interrupter Complete set. The unit price includes Master lock key , Compression Lugs , Steel Bolts, Nuts & Washers and hard drawn wires with solid stranded copper conductor 35 mm2 and all needed materials, fittings and accessories for fixing and installation to complete the works. (The supply and installation shall be according to GEDCO specifications and instructions)	SET	1		-
10	Dismantling the existing outdoor distribution transformer, LV panel and 36 KV isolating switch and reinstall on proposed galvanized steel pole. The item includes reconnect the LV cable with all required material, accessories and workmanship to complete the job as per the engineer instructions.	Unit	1		-
	<b>Total (M.V Switches &amp; Insulators)</b>				-

Item No.	Description	Unit	Qty	Unit Price-US\$	Total-US\$
<b>D</b>	<b>M.V Wires &amp; Cables &amp; Accessories</b>				
11	Supply, install and connect ACSR Wires Rabbit Type. The unit price includes all Clamps types, Distribution Ties Performed, Compression Lugs, and Steel Bolts and all needed materials, fittings and accessories for fixing , installation and operation. (The supply and installation shall be according to GEDCO specifications and instructions)	LM	20		-
12	Supply, install, lay, connect, test and operate 12/20 kV, 3-Single Core Cable with XLPE Insulation and Copper Circular Stranded Conductor 3*(1x120/16) mm2 AL, according to GEDCO Specifications, with all needed materials fittings and accessories and workmanship to complete the job. The unit rate shall also includes all needed civil works like excavation of trench in any type of soil with 60 x 110 cm, backfilling with clean sand, first layers with 50cm deep, then supply & install 45x45x5cm concrete slabs with flexural strength (5 Mpa), along with 5 cm thick clean sand with warning tape, then backfilling with clean sand up to the pavement layers, including watering and compaction to 100% for each layer with maximum 25cm depth, testing and all needed materials and workmanship to complete the job. The unit rate shall include dismantling of existing pavement and reinstatement for the pavement layers (Interlock, asphalt, ...etc.) with the same type and thickness, removing all base layers (basecourse and subbase) and replacing the damaged interlock tiles, asphalt or supplying new interlock tiles, asphalt and base-course layer if required under the new pavement with the same existing thickness including watering, compaction, testing and all needed materials and workmanship to complete the job. If the route of cable crosses any Asphalt road, the unit rate shall also include supply and install of two in one line) -UPVC pipes dia 8 inch SN8, and the trenches are to be implemented as per the GEDCO specification . (The supply of materials shall be according to M.V Cables General Specifications and Technical Guarantees XLPEA_120)	LM	800		-
13	Supply and install complete 36 Kv Heat Shrinkable Outdoor Termination Kit for XLPE Cable 1x120/16 mm2 (Set for One Phase) with Mechanical Lug, Steel Bolts, Nuts & Washers and all needed materials, fittings and accessories for fixing, installation and connection. (The supply and installation shall be according to GEDCO specifications)	Unit	6		-
14	Supply and install Outdoor Metal Oxide Surge Arrestor M.C.O.V 19.5 KV with Ground Lead Disconnecter included Brackets and Cable (3 no. Set for three phase). The unit price includes Earthing Wires soft drawn stranded copper conductor 35mm2, Compression Lugs, Clamps and all needed materials, fittings and accessories for fixing, installation and connection. (The supply and installation shall be according to GEDCO specifications and instructions)	SET	6		-
15	Supply and install Fittings to Protection the M.V cables on the steel poles with a unit of cable Guard size 240x25x15 cm, 3 Steel Plates, 6 Cable Holder, Steel Bands with Buckles and all needed materials, fittings and accessories for fixing and installation on the Pole. (The supply and installation shall be according to GEDCO specifications and instructions)	SET	2		-
16	Supply and install 24 Kv Heat Shrinkable Straight Joint for XLPE Cable 1x120/16 mm2, (Set for one Phase) with Bimetallic Mechanical Joints with all needed materials, fittings and accessories for fixing, installation and connection. (The supply and installation shall be according to GEDCO specifications )	Unit	2		-
17	Supply, install and test complete Earthing Unit for M.V. Isolating Switch Disconnecter. the unit price includes Wire PN CU 70 mm2 PVC Yellow/Green, 3 Earth Rods of 15mm Diameter and 1.5 m Long for each, 2 Earth Rod Joints of 15 mm Diameter, Earth Rod Connection Clamps and Compression Lugs , Steel Bolts and all needed materials, fittings and accessories for fixing and installation. ( The Earth Resistance should be less than 5 ohm with all needed extra electrodes to achive the resistance not more than 5 ohm ) (The supply and installation shall be according to GEDCO specifications and Instructions)	SET	3		-
18	Supply and lay 8" UPVC single pipe (SN8) at road crosses with no concrete encasement as per drawings and supervisor instructions and laying cordage inside the pipes. The pipes should have a rubber strap to protect the cable agnist drainage.	m	60		-
19	Dismantling existing wooden pole and reinstall as per engineer instruction. The item includes all required material and cables to connect security flood light with nearest DB with all accessories and workmanship to complete the job as per the engineer instruction.	Unit	1		-
	<b>Total (M.V Wires &amp; Cables &amp; Accessories)</b>				-

Installation of MV network for the medical waste treatment unit at Johor Al Dik		
Item No.	Description	Total-USD
1	Total (Lattice Steel Pole)	-
2	Total (Steel Arms)	-
3	Total (M.V Switches & Insulators)	-
4	Total (M.V Wires & Cables & Accessories)	-
	Grand Total USD	-
	Grand Total (in letters):   Contractor's Name:   Signature and Stamp:   Date:	