

Bill of quantities for Sed el Baouchrieh Civil Defense Center

Breakdown of the Lump Sum

Item No	DESCRIPTION	UNIT	QTY	RATE USD	AMOUNT USD
	Unit rates here below shall include all required equipment, accessories and services to comply with specifications and drawings, even if not mentioned in the herebelow descriptions.				
	The contract price is a lump sum price. Quantities mentioned are indicative. Contractor shall verify exact quantities. Herebelow unit rates may be used for Variation Orders evaluation (if any).				
<b>1 Solar PV Array</b>					
1.1	PV Array complete with installation, wiring (with earth connection), accessories and installation as per drawings and specifications	KWp	11	--	--
<b>2 Metallic support Structure</b>					
2.1	Supply, install, test and commission of a roof mounted, metallic support structures (as per attached design), with all needed accessories for a fully functional and safe system operation. Following is a list of main components and requirements only: <b>Supply and install 2 x Manual Transfer Switches (rated 2x40 amps) including necessary AC cabling and circuit breakers</b> <b>Supply and install 2 x Automatic Transfer Switches (rated 2x40 amps) including necessary AC cabling and circuit breakers</b> <b>Supply and install all required accessories and protection devices for inverters and battery pack.</b> The bidder has to make sure to include all necessary equipment relevant to his chosen technical room design.	LS	1	--	--
<b>3 Hybrid Solar Inverter</b>					
3.2	Supply, install, test and commission of 10 kW Single phase hybrid inverter(s) and monitoring system as per technical specifications and drawings complete with configuration accessories, wiring (with earth connection) and installation (multiple inverters can be parallel).	Pcs	1	--	--
<b>4 Battery Bank</b>					
4.1	LiFePO4 Battery bank with BMS complete with configuration accessories, rack, wiring and installation.	kWh	20	--	--
<b>5 Cable Tray</b>					
5.1	Supply, install, test and commission of 10 cm width Hot dip galvanized covered cable tray for DC cables, AC cables and connections inside the technical Space as per technical specifications and drawings	Lm	30	--	--
<b>6 DC Combiner / protection</b>					
6.1	Supply, install, test and commission of waterproof IP65 metallic enclosure DC combiner Box as per technical specifications and drawings including: PV Fuses for positive and negative polarities PV Fuses holders DC Surge arrester Cable glands for the DC cable exiting the combiner box MC4 connectors, for direct clip-in/clip-out connection of the PV solar DC cables to the DC combiners DC breakers 2-pole Bus bar on positive and negative polarities	LS	1	--	--
<b>7 DC Solar Cables</b>					
7.1	Supply, install, test and commission of solar PV cable as per technical specifications and drawings	LS	1	--	--
<b>8 AC Cables</b>					
8.1	Supply, install, test and commission of AC power cables 4x16-16mm2 as per technical specifications and drawings	Lm	40	--	--
<b>9 Technical Equipment Room Balance Of System</b>					
9.1	Supply, install, test and commission of all necessary components for a fully functional and safe system operation. Following is a list of main components and requirements only: <b>Supply and install 2 x Manual Transfer Switches (rated 2x40 amps) including necessary AC cabling and circuit breakers</b> <b>Supply and install 2 x Automatic Transfer Switches (rated 2x40 amps) including necessary AC cabling and circuit breakers</b> <b>Supply and install all required accessories and protection devices for inverters and battery pack.</b> The bidder has to make sure to include all necessary equipment relevant to his chosen technical room design.	LS	1	--	--
<b>10 Earthing and Lightning Protection System</b>					
10.1	Supply, install, test and commission of an earthing and Lightning Protection System, including all elements and connections as specified.	LS	1	--	--
<b>11 Spare parts</b>					
11.1	Solar PV modules	Pcs	1	--	--
11.2	10 additional DC fuses Additional 2 DC Surge Arrestors Additional 2 AC Surge Arrestors	Pcs	1	--	--
<b>12 Miscellaneous works</b>					
12.1	Supply and install a double-glazed aluminum sliding window system for balcony use, including all necessary hardware, seals, and locking mechanisms. The system shall feature high-quality aluminum frames with smooth sliding tracks, and durable weatherproofing to ensure energy efficiency and longevity.	m <sup>2</sup>	9	--	--
12.2	Rehabilitate the all existing Distribution Boards, including the reconfiguration and installation of existing electrical components into a new panel. The scope includes careful removal, inspection, and reinstallation of circuit breakers, busbars, and metering devices, with the addition of new wiring and accessories if needed. Ensure compliance with current electrical standards and safety regulations. Complete with testing, commissioning, and labeling of all circuits.	Units	2		
12.3	Identify, secure, and properly route stray cables to ensure orderly and safe installation. The scope includes bundling, labeling, and fastening cables using appropriate cable management accessories such as ties, conduits, or cable trays. Replace any damaged or non-compliant cables as needed, ensuring all work adheres to current electrical standards and safety regulations.	LS	1		
12.4	Supply and install high-performance waterproofing membrane on the concrete roof surface, including surface preparation, application of primer, and installation of a multi-layer membrane system with reinforcement. The work includes removal of the existing old waterproofing, ensuring full protection and waterproofing integrity before the installation of solar panels. Specifications: Material: Bitumen, polyurethane, or synthetic rubber-based membrane. Thickness: Minimum 1.5 mm to 2.0 mm after curing. Reinforcement: Fiberglass or polyester fabric embedded within the membrane. UV Resistance: UV-stabilized membrane. Temperature Resistance: -20°C to +90°C. Chemical Resistance: Resistant to acids, alkalis, and salts. Application Process: Includes cleaning, surface preparation, primer application, membrane installation, curing, and inspection. Testing: Water ponding or electronic leak detection test to ensure waterproofing integrity. Warranty: Minimum 10 years against defects in materials and workmanship.	m <sup>2</sup>	180		
<b>13 Lighting upgrade</b>					
13.1	Supply and install IP 56 LED Street light, 70 watts, SMD type, >100 lm/w efficiency, 4000 K, including necessary wiring, mounting brackets, photocell, in addition to connecting existing LED projectors in the center to the same control.	Pcs	2	--	--
<b>14 Testing &amp; commissioning / O&amp;M manuals and training</b>					
14.1	Testing & commissioning to be executed as described in the specifications, provide as built drawings and O&M manuals.	LS	1	--	--
VAT					
<b>TOTAL TTC</b>					
Say Total TTC Lump Sum price (in Letters)					