



Directorate of Works University of Engineering & Technology Mardan

File No: 02/DOW/UETM

Dated: 14.10.2026

Bill of Quantities (BoQ)

Type of Work: **Supply, Installation, Testing, Commissioning and Training of 30 KW Hybrid Solar PV System with Battery Energy Storage System (BESS) for Malik Ahmad Khan Hostel at UET Mardan.**

S.No	Name of items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
A. Schedule items					
1	Supply and Erection of Solar PV 585 WP Module (Solar Panel) Mono-crystalline A-Grade N type Bi-facial Canadian, Jinko, JA ,Longi or Eq (As per Approved Specifications) with 12 year product warranty & 25 years performance warranty MRS item # (26-01-d-01)	Watt	20000	44.34	886,800
2	Supply and Erection of lithium LifePO4 battery 100 AH 48V 6000 cycles with BMS, Inverex, PYLONTECH ,BYD or Eq & 7 Years Warranty, MRS 2025 (1st Bi) item # (26-01-f-06)	No.	14	303650.3	4,251,104
3	Supply and Erection 1x6 sq.mm single core (XPPE/XPLO insulated/PCV sheathed) flexible copper cable (Allied, AGE, Pakistan. Fast, Copper Gat cables) DC cable, MRS item # (26-01-g-03)	Rft	650	118.19	76,824
4	Supply and Installation of 100A AC Auto Circuit breaker 4P - MCCB Type, CNC, Schneider, or eq complete, MRS 2025 (1st Bi) item # (26-02-a-04)	No.	2	9457.31	18,915
5	Supply and Installation of 20 to 63A Auto DC Circuit breaker 2P - MCB Type, CNC, Schneider, or eq complete, MRS 2025 (1st Bi) item # (26-02-a-12)	No.	6	3,933.73	23,602
6	Supply and Installation of AC surge protection device 4P, 385V, In = 40kA & Imax = 80kA, CNC, Schneider, or eq, MRS 2025 (1st Bi) item # (26-02-b-05)	No.	1	6,150.64	6,151
7	Supply and Installation of DC surge protection device 2P 1000VDC, In = 20kA & Imax = 40kA, CNC, Schneider, ABB or Eq, MRS 2025 (1st Bi) item # (26-02-b-07)	No.	6	4,125.07	24,750

8	Supply and Installation of V-A protection device 1-63A, 330V-440V, 4P, CNC, Schneider, or eq, 2025 (1st Bi) item # (26-02-b-09)	No.	1	3,364.06	3,364
9	Supply and Installation of Change Over Switch 4P, 63A, CNC, Schneider, or eq, 2025 (1st Bi) item # (26-02-d-05)	No.	1	4,186.82	4,187
10	PVC 2" Conduit duct for indoor surface wiring (dura duct or eq) complete in all respect MRS item # (15-79-d)	Rft	100	81.1	8,110
11	Supply and Erection PVC flexible pipe : 1" i/d MRS 2025 (1 st Bi) item # (26-01-b-01)	Rft	200	91.03	18,206
12	Supply and Erection MC-4 connector (TUV or Eq Approved) MRS item # (26-01-h-01)	Pair	50	376.06	18,803
13	Supply and Erection MC-4 Branch connector MRS item (26-01-h-02)	Pair	6	1,580.19	9,481
B. Non-Schedule items					
14	Supply & Erection of GI punched L-2 & L-3 PV Roof mounted Structure (14 SWG Commercial) i/c cost Cement Concrete (1:1.50:3) Pad 15" x 15" x 15" , GI HD Bolt embedded 2"-3" in RC Slab and bonding/erection use Epoxy etc complete in all respect	Set	15	8,100.00	121500
15	Supply and Erection of GRID TIE 3 Phase HYBRID INVERTER (ON/OFF-Grid) high volt Inverex, Solis, Huawei or Eq with 5G Wifi, comptiablility with Batterie and Gen Set synchronize complete in all respect,	Watt	30000	45	1350000
16	Steel Box 14 SWG (Commercial) IP65 for AC/DC Circuit Breakers etc complete in all respect	No.	1	28200	28,200
17	Supply ,Fabrication & installation perforated cable tray GI Conduit duct for surface wire out door 2" 18 SWG (commercial) complete	Rft	40	1,295.00	51,800
20	Earthling & Lightning (Resistance less than 5 ohm) Complete System with bore holes and all accessories like Earthling Rod (copper), Earthling Plate(copper), Salt, Nut bolts(copper), 10mm2 Standard copper Wire and Earthling Powder (Proper Bore will be done for Earthing) and for Lightning Arrester Height should be more than 10m from structure and 5m away from Structure.	Set	1	75,000.00	75,000
18	AC Cable (Copper) 4-Core, PVC 50 mm Pakistan, Allied, AGE, Copper Gate or Equivalent	Rft	13	4,410.00	57,330
19	Voltmeter, Ampere Meter, Best Quality	No.	7	3000	21,000
20	Curent Transformer (CT) 400A, Best Quality	No.	3	3000	9,000

21	Net Metering Complete in all Respect	Job	1	175000	175,000
22	Integration of Existing 20-KW Solar Panel Array into the Proposed System	Job	1	75000	75,000
		Total Amount (Rs.)			7,313,723
Contractor Premium		At Par/Below ☐			Rs. ☐
		Quoted Amount			

☐ ☐
☐

Total Quoted Amount in Words: _____

Note: - Any additional items (not included in this BOQ) if carried out by the contractor shall be analyzed by Inspection and Paid.



Dr. Ajmal Farooq
Additional Advisor Works
UET Mardan