

UNIVERSITY OF ENGINEERING & TECHNOLOGY MARDAN



DETAILED SPECIFICATIONS BIDDING DOCUMENT SINGLE STAGE – TWO ENVELOPE

Procurement Reference	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
Procuring Entity	Directorate of Works, UET Mardan
Tender Submission Deadline	16.11.2026 at 11:00 AM
Opening of Tender Bids	16.11.2026 at 11:30 AM
Venue for the Meeting	Video Conference Hall, Old Academic Block, UET Mardan

DIRECTOR WORKS
UNIVERSITY OF ENGINEERING & TECHNOLOGY MARDAN
Main Charsadda Road, Mardan | adworks@uetmardan.edu.pk | 00937-920069

NOTE:

The bidder is expected to examine the Bidding Documents carefully, including all instructions, forms, terms, specifications, etc. Failure to furnish all information required by the Bidding documents or submission of a Bid not substantially responsive to the Bidding Documents in every respect would result in the rejection of the Bid.

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1. ELIGIBILITY CRITERIA/CHECK LIST

S. No	Mandatory Documents	Attached Yes / No
1	Updated registration with PEC C-6 or above with relevant Specialty Codes	
2	Provision of a bid validity period of 120 Days	
3	Registration Document with Income Tax (Active NTN)	
4	Valid Registration with Khyber Pakhtunkhwa Revenue Authority-KPRA	
5	General Sales Tax (GST) Registration Document	
6	Proof of Tender cost of Rs 3,000/-(Tender & Stationery charges)	
7	Affidavit on Judicial / Stamp Paper of Rs. 100/- or above, duly attested by a Notary Public that the firm will supply/install Brand New/ Original equipment for the Project.	
8	Affidavit on Judicial / Stamp Paper of Rs. 100/- or above, duly attested by a Notary Public that any Government/Semi Government Organization has never blacklisted them.	
9	Confirming that Bid Security (02%) has been attached to the financial proposal without showing the amount of bid security.	
10	Letter on the Company letter head by the owner of firm to act as authorized person for signing & submission of Bids must be provided duly attested.	
11	Two Projects (in hand) of On-Grid/Hybrid solar installation minimum of 50 KW in public sector. (Attach Purchase/Work Order/ Agreement)	
12	A written commitment on company letter head that the company will provide One Year Operation and maintenance (O&M) after completion of the project with cost included in overall items Cost and will not claim as a separate.	

2. TERMS & CONDITIONS

1. Tender documents will be accompanied by original call deposit i.e. 2% Earnest money in the name of Treasurer, UET Mardan from schedule banks. Without call deposit, (bid(s) will be rejected.
2. E-Bidding documents containing detailed terms and conditions, specification and requirement etc. are available for bidders on EPADS at <https://www.kp.eppure.gov.pk>, KPPRA <https://www.kppra.gov.pk> and University Website <https://www.uetmardan.edu.pk>
3. The bidder should provide an affidavit to the effect that their firm has not been blacklisted from any Government, Semi-Government, or Autonomous Organization.
4. All Federal and provincial Taxes, i.e. Income Tax, Professional Tax, KPRA Sales Tax and Stamp Duty or any other admissible tax will be deducted as per directives of the Government issued from time to time.
5. Subletting of Contract(s) is not allowed and violator (s) will be observed strictly under the law/rules.
6. Conditional/Incomplete/disfiguring/over writing/By Hand/delayed bid shall be considered non-responsive.
7. Telephonic/Telexed/Faxed quotations will not have been entertained.
8. Refurbished, Grey Smuggle or international warranty products will not be accepted in any case.
9. The University will verify the serial numbers of the supplied items with its manufacturer. If found ambiguous, will be returned at supplier own cost.
10. Any product inferior to the given specification university requirement shall be disqualified straightaway.
11. The UET Mardan shall only accept the branded equipment imported through proper channel.
12. All bids must be properly sealed and delivered through registered couriers.
13. Technical and Financial bids should be submitted through EPADS.
14. The work order will be issued subject to the availability of fund. Payment of Bills will be made subject to the release of funds
15. If due to any reason the tender is not opened on the due date, the same shall be opened on next working day
16. Any quality control test of work in progress if needed shall be at the cost of contractors.
17. The Contractor is bound to follow the terms and conditions mentioned in the tender.
18. The authority reserves the right to accept/reject any or all the applications/tenders as per KPPRA rules.
19. Bid security of 1st, 2nd and 3rd lowest bidders will be retained by the employer till the approval of bids.
20. All the prevailing KPPRA Rules / Act and other Government: Notifications issued from time to time shall be applicable
21. All contractor/firms/company are required to be registered with the relevant Council/Departments

Contractor Signature & Stamp of the Firm

3. INSTRUCTIONS TO PROSPECTIVE BIDDERS

Submission of Applications:

Applications for qualification (one original and 01 copy in hard form) must be received in sealed envelopes to be delivered by Registered Couriers but not later than **16-11-2026 at 11:00 AM** to Directorate of Works, UET Mardan, and be clearly marked as

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

The applications should be sent/ delivered on following address: -

Director of Works
University of Engineering & Technology Mardan Charsadda Road, Mardan 23500,
Khyber Pakhtunkhwa
Ph: 0937-920069

The name and mailing address of the Firm/ Company/ Contractor shall be clearly marked on left side of the envelope.

Applications must be prepared in the English language. Information in any other language shall be accompanied by its translation in English.

Bidders must respond to all questions and provide complete information as advised in this document. Any lapse in providing essential information may result in the disqualification of the Bidders.

The clarification required may be asked through post, email or other communication means (Email Address: ajmal@uetmardan.edu.pk)

4. PROPOSAL PREPARATION

A brief description of the Assignment and its objectives are provided in the Data Sheet.

To obtain firsthand information on the Assignment and local conditions, firms, companies, and contractors are encouraged to visit the site before submitting a proposal. The representatives of firms, companies, and contractors shall meet the officials named in the Data Sheet. Please ensure that these officials are informed about their visit in advance to allow adequate time to facilitate the site visit. Contractors, firms, and companies must fully update themselves on local conditions and take them into account while preparing their proposals.

The Firm/ Company / Contractor shall provide the inputs specified in the Data Sheet.

Please Note That:

The cost of preparing the proposal and site visit, are not reimbursable as a direct cost for the Assignment.

In case any activity or item is quantified in the financial proposal differently from the technical proposal, the evaluation committee shall have the power to accept the quantification indicated in the financial proposal to make it consistent with that indicated in the technical proposal.

DOCUMENTS

To prepare a proposal, prospective Bidders will use the attached forms/documents listed in the RFP as a sample.

Prospective Bidders requiring clarification of the documents must notify UET Mardan in writing, but not later than **seven (07) days before the proposal submission date**. Any request for clarification in writing or email shall be sent to the UET Mardan address indicated in the RFP.

5. SUBMISSION OF PROPOSAL

UET Mardan invites proposals from experienced Firms/ Companies/ Contractors by using single stage-two envelops procedure for “ **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**”. Following procedure is prescribed for participation in the tender.

- i. The bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the financial proposal and the technical proposal; The envelopes shall be marked as “FINANCIAL PROPOSAL” and “TECHNICAL PROPOSAL” in bold and legible letters to avoid confusion;
- ii. Initially, only the envelope marked “TECHNICAL PROPOSAL” shall be opened; The envelope marked as “FINANCIAL PROPOSAL” shall be retained in the custody of UET Mardan without being opened;
- iii. UET Mardan Technical Committee shall evaluate the technical proposal in a manner prescribed in advance without reference to the prices and reject any proposal which does not conform to the specified requirements.
- iv. During the technical evaluation, no amendments in the technical proposal shall be permitted.
- v. The financial proposals of the Bids shall be opened publicly at the time, day and venue announced and communicated to the Bidders in advance.
- vi. After the evaluation and approval of the technical proposal, UET Mardan shall at a time within the bid validity period, publicly open the financial proposal of the technically accepted bids only. The financial proposal of the bids found non- responsive/dis-qualified shall be returned un-opened to the respective Bidders.
- vii. The bid found to be the most advantageous bid shall be accepted.
- viii. All the Bidders are required to submit their technical proposals which will include but not limited to Company Profiles, Proposed Design including Lay out of installations and Project execution plan of solar power system at UET, Mardan. This information will also be provided in soft form for presentation to the technical/works committee. The presentations will be held after evaluation of bids and will be communicated to the successful bidder.

Financial Bids of technically qualified Bidders will be opened for financial evaluation. Financial

Proposal will be evaluated as per given criteria. The Firm/ Company/ Contractor with the highest score (both in technical and Financial) will be selected for the award 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

6. BID DATA SHEET

Name of the Assignment/ Scope of Work:	Supply, Installation, Testing, Commissioning and Training of 30 KW Hybrid On Grid Solar PV System With battery Energy Storage System (BESS) for Malik Ahmad Khan Hostel at UET Mardan
Name of the Client:	University of Engineering & Technology Mardan
Description and the Objectives of the Assignment:	UET Mardan invites bids from reputed and well-established Firms/ Companies/ Contractors to provide the Net- Metering facilitation and license through PESCO/WAPDA having valid NTN / Sales Tax registration with active ATL Status in FBR record for 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
For Queries Please contact:	0937-920069
Address for writing on the proposal:	Director of Works, UET Mardan Charsadda Road, Mardan 23500, Khyber Pakhtunkhwa Ph: 0937-920069
Pre-bid Meeting	Pre-Bid Meeting of the prospective bidders will be held on 6th November, (Friday), 2026 at 11.00 A.M in the Conference Room, UET Mardan to address the queries of the bidders (if any),so as to resolve the issue (if any) before the submission of tenders before the date of opening of tenders.
Selection Procedure: -	<p>The Contractor/firm/company shall be selected under the selection method of combining the obtaining score in technical (70 marks) and financial (30 marks). The procedure for opening of proposals will follow the principles of PEC/KPPRA. Single Stage-two envelope procedure, which is presented as follows: -</p> <p>(i) The bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the financial proposal and the technical proposal and evaluation to be marked as “FINANCIAL PROPOSAL” and “TECHNICAL PROPOSAL” in bold and legible letters to avoid confusion.</p> <p>(ii) Initially, only the envelope marked “TECHNICAL PROPOSAL” be opened and the envelope marked as “FINANCIAL PROPOSAL” shall be retained in the custody of the procuring agency without being opened.</p> <p>(iii) The procuring agency shall evaluate the technical proposal in a manner prescribed in advance in the RFP, without reference to the price and reject any Technical Proposal which manifests material deviation from the specified requirements.</p> <p>(iv) During the technical evaluation, no amendments in the technical proposal shall be permitted. After the evaluation and approval of the TECHNICAL PROPOSAL, the procuring agency, shall at a time within the bid validity period, publicly open the FINANCIAL PROPOSALS of the technically qualified firms at a time, date and venue announced and communicated to the contractor/firm/company in advance for the attendance of their authorized representative duly notified in advance.</p> <p>(v)The proposals found to be highest ranked determined after the combined evaluation of TECHNICAL and FINANCIAL proposals obtaining highest total combined score as per prescribed procedure in the RFP shall be recommended and submitted for acceptance to the Authority.</p>
The weights given to the Technical and Financial Proposals are	Technical: 70%, Financial: 30%

Date and time of Technical and Financial Proposal submission:	16-11-2026, 11:00 AM
Date and time of opening of the Technical Proposal:	Technical bid will open on 16-11-2026, 11:30 AM and Financial bid opening date of the technically qualified bidders will be communicated later.
Validity period of the Proposal:	120 Days from the date of opening of technical proposal.
Method of Evaluation:	The proposals will be evaluated as prescribed in evaluation criteria.
Completion Time	The work will be completed within the speculated period of time as mentioned in the Work Order (days) issued to the successful bidder.
Performance Security	10% of the Contract Value (to be submitted within 15 days after Contract Award) in the form of bank Guarantee by Scheduled bank of the State Bank of Pakistan(No other form of guarantee would be allowed),which will be released on completion of Defect liability Period.

7. TECHNICAL BID EVALUATION CRITERIA

Technical Bid Evaluation	Technical bids will be scrutinized, examined and evaluated on following setout evaluation standard:		
	S.No	Requirement	Scale of Evaluation
	1	Technical Compliance of the specification (BOQ) (Sub Division of Marks at Appendix-A)	30 Marks
	2	Financial Soundness (Sub Division of Marks at Appendix-B)	10 Marks
	3	Experience of Similar Nature Completed Project (Sub Division of Marks at Appendix-C)	15 Marks
	4	Experience of Similar Nature Ongoing Project (Sub Division of Marks at Appendix-D)	10 Marks
	5	Warranty & After Sale Service	5 Marks
		TOTAL	70 Marks
* Minimum 60 percent marks (42) in technical for qualification.			

Appendix A: Subdivision of Marks for Compliance of Technical Specification (30 Marks)

S.NO.	Name of Item	Description	Marks
1	Inverter	USA/ Europe/ Japan Singapore/Malaysia/Taiwan/Korea/ China	10
		Other	5
2	Panel	Tier-1 A Grade Canadian ,JA-N, JINKO	10
		Other	5
3	Batter Energy Storage System (BESS)	USA/ Europe/ Japan Singapore/Malaysia/Taiwan/Korea/ China	10
		Other	5

Appendix B- Financial Health (10 Marks)

Annual Turn Over	Marks
Average Annual Turnover of last three years > or = PKR 20-50 Million	10
Average Annual Turnover of last three years from PKR 10 Million up to PKR 20 Million	5
Average Annual Turnover of last three years from PKR 5 Million up to PKR 10 Million	3

Appendix-C: Experience of Similar Nature Completed Project (15 Marks)

S.NO	INSTALLED CAPACITY EXPERIENCE COMPLETED	MARKS ALLOCATED
1	03 No's or more projects of 50 KW and above	15
2	02 No's of projects of 50 KW and above	10
3	01 No' of projects of 50 KW and above	5

Appendix-D: Experienced in Similar Nature Ongoing Project (10 Marks)

S.NO	PROJECTS EXPERIENCE IN HAND	MAKRS ALLOCATED
1	03 No's or more solar power projects of more than or equal to 50 KW	10
2	02 No's or more projects of more than or equal to 50 KW	7
3	01 No's project of more than or equal to 50 KW	4

Appendix-E: Warranty Period (03 Marks)

Name of Item	Warranty	Marks
BESS	Up to 10 YEARS	1
	Less Than 10 YEARS	0.5
INVERTOR	Up to 5 YEARS	1

	Up to 4 YEARS	0.5
PANEL	Up to 30 YEARS	1
	Less than 30 YEARS	0.5

Appendix-F: After Sale Service (02 Marks)

Name of Item	Warranty	Marks
INVERTOR	More Than 2 years	1
	(1 - 2 Years)	0.5
Other accessories	2 or more Than 2 years	1
	(1 - 2 Years)	0.5

Financial Bid Evaluation	After evaluation/marketing of bidders in technical evaluation process, Financial bids of only technically qualified bidders will be opened.		
		Bid Prices & Entries	Each offered item to be entered separately (with unit & total cost preferably) inclusive of cost of items and transportation charges up to UET, Mardan. duties/ taxes of delivery, installation/testing/commissioning /operational training etc. (as and where applicable) will also be responsibility of the bidder/supplier. The bid must be made on company letter head quoted rates of items in Pakistan Rupees (duly signed and stamped beneath by the bidder firm/company or authorized person).
		Bid Validity	120 Days from the date of opening financial tenders.
		Amount of Earnest money	2% of total bid amount
		Form of Earnest Money	CDR from the scheduled bank in favor of Treasurer UET, Mardan, shall be attached by the bidder
		Registration of Firm	NTN & GST Registration Certificates shall be attached by the bidder.
<p>After initial scrutiny of above factors of financial bids, comparative statement of prices will be prepared. The lowest bid will get highest marks which are 30 and subsequently higher bids will get proportionally less marks as per following formula: -</p> $A/B \times 30, A/C \times 30 \dots\dots\dots$ <p>A First Lowest Bidder B 2nd Lowest Bidder C 3rd Lowest Bidder</p>			

8. TECHNICAL SPECIFICATION

Specifications of Inverter			
Parameters	Description	Qty	Rating
Specification	Minimum 30 KW Wifi Enabled, with 5 Years Warranty having Maximum Efficiency of 98.8% with Natural cooling Technology.	As per requirement	Minimum 30 KW
Type of Inverter	3 Phases, WAPDA / Gen. Sync. with built-in Wi-Fi for Data Monitoring.		
Make	Japan/European/USA Singapore/Malaysia/Taiwan/Korea/China.		
No of MPPT tracker	6 independent MPPT trackers		
Maximum input Nos. per MMPT tracker	2		
Nominal AC Voltage	3 c, 230/400 VAC 50Hz		
Total Harmonic distortion	5. 3%		
Efficiency	98.8% peak		
Protection Class	IP 66		
Standby power consumption	<10W		
Operating Temperature humidity	-25 2C "" 60 QC and 100%		
Topology	Transformer less		
Max Input Voltage	1KV		
Rated Power @ 400 V 3 4 50Hz	30 KW		
Max AC Power	30 KVA		
Power Factor @ Rated power	1		
Remote Monitoring App	Yes		
Protections			
AC/ DC Protection i. AC/ DC Over Voltage Protection ii. AC/ DC Under Voltage Protection iii. AC/ DC Over Current Protection iv. AC/ DC Reverse polarity Protection, Over Temperature Protection, Surge Protection and Grid code complied			

Specifications of Solar Panels			
Parameter	Description	Qty	Rating
Specification	Tier-1 A Grade PV Modules 550-585W 144 Cells, TOP Con Technology having 22.3% Efficiency, 12 years of Product Warranty & 30 Years of Linear Performance Warranty with Flash Test Report, SGS & Shipments Documents	A per actual requirement	Minimum 20 Kw
PV Genset	PV Genset	1	
PV Size	>500W		
Qty of cells	>140		
Bus Bar	16 Bus Bar solar cell		
Cell Quality	A Grade, tier 1		
Module Efficiency	>22%		
Operating Temperature	-40.2C to +85.2C		
Temperature Coefficient of Pmax	-0.40%/2C or better		
Fill Factor (Calculations Required)	77% or higher at STC		
Certification or equivalent	IEC 61215, IEC 61730, IEC61701 ED2,UL1703		
Frame	Must withstand 5400 PA Load		
Junction Box	IP 68, IP 67, IP 66 rated, with bypass diodes		
Connectors	MC4		
Front Cover	3.2mm tempered glass or higher		
Warranty	12 years' product replacement 12 years for 90% of warranted minimum power 11 - up to 30 years for 85% of warranted minimum power		
Specification of 60-KWH Battery Energy Storage System (BESS) <ul style="list-style-type: none"> • Brand: Pylontech/ Solis/ GoodWe/ Dyness/ Sunwoda or Equivalent • Battery Storage Chemistry: Lithium Iron Phosphate (LiFePO4 / LFP) using grade-A prismatic cells with thermal stability and high cycle life. • Depth of Discharge (DoD): Minimum 95% DoD. • Cycle Life: Battery bank should have minimum 8000 life cycles at 95% DOD and IEC 62619, IEC 61000, UN38.3, IEC 62040 or equivalent certifications. • Charge/Discharge-Rate: 0.5C configuration • Nominal Voltage Range: High-voltage configurations ranging from 43.2V–57.6V (low-voltage parallel stacks) up to 600V 			

- **Operating Temperature:** -20°C to +55°C (smart air-cooling or integrated thermal management; derating above 45°C)
- **Protection:** IP65 Weather Resistant with modular cabinet deployment
- **Configuration:** Standard modularity, plug and play, flexible capacity configuration.
- **Energy Density:** Highly integrated, small footprint, and high energy density per unit volume;
- **BMS (Battery Management System):** Advanced BMS control system ensures battery safety and maximizes available capacity, Maximizing self-consumption, Peak-shaving, Energy trading with Intelligent active/passive balancing with RS485, CAN 2.0, Wi-Fi/Ethernet for cloud and EMS monitoring
- **EMS:** Independently develop EMS control system to achieve intelligent energy scheduling and optimal distribution
- **Cell Monitoring:** Measures individual cell voltage, temperature, and current
- **State Estimation:** Real-time calculation of State of Charge (SoC) and State of Health (SoH)
- **Electrical Protection Mechanisms:** Over-voltage, under-voltage, over-current, and over-temperature cutoffs
- **Balancing:** Active or passive cell balancing to maximize pack lifespan
- **Warranty:** 10 Years

Specification of Other items:

Structure	As shown in Drawing (GI Punched L-2 Channel)	25	Each
Civil Work	Plain Cement Concrete (1:1.50:3) Pad 15" x 15" x 15" i/c HD Bolt embedded 2"-3" in RC Slab and for bonding/erection use Epoxy	1	job
Accessories	Combiner Box, Connectors, Circuit Breakers, IP65 MC4 Connector, Voltage Protector etc.(2P DC Breaker 32/63Amp Schneider/Tomzin or equivalent, AC Breaker 4P 400Amp Schneider/Tomzin or equivalent and DC SPDS).	1	job
Wiring	6mm allied cable, AGE cable, Pakistan cable, Copper Gat, Fast Cable or equivalent with Double PVC Coating & Heat proof DC Cable Pakistan, Copper Gat or Fast Cable Pure 99.9% Copper AC Wire 180mm or equivalent.	1	job
Cable	ABC Wire connect with others Building	1	job
Earthing & Lightning	Earthing & Lightning (Resistance less than 5 ohm) Complete System with all accessories like Earthing Rod, Earthing Plate, Salt, Nut bolts, 10mm ² Standard copper Wire and Earthing 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.	1	job
Services	Site Survey, Designing. Transportation, Installation, Testing and Commissioning of Solar System with One year of free Services.	1	job

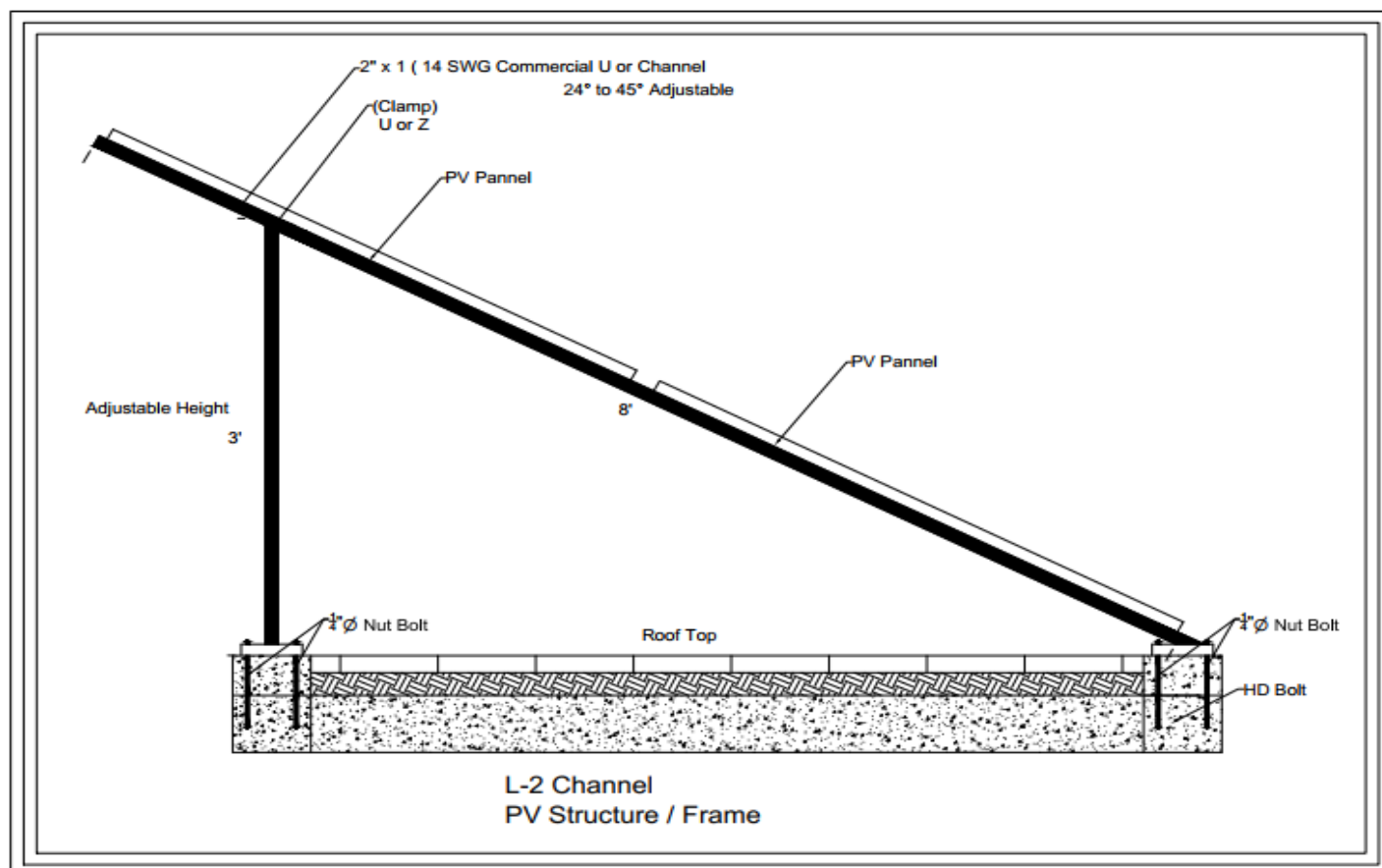
AC PROTECTION

AC Protection	Yes
Anti-Islanding Provision	Yes
LVRT	Grid Frequency under/ over
Protection	Ground Fault Protection Leakage protection Interface -RS232/US8 -RS48 Modbus Protocol / Ethernet -LCD Display -Local Monitoring Software should be lifetime free of cost &integrated
Compliance	UL1741/ IEEE1547, UL 1998, CE, EN 50178,or EN-624109-1, EN 62109-2, EN 61000-6-2, EN-621000- 6-4, EN 61000-3-11, EN 61000-3-12, EN 50178, IEC 62103, EN 55011, IEC 61000-3-11, IEC 61000-3- 12, IEC 61000-6-3IEC 62109-1/2, AND UL 1741 IEC 61727, VDE-All-N 4105, VDE 0125-11, G59/3, (different country standards needed for net metering)

Panel Mounted Structure on Roof Tops

Specifications:

- GI Mountings L-2 punched Channel with at-least 15- degree or as per site requirement tilt designed at wind speed of 40m/s.
- Shading shall be avoided all year around from 9:00 am to 4:00 pm.
- To allow for regular cleaning of the solar module, it should be accessible to cleaning staff.
- Complete Design, Structural and shading analysis report is required to be provided.
- To be performed Pull Out test.



PV to inverter

- i. PV to inverter Cable size should be designed appropriately for Losses not more than 1.5%, 99% pure copper or higher, tin coated & UV coated (Soft).
- ii. Panel wiring (4mm), Double EVA-XLPE Double insulation 1500 V, combiner boxes, conduits, clamps etc. as required.
- iii. High Voltage wiring and circuit breakers, conduits etc. (50 feet / inverter).
- iv. Circuit Breaker German/European made.

Cable Duct / Tray

Item Specifications:

- i. PV to Inverter-Type, Galvanized Cable Tray with ventilation
- ii. Grid (DB) to inverter: Galvanized Cable duct (Size/length as per Design). Must be durable and does not support combustion
- iii. Inverter to Load (DB): Galvanized cable duct (Size/ length as per design). Must be durable and does not support combustion. PVC Dura duct where indoor.

Earthling Cable

- i. Earthling Cable to Connect PV Module Earthling: - Cable should be appropriate to provide PV Mounting structure and Inverter (five proof) with protection to complete PV plant with lighting arrestors, min 02
- ii. 99% pure earth bus bar copper or higher.
- iii. Grounding Test report to be provided with resistance lower than 5 Ohm.

9. CONTRACT TERMS & CONDITIONS

TIME PERIOD OF DELIVERY / INSTALLATION.

Delivery / Installation Period: - The delivery/installation time should not be more than period/days mentioned in work Order from the date of signing of contract. Installation, testing, integration and commissioning time if applicable shall not be more than 1 week from the above mentioned time period excluding the installation of net meter besides NEPPRA license.

TERMS OF PAYMENT

No advance payment will be made to the contractor as per Government rules. The payment will be made to the contractor after inspection of the work done by a committee of experts constituted by the University. If found in order in all respects after the successful and complete work, the payments would be made accordingly as per the payment schedule given below:

Project Stage	Project Milestone	Payment Percentage	Requirements
1	Supply & Installation of Electrical Items & Structural Completion	50%	Released Upon Inspection of Comprehensive delivery Reports, solar panel flash test reports, Inverter & Battery Banks Manuals, warranty documents
2	Testing, Commissioning & Local Energization	30%	Released Upon Inspection of Structural Stability, Inverter Operation, Required Safety Compliance and Electrical continuity and insulation test reports
3	NEPRA License & Net Metering Activation	10%	Released Upon Inspection of Copy of the formal NEPRA Prosumer/Generation License; Signed Net Metering Agreement with PESCO; Functional green bi-directional meter installed and spinning.
4	Defects Liability Period (DLP)	10% Retention	Released after 12 months of successful operations, verified by a Completion Certificate.

WARRANTY

Standard warranty service and repair will be provided for all items under this procurement. The warranty coverage must be valid on all items as per technical specification to tender documents after their successful supply, installation and commissioning & Training.

AFTER SALE SERVICE.

- a. Applicant will guarantee the availability and the supply of Essential Maintenance Spares and Parts required to keep the equipment operational for a period as per the warranty of all items from the date of inspection & commissioning of equipment.

OPERATION MAINTENANCE & TRAINING

The Applicant is required to provide operation maintenance for a period of 01 years (min) as noted by the bid, of the installed system including on job training to the staff of UET Mardan for operation.

PAYMENT OF APPLICABLE TAXES

The Applicant, and their employees shall be responsible for payment of all their taxes, including income tax, sales tax on services and other taxes on income arising out of the Contract and the rates and prices stated in the Contract shall be deemed to cover all such taxes. Taxes to be borne by the Successful Bidder on any payment arising out of the contract, as per applicable laws.

PROJECT PLAN SUBMISSION

The Final Project Execution Plan shall be submitted by the Successful Bidder within 10 days from the date of receipt of Letter of Acceptance, which shall be either planed on MS- Project or Primavera Latest Version printed. It will contain the following minimum information but not limited to the following: -

- i. A Bar Chart identifying the critical activities, with completion date.
- ii. TECHNICAL / USER MANUAL / PUBLICATION: Successful Bidder will be bound to provide subject material to UET Mardan before commissioning.

TURN AROUND TIME

07 days for the turnaround time (TOT) for replacement of equipment (if required with its alternate arrangement by Firm / Company/ Contractor without hampering the power supply), spare parts, curing a fault, maintenance, etc. would be allowed, the shipping cost of the provision initially and otherwise of the equipment and parts during the whole contract period should be borne by Firm/Company/ Contractor.

INTEGRITY PACT

If the successful bidder is found to have violated or involved in violation of the Integrity Pact signed by the Firm / Company/ Contractor at the time of contract, then UET Mardan shall be entitled to:

The termination under Sub-Para (b) of this Sub-Clause shall proceed in the manner prescribed under Sub-Clauses 63.1 to 63.4 (FIDIC, Federation International Des Ingénieurs-Conseils) and the payment under Sub-Clause 63.3 shall be made after having deducted the amounts due to the Operator under Sub-Para (a) and (c) of this Sub- Clause.

INTEGRITY PACT

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACTS WORTH RS. 10.00 MILLION OR MORE

The Contractor hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan (GoP) or any administrative subdivision or agency thereof or any other entity owned or controlled by GoP through any corrupt business practice.

Without limiting the generality of the foregoing, Contractor represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

The Contractor certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

The Contractor accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard, The Contractor agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by The Contractor as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP.

Seal and Signature of the Contractor

Witnesses:

1. _____

2. _____

DRAFT OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (hereinafter called the “Agreement”) made on the ____ day of 2026 between (hereinafter called the “Employer”) of the one part and (hereinafter called the “Contractor”) of the other part.

WHEREAS the Employer is desirous that certain Works, vise should be executed by the Contractor and has accepted a Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW this Agreement witnessed as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents after incorporating addenda, if any except those parts relating to Instructions to Bidders, shall be deemed to form and be read and construed as part of this Agreement, viz:
 - a. The Letter of Acceptance;
 - b. Technical Proposals
 - c. Financial Proposals
 - d. The Specifications; and
 - e. Terms & Conditions
 - f. Data Sheet
 - g. Work Order
 - h. Any other relevant documents related to this Assignment.
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy defects therein in conformity and in all respects within the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works as per provisions of the Contract, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS WHEREOF the parties hereto have caused this Contract Agreement to be executed on the day, month and year first before written in accordance with their respective laws.

Signature of the Contactor

Signature of the Employer

(Seal)

(Seal)

Signed, Sealed and Delivered in the presence of:

Witness:

Witness:

(Name, Title and Address) (Name, Title and Address)

Letter of Application

To be filled by Bidding Firm/ Company/ Contractor

[Letterhead paper of the Applicant, including full postal address, telephone no, fax no., telex no., cable and e-mail address]

Date:

To:

.....
[Name and address of the UET Mardan]

Sir,

1. Being duly authorized to represent and act on behalf of..... (Here in after “the Applicant”), and having reviewed and fully understood all the information provided, the undersigned hereby apply to a Bidder for the following project: **“Supply, Installation, Testing, Commissioning and Training of 30 KW Hybrid Solar System for Malik Ahmad Khan Hostel ” at UET Mardan.**
2. Attached to this letter are copies of original documents defining:
 - a. The Applicant's legal status i.e.; PEC valid registration in the relevant category/specialization, registration certification with KPRA, FBR and other relevant bodies/departments wherever is required
 - b. The principal place of business; Form C or equivalent.
 - c. The place of incorporation (for applicants who are corporations).

The place of registration and the nationality of the owners (for applicants who are in partnerships or have individually-owned firms)

3. UET Mardan and its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents, and information submitted in connection with this application, and to seek clarification from our bankers and clients regarding any financial and technical aspects. This Letter of Application will also serve as authorization to any individual or authorized representative of any institution referred to in the supporting information, to provide such information deemed necessary and requested by yourselves or the authorized representative to verify statements and information provided in this application, or with regard to the resources, experience, and competence of the Applicant.
4. UET Mardan and its authorized representatives may contact the following persons for further information1, if needed: -

General and Managerial Inquiries	
Contact 1	Telephone 1
Contact 2	Telephone 2
Personnel Inquiries	
Contact 1	Telephone 1

Contact 2	Telephone 2
Technical Inquiries	
Contact 1	Telephone 1
Contact 2	Telephone 2
Financial Inquiries	
Contact 1	Telephone 1
Contact 2	Telephone 2

5. This application is made with the full understanding that:
- Bids will be subject to verification of all information submitted at the time of bidding;
 - UET Mardan reserves the right to:
 - amend the scope and value of any contract under this project; in such event bids will only be called from technically qualified Bidders who meet the revised requirements.
 - Reject or accept any application, and reject applications with cogent reason.
 - UET Mardan shall not be liable for any such actions and shall be under no obligation
 - UET Mardan shall not be liable for consequences of, and shall be under no obligation to inform Applicants of the grounds for, actions taken under Para 5(b) here above.
6. The undersigned declare that the statements made and the information provided in the duly completed application are complete, true, and correct in every detail.

Signed:
Name:
Official Correspondence Head Office Address:
With Contact Number of Firm/ Company / Contractor (Telephone/ Mobile): Email Address:

Application Form A-1

General Information

All individual Firms/ Companies/ Contractors are requested to complete the information in this form. Nationality information is also to be provided for foreign owners as required under the PEC Bye-Law.

Where the Applicant proposes to use named subcontractors for critical components of the works, or for work contents in excess of 10 percent of the value of the whole works, the following information should also be supplied for the specialist subcontractor(s).

1.	Name of Applicant (Firm/Company/ Contractor)	
2.	Head Office Address:	
3.	Telephone:	Contact Person: Name: Title:
4.	Fax:	Telex:
5.	Place of Incorporation/Registration	Year of incorporation/registration

<i>NATIONALITY OF OWNERS</i>		
	<i>NAME</i>	<i>NATIONALITY</i>
1.		
2.		
3.		
4.		
5.		

Application Form A-2

Name of Applicant (Firm/Company/ Contractor)
--

All individual applicants are requested to complete the information in this form. The information supplied should be the annual turnover of the applicant, in terms of the amounts billed to clients for each year for work in progress or completed over the past three years.

Annual Turnover		
Year	Turnover (in actual currency)	Equivalent Rupees in Millions.
1.		
2.		
3.		

Application Form A-3

Completed Projects Experience Record

Name of Applicant (Firm/Company/ Contractor)
--

To qualify, the Applicant shall be required to pass the specified requirements applicable to this form, as set out in the: Instructions to Applicants.

On a separate page, using the format of Application Form A-4, each is required to list all contracts of a value equivalent to Pak Rs. in million (User/UET Mardan) to provide the amount) of completed projects that are similar in nature and complexity to the contract for which the Applicant wishes to qualify, undertaken during the last five years. The information is to be summarized, using Application Form A-4, for each contract completed or under execution by the Applicant.

- **Contractor Experience**

1. Provide overview of the firm's commercial grid-connected PV experience Average commercial grid-connected PV system size installed by your company during the last 05 years.

- **Contractor References**

1. List three (3) or more commercial grid-connected PV projects installed over the last 05 years. Use the **Application Form A-4**.

Application Form A-4

Details of Contracts of ongoing projects

Name of Applicant (Firm/Company/ Contractor)
--

Use a separate sheet for each contract.

1.	Name of Contract
	Country
2.	Name of Client
3.	Client Address
4.	Nature of works and special features relevant to the contract for which the Firm/ Company/ Contractor wishes to prequalify
5.	Contract Role (Tick One) (a) Sole Contractor (b) Sub- Contractor
6.	Value of the total contract (in specified currencies) at completion, or at date of award for current contract Currency..... Currency..... Currency.....
7.	Equivalent in Pak/Rs.
8.	Date of Award
9.	Date of Completion
10.	Contract Duration (Years and Months) _____ Years _____ Months
11.	Specified Requirements1

Insert any specific criteria required for particular operations, such as annual volume of designing, procurement, or fabrication of photovoltaic solar systems.

Note: - Evidence must be provided.

Application Form A-5

Summary Sheet: Current Contract Commitments/Works in Progress

Name of Applicant (Firm/Company/ Contractor)
--

Applicants should provide information on his current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which substantial Completion Certificate has yet to be issued.

Name of Contract	Value of Outstanding work (Equivalent Pak Rs. Millions)	Estimated Completion Date	Evidence as Annexure
1.			
2.			
3.			
4.			
5.			

Application Form A-6

Personnel Capabilities

Name of Applicant (Firm/Company/ Contractor)
--

For specific positions essential to contract implementation, Applicants should provide the names of at least two candidates qualified to meet the specified requirements stated for each position. The data on their experience should be supplied on separate sheets using one Form (A-7) for each candidate.

1.	Title of Position
	Name of Prime Candidate
	Name of Alternate Candidate
2.	Title of Position
	Name of Prime Candidate
	Name of Alternate Candidate
3.	Title of Position
	Name of Prime Candidate
	Name of Alternate Candidate
4.	Title of Position
	Name of Prime Candidate
	Name of Alternate Candidate

Application Form A-7

Candidate Summary

Name of Applicant (Firm/Company/ Contractor)

Position		Candidate [Tick appropriate one] ☐ Prime ☐ Alternate
Candidate information	1. Name of Candidate	2. Date of Birth
	3. Professional Qualification	
Present employment	4. Name of Client	
	Address of Client	
	Telephone	Contact (manager/personnel officer)
	Fax	Telex
	Job title of candidate	Years with present firm

Summarize professional experience over the last 20 years, in reverse chronological order. Indicate particular technical and managerial experience relevant to the Project.

Month/ Dates/Year s		Company / Project / Position / Relevant technical and Management experience
From	To	

Application Form A-8

Equipment Capabilities

Name of Applicant (Firm/Company/ Contractor)
--

The Applicant shall provide adequate information to demonstrate clearly that he has the capability to meet the requirements for each and all items of equipment listed in his proposal. A separate Form shall be prepared for each item of equipment proposed by the Applicant.

Item of Equipment		
Equipment information	1. Name of manufacturer	2. Model
	3. Capacity	4. Year of manufacture
Current status	5. Current location	
	6. Details of current commitments	
Source	7. Indicate source of the equipment ☐ Owned ☐ Rented ☐ Leased	

Omit the following information if it is owned by the Applicant or partner.

Owner	8. Name of owner	
	9. Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreement	Details of rental/lease specific to the Project.	

Application Form A-9

Financial Capability Audit Report/Bank report of last three years.



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 (XPLO/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