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| Khyber Pakhtunkhwa B&W | **PROJECT DIRECTOR(PMU)**  **Economic Revitalization in Khyber Pakhtunkhwa**  **Industries Department, Civil Secretariat, Peshawar** |  |

**Request for Quotations.**

**Economic Revitalization of Khyber Pakhtunkhwa (ERKF)**

**Contract Title: Solarization of Kalash Museum”**

1. The Government of Khyber Pakhtunkhwa has received Grant from the International Bank for Reconstruction and Development (IBRD) towards the cost of Project Management Unit Economic Revitalization Khyber Pakhtunkhwa. It is intended that part of the proceeds of this grant will be applied to eligible payments under the contract Solarization of Kalash Museum”

2. The Project Management Unit Economic Revitalization Khyber Pakhtunkhwa (ERKF) now invites sealed quotations from eligible bidders for the **Solarization of Kalash museum** as per details given below.**25 KW SOLAR POWER GENERATION SOLUTION FOR KILASH MEUSEUM**.

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| ***ID*** | ***Item (Unit)*** | ***Technical Assumption(s) and/or Customer Need(s)*** | ***Features availability*** | ***Qty*** |
| **1** | **INVERTER** | **INVERTER SPECIFICATION** |  | 5 |
| Nominal Output Power 5000 W |  |
| Capacity Range 5.7 / 11.4 kWh (96% DoD ) |  |
| IP Protection IP21 / IP65 |  |
| Warranty 2-Year |  |
| Max. input current (A) 12X2 OR Above |  |
| Short circuit current (A) 14x2 OR Above |  |
| Max. Charge Current 100 A |  |
| Max. Discharge Current 100 A |  |
| Max. Charge/Discharge Power 5000 W |  |
| Rated Input/output Voltage 230 Vac |  |
| Grid Voltage Range 230 V (±2%） |  |
| Rated Frequency 50/60 Hz |  |
| Phase Backup Single-Phase UPS |  |
| Display LED & APP |  |
| Communication WiFi, RS485, CAN |  |
| Humidity 0% ~ 95% (No Condensing) |  |
| **2** | **POWER BACKUP** | **BATTERY BANK SPECIFICATION** |  | 5 |
| Compliance with Inverter have AC-Coupling with Built-in battery Modular design |  |
| Module Capacity 5.4 kWh -5.7kWh |  |
| Usable Capacity 5.2 kWh or Above |  |
| Module Nominal Voltage Max. 51.2 V |  |
| Short-circuit Current 200 A |  |
| Cycle Life Max. 10 000 \*\* |  |
| Charge/Discharge Current 56 A (1C) |  |
| External Battery Expansion 1 ~ 5 M4856-P / BAT in parallel |  |
| Warranty 2-Year |  |
| Certification UN38.3, IEC 62619 (Cell), IEC 62619 (Pack) |  |
| **3** | **SOLAR PANEL** | **SOLAR PANNEL FOR MINIMUM TIME SHIFT (5-6 HR) SUNLIGHT** |  | 26520 |
| Cells Grade Slight Bend standard ≥ 2.0mm |  |
| Low NMOT: 41 ± 3 °C |  |
| Low temperature coefficient (Pmax): -0.37 % / °C |  |
| Shading tolerance with 43% Minimum O/P Capacity |  |
| PTC rating of up to: 93.13 % |  |
| Heavy snow load up to 5000 Pa, Or Above |  |
| wind load up to 3300 Pa\* Or Above |  |
| Heavy snow load up to 5400 Pa, wind load up to 3600 Pa\* |  |
| Cell Type Mono-crystalline |  |
| Cell Arrangement 144 [2 X (12 X 6) ] |  |
| Dimensions 2000 X 992 X 35 mm (78.7 X 39.1 X 1.38 in) |  |
| Front Cover 3.2 mm tempered glass |  |
| Frame Anodized aluminum alloy, |  |
| Cross bar enhanced J-Box IP68, |  |
| Dual Efficiency with Absorption & reflection of dual band Material design , Connector T4 series |  |
| Warranty 25-Year |  |
| **Certification** |  |
| ISO 9001:2015 / Quality management system |  |
| ISO 14001:2015 / Standards for environmental management system |  |
| UL 1703 / IEC 61215 performance |  |
| 4 | LOGGING / MONITORING MODULE | **DL-DMS (Logging and Monitoring)** |  | 5 |
| Ethernet with RJ-45 |  |
| RS-485,RS-232 |  |
| Modbus,USS,SunSpec,Custom Protocols |  |
| Irradiance and cell temperature sensors with RS-485 output. |  |
| Energy meters/Multi function meters with Modbus RTU protocol. |  |
| Internet connectivity though GPRS. |  |
| Portal connectivity with Wired LAN with internet connection if available. |  |
| Supported Networks GSM/GPRS/2G/3G/4G. |  |
| 5 | DISTRIBUTION PANNEL | **AC/DC Power Distribution Panel** |  | 5 |
| Material Mild Steel |  |
| IP Rating IP54 |  |
| Phase Single Phase |  |
| Voltage 220V |  |
| Mounting Type Wall Mounted |  |
| DC Breakers 5\*50A AC Breakers 30\*16A |  |
| Phase Single Phase |  |
| Input 1 |  |
| Output 6 |  |
| Short Circuit Protection Yes (For both inflow & Out Flow) |  |
| 6 | PANNEL FRAMES | **FRAME STRUCTURE** |  | 68 |
| Material GI |  |
| Weather Proof Rust free |  |
| Size according to Solar Panels |  |
| Mounting Accessories Galvanized (Bolts, Washers, Nuts) |  |
| 7 | ELECTRICAL CABLES | ELECTRICAL WIRES |  |  |
| Supply & Installation of 4mm Pure Copper 2 Core single PVC (Meter) |  | 180 |
| Supply & Installation of 2.5mm Pure Copper 2 Core Single PVC (Meter) |  | 500 |
| Supply & Installation of 10 mm Pure Copper Soft PVC (DC Cable) (Meter) |  | 1000 |
| Supply Earth Wire 6mm Copper with Silver Coating (Meter) |  | 200 |
| Supply & Installation of 1.5mm Pure Copper 2 Core Single PVC (Meter) |  | 400 |
| 8 | **PVC** | Mixed of Different Size (Ducts & Pipes) adamjee or eqv |  | **900** |
| 9 | **Earthing / Grounding** | dimensions of 4” x 96” x 0.0625” |  | **1** |
| 25-foot continuous length |  |
| 6 AWG solid bare copper wire |  |
| ground plate is to be installed at depth of 15” |  |
| 12” wide trench Copper Plate |  |
| "recommended practice" of IEEE Standard 1100-1999 |  |
| Power wiring (120 VAC or 240 VAC) |  |
| 10 | INSTALLATION SERVICES | SYSTEMIZATION |  |  |
| Installation, Testing & Commissioning of Solar Panel |  | 26400 |
| Installation, Testing & Commissioning of Inverter With Backup & DMS Module |  | 5 |
| Installation, Testing & Commissioning of Distribution Panel |  | 5 |
| 11 |  | Delivery, Transportation, Residence & food As one unit Cost |  | 1 |

3. Following is the qualification criteria:

1. The bidders must be Sales Tax and Income Tax registered and must be on active Tax payer list of FBR.
2. The bidder must be a manufacturer or authorize agent of the manufacturer of required equipment in Pakistan. Valid authorization certificate of manufacture must be provided.
3. With a minimum of Five (05) years of experience in supplies of similar Items. Should have a documented track of completing at least five (05) assignments of not less than 10 KVA.
4. The bidder must provide quality assurance certificates of the offered item, along with performance satisfactory report from the last supplies made.
5. The bidder must not be blacklisted by any Government/Semi Govt organization in Pakistan and no litigation is under way by any organization.
6. The bidder should have after-sale services facility with technical support staff for services support in Pakistan. Details of facility and staff to be provided.
7. Offered Brand must be ISO certified and environment friendly. ISO certificate to be provided.
8. Item must be delivered and installed within two months’ time from issuance of purchase order.
9. Bid must be signed and stamped.
10. Amount of bid security shall be 2% of the bid amount in form of bank guarantee issued by a schedule bank
11. One year warrantee of entire system should be provided.
12. Non-Compliance of any of the above will result in rejection of bid.
13. Catalogue, Brochure technical specification, literature of the offer brand must be provided.

4. Bidders may obtain further information from Project Director, Project Management Unit ERKF. Ph. 091-9212051/-

5. Process will be conducted through shopping mode as specified in World Bank Guidelines: Procurement of goods, Works and non-consulting services under IBRD loans and IDA Credits and Grants by World Bank Borrowers (Procurement Guidelines) and is open to all eligible bidders as defined in the Procurement Guidelines. In addition, please refer to paragraph 1.6 & 1.7 setting forth the World Bank Policy on conflict of interest.

1. 6. The last date of bid submission is January 10, 2019 at 14:30 hrs and will be opened on same day in the presence of bidders’ representative who chooses to attend at 14:30 hrs. at the address given below. Pre bid meeting will be held on January 02, 2019 at 1100 hrs at the same address.

7. The bidders are requested to give their best and final prices including all permissible taxes as no negotiations will be allowed at later stage. In complete and late bids will not be entertained.

8. The successful vender has to install the solarisation project at Kalash museum Chitral.

This RFQ can be downloaded from [www.reconnectpakistan.com](http://www.reconnectpakistan.com) and [www.kptourism.com](http://www.kptourism.com)

The Address (es) referred to above is:

Project Director -

Project Management Unit (PMU-ERKF)

House No 358, Khyber Colony No 2.

University Road Peshawar.

Ph. No: 091-9218051

Email: pmuerkf@gmail.com