Minutes of Meeting

Subject: HIRING OF CONTRACTOR FOR THE PROJECT "SOLAR

ELECTRIFICATION OF 300 MASAJID/ WORSHIP PLACES OF NON

MUSLIMS IN MERGED DISTRICTS (ERSTWHILE FATA) OF

KHYBER PAKHTUNKHWA"

AGENDA: PRE-BID MEETING OF CONTRACTORS

Venue: PEDO House Peshawar, Pakistan

Date & Time: Wednesday, 04th September, 2019

PARTICIPANTS

Client:

- 1. Project Director Engr. Khurram Durrani (Solar), PEDO
- 2. Assistant Director Asfandyar Khan (Electrical), PEDO
- 3. Assistant Director, Wagas Ahmad (Accounts), PEDO

Consultant:

- 1. CEO, Engr. Saleem Barg (Barg Engineering)
- 2. Project Manager, Engr. Lutf ur rehman (Barg Engineering)
- 3. Project Coordinator, Engr. Aamir Shah (Barg Engineering)
- 4. Procurement Engineer, Engr. Muhammad Waqar (Barg Engineering)

Contractor:

- 1. PROJECT MANAGER, TSK ENGINEERING INTERNATIONAL PVT (LTD)
- 2. PROJECT MANAGER, MAK PUMPS PVT (LTD)
- 3. PROJECT MANAGER, RENEWABLE POWER PVT (LTD)
- 4. PROJECT MANAGER, SOLAR TECH PVT (LTD)
- 5. PROJECT MANAGER, SKY GREEN PVT (LTD)
- 6. PROJECT MANAGER, PESHAWAR CONSTRUCTION AND PIPES (PVT) LTD
- 7. PROJECT MANAGER, JV QRI-PAK RELIABLE
- 8. PROJECT MANAGER, CITITEK (PVT) LTD

The meeting regarding the subject agenda was chaired by the Project Director (Solar). The chair welcomed and briefs the Participants about the project and criteria in the bidding documents. The following discussion takes place:

| Sr. # | CONTRACTOR QUERIES | CONTRACTORS NAME | CONSULTANT RECOMMENDATION | DEPARTMENT DECISION |
|----------|--|--|--|--|
| 1 | It is requested that the Defect Liability Period shall be reduced to one year instead of three years whereas the Warranty of complete installed system at site be kept as three years. | MAK PUMPS (Pvt) Ltd PESHAWAR CONSTRUCTION AND PIPES (PVT) LTD SKY GREEN PVT (LTD) SOLAR TECH PVT (LTD) | Consultant Agreed | As DLP is three years as mentioned in PC1. So it cannot be changed. However, rates should be quoted with and without DLP as mentioned at annexed A & annexed B for further approval. |
| 2 | It is requested by the contractor that the clause specified in the particular condition of contract regarding Performance Guarantee shall be clarified? | MAK PUMPS (Pvt) Ltd | Please find the attached ANNEX-A and ANNEX-B for further detail. | Clearly mentioned in clause 10.1 of Bidding Document. Refer to Annex A and Annex B |
| 3 | It is requested by the contractor to provide the detail list of the 300 Masajid for the subject project. | MAK PUMPS (Pvt) Ltd SKY GREEN PVT (LTD) | The detail list of the Masajid as requested by the contractor will be made available by the client to each pre-qualified contractor via email. | List will be provided before signing of the contract. |
| 5 | Kindly share contact numbers of concerned officials of the specific areas under consideration. | TSK Engineering International PVT (Ltd) | N/A | Will be provided before survey |
| 6 | It was requested by the contractor to share updated format of Bill of Quantities (BOQ). | MAK PUMPS (Pvt) Ltd | Please find the attached ANNEX-A and ANNEX-B for further detail. | Refer to Annex A & Annex B However only one option with specified condition will be finalized after all approvals, which will be applicable for all bidders. |
| 7 | It was suggested by the respective contractors to remove stabilizer because of less electrified number of Masajid in the allocated districts. | MAK PUMPS (Pvt) Ltd Solar Tech PVT (Ltd) | As per technical specifications, stabilizers must be installed by the contractors during installation of the Masajid for the subject project. | Disagreed with query of contractor. |
| 8 | It was asked whether Bid security will be based on Estimated cost or bid cost? | Sky Green PVT (Ltd) | The point raised by the Contractor M/s Sky green Engineering Pvt Ltd is already clearly specified in the issued bidding documents. | It will be on estimated cost, However, if the bid security plus bank guaranty is less than the ten (10) percent so the deficient must be adjusted. |

The meeting ended with vote of thanks.

(a) SCHEDULE OF PRICES – SUMMARY OF BID PRICES

| Item No. | Project Description | Options | Price of one Masjid | No of Masajid | Total Price- Package-01 (Price of one Masjid * No of Masajid) | Total Bid Price (In Words): |
|-------------|---|---|------------------------|------------------|---|-----------------------------|
| 1 | SOLAR ELECTRIFICATION OF 300 MOSQUES AND WORSHIP PLACES OF NON MUSLIMS IN MERGED DISTRICTS (ERSTWHILE FATA) OF KHYBER PAKHTUNKHWA" PACKAGE 01 - DISTRICT NORTH WAZIRISTAN, DISTRICT SOUTH WAZIRISTAN, DISTRICT KURRAM, DISTRICT ORAKZAI, FR TANK AND FR DI KHAN = 150 NO OF MASAJID NO OF MASAJID Estimated Cost (Rs) = 528,370 Per Masjid | Price with Option 1: DLP= 03 Years B.G= 8% CDR=2% Retention = 8% Warranty = 3 Years Price with Option 2: DLP= 01 Years B.G= 0% CDR=2% Retention = 8% Warranty = 3 Years Price with Option 3: DLP= 01 Years B.G= 10% CDR=Returned Retention = 8% Warranty = 3 Years Price with Option 4: DLP= 03 Years B.G= 0% CDR= 2% Retention = 8% Warranty = 3 Years | | 150 | | |

(Note: Total Price, in Pak Rupees, shall be provided in figures as well as in words, Prices should be included with all Govt applicable taxes)

(b) SCHEDULE OF PRICES (BOQ)

BILL OF QUANTITY FOR " SOLAR ELECTRIFICATION OF 300 MOSQUES AND WORSHIP PLACES OF NON MUSLIMS IN MERGED DISTRICTS (ERSTWHILE FATA) OF KHYBER PAKHTUNKHWA" PACKAGE 01 - DISTRICT NORTH WAZIRISTAN, DISTRICT SOUTH WAZIRISTAN, DISTRICT KURRAM, DISTRICT ORAKZAI, FR TANK AND FR DI KHAN = 150 NO OF MASAJID **Price with Option 2: Price with Option 3: Price with Option 1:** Price with Option 4: DLP= 03 Years **DLP= 01 Years** DLP= 01 Years **DLP= 03 Years** B.G= 8% B.G= 0% B.G= 10% B.G= 0% S# **Description of Item Required Data Unit Price** Unit Qty CDR=2% CDR=2% **CDR=Returned CDR= 2%** Retention = 8% Retention = 8% Retention = 8% Retention = 8% Warranty = 3 Years Warranty = 3 Years Warranty = 3 Years Warranty = 3 Years P/I of 1770-Watts Solar Panels (PV modules) mono-PV Module Size (Watts) crystalline, 17.5% Module efficiency minimum, A No Grade and 25 years power output warranty as per Specification provided. **Inverter Size** P/I of 4kVA Solar off-Grid Hybrid Inverter 24 V / 48 V with built in MPPT Charge controller as per No 1 Battery Bank Voltage Specification provided. Auto Voltage Stabilizer minimum 6kW 220 Volt, 50 Stabilizer Size Hz (Copper). Stabilizer Shall have Input Voltage No 1 Range of 120 V to 270 V. Miscellaneous Items: 25A AC Breaker (2-P) between Inverter and WAPDA, 6A AC Breaker (1-P) between Inverter and Load (Fans, Loud Speaker and LED Light Bulbs) and 15A AC Breaker (1-P) between Inverter and Electric Motor. 15A DC Breaker (2-P) between Inverter and PV Modules Per String and 63A DC Breaker (2-P) between Inverter and Battery Bank as per Specification provided. DC Flexible Copper Cables 6 mm² single Core per String, Fitted in HDPE Pipe (1") and 35 mm² single Core Cable between Inverter and Battery Bank as per specification provided. Flexible AC Cables 7/0.29 (2.5 mm²) for AC Load Connection, 7/0.036 (4 mm²) for Grid to stabilizer & to inverter and 7/0.029 (2.5 mm²) for Electric Motor Connections as per specification provided. Flexible PVC Pipe, PVC Duct Patti, HDPE Pipe etc. for cable ducting Board Job 1 Inauguration/Sign (As Per design approved by Client/Engineer In-Charge) Earthing Rod 5 Feet Long, 16 mm Dia and Earthing Cable as per specification provided Switches 10/15 Amp: On/Off Switches, Plug, Distribution Board etc. Copper Thimbles, Sleeves, Butt Joint Connectors, Ring Thimbles, PVC Shrouds, Heat Shrink Tubes for all termination, connection and jointing as per International Practice Inverter, Batteries and Protective Devices must be Labelled Properly Detail User Manual for end users having complaint number as per approval of Client / Engineer In Charge Cabinet for Complete System (Inverter, Batteries, Stabilizer etc.) as Per design

approved by Engineer In-Charge)

| S# | Description of Item | Required Data | Unit | Qty | Unit Price | Total Price with Option 1: DLP= 03 Years B.G= 8% CDR=2% Retention = 8% Warranty = 3 Years | Total Price with Option 2: DLP= 01 Years B.G= 0% CDR=2% Retention = 8% Warranty = 3 Years | Total Price with Option 3: DLP= 01 Years B.G= 10% CDR=Returned Retention = 8% Warranty = 3 Years | Total Price with Option 4: DLP= 03 Years B.G= 0% CDR= 2% Retention = 8% Warranty = 3 Years |
|----------------------------|--|--|------|-----|---------------|--|--|---|---|
| 5 | Energy Efficient Ceiling Fan (40-50 Watt) as per specification provided. | Rated Power = | No | 6 | | | | | |
| 6 | Energy Efficient LED Light Bulbs (14-15 Watt) with high lumen output as per specifications provided. | Rated Power = | No | 10 | | | | | |
| 7 | Backup System / Battery Bank: LiFePO4= Minimum 3.6kWHr Capacity as per specification provided OR | Battery Type = Battery Size (Ah) = | No | | | | | | |
| | OPzV or OPzS (2V Cells) = Minimum 7.2kWHr Capacity as per specification provided | Battery Terminal Voltage = | | | | | | | |
| 8 | PV Mounting Structure and Base Foundation made of Hot Dipped Galvanized Steel fixed to the roof of the Mosque with Anchor Bolts and able to withstand high-speed winds as per specification provided | PV Mounting Structure Material Type = PV Mounting Structure Type = | Job | 1 | | | | | |
| Total Cost of Whole system | | | | | | | | | |

ANNEX-B

(a) SCHEDULE OF PRICES – SUMMARY OF BID PRICES

| Item No. | Project Description | Options | Price of one Masjid | No of Masajid | Total Price- Package-02 (Price of one Masjid * No of Masajid) | Total Bid Price (In Words): |
|-------------|--|---|------------------------|------------------|---|-----------------------------|
| | DISTRICT BAJOUR,, DISTRICT KHYBER, FR KOHAT, FR LAKI MARWAT, FR BANNU, FR PESHAWAR = 150 NO OF MASAJID Estimated Cost (Rs) = 528,370 Per | Price with Option 1: DLP= 03 Years B.G= 8% CDR=2% Retention = 8% Warranty = 3 Years Price with Option 2: DLP= 01 Years B.G= 0% CDR=2% Retention = 8% Warranty = 3 Years | | | | |
| 1 | | Price with Option 3: DLP= 01 Years B.G= 10% CDR=Returned Retention = 8% Warranty = 3 Years | | 150 | | |
| | | Price with Option 4: DLP= 03 Years B.G= 0% CDR= 2% Retention = 8% Warranty = 3 Years | | | | |

(Note: Total Price, in Pak Rupees, shall be provided in figures as well as in words, Prices should be included with all Govt applicable taxes)

(b) SCHEDULE OF PRICES (BOQ)

BILL OF QUANTITY FOR " SOLAR ELECTRIFICATION OF 300 MOSQUES AND WORSHIP PLACES OF NON MUSLIMS IN MERGED DISTRICTS (ERSTWHILE FATA) OF KHYBER PAKHTUNKHWA" PACKAGE 02 - DISTRICT MOHMAND, DISTRICT BAJOUR, DISTRICT KHYBER, FR KOHAT, FR LAKI MARWAT, FR BANNU, FR PESHAWAR = 150 NO OF MASAJID Price with Option 1: **Price with Option 2: Price with Option 3: Price with Option 4: DLP= 03 Years DLP= 01 Years DLP= 01 Years DLP= 03 Years** B.G= 8% B.G= 0% B.G= 10% B.G= 0% S# **Description of Item Required Data Unit Price** Unit Qty CDR=2% CDR=2% **CDR=Returned CDR= 2%** Retention = 8% Retention = 8% Retention = 8% Retention = 8% Warranty = 3 Years Warranty = 3 Years Warranty = 3 Years Warranty = 3 Years P/I of 1770-Watts Solar Panels (PV modules) mono-PV Module Size (Watts) crystalline, 17.5% Module efficiency minimum, A No Grade and 25 years power output warranty as per Specification provided. **Inverter Size** P/I of 4kVA Solar off-Grid Hybrid Inverter 24 V / 48 V with built in MPPT Charge controller as per No 1 Battery Bank Voltage Specification provided. Auto Voltage Stabilizer minimum 6kW 220 Volt, 50 Stabilizer Size Hz (Copper). Stabilizer Shall have Input Voltage No 1 Range of 120 V to 270 V. Miscellaneous Items: 25A AC Breaker (2-P) between Inverter and WAPDA, 6A AC Breaker (1-P) between Inverter and Load (Fans, Loud Speaker and LED Light Bulbs) and 15A AC Breaker (1-P) between Inverter and Electric Motor. 15A DC Breaker (2-P) between Inverter and PV Modules Per String and 63A DC Breaker (2-P) between Inverter and Battery Bank as per Specification provided. DC Flexible Copper Cables 6 mm² single Core per String, Fitted in HDPE Pipe (1") and 35 mm² single Core Cable between Inverter and Battery Bank as per specification provided. Flexible AC Cables 7/0.29 (2.5 mm²) for AC Load Connection, 7/0.036 (4 mm²) for Grid to stabilizer & to inverter and 7/0.029 (2.5 mm²) for Electric Motor Connections as per specification provided. Flexible PVC Pipe, PVC Duct Patti, HDPE Pipe etc. for cable ducting Inauguration/Sign Board Job 1 (As Per design approved by Client/Engineer In-Charge) Earthing Rod 5 Feet Long, 16 mm Dia and Earthing Cable as per specification provided Switches 10/15 Amp: On/Off Switches, Plug, Distribution Board etc. Copper Thimbles, Sleeves, Butt Joint Connectors, Ring Thimbles, PVC Shrouds, Heat Shrink Tubes for all termination, connection and jointing as per **International Practice** Inverter, Batteries and Protective Devices must be Labelled Properly Detail User Manual for end users having complaint number as per approval of Client / Engineer In Charge Cabinet for Complete System (Inverter, Batteries, Stabilizer etc.) as Per design approved by Engineer In-Charge)

| S# | Description of Item | Required Data | Unit | Qty | Unit Price with Option 1: DLP= 03 Years B.G= 8% CDR=2% Retention = 8% Warranty = 3 Years | Total Price with Option 2: DLP= 01 Years B.G= 0% CDR=2% Retention = 8% Warranty = 3 Years | Total Price with Option 3: DLP= 01 Years B.G= 10% CDR=Returned Retention = 8% Warranty = 3 Years | Total Price with Option 4: DLP= 03 Years B.G= 0% CDR= 2% Retention = 8% Warranty = 3 Years |
|----|--|--|------|-----|--|--|---|---|
| 5 | Energy Efficient Ceiling Fan (40-50 Watt) as per specification provided. | Rated Power = | No | 6 | | | | |
| 6 | Energy Efficient LED Light Bulbs (14-15 Watt) with high lumen output as per specifications provided. | Rated Power = | No | 10 | | | | |
| | Backup System / Battery Bank: LiFePO4= Minimum 3.6kWHr Capacity as per specification provided | Battery Type = | | | | | | |
| 7 | OR | Battery Size (Ah) No | No | | | | | |
| | OPzV or OPzS (2V Cells) = Minimum 7.2kWHr Capacity as per specification provided | Battery Terminal Voltage = | | | | | | |
| 8 | PV Mounting Structure and Base Foundation made of Hot Dipped Galvanized Steel fixed to the roof of the Mosque with Anchor Bolts and able to withstand high-speed winds as per specification provided | PV Mounting Structure Material Type = PV Mounting Structure Type = | Job | 1 | | | | |
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