REPLACEMENT OF EXISTING PUMPING MACHINERY AND SOLARIZATION IN KOT CHANDNA, MIANWALI

| | BOQ | | | | | | | |
|---------|--|----------|----------|-----------------|-----------------------|--|--|--|
| Sr. No. | Description | Unit | Quantity | Unit Rate (PKR) | Line Total Cost (PKR) | | | |
| | TUBEWELL BAZAR AREA | | | | | | | |
| Α | PUMPING MACHINERY | | | | | | | |
| 1 | Supplying and installation at site and testing of Submersible pumping unit having discharge of 0.5cusec against total head of 300ft with 200ft length of column pipe, bowl assembly coupled with 30 BHP or higher as recommended by the manufacturer, with complete top set, 380/440 volts, 50 Hz, A.C. Submersible electric motor including cost of piping reducers / adopters or any other necessary electromechanical component as required. | Set | 1 | | | | | |
| 2 | Supply and installation of pump manufacturers made automatic motor control unit (MCU) for 30 BHP (<i>rating to be matched with the motor proposed as part of item 1</i>), electric motor comprising solar pumping inverter (35 kVA); main circuit breaker; contactors; motor protection relay including protection features such as thermal overload/ overcurrent, over/under voltage, phase failure & phase reversal etc.; voltmeter and ampere meter; indication bulbs for ON, OFF and FAULT; current transformer (as required); push buttons (ON and OFF), all contained in a lockable steel cabinet complete with internal wiring, in all respects | Set | 1 | | | | | |
| 3 | Safe dismantling of existing pumping machinery, including associated fittings and fixtures. The scope covers the complete disconnection of electrical, mechanical, and piping connections, removal of the equipment, and transportation of the dismantled components to the designated storage or departmental facility as instructed. All work must comply with safety standards and ensure no damage to the equipment or surrounding infrastructure. | Job | 1 | | | | | |
| В | SOLARIZATION | | | | | | | |
| 1 | Solar PV Modules (Mono-Crystalline) A-Grade : S/I of Solar PV Module (Solar Panel) Mono-crystalline A-Grade N Type (per Watt) | Watt | 45,000 | | _ | | | |
| 2 | ATS : S/I Automatic Transfer Switch Capable of switching from PV solar to Wapda. | Watt | 35,000 | | | | | |
| 3 | Fixed Mounting Structure: Supply and Erection of hot dipped (80 microns Average) galvanized steel of minimum thickness of 12 SWG / 2.64 mm Channel / Pipe or 8 SWG /4.06 mm Angle | Per Watt | 45,000 | | | | | |
| 4 | Nuts/Bolts : Supply and Erection of Stainless Steel Nuts and Bolts | Watt | 45,000 | | | | | |
| 5 | Submersible Flat Cable 4-Core (AC Wiring): S/I of Submersible Flat Cable made of 99.9% copper, coated with double PVC as per BSS Standards, 4x25 mm ² | Meter | 100 | | | | | |
| 6 | DC Cable (Red) : S/I Single core double insulated cable (35 mm²) | Meter | 20 | | | | | |

| 7 | DC Cable (Black) : S/I Single core double insulated cable | Meter | 20 | |
|----|---|--------------------|--------|----|
| / | (35 mm ²) | Meter | 20 | |
| 8 | Cable Ties: Supply and Installation Cable Ties (100 pieces pack) | Each | 7 | |
| 9 | MC4 Connectors : S/I Supply and Erection MC4 connector (TUV Approved) | Pair | 7 | |
| 10 | Earthing: Supply and Erection of Complete Earthing unit | Watt | 45,000 | |
| 11 | Cables/wires (Red DC Wiring): S/I Pure copper 6mm ² XLPE/XLPO for PV to junction Box. Positive | Meter | 20 | |
| 12 | Cables/wires (Black DC Wiring) : S/I Pure copper 6mm ² XLPE/XLPO for PV to junction Box. Negative | Meter | 20 | |
| 13 | Current Oriented Single Pole DC Breaker: S/I Suitable Capacity Breakers for each string, 15 A | Each | 7 | |
| 14 | Junction Box : S/I Hot dipped galvanized SWG 14 | Watt | 45,000 | |
| 15 | PVC Pipe : S/I PVC Flexible Pipe 2" i/d | Meter | 20 | |
| 16 | RCC foundation: RCC in roof slab, beam, column & other structural members, insitu or precast. (1:2:4) | 100m ³ | 3 | |
| | Grand Total Cost (PKR) | | | |
| | Cost of Extended Warranty Per Year (PKR) after the initial 3 years | | | |
| | Cost of Aftersales Services Per Year (PKR) after the initial 3 years | | | |
| | t terms: Acceptance of UN payment terms (i.e. 30 days after red destination and upon receipt of payment documents); | er installation at | | |
| _ | 100/ Control of the state of payment documents), | 1 11 1 111. | Yes | No |

Yes

No

Financial offer must be submitted in a single currency i.e. PKR.

period

Retention: 10% of contract value, payable following 90 days defects and liability

Price of your Offer shall be inclusive of installation, transportation, and all associated costs (price all inclusive)

| Bid Validity: 60 Days Acceptable | Y | Zes . | No |
|----------------------------------|---|-------|----|
| Bidder: | | | |
| Date: | | | |
| Name: | | | |
| Signature: | | | |
| Designation: | | | |
| Official stamp: | | _ | |

REPLACEMENT OF EXISTING PUMPING MACHINERY AND SOLARIZATION IN KOT CHANDNA, MIANWALI

| | BOQ | | | | | | | |
|---------|---|----------|----------|-----------------|-----------------------|--|--|--|
| Sr. No. | Description | Unit | Quantity | Unit Rate (PKR) | Line Total Cost (PKR) | | | |
| | IPS AT LAL TANKI AREA | | | | | | | |
| A | PUMPING MACHINERY | | | | | | | |
| 1 | Supplying and installation at site and testing of Vertical Turbine pumping unit having discharge of 0.5cusec against total head of 300ft with 30ft length of column pipe, bowl assembly coupled with 30 BHP or higher as recommended by the manufacturer 380/440 volts, 50 Hz, A.C. Vertical electric motor including cost of electro-mechanical component as mentioned. | Set | 2 | | | | | |
| 2 | Supply and installation of ASD pump manufacturers made automatic motor control unit (MCU) for 30 BHP (rating to be matched with the motor proposed as part of item 1), electric motor comprising ASD star-delta starter; main circuit breaker; contactors; motor protection relay including protection features such as thermal overload/overcurrent, over/under voltage, phase failure & phase reversal etc.; voltmeter and ampere meter; indication bulbs for ON, OFF and FAULT; current transformer (as required); push buttons (ON and OFF), all contained in a lockable steel cabinet complete with internal wiring, in all respects | Set | 2 | | | | | |
| 3 | Safe dismantling of existing pumps, including associated fittings and fixtures. The scope covers the complete disconnection of electrical, mechanical, and piping connections, removal of the equipment, and transportation of the dismantled components to the designated storage or departmental facility as instructed. All work must comply with safety standards and ensure no damage to the equipment or surrounding infrastructure. | Job | 1 | | | | | |
| B-1 | SOLARIZATION - SYSTEM-1 | | | | | | | |
| 1 | Solar Panel (PV module) mono-crystalline, A Grade, 20% Module efficiency minimum and 25 years power output warranty, IEC 61215 and IEC 61730 certified. | per Watt | 14,625 | | | | | |
| 2 | Supply and Installation of On Grid Inverter (Grid Tie Inverter) | per Watt | 15,000 | | | | | |
| 3 | Customized Elevated H-Beam Structure minimum 8 SWG with C-Channel for PV Panels Mounting as per Site Requirement | per Watt | 14,625 | | | | | |
| 4 | Supply and Erection of Stainless Steel Nuts and Bolts | per Watt | 14,625 | | | | | |
| 5 | Single Core DC Flexible Copper Cables 6mm sq from PV module to DC Combiner box and from DC Combiner Box to Inverter | R.M | 300 | | | | | |
| 6 | DC Breakers 32A-2P between DC combiner box and Inverter | No | 2 | | | | | |
| 7 | AC Cables 6 mm sq (4 core) from Main Distribution Box (MDB) to inverter then back to MDB | R.M | 30 | | | | | |
| 8 | 32 Amp 4-P MCCB Breaker btw WAPDA & Inverter | No | 1 | | | | | |
| 9 | 2 Pole Surge Protection device at DC inputs | No | 2 | | | | | |
| 10 | 4 Pole Surge Protection device at AC input | No | 1 | | | | | |
| 11 | S/I Supply and Erection MC4 connector (TUV Approved) | No | 4 | | | | | |
| 12 | Supply, Installation and Commissioning of 18 SWG Powder Coated Combiner Box for housing Circuit Breakers, DC Surge Protective Devices and AC Surge Protective Devices having Grounding Busbar with Digital Multimeter (Voltmeter and Ammeter), showing Current and Voltage of each Phase. All circuits must be properly tagged as per site installations | No | 1 | | | | | |
| 13 | Lightening Arrestor having 1" dia & 1m long rod with 5 spikes ball & base, Earthing Plate 1" x 1" x 4mm, Earthing Rod 6 Feet Long 16 mm Dia, and 16 mm2 Earthing Cable, all made of Copper material, and Earthing powder. | No | 1 | | | | | |

| | | | | 1 |
|-----|--|----------|--------|---|
| 14 | Inauguration/Sign Board | No | 1 | |
| 15 | Civil foundation work, HDPE pipe, Flexible PVC pipe, PVC ducts etc for cable ducting, Copper thimbles, sleeves, Butt joint connectors, Ring thimbles, PVC shrouds, Heat shrink tubes for all termination, connection and jointing as per International practices. DC Combiner box. Dry chemical powder Fire Extinguisher 6Kg capacity complete in all respect. Inverter, Batteries and Protective Devices must be Labelled Properly along with detail user manual. | Job | 1 | |
| 16 | Preparation & Submission of Complete Net-Metering Case as per the guidelines of FESCO, AEDB, NEPRA including Supply and Installation of Bi-directional Meter, Extension of Load, Approved Energy Meter with all requisite utility fee on behalf of the Employer and fulfillment of all prescribed formalities, complete in all respect. | Job | 1 | |
| B-2 | SOLARIZATION - SYSTEM-2 | | | |
| 1 | Solar Panel (PV module) mono-crystalline, A Grade, 20% Module efficiency minimum and 25 years power output warranty, IEC 61215 and IEC 61730 certified. | per Watt | 14,625 | |
| 2 | Supply and Installation of On Grid Inverter (Grid Tie Inverter) | per Watt | 15,000 | |
| 3 | Customized Elevated H-Beam Structure minimum 8 SWG with C-Channel for PV Panels Mounting as per Site Requirement | per Watt | 14,625 | |
| 4 | Supply and Erection of Stainless Steel Nuts and Bolts | per Watt | 14,625 | |
| 5 | Single Core DC Flexible Copper Cables 6mm sq from PV module to DC Combiner box and from DC Combiner Box to Inverter | R.M | 300 | |
| 6 | DC Breakers 32A-2P between DC combiner box and Inverter | No | 2 | |
| 7 | AC Cables 6 mm sq (4 core) from Main Distribution Box (MDB) to inverter then back to MDB | R.M | 30 | |
| 8 | 32 Amp 4-P MCCB Breaker btw WAPDA & Inverter | No | 1 | |
| 9 | 2 Pole Surge Protection device at DC inputs | No | 2 | |
| 10 | 4 Pole Surge Protection device at AC input | No | 1 | |
| 11 | S/I Supply and Erection MC4 connector (TUV Approved) | No | 4 | |
| 12 | Supply, Installation and Commissioning of 18 SWG Powder Coated Combiner Box for housing Circuit Breakers, DC Surge Protective Devices and AC Surge Protective Devices having Grounding Busbar with Digital Multimeter (Voltmeter and Ammeter), showing Current and Voltage of each Phase. All circuits must be properly tagged as per site installations | No | 1 | |
| 13 | Lightening Arrestor having 1" dia & 1m long rod with 5 spikes ball & base, Earthing Plate 1" x 1" x 4mm, Earthing Rod 6 Feet Long 16 mm Dia, and 16 mm2 Earthing Cable, all made of Copper material, and Earthing powder. | No | 1 | |
| 14 | Inauguration/Sign Board | No | 1 | |
| 15 | Civil foundation work, HDPE pipe, Flexible PVC pipe, PVC ducts etc for cable ducting, Copper thimbles, sleeves, Butt joint connectors, Ring thimbles, PVC shrouds, Heat shrink tubes for all termination, connection and jointing as per International practices. DC Combiner box. Dry chemical powder Fire Extinguisher 6Kg capacity complete in all respect. Inverter, Batteries and Protective Devices must be Labelled Properly along with detail user manual. | Job | 1 | |
| 16 | Preparation & Submission of Complete Net-Metering Case as per the guidelines of FESCO, AEDB, NEPRA including Supply and Installation of Bi-directional Meter, Extension of Load, Approved Energy Meter with all requisite utility fee on behalf of the Employer and fulfillment of all prescribed formalities, complete in all respect. | Job | 1 | |
| С | CIVIL WORK | | | |
| | | | | |

| 1 | Dismantling of one room quarter structure (including toilet) Brick Masonry / Concrete Works and removal of Doors / Windows including, while utilizing the bricks in the repair of boundary wall. Disposal of all surplus material outside the site premises in the range of 200m radius, as advised by the in-charge on site. | Job | 1 | |
|-------------|--|-----|-----|----|
| 2 | Repairing/construction of existing 350Rft boundary wall and increasing the height of the existing brick masonry wall to the height of 6ft where required, including surface preparation, material supply (bricks, mortar, and reinforcement if required), construction, and alignment to match the existing structure. The work also includes curing, finishing, and ensuring stability. | Job | 1 | |
| | | | | |
| | | | | |
| | Grand Total Cost (PKR) | | | |
| | Cost of Extended Warranty Per Year (PKR) after the initial 3 years | | | |
| | Cost of Aftersales Services Per Year (PKR) after the initial 3 years | | | |
| the require | terms: Acceptance of UN payment terms (i.e. 30 days after ded destination and upon receipt of payment documents); 10% of contract value, payable following 90 days defects | | Yes | No |

Financial offer must be submitted in a single currency i.e. PKR.

Price of your Offer shall be inclusive of installation, transportation, and all associated costs (price all inclusive)

| Bid Validity: 60 Days Acceptable | Yes | No |
|----------------------------------|-----|----|
| Bidder: | - | |
| Date: | | |
| Name: | _ | |
| Signature: | _ | |
| Designation: | _ | |
| Official stamp: | | |

REPLACEMENT OF EXISTING PUMPING MACHINERY AND SOLARIZATION IN KOT CHANDNA, MIANWALI

| | BOQ | | | | | | |
|---------|--|----------|----------|-----------------|-----------------------|--|--|
| Sr. No. | Description | Unit | Quantity | Unit Rate (PKR) | Line Total Cost (PKR) | | |
| | TOLA MOR | | | | | | |
| Α | SOLARIZATION | | | | | | |
| 1 | Solar Panel (PV module) mono-crystalline, A Grade, 20% Module efficiency minimum and 25 years power output warranty, IEC 61215 and IEC 61730 certified. | per Watt | 45000 | | | | |
| 2 | Supply and Installation of On Grid Inverter (Grid Tie Inverter) | per Watt | 45000 | | | | |
| 3 | Supply and Erection of hot dipped (80 microns Average) galvanized steel of minimum thickness of 12 SWG / 2.64 mm Channel / Pipe or 8 SWG /4.06 mm Angle as per Site Requirement | per Watt | 45000 | | | | |
| 4 | Supply and Erection of Stainless Steel Nuts and Bolts | Watt | 45000 | | | | |
| 5 | Single Core DC Flexible Copper Cables 6mm sq from PV module to DC Combiner box and from DC Combiner Box to Inverter | R.M | 600 | | | | |
| 6 | DC Breakers 32A-2P between DC combiner box and Inverter | No | 6 | | | | |
| 7 | AC Cables 25 mm sq (4 core) from Main Distribution Box (MDB) to inverter then back to MDB | R.M | 30 | | | | |
| 8 | 100 Amp 4-P MCCB btw WAPDA & Inverter | No | 1 | | | | |
| 9 | 2 Pole Surge Protection device at DC inputs | No | 6 | | | | |
| 10 | 4 Pole Surge Protection device at AC input | No | 1 | | | | |
| 11 | Supply, Installation and Commissioning of 18 SWG Powder Coated Combiner Box for housing Circuit Breakers, DC Surge Protective Devices and AC Surge Protective Devices having Grounding Busbar with Digital Multimeter (Voltmeter and Ammeter), showing Current and Voltage of each Phase. All circuits must be properly tagged as per site installations | No | 1 | | | | |
| 12 | S/I Supply and Erection MC4 connector (TUV Approved) | No | 4 | | | | |
| 13 | Lightening Arrestor having 1" dia & 1m long rod with 5 spikes ball & base, Earthing Plate 1" x 1" x 4mm, Earthing Rod 6 Feet Long 16 mm Dia, and 16 mm2 Earthing Cable, all made of Copper material, and Earthing powder. | No | 1 | | | | |
| 14 | Inauguration/Sign Board | No | 1 | | | | |
| 15 | Civil foundation work, HDPE pipe, Flexible PVC pipe, PVC ducts etc for cable ducting, Copper thimbles, sleeves, Butt joint connectors, Ring thimbles, PVC shrouds, Heat shrink tubes for all termination, connection and jointing as per International practices. DC Combiner box. Dry chemical powder Fire Extinguisher 6Kg capacity complete in all respect. Inverter, Batteries and Protective Devices must be Labelled Properly along with detail user manual. | Job | 1 | | | | |

| 16 | Preparation & Submission of Complete Net-Metering Case as per the guidelines of FESCO, AEDB, NEPRA including Supply and Installation of Bi-directional Meter, Extension of Load, Approved Energy Meter with all requisite utility fee on behalf of the Employer and fulfillment of all prescribed formalities, complete in all respect. | Job | 1 | |
|--|---|-----|-----|----|
| | Grand Total Cost (PKR) | | | |
| | Cost of Extended Warranty Per Year (PKR) after the initial 3 years | | | |
| | Cost of Aftersales Services Per Year (PKR) after the initial 3 years | | | |
| Payment terms: Acceptance of UN payment terms (i.e. 30 days after installation at the required destination and upon receipt of payment documents); Retention: 10% of contract value, payable following 90 days defects and liability period | | | Yes | No |

Financial offer must be submitted in a single currency i.e. PKR.

Price of your Offer shall be inclusive of installation, transportation, and all associated costs (price all inclusive)

| Bid Validity: 60 Days Acceptable | Yes | No |
|----------------------------------|-------|----|
| Bidder: | | |
| Date: | _ | |
| Name: | _ | |
| Signature: | _ | |
| Designation: | _ | |
| Official stamp: | | |

REPLACEMENT OF EXISTING PUMPING MACHINERY AND SOLARIZATION IN KOT CHANDNA, MIANWALI

| Sr. No. | Description | Unit | Quantity | Unit Rate (PKR) |
|---------|--|------|----------|--------------------|
| | DIESEL ENGINE-DRIVEN WELDER/AC GENERATOR | | | |
| Α | ENGINE | | | |
| | Turbo Charged Diesel Engine; | | | |
| | Water Cooled; | | | |
| | Exhaust System with flame/ Spark Arrestor; | | | |
| | Power 3600 rpm; | | | |
| | Fuel Tank Capacity: Min. 06 hours at full load; | | | |
| | Fuel cap of fuel tank should be lockable | | | |
| | Complete with welding plant as one unit | | | |
| В | CONTROL PANEL | | | |
| | Following meters should be installed: | | | |
| | Hours meler | | | |
| | Volt meter | | | |
| | Ammeter | | | |
| | Cooling water temperature guage | | | |
| | Oil pressure guage | | | |
| | Speedometer | | | |
| | On/Off switch | | | |
| С | GENERATOR | Set | 1 | |
| | Electric welding generator should have following | | | |
| | specifications: | | | |
| | • Current Range· 50-240 A | | | |
| | Voltage range. 40-220 V | | | |
| | Generator Capacny: 5 kVA | | | |
| | Mounted on 04 wheeler (tubeless tyres) with iron frame | | | |
| D | GENERATOR COVER | | | |
| | Corrosion resistant 16 SWG galvanized sheet case with side | | | |
| | panels, hand operated locks and handrails | | | |
| E | ACCESSORIES | | | |
| | • 20 meter Earthing lead (16mm ²) and 50 meter welding | | | |
| | lead (16mm²) with welding holder rolled on hand-driven | | | |
| | portable cable reel | | | |
| | Spanner set and other necessary tools within the toolbox | | | |
| | | | | |
| | Total Cost (PKR) | | | |

Payment terms: Acceptance of UN payment terms (i.e. 30 days after installation at the required destination and upon receipt of payment Yes No documents); Retention: 10% of contract value, payable following 90 days defects and liability period

Financial offer must be submitted in a single currency i.e. PKR.

Price of your Offer shall be inclusive of installation, transportation, and all associated costs (price all inclusive)

| Bid Validity: 60 Days Acceptable | Yes | No |
|----------------------------------|-------|----|
| Bidder: | _ | |
| Date: | | |
| Name: | | |
| Signature: | | |
| Designation: | | |
| Official stamp: | | |