**INDIAN BANK,**

**ZONAL OFFICE,**

**Bhubaneswar,**

**Indian Bank Building, B2, East, Saheed Nagar, Bhubaneswar**

Ph: 0674-2543545

## PART - 2: PRICE BID

**Tender document for "Design, Engineering, Supply, Installation, Testing and Commissioning of 20 kWp at Indian Bank, Paradip, Dist: Jagatsinghpur, Odisha Branch) Grid interactive Solar Photo Voltaic system" at Indian Bank, own premises in and around Chennai".**

**ISSUED TO**

**M/s._____**

**(This document contains 06 pages)**

| Sr No | Description | Qty | Unit | Supply | | Installation | | Total Amount S+I (excluding tax) |
|---|---|---|---|---|---|---|---|---|
| | | | | Rate | Amount | Supply | Amount | |
| **LOCATION: Indian Bank, Paradip, Dist: Jagatsinghpur, Odisha – 20kWp.** | | | | | | | | |
| 1 | DESITC of 540 Wp Monocrystalline solar PV panels as per technical specifications given in the Tender (If higher wattage capacity panels are used, the power output of 20 kWp to be maintained). | 37 | No | | | | | |
| 2 | DESITC of 20 KW (or higher) solar inverter as per technical specifications and safety mat for operating personnel etc | 1 | No | | | | | |
| 3 | DESITC of Weather proof IP-65 array junction box with SPD, Fuse and as per technical specifications (minimum 02 nos ) | 2 | No | | | | | |
| 4 | DESITC of IP-42 protected cubicle type panel (ACDB)wall mounting fitted with the with all accessories (with AC surge arrestor ,fuse etc)and suitable rating 63A , 25 KA 4 Pole MCCB (Current rating to be adjustable in the range from 80 % - 100%) to evacuate power (near to the invertor), with all necessary accessories and supply & installation of 1 no. 63A,25 KA 4P, MCCB (Current rating to be adjustable in the range from 80 % - 100%) (near to the mains of the Branch) with suitable enclosure to terminate the solar power supply to the mains of the Branch, as per technical specifications and safety mat shall be provided for operating personnel etc | 1 | set | | | | | |

**Seal** **Signature of the Bidder**

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| | | | | Rate | Amount | Supply | Amount | |
| 5 | **Earthing of solar panel structures and AC DB** | | | | | | | |
| 5.1 | Supply and fixing GI pipe earth station conforming fully to IS 3043 with latest amendments, complete with **3 m long 50mm dia GI pipe (3mm Thickness)** with Funnel on Top with holes drilled for tapping connection. The rate includes making 300 mm diameter pit and after excavation pit to be filled with to surface with alternate layer of salt/charcoal mixture. Brick work masonry shall be constructed of size 450x450x300 mm with RCC cover.<br>Note: Test report of resistance of the new earth pit to be submitted.<br>(2 nos for DC, 2 nos for AC and 2nos for Lighting arrestor). | 6 | No | | | | | |
| 5.2 | DESITC of 25 x 3 MM GI Strip to be clamped on wall, cable tray, buried in ground to interconnect the earth electrodes mentioned above (5.1) to the solar panel structures and power evacuation panel / combiner panel , lighting arrestor separately (The GI strip shall be painted with green paint as per electrical inspectorate norms) | 400 | Mt | | | | | |

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|---|---|---|---|---|---|---|---|---|
| 5.3 | DESITC of 4 core 10 Sq mm Dia multi-stranded Cu wire, FRPVC insulated green colored cable to be | 200 | Mt | | | | | |

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| | drawn in 20 MM Dia PVC conduit, 1.5MM thick to be clamped on wall, cable tray, buried in ground to interconnect the earth electrode with inverter neutral point, AC DB to Invertor including terminations at both the ends etc. | | | | | | | |
| 6 | DESITC of AC & DC cabling between panels and inverter with heat resistant insulated copper wires drawn in UPVC Conduit properly fixed properly on pedestals on the floor for interconnection between solar modules , ARJ and invertor. | 1 | Lot | | | | | |
| 7 | DESITC of 4C x 35 Sqmm aluminum armored cable from AC Distribution Board to spare feeder of Main LT panel situated at the ground floor including terminations at both ends. The gland earthing with 14 SWG copper wire and connecting the same to earth grid to be included in the rate quoted by the contractor. | 100 | Mt | | | | | |
| 8 | Design, fabrication, supply and installation of concrete pedestals of minimum M20 grade [(1:11/2:3) and the same shall be plastered with 12mm thick cement sand mortar of ratio 1:4 of 300mm wide x 450mm high to be fixed on terrace floor for supporting solar panel structures. And the pedestals shall be painted with exterior emulsion paint | 1 | Lot | | | | | |

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|---|---|---|---|---|---|---|---|---|
| | | | | Rate | Amount | Supply | Amount | |
| 9 | Design & Supply, Installation of GI structures for supporting the solar panels as per technical specifications | 1 | Lot | | | | | |
| 10 | Supply & Installation of safety items like fire extinguishers, fire buckets and danger boards / Signages / Identification stickers on modules / inverters / Array junction box etc., / first aid kit etc., and safety mat at the location of inverters / combiner panel etc., Shock treatment chart both in Hindi & English, as required and which found necessary as per electrical inspectorate norms | 1 | Lot | | | | | |
| 11 | Supply and installation of 3 prong copper spike lightning terminal on 3 Mt high GI pipe with anchoring to be mounted on the parapet wall with proper clamping arrangement.<br><br>Lightning protection terminals as required to protect the entire building including the solar installation with GI strip / copper down conductors and earth pit as per IS standard each for Lightning terminal / mast | 2 | nos | | | | | |
| 12 | Liaison with respective State Electricity Board and Electrical Inspectorate for installation of bi directional net meter (to measure import and export of energy) (bi directional Energy meter will be supplied by respective Electricity Board) . | 1 | Job | | | | | |

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|---|---|---|---|---|---|---|---|---|
| | | | | Rate | Amount | Supply | Amount | |
| 13 | Liasoning with Govt agencies (for project approval) and Preparation of as-built drawings, SLD etc., Liasoning with CEA / Government agencies (respective State Electricity Board / MNRE/other govt agencies) after, arranging inspection and getting approval and arrange for , subsidy etc. after completion. | 1 | Job | | | | | |
| | **Sub Total** | | | | | | | |
| | **Grand total for Supply and Installation – (A)** | | | | | | | |
| 14 | Operation & Maintenance (O&M) of Solar PV System ( To be considered for Tender evaluation purpose) | | | | | | | |
| 14.a | O&M During DL period | 01 | Year | | | | | |
| 14.b | O&M for the 1st year after DLP | 01 | Year | | | | | |
| 14.c | O&M for the 2nd year after DLP | 01 | Year | | | | | |
| 14.d | O&M for the 3rd year after DLP | 01 | Year | | | | | |
| 14.e | O&M for the 4th year after DLP | 01 | Year | | | | | |
| 14.f | O&M for the 5th year after DLP | 01 | Year | | | | | |
| | O**&M - SUB TOTAL -----(B)** | | | | | | | |
| | **GRAND TOTAL ( A+ B ) –<br>ZO xxxxxxx (Exclusive of all taxes )** | | | | | | | |

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