

CANCER PATIENTS WELFARE SOCIETY (CPWS) - GINUM

Tender Notice No: GNM-113/2024-25(47)

Receipt No: _____

Opening Date: 20-07-26 (Technical)
03-08-26 (Financial)

Time: 12:30 hours

Time: 12:00 hours

Dated: _____

SUBJECT:- Supply , Installation and Commissioning of 200kWp On-Grid Solar PV System (SPV) with Net Metering / Billing at GINUM, Gujranwala on Engineering Procurement and Construction (EPC) Basis.

Terms and Condition

1. The rate should be quoted on F.O.R. GINUM, Gujranwala basis, the quoted bid will be for supply & Installation of SPV at GINUM. Tender shall reach on or before dated 20-07-26 at 12:00 hrs on the following address:-
General Secretary CPWS, GINUM, Nizampur, Sialkot Road, Gujranwala.
2. Validity of bid should not be less than 90 days from the date of opening.
3. Delivery period should not be more than 30 days from the date of issue of supply order which in exceptional circumstances, may be extended with the consent of this Institute.
4. The earnest money at the rate of 5% of the total quoted value in the shape of CDR/Pay Order (Cheque not acceptable) in the name of **CPWS GINUM** must accompany the offer, failing which the offer is liable to be rejected.
5. The Payment terms are as following:-
 01. 50% payment upon delivery and inspection of major equipments such as PV panels inverters, Mounting structures and electrical cables.
 02. 30% after successful energization / commissioning of SPV.
 03. 10% after activation of net metering / Billing.
 04. 10% after completion of comprehensive warranty period.
6. Conditional / telegraphic offers will not be entertained.
7. Quotation must be sent in closed / sealed envelope. Envelope should be marked with tender No. and date of opening.
8. Delivery period must be mentioned specifically in term of days.
9. Bidder, on whom the order is placed, would be responsible to get the samples approved and deliver the stores within the stipulated delivery period given in the supply order. Stores can be delivered without sample approval but in case of rejection, the Institute will not be responsible for any Claim arising thereof.

Handwritten signature and a circular stamp, likely an official seal or mark, located at the bottom of the page.

10. All items should suitably be packed with sufficient cushioning material to withstand rough handling during transit. The bidder will be liable to bear any loss due to improper or inadequate packing.
11. Checking and Inspection of stores will be got done by the bidder or his authorized representative on receipt of stores at this Institute, GINUM otherwise deficiency / rejection if any, will have to be made good/replaced by the bidder. Client may also inspect / evaluate Solar equipments as per provided specifications / BOQs.
12. In case the firm fails to make the execution of works within the stipulated period without reasonable excuse in writing, then the remaining work would be executed through some other firm at the Solar risk & cost of firm without any reference in this regard thereof. The judgment of reasonability of excuse rests solely with this Institute.
13. In this case the firm does not supply the stores within the stipulated delivery period this institute will be at liberty liquidated damages @ 0.2% - 0.3% /day up to the max. of 10% of electricity charges by DISCO raised due to solar generation loss may be imposed to the firm.
14. Calculation mistake if any found in supply order maybe intimated to this Office for rectification.
15. The Competent Authority reserves the right to accept or reject any or all the tenders without Assigning any reason.
16. Owner, proprietor or his authorized representative may sign for acceptance of these terms and condition with a copy of certificate of ownership, proprietorship and authorization.
17. Detailed specification of required items is attached at overleaf as per Annexure-A
18. As per Finance (Supplementary) Act-2022 clause 52A, as mentioned under 6th schedule of sales tax Act-1990 exemptions available of Govt. Hospitals has been omitted w. e. f. 16-01-2022. Therefore, quotations/rates may be provided including GST, if applicable
19. **Qualification criteria of bidders**
 - The bidders must be a registered with FBR on active taxpayer List (ATL) and certificates must be attached for NTN and GST.
 - Copies of last three tax returns of income tax and GST may be attached.
 - Bidder must be registered with AEDB (ARE-V2) / PPIB, SECP and PEC (C-IV) .
 - Bidder may submit financial soundness / account maintenance certificate issued by the bank which shall not older than 03 months along with audit reports of the last three years.
 - Bidder may also submit 3x client satisfaction certificates of installed SPVs capacity $\geq 150\text{kWp}$ along with net metering license.
 - Bidder may submit an affidavit on Rs. 100/- stamp that the firm is not black listed from any government / semi government organization.
20. **Technical proposal must be accompanied with**

Documents / technical literature of proposed SPV, including but not limited to, equipment datasheets, plant layouts, warranty terms and conditions and drawings of mounting structure / civil foundation, electrical / single line diagram (SLD) along with solar generation report may also be submitted by the bidder.
21. Financial proposal may be submitted by the bidder on template placed at annexure –B.

22. Bidder must provide comprehensive warranty of two years after award of completion of certificate.

Annexure-A

Sr. #	Description/specifications	Quantity	Units Price with GST	Total Amount with GST
01	<u>Equipment</u> <u>Solar PV Module</u> - Type : Tier-1, Class-A, N-type with 33 mm frame or HPBC 2.0 Technology (Longi HiMo X-10) with 30mm frame or better - Power rating : 580W or higher , Anti-PID - Make: Tier-1 as per Bloomberg Latest list i.e., Canadian solar, Jinko Solar Longi or equiv. - Thermal Power Coefficient, $P_{max} : \leq 0.29\% / ^\circ C$ - Efficiency : $\geq 22.45\%$, Positive tolerance only 12 Years product Warranty, 30 years performance warranty or better - Standards Compliance: IEC 61215, 61730, ISO 9001, 14001 etc. J. Box : Factory equipped weather proof with minimum IP 68 protection with provision of opening or replacement of DC cables, blocking diodes and convenient debugging, if required - Loading Capacity : 5400Pa (positive load), 2400Pa (negative load), Provided with all performance and other relevant test reports / certifications included but not limited to I-V curve test, Flash Module test, Hot spot test, anti-PID test etc.	>200kWp		

02	Solar Inverter • Type: String inverter, Grid Tied, 1/1.5 kV (DC), 3-phase. Multi-MPPT , transformers-less . • Make: Sungrow , Huawei , Fronius (EU) or approved equiv. • Size : As per optimal array design , but not less than 25kVA • AC Voltage : 3/N /PE, 220V /380V, 230 /400V • AC Voltage range : 310 - 480V • Rated grid frequency : 50Hz /60Hz • Inverter to Pv ratio: optimal but not less than 0.95 per inverter • Maximum efficiency : $\geq 98\%$ • Active and Reactive power control with power factor : > 0.99(at rated power), 0.8 leading - 0.8 lagging (adjustable) • Total harmonic Distortion (THD) $< 3\%$ (at rated power) • Standards Compliance : IEC 62109-1/2, IEC 62116, IEC 61683 etc. for safety, grid connectivity, parallel operation and relevant standards • Degree for protection : IP 65 or better • DC/AC SPDs: Type-2 or better • Warranty : 10 years or more local replacement with OEM certificate • Built with data logger, communication interfaces, protection and remote monitoring capability, provided with inspection report from reputed, independent third party testing / inspection institute	≥ 190 kW AC output		
03	DC Cables • 99.9% copper, Double insulated, cross linked insulation (XLPO), class 5, flexible tinned conductor with size : 6mm^2 or more • Make: Fast cable / Pakistan cable / Top cable or approved equiv. • Voltage level : 1.5/1.5KV for max PV system voltage up to 2KV • Operating Temperature: $-20^{\circ}\text{C} \sim 90^{\circ}\text{C}$, flexible, weather resistant, UV resistant, ozone corrosion resistant, halogen free & flame retardant • Provided with all major test reports such as conductor resistance test, insulation resistant test, etc • Standard compliance: IEC 62930:2017, IEC-60287, EN 50618, etc. • Cables to be laid in perforated cable trays	As per req		
04	AC cables • 4-core, 99.9% copper, PVC insulated / PVC sheathed or better • Make: Pakistan cable / Fast cable or approved equiv. • Standard compliance : IEC 60228, BS 6346 (insulation), IEC-60364-5-52(sizing), IEC - 60287 / Bs 7671	As per req		
05	DC Breakers • MCB, 2/4 pole, 1000 VDC or better	1 no.per string		

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10.	Solar panel mounting structure • Mounting Material : Carbon Steel (ASTM A-36) or Aluminum Alloy 6061-T6 (ASTM B-221) • Galvanization : Hot dipped, Zinc coated of minimum 80microns thickness (ASTM A123) for Carbon steel only • Configuration : L3/L2/P1 pre-fabricated / customized structure or better • Material selection / shape : C-Channel (plain /lip)/ square tube or better • Thickness : 12 SWG / 2.75 mm for galvanized steel and / or 10 SWG / 2.58 mm of aluminum alloy or better • Azimuth angle : $180^{\circ} \pm 15^{\circ}$ (180° corresponds to true south) • PV module shall be fixed with frame through SS 304, M8 x 30 mm bolt with M8 nut & washers (2x flat & 1x spring) or Aluminum clamps (end / middle) as per OEM recommendations While structure members such as purlin , rafter and legs etc. will be joined with each other through SS 304, M10 x 30 mm bolts and M10 nuts / washers. Flat washers should be used on both sides of solar frame with spring washer above the nut. • Solar panel lower end should be minimum 06 inches above from roof level and minimum distance between two panel will be 25mm • Rawal bolts SS 304, M10, L = 100 mm or better shall be used to fix frame with roof. These fasteners must be tighten with pre-defined torque as per OEM recommendations. • All Fasteners must be adequately protected from atmosphere / weather conditions Chemical sealant must be used during anchoring to avoid water leakage. • Design shall be appropriate, innovative and easy to install & replace any module. Structure must be design with appropriate factor of safety. The corners / edges must be chamfered to avoid sharp edges The array structures shall be grounded. • Sufficient distance of installed panel must be from parapet / boundary wall to avoid shade on panels to allow regular cleaning of solar panels, they should be easily accessible for personnel. • Mounting structure & foundation shall be designed with reference to the exiting roof surface conditions to withstand wind speed of 150 km/h, using relevant Pakistani / international wind load codes. The successful bidders shall provide dynamic/ wind analysis • Bidder must also submit certificates / documents / test reports along with relevant literature related to the quality and safety of structures.	≥ 200- KWp DC PC panels		
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11	Civil work - PCC pad having minimum size of 8" × 8" × 6" around each frame leg or as per proposed design after approval of concerned Engineer. 1:2:4 cement ratio must be used in all concrete works - Pad top shall be slightly tapered to avoid water accumulation	As per req.		
12	Earthing protection 99.9% copper wire / conductor, single core of suitable size / rating as per IEC 60364-5-54, not less than 6mm² for exposed conductive parts. - Sizing of earthing wire to be calculated, as per relevant IEC standard for every equipment - Separate pit for AC, DC and lighting arrestor - Earth resistance must not exceed 5 ohms for any earthing connection. - DC earthing to be installed as per IEC 60364-7	≥02 Nos.		
13	Earth Pit - Earth pit excavation of sufficient size (1.5m × 1.5m × 5.0m minimum) in hard rock / gravelly soil or better. - Copper plate (99% pure of 500mm × 500 mm × 10mm minimum) with 02 Nos. earth lead of bare copper conductor in mixture of wood , coal powder, salt and sand or kolomite maintenance-free earthing block with Mesh resistance ≤ 2.0 Ohm - Earth termination point comprising of copper (99.9% pure) strip , fitted with brass nuts, bolts, washer for installation / mounting with adequate inspection chamber	≥02Nos.		
14	Lightning Arrestor - ESE type, as per NF C-17- 102 standard - Max Withstanding current, Imax: ≥ 100A - Stainless steel outer body, protection scheme and level to be calculated as per site requirement	≥01Nos.		
15	Zero Export Device - Complete with analyzer, CTs, PTs for monitoring and logging of real time power flow values and other parameters - Make : Original / Recommended as per inverter OEM - Associated Cat-VI or approved equiv. communication cable to be interfaced with inverters	01 No.		

16	System Monitoring and logging facility Monitoring system to be installed with string monitoring capability, complete with communication interfaces, data logging and software to log and display power, energy, currents, voltages and other critical parameters of individual strings - Intelligently monitor and indicate faults/ abnormal conditions in strings - Successful bidder has to configure the system and display parameters such as DC energy, AC energy, inverter parameters string parameters etc. System must be able to log data for at least two years - One complete Computer system along with accessories for reliable communication with inverters and communication cable	01 Set		
17	Firefighting - Appropriate fire extinguisher equipment near each inverter / point of injection of solar power - Extinguisher type should conform to the requirements to mitigate effect of electrical fire hazard (Halotron type)	01 set per inverter location		
18	Other Accessories - High Quality perforated GI cable trays (size :18 SWG or Better) with caps for AC/DC cables with cable ties, clamps, thimbles, etc - All other additional equipment / parts which are necessary for smooth / efficient long term operation solar PV system	As per req.		
19	Installation / commissioning Services and Net Metering - Complete System Installation, Testing and commissioning, complete in all respect - Preparation and submission of Net Metering application and necessary documentation, pre-requisites, DISCO load flow studies etc. On behalf of clients and submit corresponding fees such as NEPRA fees, Demand Notice etc. as per site requirement - Continued follow up of the case till activation of net metering and replacement / update of existing electrical infrastructure, if required, for net metering. - All fees / costs associated with net metering to be borne by supplier	01 Job		

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