



Ref. No.: F69.V2/REG/0126-22

Date: 25.01.2022

SEALED QUOTATION FOR SUPPLY AND INSTALLATION OF ADVANCE LIGHTNING PROTECTION + SPD

Cooch Behar Panchanan Barma University, Cooch Behar, a Statutory Body of the Government of West Bengal under the control of Department of Higher Education invites sealed tenders under two-bid system from reputed and experienced agencies for “**Quotation for Supply and Installation of Advance Lightning Protection + SPD**” at the Registrar, Cooch Behar Panchanan Barma University, Panchanan Nagar, Vivekananda Street, Cooch Behar-736101, West Bengal, India.

Sl. No.	Item	Specification	Qty.
1	External Lightning Protection System	<p>E.S.E. which is an active lightning conductor designed to conform to the French Standard NFC 17 102: 2011 $\Delta T: 60 \mu s$ for ESE lightning conductors. Its working principle evolves from local electrostatic field that develops naturally around the system as a thunderstorm begins to gather. In the event of descending lightning, an inbuilt triggering device generates high tension pulses at the conductor tip, causing a ‘corona effect’. Protection radius of 79 Meter at level 1 & 107 Meter at level 4.</p> <p>Tested for Impulse Current -Impulse Current: I Imax.=204 kA (10/350 μs) Ipeak-avg =102kA W= (I rms)² .R . Δt=2ms Energy Transfer W =(102/$\sqrt{2}$.103)² .10⁻³ .2.10⁻³ = 10,403 kJ W/R = 10,43 (MJ/ohm)</p> <p>TRIGGERING TIME (ΔT)- 60 μ sec . Mounting Mast (GI Mast, Insulator and Mounting Accessories) Supply of 50 mm dia X 5 Mtr GI Mast with Mounting accessories and Insulator (complete one set) or can be customized according to the convenience of structural design. Cable (70 Sq mm copper cable) – Down Conductor Single Core Multi Strand Copper Flexible Cable ; Chemical Earthing: Tripod earthing (3 Nos.) of maintenance free copper bonded earth rod of diameter 17.2 mm, 10 feet length, made of high tensile low carbon steel rod, molecularly bonded with copper on outer surface(minimum copper bonding thickness-250 microns) with 25 Kg ROHS approved earth enhancing compound with earth rod with digital strike counter tested as per international Standards and with Compliance with EN 62561-6</p>	1
2	SPD 3 Phase	<p>IS/IEC 62305 and NBC 2016 Network =230/400V Max. operating voltage Uc= 440 Vac 320 Temporary overvoltage withstand Ut= 770 Operating current - Leakage current at =Uc Ic < 1 mA Impulse current by pole - max withstand 10/350μs -Iimp= 8 kA Nominal discharge current - 15 x 8/20 μs impulses In =30 kA Maximum discharge current - max. withstand 8/20 μs Imax =100 kA Protection level (at In) Up= 1.8 kV Residual voltage at 10 kA =1.4 kV Residual voltage at 5 kA= 1.2 kV Admissible short-circuit current =25000 A IEC 61643-11, EN 61643-11 and UL1449 ed.4 compliance</p>	4



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3	SPD 1 Phase	IS/IEC 62305 and NBC 2016 Network =230V Max. operating voltage $U_c = V_{ac} 320$ Temporary overvoltage withstand $U_t = 770$ Operating current - Leakage current at $=U_c I_c < 1$ mA Impulse current by pole - max withstand 10/350 μ s $-I_{imp} = 8$ kA Nominal discharge current - 15 x 8/20 μ s impulses $I_n = 30$ kA Maximum discharge current - max. withstand 8/20 μ s $I_{max} = 100$ kA Protection level (at I_n) $U_p = 1.4$ kV Residual voltage at 10 kA =1.0 kV Residual voltage at 5 kA= 0.9 kV Admissible short-circuit current =25000 A IEC 61643-11, EN 61643-11 and UL1449 ed.4 compliance	4
4	Data Line SPD	IS/IEC 62305 and NBC 2016 Network =100Gigabit Ethernet Cablage Cat.6 Max. data rate =10 Gbps SPD configuration= 4 pairs + shielded 4 pairs + shielded Pin outs= (1-2)(3-6)(4-5)(7-8) Nominal line voltage $U_n = 5$ Vdc Max. DC operating voltage $U_c = 8$ Vdc Max. Load current $I_L = 1000$ mA Max. frequency $f_{max} \Rightarrow 250$ MHz Insertion loss= < 1 dB Line/Ground Nominal discharge current 8/20 μ s Test x 10 - category C2 $I_n = 2000$ A Nominal discharge current Line/Line 8/20 μ s Test x 10 - category C2 $I_n 500$ A 500 A Impulse current - 2 x 10/350 μ s Test - D1 Category $=I_{imp} 500$ A Protection level $U_p 20$ V Failsafe behavior Short-circuit IEC 61643-21, EN 61643-21 and UL497B compliance	4

The interested agencies/firms are required to submit the Technical and Financial bid separately. The bids in Sealed Cover-I containing “**Technical Quotation**” and Sealed Cover-II containing “**Financial Quotation**” should be placed in a third sealed cover superscripted “**Quotation for Supply and Installation of Advance Lightning Protection + SPD**” and should reach on or before **02.02.2022 (through register/speed post only)** to the Registrar, Cooch Behar Panchanan Barma University, Panchanan Nagar, Vivekananda Street, Cooch Behar-736101, West Bengal, India.

No quotation will be accepted after last date of submission of quotation.

The Technical Quotation (Annexure-I) and Financial Quotation (Annexure- II) duly signed by the firm/agency should contain in the Sealed Cover-III super-scribed with “**Quotation for Supply and Installation of Advance Lightning Protection + SPD**”.



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Amount of Tender Cost to be Deposited as **Rs. 1,000/- (Rupees One Thousand Only)** in the shape of **Demand Draft / NEFT**, in favour of the **Registrar, Cooch Behar Panchanan Barma University** payable at **Cooch Behar**. [NEFT Details: NAME OF THE A/C: COOCH BEHAR PANCHANAN BARMA UNIVERSITY, SB A/C NO.: 32741316141, IFSC: SBIN0000058]. (Cash deposit to the SB A/C is not allowed)

GENERAL INSTRUCTION:

- i. Mere submission of proposal does not imply acceptance of the same at this end and the firms will be enlisted only after meeting the laid down qualifying parameters for which the decision of Cooch Behar Panchanan Barma University shall be final and binding on all parties.
- ii. Statutory deduction for GST and other Government taxes will be made as per the law in force.
- iii. **Experience:** Selected bidder **should** have experience of 4 years in the field of Lightning Protection System and should have experienced man power in execution not less than 10 years.
- iv. **Security Deposit:** Successful bidder should deposit Performance Security money equivalent to the 10% of the order value in the form of DD/Bank Guarantee immediately before issuing purchase order from the University. Such security will be refunded after completion of the warranty period in normal case without any accrued interest. University may forfeit the Security Money in the event of the following circumstances:
 - a) Selected bidder withdraws the bid before expiry of its validity but after receipt of the Purchase Order.
 - b) Selected bidder does not accept the order after issuing the same or fails to enter into a contract within validity period of offer.
 - c) Selected bidder fails to supply the items within the scheduled time as specified in the Purchase Order
 - d) If before expiry of the warranty period, the supplied items break down or do not function satisfactorily due to the cause related with the item itself or for its installation and not for any reason caused by the University Authority and the supplier denies to take the responsibility to make the supplied items in order.
 - e) In case of any false submission /statement by the bidder.
 - f) In case of any refusal to abide by terms and conditions or refusal to enter into a written agreement as per prefixed terms and conditions.
- v. **Payment Schedule:** 100% of the bill value will be paid after satisfactory installation/delivery of the equipment's.
- vi. The quotation shall remain valid for **90 days** from the date of receipt of the same. Any future clarification and /or corrigendum(s) shall be communicated through 'Tenders' Section on the Cooch Behar Panchanan Barma University website www.cbpbu.ac.in



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SCHEDULE OF IMPORTANT DATES OF BIDS

PARTICULAR	DATE & TIME
1. Date of Publication of NIT	25.01.2022 at 5 PM
2. Last date & time of submission of seal Technical Bid and Financial Bid(Office of the Registrar, Cooch Behar Panchanan Barma university)	02.02.2022 up-to 5 PM
3. Date & Time of opening of Technical Bid at Office of the Registrar(CBPBU)	03.02.2022 at 2 PM
4. Date & Time of opening of Financial Bid at office of the Registrar(CBPBU)	03.02.20220 at 4 PM
5. Validity of bid	120 days
6. Completion Period of the work	30 days
7. Maintenance / Warranty Period	1 Year


Registrar
Registrar
Cooch Behar Panchanan Barma University

In communication to:

1. The Hon'ble Vice-Chancellor, Cooch Behar Panchanan Barma University.
2. The Finance Officer, Cooch Behar Panchanan Barma University.
3. The Development Officer, Cooch Behar Panchanan Barma University.
4. The University Engineer (Electrical) (Contractual), Cooch Behar Panchanan Barma University.
5. Guard File.


Registrar
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