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# **SHORT TENDER NOTICE**

Through e-procurement mode only https://eproc2.bihar.gov.in						
Chanakya National Law University invites E-Tender in two bid systems (Technical and Financial) from the reputed system integrator / retailers for Supply, Installation, Testing and Commissioning of Smart Lighting Protection System inside CNLU Campus.						
1	Name of the Work	:	Supply, Installation, Testing and Commissioning of Smart Lighting Protection.			
2	Cost of Document (Non-Refundable)	:	Rs. 2500/- (Rupees Two Thousand Five Hundred)			
3	Earnest Money Deposit	:	Rs. 30,000/- (Rupees Thirty Thousand)			
4	E-Tender Processing Fee	:	As per Eproc2 website			
5	Time of Completion	:	Forty-Five (30) working days of CNLU from the date of purchase order			
6	Bid start Date	:	14.05.2024.			
7	Pre-Bid Meeting	:	21.05.2024 at 02:00 pm			
8	Last Date & Time for Uploading of Quotation	:	till 02:00 pm upto 28.05.2024			
9	Date & Time of Opening of Technical Quotation	:	At 02:30 pm on 28.05.2024			
10	Date & Time of Opening of Financial Quotation	:	Will be intimated later			
11	Place of Opening of Quotation	:	Registrar's Chamber			
12	Periods of Financial Quotation Validity	:	365 days			
13	Officer inviting Quotation	:	The Registrar, CNLU, Patna.			
14	For participation in E-tendering proc. The contractor shall have to get themselves registered to get User ID, Password & Digital Signature. This will enable accessing the website https://eproc2.bihar.gov.in & download / Participate in E-Tender.					
15	The tender document can be obtained through our	web	site https://eproc2.bihar.gov.in and https://www.cnlu.ac.in			
16	<ol> <li>Bid Processing Fee to be paid through online mode i.e., Internet payment gateway (Credit/Debit Card), Net Banking, NEFT/RTGS.</li> <li>Bids along with necessary online payments must be submitted through e-procurement portal https://eproc2.bihar.gov.in before the date &amp; time specified in the NIQ.</li> <li>The department does not take any responsibility for the delay /Non availability of internet connection, Network Traffic / Holidays or any other reasons."</li> </ol>					
17	Bid Document cost should be paid as per https://eproc2.bihar.gov.in					
18	Earnest Money Deposit (EMD) shall have to be paid	Earnest Money Deposit (EMD) shall have to be paid through e-payment.				
19	For support related to the e-tendering process, bidders may contact "e-procurement HELP DESK, Mjunction Services limited RJ Complex, 2 <sup>nd</sup> Floor, Canara Bank Campus, Khajpura, Ashiana Road, P.S. –Shastri Nagar, Patna-800014, Bihar, Contact No. 18005726571.					

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#### Scope of work

The Scope of Work of Smart Lightning Protection System (Smart Ion Generation Technology) shall include but not limited to the following: -

Design and/or engineering, manufacturing/procurement, inspection, testing & supply, handling & storage at site, erection, testing & commissioning, completion of all related facilities, performance guarantee testing and handing over to CNLU, of Smart Lightning Protection System at the mentioned locations on "Turnkey Basis" to the satisfaction of the purchaser as per specifications and scope defined in tender documents complete with all accessories including any item or job, which are not mentioned specifically but are required for erection, commissioning and efficient & trouble free operation of the equipment/system.

Total 7 Nos of Smart Lightning Protection System are to be installed at the tentative mentioned locations along with its grounding requirements.

#### APPLICABLE STANDARDS:

The Lightning Protection System shall be conformed to the relevant standard specification unless otherwise specified, in line with the requirement of any of the latest applicable standard. The applicable amendments as and when imposed shall be applicable.

1	IS:3043/2018	Code of practice for Earthing
2	IEC 62561-7	Requirement for earth enhancing compound
3	NFC 17-102	Protection against Lighting
4	IEC 62305	Protection against lightning

(Latest revisions and amendments are applicable).

# **Technical Parameters of Lightning Protection System**

Vendor shall supply Smart Lightning Protection System along with New Generation Grounding System as per NFC 17-102 & IEC-62305 Code and IEC 62561 and accessories as per the followings:

Smart Type Air Terminal shall be as per NFC 17-102 (latest amendment). It shall have the following parameters:

- i) At: Early Streamer Advance Triggering Time shall be 60μ-sec.
- ii) Protection Radius shall be as per NFC 17-102 (relevant clause).

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#### **Technical Parameters**

SMART LPS as per NFC 17-102:

The design parameters, as stipulated in NFC 17-102, shall dictate the specifications of the Smart Arrester system, recognized for its advanced technology known as Spark Gap Ion Generation Technology. The system shall exhibit an impressive Radius of Protection, extending up to min 79 meters at Level 1, effectively shielding against potential lightning strikes. Furthermore, the system shall incorporate two or more triggering units. In case one triggering unit malfunctions the other units ensure reliable and 10 prompt discharge when required. To ensure utmost safety and reliability, the system shall

feature an electrically and thermally insulated electronics circuit, guaranteeing optimal performance under various conditions. The receiver element of the system shall comprise a robust SS 304 Rod with a

diameter of 20mm, securely capturing lightning discharges. The lightning arrestor shall be tested for minimum 70 KA (8/20 microsecond) current. Certification for the same from CPRI shall be submitted along with the bid. The lightning arrestor shall have a triggering advance of 60 microseconds to have swift response capabilities. Constructed from resilient SS 304 material, the system shall embody both strength and durability, adhering strictly to the NFC 17-102 compliance standards.

#### **Lightning Strike Counter: -**

A lightning stroke counter shall be provided with each Lightning Protection System to count the number of lightning strikes. The device shall comply with the IEC 62561-6 standard, which governs the requirements for lightning protection components. The electrical characteristics of the device shall include a minimum current sensibility (Itc) of 0.5 kA, indicating its ability to detect lightning currents of at least this magnitude. It shall also has a maximum admissible impulse current (Imcw) of 100 kA, which denotes the highest surge current it can withstand without damage. Power for the device shall be provided internally by a battery, offering a long life expectancy of over 10 years before requiring battery replacement. The housing material of the device shall be made of thermoplastic with a UL94 V-0 rating, indicating a high level of fire resistance. Its protection rating shall be of IP67, suggesting excellent resistance to dust and water ingress. The device shall be equipped with an LCD display to provide information and feedback.

It shall handle a minimum of 999,999 events, allowing for comprehensive event logging and tracking. The device is compliant with the IEC 62561-6 standard, ensuring it meets the necessary requirements for lightning protection components. Lightning counter should have been pre-tested in the factory, and it shall have more than one count on the display.

## **Down Conductor:**

Two down conductors shall be provided with each Smart type Smart Lighting Arrestor to Earth Pit. For each down conductor two earth pits shall be provided. Down conductor shall be of minimum 70 sq. mm single core Al armored Cable. Down conductor shall be in a single length. No joints are allowed in between. Conductor insulation shall be black in color. Powder coated 40mm (W)  $\times$  15mm (H) GI trunking 0.8 mm thick with cover to be used for running the wire / cable near Smart LPS drop to earth pit. Trucking to be fixed on wall or flooring with suitable size of GI clamp. Test clamp to be provided as well.

## **Elevation (Mounting) Mast:**

The Elevation Mast of Hot Dip Galvanized Iron shall be installed such that Smart Type Air terminal tip shall be minimum 5/4.5 meters respectively above the tip of the building being protected. It shall be designed to have adequate strength for

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wind speed. It shall be bolted with a base plate which shall be fixed in concrete, supported by guy wire from four sides. Detailed drawing shall be submitted to the purchaser for review and approval.

## The Elevation Mast have following specifications:-

- 1. SS Pipe 30 mm diameter with 11 KV insulation and pipe wall thickness-1.5mm.
- 2. Length-5 meter above the tip of the building being protected.
- 3. Accessories like GI Base Plate, Guy wire, CC bolts, Copper lugs clamps, D-Cycle and other required accessories shall also be supplied by the bidder.

## SPECIAL TERMS AND STANDARD WARRANTY

- Supplier will give a declaration of availability of spares for at least 2 years from the date of commissioning to run the system.
- 2. The bidder shall provide a standard warranty of the complete lightning protection systems for a period of 2 (Two) years from the date of commissioning of the complete system. If the resistance value of the earth pit is found more than 02 Ohms or continuity from earth pit to the equipment is found broken (only in case of mechanical failure, does not apply to theft or act of God) during the warranty period, it shall be rectified by the bidder free of charge or at no additional cost to CNLU.
- 3. The scope of work shall include the Supply, Installation, Testing & commissioning of Smart Lightning Protection System as per specification mentioned in Annexure-II.

#### **ELIGIBILITY CRITERIA:**

## Documents mentioned below is eligible to participate in this NIQ:

- 1. Scan of the document (Name of the quotationer, Address with contact number, FAX, E-mail of the Firm and Firm's Bank Account Details with Bank Name & Address and IFSC / RTGS codes).
- 2. The bidder should be the original Equipment Manufacturer (OEM) of ESE Type Lightning Arrester or their authorized dealer. If the bidder is an authorized dealer of OEM, the bidder has to submit a Manufacturer Authorization certificate signed by an authorized representative of the OEM.
- 3. Affidavit related to litigation history as per Annexure-I on Rs. One Hundred Non-Judicial Stamp aper.
- 4. Scan of original document of only one work orders / agreements, each of Rs. 10,00,000.00 (Rupees Ten Lakhs) or more, for Supply, Installation, Testing & Commissioning of similar nature of related work in reputed Institutes of Higher Learning / Indian Universities / Central or State Government Organizations / Professional bodies/ public Limited Company etc. during the financial years 2021-22, 2022-24 and 2023-24.
- 5. Scan of PAN card (in name of Proprietor in case of Proprietorship Firm & in name) & GST certificate of quotationer.
- 6. Scan of document in support of yearly turnover in financial year 2021-22, 2022-23 and 2023-24 along with duly audited profit & loss account and balance sheet by Chartered Accountant.
- 7. Scan Copy of document of IT return of financial year 2021-22, 2022-23 and 2023-24.
- 8. Scan of Brochure with detailed specification of quoted make & model of Smart Lightning Protection System.
- 9. Scan of OEM authorisation letter for participating in this NIQ.

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#### 10. Scan of Annexure-II

#### **Terms & Conditions**

- 1. Manner of submission of the Quotations: Online through <a href="https://eproc2.bihar.gov.in">https://eproc2.bihar.gov.in</a>.
- 2. All the documents, annexed with technical quotation, should be duly signed, stamped and indexed properly.
- 3. Documents as mentioned in Eligibility Criteria are mandatory. Quotationer should annexure all the copy of Genuine documents with technical quotation otherwise their technical bid shall be declared non-responsive.
- 4. Quotationer or their authorised representative will remain present during the opening of technical quotation and quotationers whose technical quotation is declared responsive will remain present at the time of opening of Financial Bid.
- 5. The price will remain firm and fixed during the pendency of the contract. It will not vary on any account whatsoever.
- 6. Incomplete quotation and quotation without **Genuine documents** are liable for rejection. No responsibility will be taken for any type of technical glitch while online submission of quotation.
- 7. The supplier will enter into the agreement within seven working days from the date of the purchase order on a Rs 1000/- non-judicial stamp paper.

# Amendment of Quotation Document.

- 1. At any time prior to the last date for receipt of quotations, the client may for any reason, whether at its own initiative or in response to a clarification requested by a prospective Quotationer, modify the Quotation Document by an amendment.
- 2. The amendment will be notified through the official website of Chanakya National Law University for all the prospective Quotationers.
- 3. In order to afford prospective quotationer reasonable time in which to take the amendment into account in preparing their quotations, the Client may, at its discretion, extend the last date for the receipt of the Quotations.
- 4. Chanakya National Law University reserves the right to withdraw / cancel / amend the quotation at any stage without assigning any reason whatsoever.
- 5. The work is required to be completed within Thirty (30) working days of CNLU from the date of purchase order. If the work is not completed within the stipulated completion period liquidated damages @ 0.5% of agreement value per week of delay will be levied (subject to maximum of 10%).
- 6. If the liquidated damages reach the level of 10% the agreement value the contract is liable to be rescinded.

#### Clarification regarding contents of the quotations:

1. During evaluation and comparison of quotations, the Buyer may, at its discretion, ask the quotationer for clarification of his quotation. The request for clarification will be given in writing and no change in

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prices or substance of the quotation will be sought, offered or permitted. No post-quotation clarification on the initiative of the quotationer will be entertained.

2. The University will be at liberty to involve any expert or team of experts in evaluating the quotation for completing the entire tender process.

## **Opening of Quotation:**

Tenders shall be opened in the presence of the designated authority / authorities and representatives of the quotainers who wish to be present. The date of the financial quotation opening will be communicated to the shortlisted quotationers at a later time.

## **Acceptance Certificates:**

Upon the successful completion of the acceptability test, the receipt of deliverables, and the satisfaction of the purchaser with the system's performance, an acceptance certificate, signed by both the supplier and a representatives / concerned committee of the purchaser, will be issued. The date on which this certificate is signed will be considered the official date of the successful commissioning of the systems.

## **Settlement of Disputes**

In the event of any dispute, controversy, or claim arising in relation to or in connection with the Purchase Order (P.O.) or Agreement, it shall be subject to the exclusive jurisdiction of the courts in Patna.

## **Performance Security**

EMD @ 2% shall be adjusted in amount of security deposit. Successful bidder will deposit amount of security deposit @ 3% of agreement value with additional performance as applicable in form of only **DD in favour of Registrar, Chanakya National Law University, Patna** at the time of agreement.

Thus balance 5% of security deposit will be deducted from on account running bills. The Security deposit will be refundable after **60 days of successful completion of defect liability period i.e., Two Years**. No interest will be payable on the earnest money as well as Security deposit.

The additional performance security deposit is applicable will be refunded after 60 days of successful completion of work.

#### **Payment Terms:**

Payment for Goods shall be remitted in Indian Rupees, as outlined below:

**Payment:** Payment shall be made after the successful conclusion of performance tests and issuance of the Acceptance Certificate.

**Deductions:** Statutory deduction as applicable.

Registrar CNLU, Patna

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Annexure-
I / we declare
Declaration by Quotationer on a non-judicial stamp paper of value Rs. 100/-
That my/our company namely
has not been black listed by any Government / Non-Government Organisation nor should have any litigation enquiry pending and / or initiated by any of these Department or Court of Law with regards to the works executed by our company since incorporation. No FIR has been lodged against us.  that all the terms & conditions , scope of work & eligibility criteria of NIQ No. 09/2024-25 dated 14.05.2023 are acceptable to me / us.
that the documents annexed along-with the quotation are genuine and not tampered by me / us
while copying. If my / our declaration above found fake or forged then:
i. my quotation document shall be rejected
ii. Letter of Intent / Purchase Order / Agreement, if issued, shall be cancelled and
iii. FIR shall be inflicted against my / our company / firm by the University.
Signature of the Quotationer / Authorized Signatory (Name & Designation) Seal of the Quotationer
Place:
Date:

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# Annexure-II

SI No.	ITEM	Qty.	Make & model	Remarks
1.	SITC of Smart LPS Strike C with protection radius of 71 meters on mast height of 5 meters (Level I). Wind resistance: 205 km/h, Operating temperature: -20°C to + 120°C, Stainless Steel: SS 304, Resistance to corrosion: SO2 / Salted Mist, Tested Current: 100kA impulse, Triggering Time: 60 µs, Width: 123 mm, Length: 345 mm, Weight: 4 kg, Compliance: IEC 62305/ IS 2309-1989, Testable electronic, Made In India Product. Includes Down Conductor 90 SQMM 1C Armored Aluminum Cable Make: Havells/ HPL/ RR/ Polycab (any of the mentioned brands, depends on availability), Core: Single, Size: 90 Sq mm, Armored: Yes, Colour: Black. For other specifications, refer to the above-mentioned OEMs or brands. SITC of 60 Meters per system. Including cable traying of the down conductor. System must also include one unit of Digital Lightning Counter IEC 62561-6, 5 Meter SS 30mm Dia Elevation Mounting Mast with base plate and 11kv Insulation. GI Base Plate, Guy wire, CC bolts, Copper lugs clamps, D-Cycle and other required accessories shall also be supplied and commissioned. Test Link to be provided with lightning strike counter. For grounding of LPS, 4 units of electrical grounding pits to be provided for each LPS system. New generation maintenance free Electrical Grounding System with CAC Technology. System includes one Molecular Copper Bonded electrode ESC 173 made of high tensile steel with molecular copper bonding and Graphite based grounding mix 25 KG. Length of electrode 3 meters, diameter of electrode 17.2 MM, thread on all ends. Molecularly copper bonded above 300 microns. Graphite based Grounding Mix is weighed at 25kg per bag that majorly includes graphite, aluminum silicate, activated carbon, Portland cement, bentonite clay, etc with resistivity of 0.08 ohms/ meter. The chemical holds anti corrosive technology and is hygroscopic in nature with thermal stability between -100 C to 600 C ambient temperature. The chemical compound is tested and certified by NABL. ES Electrode is tested and certified by CPRI, India. ES also holds c	07 Sets		

Signature of the Quotationer / Authorized Signatory

(Name & Designation) Seal of the Quotationer

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Place	
Date	

# **Financial Quotation**

Sr. No	Item	Quantity	Unit rate with GST	Amount with GST	
1.	ES Smart Lighting protection system-strike C (100m) Protection Radius; 79 meters (at level1) ES Smart LPS Strike C (100 M) x 1 pcs, GI 30 mm Dia mast x 5 meter, Fixing Accessories, LPS Boards ETC	07 sets			
2.	ES lighting Arrester- Franklyn W/ Accessories	01 pcs			
3.	Es lighting Armoured 1 C Cable 70 sqmm including cabling accessories.	450 meters			
4.	Es Grounding Package ESC 173-ES Electrode ESC 173 (17.2 mm/3 meter/254+Microns CU Bounding 7 solid HTS Steel Core)- 25 KG ES BFC-Accessories (ES ACP Display Board, ES HDPE Pit Cover, ES Gunmetal Coupler & ES Gunmetal clamp with SS Bolt)-Installation & Testing	16 sets			
5.	Lighting Counter 8 digit- Digital lighting stroke Counter	7 pcs			
6.	ES LPS Installation & Commissioning	8 pcs			
	Total Amount with GST in figure				
Total Amount with GST in words					