

## INDIAN INSTITUTE OF TECHNOLOGY DELHI

## HAUZ KHAS, NEW DELHI – 110016

#### NOTICE INVITING E-QUOTATION

IITD/WORKS (SP-4547)/2024

Executive Engineer (Electrical-II), Indian Institute of Technology Delhi, Hauz Khas, New Delhi – 110016, **Ph. No. 011-2659 7199** on behalf of Board of Governors invites **online** Item Rate Quotations from the specialized agencies who have executed similar nature of work for the following work:

1	Name of work	:	Providing & fixing clean agent gas based cylinder less fire suppression system in existing main switches installed on rising main in M.S. Building and near chemical labs. in Academic Area at IIT Delhi.			
2	NIQ No.	:	122/IITD/EW/0493/2023-2024			
3	Estimated Cost (Rs.)	:	Rs. 3,74,200.00			
4	Earnest Money Deposit (Rs.)	:	Rs. 7,484.00 (No Exemption allowed)			
5	Period of completion	:	15 Days			
6	Last date & time of bid submission	:	Upto 3.00 PM of 22-02-2024			

The bid forms and other details may be downloaded from Central Public Procurement Portal (<a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a>). Aspiring bidders who have not enrolled / registered in e-procurement should enrol / register themselves before participating through web site <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at "Instructions for online bid submission."

Bidders can access quotation / tender documents on the website (for searching in the NIC site), kindly go to quotation search option and type 'IIT'. Thereafter, click on "GO" button to view all IIT quotations. Select the appropriate quotation / tender and fill them with all relevant information and submit the completed Quotation / Tender document online on the website <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a> as per the schedule given in the next page.

No manual bids will be accepted. All bids (both Technical & Financial) should be submitted in the e-procurement portal.

Executive Engineer (Electrical-II) For & on behalf of BOG, IIT Delhi

Ch. Head : **31.06.30** 

Work Code : 2021/006/0493

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#### Copy to :-

- 1. Assistant Engineer (E)
- 2. D.A. (Works Accounts) for opening of quotations in the office of D.R. [SPS]
- 3. A.E (E) Plg.
- 4. D.R. (A/C)
- 5. A.R. [SPS]with a request for uploading the NIQ in e-procurement portal
- 6. Notice Board
- 7. Website Administrator, IIT Delhi
- 8. Office copy

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Certified that this NIQ contains 1 to 20 pages.

NIQ amounting to Rs. 3,74,200.00 is approved.

D/Man AE(E)/P AE(E)/Fire

Executive Engineer (ED-II)

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## **SCHEDULE**

1	Name of organisation	:	Indian Institute of Technology Delhi
2	Tender / Quotation type (open / limited / EOI /	:	Open
	auction / single)		
3	Tender / Quotation category (services / goods /	:	Goods & Works
	works)		
4	Type of Contract (work / supply / auction /	:	Work & Supply
-	service / buy / empanelment / sell)		work of Supply
5	Form of contract (IITD – 7/8)	:	IITD – 8
6	Work Category (civil / electrical / fleet	:	Electrical works
	management / computer systems)		
7	Is multi-currency allowed?	:	No
8	Date of publishing / issue / start	:	16/02/2024 at 14:00 Hrs
9	Document download start date	:	16/02/2024 at 14:00 Hrs
10	Document download end date	:	22/02/2024 at 15:00 Hrs
11	Date & time of pre-bid meeting	:	No pre-bid meeting be held
12	Venue of pre-bid meeting	:	Not applicable
13	Last date & time of uploading of bids	:	22/02/2024 upto 15:00 Hrs
14	Date & time of opening of Technical bids	:	23/02/2024 at 15:00 Hrs
15	Tender fee	:	NA
16	Earnest Money Deposit (EMD)	:	Rs. 7,484.00 (No Exemption allowed)
17	Mode of payment of EMD		Can be paid through RTGS/NEFT. IIT Delhi Bank details are as under:  Name of the Bank A/C: IITD Revenue Account SBI A/C No.: 10773572622  Name of the Bank: State Bank of India, IIT Delhi, Hauz Khas, New Delhi-110016  IFSC Code: SBIN0001077  MICR Code: 110002156  Swift No.: SBININBB547  (This is mandatory that UTR Number is provided in the on-line quotation/bid. (Kindly refer to the UTR Column of the Declaration Sheet at Annexure-I)  OR  Demand: Draft favouring of Registrar, IIT Delhi Payable at SBI, IIT Delhi Branch. Scanned copy of DD needs to be uploaded along with the Technical Bid. Original DD shall have to be submitted to the tender inviting authority by the bidder as and when required
10	No of hids / sovers (1 / 2 / 2 / 4)	<u> </u>	after opening of bid.
18 19	No. of bids / covers (1 / 2 / 3 / 4) Bid without EMD/ Non-submission of original	:	To be considered as UNRESPONSIVE and bid
19	DD Non-submission of original		shall summarily be rejected.
20	Address for communication	:	Executive Engineer (Electrical-II), Works
			Department, IIT Delhi, Hauz Khas, New Delhi -
1			110016
21	Contact No.	:	011-2659 7199
22	e-mail address	:	rafatjamal@admin.iitd.ac.in /
1			a26339@admin.iitd.ac.in
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## INSTRUCTIONS FOR ONLINE BID SUBMISSION

As per the directives of Department of Expenditure, this quotation / tender document has been published on the Central Public Procurement Portal (URL: <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a>). The bidders are required to submit softcopies of their bids electronically on the CPP portal, using valid Digital Signature Certificates (DSC). The instructions given below are meant to assist the bidders in registering on the CPP portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP portal.

More information useful for submitting online bids on the CPP portal may be obtained at <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a>

#### REGISTRATION

- Bidders are required to enrol on the e-procurement module of the Central Public Procurement portal (URL: <a href="http://eprocure.gov.in/eprocure/app">http://eprocure.gov.in/eprocure/app</a>) by clicking on the link, "click here to enrol". Enrolment on the CPP portal is free of charge.
- 2. As part of the enrolment process, the bidders will be required to choose a unique user name and assign a password for their accounts.
- 3. Bidders are advised to register their valid e-mail address and mobile number as part of the registration process. These would be used for any communication from the CPP Portal.
- 4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (class 2 or class 3 certificates with signing key usage) issued by any certifying authority recognised by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.) with their profile.
- 5. Only one valid DSC should be registered by a bidder. Please note that bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
- 6. Bidder then logs into the site through the secured log-in by entering their user ID / password and the password of the DSC / eToken.

#### **SEARCHING FOR QUOTATION/ TENDER DOCUMENTS**

 There are various search options built in the CPP portal to facilitate bidders to search active tenders by several parameters. These parameters could include tender ID, organisation name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organisation name, form of contract,

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- location, date, other keywords etc. to search for a tender published on the CPP portal.
- 2. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. The tenders can be moved to the respective "My Tenders" folder. This would enable the CPP portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3. The bidder should make a note of the unique Tender ID assigned to each other, in case they want to obtain any clarification / help from the Helpdesk.

#### PREPARATION OF BIDS

- 1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bids. Please note the number of covers in which the bid documents have to be submitted. Any deviations from these may lead to rejection of the bids.
- 3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black & white option.
- 4. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor's certificates, etc.) has been provided to the bidders. Bidders can use "My Space" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

#### SUBMISSION OF BIDS

- 1. Bidder should log into the site well in advance for bid submission so that he / she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3. Bidder has to select the payment option as "on-line" to pay the tender fee / EMD as applicable and enter details of the instrument. Whenever, EMD / Tender fees is sought, bidders need to pay the tender fee and EMD separately on-line through RTGS (Refer to Schedule, Page no. 3)

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4. A standard BOQ Format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BOQ file, open it and complete the white coloured [unprotected] cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

OR

In some cases financial bids can be submitted in PDF format as well (in lieu of BOQ).

- 5. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 6. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorised persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- 7. The uploaded tender documents become readable only after the tender opening by the authorised bid openers.
- 8. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 9. Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

#### **ASSISTANCE TO BIDDERS**

- 1. Any queries relating to tender document and the terms and conditions contained therein should be addressed to the tender inviting authority for a tender or the relevant contact person indicated in the tender.
- 2. Any queries relating to the process of online bid submission or queries relating to CPP portal in general may be directed to the 24 x 7 CPP Portal Help Desk. The contact number of the helpdesk is 18002337315.

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#### GENERAL INSTRUCTIONS TO THE BIDDERS

- 1. The Quotation/ tenders will be received online through portal <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a>. In the technical bids, the bidders are required to upload all the documents in PDF format.
- 2. Possession of a valid class II / III Digital Signature Certificate (DSC) in the form of smart card / e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through https://eprocure.gov.in/eprocure/app. Digital Signature Certificates can be obtained from the authorised certifying agencies, details of which are available in the website <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a> under the link "Information about DSC".
- 3. Bidders are advised to follow the instructions provided in the "Instructions to the Bidder" for the e-submission of the bids online through the Central Public Procurement Portal for e-procurement at https://eprocure.gov.in/eprocure/app.

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## INFORMATION & INSTRUCTION TO BIDDERS FOR E-TENDERING

**Executive Engineer (Electrical-II)**, Indian Institute of Technology Delhi, Hauz Khas, New Delhi – 110016, **Ph. No. 011-2659 7199** on behalf of Board of Governors invites **online** Item Rate Quotations from the specialized agencies who have executed similar nature of work for the following work:

Sr. No.	NIQ No.	Name of Work	Estimated cost (Rs.)	Earnest money (Rs.)	Period of completion	Last date & time of submission of bid	Time & date of opening of Technical Bid	Time & date of opening of Financial Bid
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	122/IITD/EW/0493/2023-2024	Providing & fixing clean agent gas based cylinder less fire suppression system in existing main switches installed on rising main in M.S. Building and near chemical labs. in Academic Area at IIT Delhi.	Rs. 3,74,200.00	Rs. 7,484.00 (No Exemption allowed)	15 Days	Upto 3 PM of 22-02-2024	23-02-2024 at 15 PM	To be decided after assessing Technical Bids

- 1. Contractors who fulfil the following requirements shall be eligible to apply. Joint ventures are not accepted.
  - a. Should have satisfactorily completed the works as mentioned below during the last Seven years ending previous day of last date of submission of bids.
  - i. One similar works each costing not less than Rs. 2,99,360.00, or Two similar works each costing not less than Rs. 2,24,520.00, or Three similar work costing not less than Rs. 1,49,680.00(all figures rounded to nearest thousand)
  - 2. In lieu of Earnest money Rs. 7,484.00 (No Exemption allowed) to be deposited on-line as indicated in Schedule.
  - 3. Similar work means 'Providing & fixing cylinder less fire suppression system'.
  - **4. Work means** work done with some Central Government Department / State Government Department / Central Autonomous Body / State Autonomous Body / Central Public Sector

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- Undertaking / State Public Sector Undertaking / City Development Authority / Municipal Corporation of City formed under any Act by Central / State Government and published in Central / State Gazette.
- 5. Completion certificates are required to be got issued by an officer not below the rank of Executive Engineer of similar works completed by the Firm. The work experience certificates submitted by the bidders shall clearly indicate that:
  - a. The similar work executed shall be as per '3' above
  - b. The completed cost of the work
  - c. Actual date of completion of the work
- 6. The intending bidder must read the terms and conditions [both commercial & Additional] & IITD 6 carefully which will be the part of the Contract. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
- 7. Information and Instructions for bidders posted on website shall form part of bid document.
- **8.** The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website e-procure.gov.in free of cost.
- 9. But the bid can only be submitted after depositing requisite EMD as specified in the schedule.
- 10. Copy of all mandatory documents as desired in the NIT/NIQ shall be scanned and up-loaded to the e-Tendering website within the period of bid submission. However, certified / original copy of all the scanned and up-loaded documents shall have to be submitted by the lowest bidder only within a week physically in the office of e-tendering authority, if so desired, by the tender inviting authority.
- **11.** Online bid documents submitted by intending bidders shall be opened only of those bidders, who has deposited requisite EMD and other documents scanned and uploaded are found in order.
- **12.** Those contractors not registered on the website mentioned above, are required to get registered beforehand. Bidders should refer "Instruction for Online Bid Submission" given earlier for further assistance.
- 13. When bids are invited in two / three stages systems and if it is desired to submit revised financial bid it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.
- **14.** The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.
- **15.** Contractors must ensure to quote rate of each item.

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# List of Mandatory Documents to be scanned and uploaded within the period of bid submission:

- 1. Annexure I duly filled in and got signed.
- 2. Proof of EMD deposit/ scanned copy of DD submission (Favouring 'Registrar, IIT Delhi').
- 3. Attested Certificate of work experience as desired.
- 4. Certificate of Registration for GSTIN.
- 5. EPFO & ESIC Registration proof.
- 6. Any other document as specified in the NIQ.

Executive Engineer [Electrical-II] For & on Behalf of BOG, IIT Delhi

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## **COMMERCIAL AND ADDITIONAL CONDITIONS**

#### 1. GENERAL

- **1.1.** A good maintenance programme is the key to long system life and ease of serviceability. Maintenance & service should only be carried out by experienced / qualified personnel as desired in the schedule of work. The maintenance and service which are done must be as per specifications and upto the satisfaction of the Engineer-in-charge.
- 1.2. Location: MSB in Academic area at IIT Delhi.
- 1.3. The work shall be executed as per CPWD General Specifications for Electrical works Part I (Int.) 2013, Part-II (Ext.) 1994, Part V (Passenger lift) 2013, as amended up to date, relevant I.E. Rules BIS/ IEC and as per directions of Engineer-in-charge. These additional specifications/ conditions are to be read in conjunction with above and in case of variations. Specifications given in these additional conditions shall apply. However, nothing extra shall be paid on account of these additional specification and conditions, as the same are to be read along with schedule of quantities for the work.
- **1.4.** The Quotation/ tenderer should in his own interest visit the site and get familiarize with the site conditions before tendering.
- **1.5.** No T&P shall be issued by the Department and nothing extra shall be paid on account of this.

#### 2. COMMERCIAL CONDITIONS:

- **2.1. Type of contract:** The work to be awarded by this tender shall be treated as indivisible works contract.
- 2.2. Submission and opening of Tenders:
- **2.2.1.** The Quotation/ tender is in two parts:
  - 2.2.1.1. Part-I -Technical cum Un-priced commercial Bid
  - **2.2.1.2.** Part-II-Price Bid
- **2.3.** The Quotation/ tender shall be submitted online, duly completed as per NIQ/ NIT conditions within period of bid submission.
- **2.4.** The Quotation/ tenderers are advised not to deviate from the technical specifications / item, commercial terms and conditions of NIT like terms of payment, guarantee, arbitration clause, escalation etc.
- **2.5.** Technical cum un-priced commercial bid only shall be opened on the due date and time in the presence of tenderers or their authorized representative who wish to remain present.
- **2.6.** Scrutiny/ evaluation of the technical-cum-commercial bid shall be done by the department. In case, it is found that the technical-cum-commercial bid of a tenderer is not in line with NIT specifications/requirements and/or contains too many deviations, the department reserves the right to reject the technical bid of such firms without making any reference to the tenderer.
- 2.7. Necessary clarifications required by the department shall have to be furnished by the tenderer within the time given by the department for the same. The tenderer will have to

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- depute his representative to discuss with the officer(s) of the department as and when so desired. In case, in the opinion of the department a tenderer is taking undue long time in furnishing the desired clarifications, his bid will be rejected without making any reference.
- **2.8.** After obtaining clarification from all the tenders, the department will intimate the tenders whose technical cum commercial bids are acceptable.
- 2.9. The price bids of only those tenderers shall be opened whose technical bids are found to be technically acceptable. The time and date of opening of price bid shall be fixed after the technical cum un priced commercial bid is accepted and intimated to them by post/Fax/e-mail.
- **2.10.** The department reserves the right to reject any or all the price bids and call for fresh prices/tenders as the case may be without assigning any reason.

#### 3. TERMS OF PAYMENTS

3.1. Payment may be released quarterly after successful maintenance of the UPS. Bidder should note that necessary documents (PAN card, Cancelled cheque, GST Reg. proof and RTGS mandate form as per prescribed proforma of IIT Delhi) be submitted as soon as the work is awarded to them. Separate Contractor's Code shall be generated in IIT Delhi if the bidder is a new contractor to IIT Delhi ('Code' is perpetual in nature). Payment shall be processed after submission of Invoice and necessary documents / certificates (as mentioned in the NIT). There is a prevailing practice of pre-audit (for total tendered amount more than 3 lakhs) at IIT Delhi before releasing payment. Bidder shall have to comply all necessary documents as outlined in the Contract as to be desired by the Auditor and or by the Accountant. It may take one to two months in the whole process (from submission / acceptance of bill in CMB / MB by the contractor upto processing by Accounts section) to release payment subject to quick compliance of all submittals by the contractor. Applicable Taxes shall be got deducted from the bill as per prevailing orders of the Government. 'GST part of the bill' shall be released after submission of proof of payment of GST, i.e. B2B challan, etc. by the contractor.

#### 4. SECURITY DEPOSIT

- 4.1. Security Deposit shall be deducted from each running bill and final bill to the extent of 2.5% of the gross amount payable. The security deposit shall be released only after the work is complete in all respect.
- **4.2.** Income tax, GST, labour cess & other statutory deduction etc. shall be made at source as per the prevalent laws. The deduction of Security Deposit, Income Tax, etc., shall be done after calculation for the above due payment as per clause 3 above and net payment shall reduce accordingly.

#### 5. RATES

**5.1.** The rates quoted by the tenderer/ bidderer, shall be firm and inclusive of all taxes (including works GST & labour cess), duties, levies, etc. and all charges for packing forwarding, insurance, freight and delivery, installation, testing and commissioning etc. at site including temporary construction of storage, risks overhead charges, general liabilities/ obligations.

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#### 6. COMPLETENESS OF TENDER

6.1. All sundry equipment's, fitting, unit assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections and all other items which are useful and necessary for efficient assembly and installation of equipment and components of the work shall be deemed to have been included in the tender irrespective of the fact whether such items are specially mentioned in the tender documents or not.

#### 7. STORAGE AND CUSTODY OF MATERIAL

**7.1.** The agency has to make his own arrangement for storage. No separate storage accommodation shall be provided by the department Watch and ward of the storage and their safe custody shall be responsibility till the final taking over of the installation by the department.

#### 8. CARE OF THE BUILDING

**8.1.** Care shall be taken by the contractor while handling and installing the various equipment and components of the work to avoid damage to the building. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste material arising out of the installation from the site of work.

#### 9. COMPLETION PERIOD

9.1. The completion period indicated in the tender documents is indicative only. Bidder should note that the whole part of the work (as given in the BOQ) will not be executed at one go. Work shall be executed as and when so required as per site requirement. No site for executing work is ready. It would be made available to the contractor as per demand. Quantity taken in the BOQ are tentative and may vary as per site requirement. Supply of materials in lieu of non-execution of any work is not acceptable.

#### 10. COMPLIANCE WITH REGULATIONS AND INDIAN STANDARDS

- **10.1.** All works shall be carried out in accordance with relevant regulation both statutory and those specified by the Indian Standards related to the works covered by this specification in particular, the equipment and installation will comply with the following:
- 10.1.1. Factories Act
- 10.1.2. Indian Electricity Rules
- 10.1.3. B.I.S.& other standards as applicable
- **10.1.4.** Workmen's compensation Act
- **10.1.5.** Statutory norms prescribed by local bodies like fire department, CEA, Power Supply Co. etc.

#### 11. INDEMNITY

11.1. The successful tenderer shall at all times indemnify the department, consequent on this works contract. The successful tenderer shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the contractor shall be

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responsible for any accident or damage incurred or claims arising there from during the period of operation and maintenance under the supervision of the successful tenderer. The successful tenderer shall take necessary actions in this regard. No extra payment would be made to the successful tenderer on account of the above.

#### 12. ERECTION TOOLS

**12.1.** No tools and tackles either for unloading or for shifting the equipment's for erection purposes would be made available by the department .The successful tender shall make his arrangement for all these facilities

#### 13. COOPERATION WITH OTHER AGENCIES AND OCCUPANTS OF THE BUILDING

13.1. The successful tenderer shall co-ordinate with other working contractors, if any and other occupants of different offices / Labs, etc., and exchange freely all technical information so as to make the execution of this work / contract smooth. No remuneration should be claimed from the department for such technical cooperation. If any unreasonable hindrance is caused to other agencies and any completed portion of the work has to be dismantled and re-done for want or cooperation and coordination by the tenderer during the course of work, such expenditure incurred will be recovered from the successful tenderer if the restoration work to the original condition or specification of the dismantled portion of work was not under taken by the tenderer himself.

#### 14. MOBILIZATION ADVANCE

**14.1.** No mobilization advance shall be paid for this work

#### 15. INTERPRETING SPECIFICATION

- **15.1.** In interpreting the specification, the following order of decreasing importance shall be followed in case of contradictions:
- **15.1.1.** Schedule of quantities
- **15.1.2.** Technical Specification
- **15.1.3.** Drawing (if any)
- **15.1.4.** General Specification for Electrical Works of CPWD (relevant Parts)
- **15.1.5.** Relevant BIS or other international code in case BIS code is not available.

#### 16. POLICY OF THE INSTITUTE

- **16.1.** Institute has a policy against **sexual harassment** and is committed to providing an environment free from **sexual harassment of women** at the workplace. Contractor shall have to abide by the policy of the Institute with due diligence. Any violation on the part of the contractor shall be dealt with the extant rules of the Institute.
- 17. Contract may be terminated by the Engineer-in-charge at any time giving 15 days notice to the contractor.

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#### 18. GUARANTEE

- All equipments / Materials shall be guaranteed for a period of **01 years** from the date of taking over the installation by the department against unsatisfactory performance and / or breakdown due to defective design, workmanship or material. The equipment/ component/ materials or any part thereof, so found defective during guarantee period shall be forthwith repaired or replaced free of cost to the satisfaction of the Engineer-in• Charge. In case it is felt by the department that undue delay is being caused by the contactor in doing this, the same will be got done by the department at the risk and cost of the contractor. The decision of Engineer-in-Charge in this regard shall be final & binding on the contractor.
- 18.2 The tenderer shall guarantee among other things, the following:
- 18.2.1 Quality, strength and performance of the material used as per manufacturer's standards.
- 18.2.2 Safe mechanical and electrical stress on all part under all specified conditions of operation Satisfactory operation during the guarantee period.

#### 19. EXTENT OF WORK

- 19.1. The work shall comprise of entire labour including supervision and all material necessary to make a complete installation and such tests and adjustment and commissioning as may be required by the department. The term complete installation shall not only mean major items of the plant and equipments covered by the specification but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout charts whether or not those have been mentioned in details in the tender documents in connection with this contract as this is a turnkey job.
- 19.1.1 Minor building works necessary for installation of equipments, foundation making of opening in walls or in floors and restoring them to their original condition/ finish and necessary grouting etc. as required.

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## **Technical Specifications**

#### (A) For Item No. – 1,2 & 3

- a. System Operation: The heat-sensitive polyamide tubing stores extinguishing clean agent in the tube itself eliminating the need for external cylinder. It should also have an inbuilt pressure gauge which shows the pressure in the tube. In case of fire, when temperature inside panel reaches between 70-80°C, the heat-sensitive tube bursts at the point it is in contact with the flame to form a miniature nozzle. The extinguishing agent is sprayed out of the tube through the miniature nozzle, flooding the localized area and instantly extinguishing the flame.
- b. Designed to fight fires that occur in the enclosed space of electric panels/closed cabinets/Racks. The system's split-second response in detection and activation ensures that the fires are killed in the nascent stage inside the most vulnerable spaces.
- c. Suitability of system: Suitable for Totally closed as well as ventilated electric panels/ cabinets/Racks.
- d. Minimum and maximum operation temperature: minimum 40°C, maximum + 80°C.
- e. Clean agent capacity in each tube & estimated volume of protected enclosed area for which Cylinder less Tubing System is required (cubic meter):

Length of Heat Sensing	Clean agent Capacity in	Volume of protected		
Tube	each Tube	enclosed Area		
0.28 mtr	0.05 kg	0.07 – 0.11 m <sup>3</sup>		
0.53 mtr	0.10 kg	0.14 – 0.23 m <sup>3</sup>		
1.10 mtr	0.25 kg	0.20 – 0.30 m <sup>3</sup>		
2.12 mtr	0.50 kg	0.40 - 0.60 m <sup>3</sup>		
3.16 mtr	0.75 kg	0.60 - 0.87 m <sup>3</sup>		
4.19 mtr	1.00 kg	0.78 - 1.16 m <sup>3</sup>		
5.23 mtr	1.25 kg	0.98 - 1.45 m³		
6.30 mtr	1.50 kg	2.12 - 3.45 m <sup>3</sup>		

- f. Heat Sensing Tube (HST) made of special modified polyamide material should be approved by NABL accredited lab.
- g. Warranty of the complete system: 01 Year

#### h. **GENERIC:**

- 1.1 Type of Clean agent with zero ODP (ozone depleting potential) to be used for fire suppression: HFC227ea for electric panels / cabinets / Server Racks.
- 1.2 Clean agent Listing: UL-162

#### i. **CONSTRUCTIONAL**:

- 1.1 Codes and Standards Tubes Containing the clean agent design: Compliant to European Union Directive 2014/68/EU for Pressure Equipment.
- 1.2 Electrical Non-Conductive Clean Agent: Yes
- 1.3 Internal Diameter of Heat Sensing Tube: 15 mm ±5%
- 1.4 Outside Diameter of heat Sensing Tube: 18 mm ±5%
- 1.5 Additional Pressure Gauge: Yes

#### i. PERFORMANCE:

1.1 Ozone Depleting Potential: Zero

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 $C \dots Nil \quad I \dots Nil \quad O \dots Nil$ 



- 1.2 HST Tube Type: Single layer
- 1.3 Burst Pressure at 20 °C for Clean Agent Filled Tube: 24 Bar ±2 Bar
- 1.4 Minimum and maximum operation temperature: Minimum 40°C, Maximum + 80°C
- 1.5 System operating pressure: 15 Bar Maximum

#### k. **CERTIFICATION:**

- 1.1 Complete system testing and certification from NABL accredited lab: Yes
- 1.2 Marking of OEM Name, Serial no., Manufacture Date & Expiry Date on the tube: Yes
- 1.3 System operation and maintenance manual to be submitted along with the supplies: Yes
- 1.4 Design lifespan of the system: 5 Years

#### I. Additional Terms & Conditions :

- 1.1 Preference to Make in India product
- 1.2 Preference to MSME

#### (B) Technical Specifications for Item No. - 4

"Self-Activated Fire Extinguisher with S S Protection" is an innovative fire extinguisher revolutionary both in design as well as in the working principles. Comply with EN (European Nation) and carrying CE marking. Product should be in the form of glass cylinder filled with a chemical solution that activates automatically at elevated temperatures in case of fire. It is protected with S S Grill. Product is scientifically advanced automated firefighting solution, highly effective in extinguishing fire. The content of the solution should be non-toxic and eco-friendly filled in Borosilicate glass (Germany) material that automatically activates at elevated temperatures that extinguishes fire in its initial stage. Standards & Declaration of Conformity Fire classification A, B, C & E according to EN2:1992 + A1 2004 and EN3- 7:2004 + A1 2007. Declaration of conformity as per EN/ISO/IEC 17050: Product is manufactured according to Regulation No. 1272/2008 (CLP). EN Standard adopted by Bureau of Indian Standard (BIS).

#### **Technical data:**

Classes of fire: A, B, C & Electrical Started Fire

Protected area: up to 16 m<sup>3</sup> Operating temperature: 84 °C

Diameter: 60 mm Length: 307 mm

Weight approx.: 1.025 g Total volume: 600 ml Volume (net): 580 ml

Storage temp: -20 °C to 70 °C Volume: 580 ml active solution

Material: glass (ampoule), tin (holder)

Product Shelf Life: 10 Year

Grill: S S material

Certificates would be submitted along with supplies

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## **ANNEXURE - 1**

# << Organization Letter Head >> DECLARATION

1/\	We,		hereby declare that all the information and
			I to this tender specification are true and complete to the
	•		nrough the specification, conditions and stipulations in
	ails and agree to comply with the require	em	ents and intent of specification.
1	Name & Address of the bidder	:	
2	Phone	:	
3	E-mail		
4			
	Contact person name	•	
5	Mobile number	:	
6	GST number	:	
7	PAN number	:	
8	UTR no. With date [for payment of	:	
	EMD]		
9	DD / FDR / Banker's Cheque No. [if	:	
	uploaded scanned copy] for EMD  BANK DETAILS of the Bidder		
10	Bank name		
		•	
11	Branch address	:	
12	Branch telephone no.	:	
13	MICR Code of the bank	:	
14	IFSC code	:	
15	Bank Account no.	:	
16	Type of account	:	
We	further declare that our organization h	nas	not been blacklisted / delisted or put to any holiday by

We further declare that our organization has not been blacklisted / delisted or put to any holiday by any Institutional agency / Govt. Department / Public Sector Undertaking in the last three years.

(Signature& name of the bidder)
Seal of the bidder

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## **BID SUBMISSION CHECK LIST**

## **ONLINE BID SUBMISSION:**

The Online bids (complete in all respect) must be uploaded online in **two** Envelops as explained below:-

SI. No.	SI. No. Documents Content					
1		Annexure - 1 (To be submitted on firm's letter head)	.PDF			
2		Proof of EMD deposit/ scanned copy of DD submission (Favoring 'Registrar, IIT Delhi')	.PDF			
3	Technical Bid	Certificate of work experience as desired, BOQ of work showing components of work.	.PDF			
4		Certificate of GST Registration	.PDF			
5		Registration Copy of EPFO & ESIC proof	.PDF			
6		Any other document as specified in the NIQ.	.PDF			
Envelope – 2						
Sl. No.	SI. No. TYPES Content					
1.	.EXL					

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## **SCHEDULE OF QUANTITY**

<u>Name of work</u>:- Providing & fixing clean agent gas based cylinder less fire suppression system in existing main switches installed on rising main in M.S. Building and near chemical labs. in Academic Area at IIT Delhi.

S. No.	Description of items	Qty	Unit	Rates	Amount
1	Supplying & fixing of 0.5 kg, 2.12 mtr size clean agent gas based cylinder less fire suppression system in existing 630A & 800A TPN main switches installed on rising main in multi story building i/c testing & commissioning etc. as required.	2.0	Each		
2	Supplying & fixing of 0.25 kg, 1.10 mtr size clean agent gas based cylinder less fire suppression system in existing main switches installed at different chemical laboratories in block no.05 &06, KSBS & rising main in multi story building i/c testing & commissioning etc. as required.	9.0	Each		
3	Supplying & fixing of 0.1 kg, 0.53 mtr size clean agent gas based cylinder less fire suppression system in existing main switches in block 02 i/c testing & commissioning etc. as required.	1.0	Each		
4	Supplying & fixing of fire RID portable Automatic fire extinguisher as per EN/ISO/IEC17050 volume size 580 mili liter capacity on panels in panel room of Kusuma School of Biological Science i/c testing & commissioning etc. as required.	10.0	Each		
	Total Amount Rs.				

<sup>\*\*\*</sup> Bidder shall quote rates in the BOQ specified for this purpose

E.E(ED-II) AE(E)/Fire

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C ... Nil I ..... Nil O ..... Nil