

**INTER-UNIVERSITY ACCELERATOR CENTRE (IUAC)
NEW DELHI**

TENDER NO: IUAC / NIT /05/ RK / 2021-22

TENDER DOCUMENTS FOR

ROUND THE CLOCK OPERATION AND MAINTENANCE
OF ELECTRICAL INSTALLATIONS
AT INTER-UNIVERSITY ACCELERATOR CENTRE (IUAC)

**INTER-UNIVERSITY ACCELERATOR CENTRE (IUAC)
ARUNA ASAF ALI MARG
POST BOX NO. 10502
NEW DELHI – 110 067**

INTER - UNIVERSITY ACCELERATOR CENTRE

(An Autonomous Centre of UGC)
Aruna Asaf Ali Marg, New Delhi - 110067

NOTICE INVITING E - TENDER

Tender Number : IUAC/NIT/05/RK/2020-2021

Date : 14/06/2021

Inter - University Accelerator Centre (IUAC) invites online bids on behalf of the Director IUAC, New Delhi through e-procurement Portal under two bid system, viz., Technical and Financial bids, from eligible / experienced parties for the work/supply of "Round the clock Operation and Maintenance of Electrical Installations" at Inter-University Accelerator Centre (IUAC) Campus, New Delhi – 110067.

Tender Documents may be downloaded from Central Public Procurement (CPP) Portal free of cost <https://eprocure.gov.in/eprocure/app>. Aspiring Bidders who have not enrolled / registered in e-procurement portal should enroll / register before participating through the website <https://eprocure.gov.in/eprocure/app>. Bids should be submitted online only at website: <https://eprocure.gov.in/eprocure/app>. Tenderers / Contractors / Bidders are advised to follow the instructions provided in the e-procurement portal. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned documents.

Only bids received through e-procurement portal will be considered for opening. Bids not covering full scope of work/supply of the products/goods will be rejected and only complete bids will be considered. IUAC reserves the right to accept / reject any / all tenders in part / full without assigning any reasons whatsoever, and the decision of IUAC in this regard will be binding on all the bidders.

As per notification no. F/9/4/2020-PPD dated 12.11.2020 issued by Ministry of Finance, Department of Expenditure, Govt. of India, bidders have to submit "Bid Security Declaration" accepting that if they withdraw or modify their bids during period of validity etc., they will be suspended for the time specified in the tender documents". Tenderers registered with MSME/NSIC (the unit being registered for the item/work tendered) are required to upload copy of valid registration certificate in the website <https://eprocure.gov.in/eprocure/app> along with technical bid.

Bidders are advised to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard .XLS BOQ Format with the tender document, then the same is to be downloaded and to be filled and submitted online without modifying the format. **If the BOQ file is found to be modified by the bidder, the bid will be rejected.**

Any Corrigendum / Amendments in respect of above tender shall be issued on website <https://eprocure.gov.in> and www.iuac.res.in only. Bidders should take into account any corrigendum published on the tender document before submitting their bids. The Director, IUAC reserves the right to accept/reject any/all tenders in part/full without assigning any reasons thereof.

**INTER-UNIVERSITY ACCELERATOR CENTRE (IUAC)
NEW DELHI**

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INTER–UNIVERSITY ACCELERATOR CENTRE

**ARUNA ASAF ALI MARG
POST BOX NO. 10502
NEW DELHI-110067**

E-TENDER DOCUMENT

Name of the Work : Round the clock Operation and Maintenance of Electrical Installations at Inter-University Accelerator Centre (IUAC) Campus, New Delhi – 110067.

Estimated Amount : **Rs. 38 Lakh per annum**

Last Date and Time of Submission of : 06/07/2021 at 3.00 PM
Tender

Date & Time for Opening of Tender : 07/07/2021 at 3.30 PM
(Tech. Bid-Part-A)

Date & Time for Opening of Tender : To be intimated to technically qualified
(Price Bid-Part-B) bidders

Contact persons : Administrative Officer (S&P),
Email : iuacstores@gmail.com
Phone : 2412 6018, 2412 6022

1. INSTRUCTION TO BIDDERS FOR ONLINE BID SUBMISSION

The bidders are required to submit soft copies of their bids electronically on the CPP Portal. 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: <https://eprocure.gov.in/eprocure/app> .

1.1 REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “Online bidder Enrollment” on the CPP Portal which is free of charge.
- 2) As part of the enrollment 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 email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Bidder then logs in to the site through the secured log-in by entering their user ID / password

1.2 SEARCHING FOR TENDER DOCUMENTS

1. 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, Organization 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 Organization Name, Form of Contract, 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. These 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 tender, in case they want to obtain any clarification / help from the Help desk.

1.3 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 bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 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 /JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 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 certificates etc.) has been provided to the bidders. Bidders can use “My Space” or „Other Important Documents“ 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.

1.4 SUBMISSION OF BIDS

1. Bidder should log into the site well in advance for bid submission so that they can 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. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. 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 and submit it online, without changing the file name. If the BOQ file is found to be modified by the bidder, the bid will be rejected.
4. 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.
5. 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 unauthorized 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. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
6. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
7. Upon the successful and timely submission of bids (ie after Clicking "Freeze Bid Submission" in the portal), 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.
8. The bid summary has to be printed and kept as an acknowledgment of the submission of the bid. This acknowledgment may be used as an entry pass for any bid opening meetings.

1.5 ASSISTANCE TO BIDDERS

- 1) Any queries relating to the 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 24x7 CPP Portal Help desk. The contact number for the help desk is 1800 3070 2232.

PROFILE OF THE TENDERER (On Bidder's letterhead)

Name of the Firm / Organization :

Address :

Telephone No. / Mobile No. & Name of
the Contact Person :

Fax No. :

E-mail ID :

Month and Year of establishment :

Name of proprietor / partners/director :

No. of years of experience in this field,
with Reference, Certificates :

Annual Turnover during the last three years
(Enclose copies of Audited Financial
Statement)

2017-18 :

2018-19 :

2019-20 :

Whether the firm is an Income Tax
Assessee? If so please give the details of
PAN No. :

GST Registration No. :

12. Name of the OEM and address :
(if applicable)

Signature of the Tenderer & Seal

TENDER ACCEPTANCE LETTER

(To be given on Company Letter Head)

Date:

To,
The Director
IUAC, New Delhi-67

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: IUAC/NIT/

Name of Tender / Work: -

Dear Sir,

I/ We have downloaded / read and examined the tender document(s) for the above mentioned Tender /Work from the web site(s) namely:

as per your advertisement, given in the above mentioned website(s).

- 1) I / We hereby certify that I / we have read the entire terms and conditions of the tender documents (including all documents like annexure(s), schedule(s), etc ..), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.
- 2) The corrigendum(s) issued from time to time by your department/ organization too have also been taken into consideration, while submitting this acceptance letter.
- 3) I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.
- 4) I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.
- 5) I / We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

2: COMMERCIAL AND GENERAL CONDITIONS

2.1 Submission of Tender: Tenders should be uploaded on GEM portal in two parts separately, i.e. "Technical Bid" (Part-A) and "Price Bid / BOQ" (Part-B). No other mode of submission will be accepted. Any clarifications/amendments/corrigenda etc., to NIT before last date of submission of bid will only be available on our website: www.iuac.res.in. Therefore bidders are advised to keep visiting our website.

2.2 Technical Bid (Part-A) : In this bid the bidder should upload his company profile, organizational setup, credentials, list of plant, machinery & tools in his possession. The following documents are essentially to be submitted with technical bid for qualification. Price bid of only those bidders will be opened who are technically qualified.

1. Earnest money undertaking
2. Copy of valid Electrical Contractor's license.
3. Entire NIT (except Price bid) duly signed & stamped by the bidder as a token of acceptance of the NIT conditions
4. Copy of work orders for "Round the Clock Operation and Maintenance of Electrical installations having 11kV Electrical sub station of minimum 1000 kVA transformer, DG sets, office buildings and campus etc" successfully executed during the last 7 years for Govt / Autonomous Body / PSU / Ltd / reputed Pvt Ltd companies in the following manner:
 - (i) Three similar works, each of the value not less than Rs 15.2 lakh per annum or
 - (ii) Two similar works, each of the value not less than Rs 22.8 lakh per annum or
 - (iii) One similar work, each of the value not less than Rs 30.4 lakh per annum.
5. Satisfactory work completion certificate of above works from client with contact details. The work order and completion certificate should be for the same work.
6. Proof of ESI, EPF and GST registration. (Tender of unregistered bidders shall not be entertained).
7. Profile of the tenderer on letter head along with the copies of the audited statement of annual turnover of the Firm/Company during the last three financial years (2017-18, 2018-19, 2019-20).
8. IUAC reserves the right to visit the working sites mentioned by bidders as proof of experience to ascertain the quality of service rendered. The bidder will have to arrange for such visit

2.3 Price Bid (Part-B):

2.3.1 The rates for Sl. No.1 in PRICE BID are mentioned taking into consideration prevailing minimum wages applicable in Delhi as on **01.10.2020**. However, in case of any revision of minimum wages by GNCT, Delhi during the contract period, the difference will be reimbursed by IUAC.

In this bid the bidder is required to quote his rates/prices against sr. no. 4, 5, & 6 of Annexure-XI & all itemized rates in Annexure-XII & %age in Annexure-XIII. The quoted prices shall be exclusive of GST or any other applicable taxes by Govt. bodies. These shall be reimbursed from time to time on actual basis on claim and with required documentation. The bidders should quote unconditional rates.

No payment other than as specified in the price schedule for each item and which has been accepted by the bidder, shall be payable to the successful bidder.

2.3.2 Financial bids quoting "NIL" consideration or "Zero percent or its derivatives upto 0.9999 percent and thereof" a service charge (Overhead and Profit) shall be rejected summarily. (As per OM No. 29/(1)/2014/PPD dated 28/01/2014 of Dept. of Expenditure, Ministry of Finance and OM No. 31/14/1000/2014-GA dated 17/09/2014 of Dept. Of Commerce, Ministry of Commerce & Industry).

2.3.3 Quoting unduly lower rates:

(I) The bidder has to quote all rates and overhead & profit charge that takes care of consumables, uniform, shoes, tools etc, TDS, supervision, all the statutory charges relating to this contract, etc.; and reasonable margin thereafter. The Centre has responsibility as Principal Employer and would like to ensure that unduly lower rates of overhead & profit charge will not lead to complaints from workers such as delay in payment, improper reduction in wages, seeking monetary return by the bidder from the workers, etc. thereby affecting the performance of the workers.

(ii) The bidder may be asked to justify all the rates and charges in case the IUAC finds the amount as “absurdly low”. The decision of the IUAC on quote for being “absurdly low” shall be final. These charges once fixed will remain fixed for the entire duration of the contract or for period of subsequent extension(s) and will not vary with the wages, minimum or otherwise.

2.3.4 Decision on reasonability of rates:

(i) IUAC reserves right to take a view on the reasonability of the amount of all rates and overhead & profit charges. The decision of the Centre in this regard shall be final and binding. No representation will be entertained and replied to.

(ii) If the Centre considers that the rates quoted by the bidder is not feasible, such tender shall be treated as non-responsive and the tender with the next higher rate shall be evaluated and this process will be iterated till a tender with reasonable rates is found and the work will be awarded to such bidder only.

2.4 Earnest Money: As per notification no.F.9/4/2020-PPD dated 12.11.2020 issued by Ministry of Finance, Department of Expenditure, Govt. of India, all the bidders have to submit EMD Declaration as per format attached as Annexure-X.

2.5 Validity of Tender: The Tender shall be valid for our acceptance without any change in rates and NIT conditions for a period of **90** days from the date of submission of price bid.

2.6 Duration of Contract:

(i) Initial period for providing services as per the tender documents shall be valid for a period of one year with a provision to extend beyond one year on the same terms and conditions as agreed to, for the initial period.

(ii) The contract time shall be reckoned from the date of issue of letter of acceptance or the specific date indicated in the letter of acceptance.

2.7 Terms of Payment

Contractor will be paid for the monthly maintenance and minor works as per the details below

(i) Operation & Maintenance

- Monthly bill shall be raised by the contractor after successful completion of every month as per schedule of prices quote in annexure-XI for operation & maintenance. The contractor should submit the bill on 1st day of every calender month. The payment shall be made after due certification of the monthly bill by the Engineer-In-Charge, who may at their discretion effect deductions for non-performance or delayed/improper work. The payment will always be made through ONLINE bank transfer after statutory deductions .
- Amount towards mandatory requirements such as EPF, ESI shall be paid by IUAC only on submission of relevant authenticated documents. It is mandatory for the contractor to submit the employees wage bill along with EPF and ESI receipts, ECR statement, paid wages sheet duly signed by the employees and the copy of attendance record.

(ii) Additional Minor Works

Separate work order shall be placed for additional minor works for which the rates are available in the Schedule of Prices (see Annexure-XII). Contractor shall raise the bills for such completed works and shall be paid on certification from the engineer-in-charge.

(iii) Additional Manpower

Separate work order shall be placed for additional manpower if IUAC requires for which rates shall be taken from prevailing minimum wages notified by Delhi Govt. along with applicable taxes at that point of time with the additional % age as quoted in Schedule of Prices (see Annexure-XIII). Contractor shall raise the bills for such manpower and shall be paid after certification from the engineer-in-charge.

2.8 Scope of Work: Detailed scope of work, special terms and conditions of this contract, equipment covered and other details are enclosed with this NIT as per annexure-I to annexure-VII.

2.9 Labour Escalation: Contractor will be paid actual reimbursement of the increased wages paid to his workers on the basis of increase in statutory minimum wages as announced by Delhi Govt. from time to time. Other than the above no escalation shall be paid during the entire contract period.

2.10 Labour Laws: The contractor shall abide by all the prevalent rules and regulations related to labour laws, accident, workmen compensation act, workmen insurance, ESI, EPF, etc. This will be the sole responsibility of the contractor. IUAC will not be a party at any stage in any of the disputes relating to the above. In case, any liability arises due to non-conformance by the contractor, under no circumstances IUAC will be liable for the same.

2.11 Performance Security Deposit: On award of work, the contractor shall furnish a Bank Guarantee valid for the entire contract duration plus three months equivalent to one month charges of the awarded works as per Annexure-XI. In case of extension of contract after the first year, fresh bank guarantee for the extended period has to be submitted. Security deposit will be refunded within 3 months after completion of contract and after the agency finally settles payment/transfer of Provident Fund to all its workers deployed in the Centre during the term of the contract.

2.12 Deviations: The tenderers are advised not to deviate from the technical specifications/items, commercial terms and conditions, terms of payment and arbitration etc.

2.13 Site Conditions: The tenderer in his own interest, visit the site and familiarize himself with site conditions before quoting his rates. No Compensation on account of any site difficulties will be entertained, at a later date, after award of the works. The plant and machinery will be handed over to the contractor on "As is where is basis" and the entire liability of smooth Operation and Maintenance of the systems will rest with the successful bidder.

2.14 Correspondence: All the correspondence in respect of tender/contractual obligation shall be addressed to A.O. (S&P), Inter-University Accelerator Centre (IUAC), P.B. No. 10502, Aruna Asaf Ali Marg, New Delhi-110067.

2.15 The Centre reserves the right to reject any or all the tenders in full or in part without assigning any reasons whatsoever and the decision of the IUAC in this regard will be binding on all the bidders. Tenders not complying with any of the provisions stated in this tender document are liable to be rejected. **Director, IUAC reserves the right to accept or reject any tender without assigning any reason and does not bind himself to accept the lowest tender.**

2.16 Tender once submitted will remain with IUAC and will not be returned to the bidders.

2.17 Termination of Contract:- The Director, IUAC reserve the right to terminate the contract immediately on account of poor workmen ship, failure to mobilize the site within 15 days, non-compliance of set norms/specifications for the works, delay in progress of work, violation of any contract provisions by the contractor. In such cases, the Bank Guarantee equivalent to one month's contract value held with IUAC and the EMD will be forfeited. The contract can also be terminated at the request of either party. In such cases, the contractor is liable to give two months notice period or else to pay two months O&M bill value in-lieu of the notice period.

2.18 Manpower: UAC reserves the right to increase or decrease the manpower as per requirements during the execution of the works.

2.19 Any dispute arising out of this contract will be subjected to jurisdiction of New Delhi/Delhi.

Accepted
(Signature of Bidder)

Note:- Entire NIT (except price bid) is to be attached with "Technical bid (Part-A)" duly signed & stamped by the bidder.

3: SPECIAL CONDITIONS OF CONTRACT

3.1 GENERAL:

3.1.1 The special conditions of contract shall be read in conjunction with the General conditions of the contract and all other documents forming part of this contract. Notwithstanding the sub divisions of the document into these separate sections, every part of each shall be deemed to be supplementary to and complementary of every other part and shall be with and into the document as far as it may be applicable to do so.

3.1.2 Where any portion of the general conditions of the contract is repugnant to or at variance with any provision of special conditions of contract, then unless a different intention appears, the provision of special conditions of contrary shall be deemed to override the provisions of general conditions of the contract and shall be to the extent of such repugnance or variance prevail.

3.1.3 Wherever it is mentioned in the tender documents that the contractor shall perform certain works or provide certain facilities, it is understood that the contractor shall do so at his cost, being deemed to be part of the relevant item in the schedule of rates whether expressly stated or not.

3.1.4 All works shall be carried out with due regard to convenience of the occupants for its normal functioning. For arrangement/shutdown work within IUAC, instructions of the Engineer-in-charge shall be strictly observed.

3.1.5 All work shall be done in a neat workmanlike manner. All debris must be cleaned and disposed off. No extra cost shall be paid on this account.

3.1.6 **LOCATION:** The IUAC campus is located on Aruna Asaf Ali Marg, near Kishangarh village, Vasant Kunj, New Delhi-110067, on the way to Fortis Hospital Vasant Kunj from Ber Sarai.

3.2 SCOPE OF WORK:

Brief Description and Scope of Services

1. The Campus of Inter-University Accelerator Centre (IUAC) is built over a prime land of approximately 25 acre located on the Aruna Asaf Ali Marg, New Delhi-110067. The Centre has within its premises the following building structures:-

- a) Main Lab Cum Administrative Building
- b) Auditorium Building
- c) Utility Building – I, II & III
- d) Engineering Building
- e) LEIB building
- f) Sub-station building
- g) Helium Compressor building
- h) Beam Hal-I, II & III, FEL
- i) Generator building
- j) Hostels, Dining Hall, Guest House blocks
- k) Flat lets block } 12 Flats
- l) Phase - I Housing complex } Total 105 Flats
- m) Phase - II Housing complex }

The residence population of the campus comprising of the officials with their families, students/ users and contractual staff working round the clock is approximately 600. It consists of providing prompt and efficient operation and maintenance of complete electrical installation that covers all the internal and external electrical

installations, sub stations, DG sets, UPS installations, Housing Colonies, Street lighting and earthing installations of campus of IUAC up to the entire satisfaction of Engineer-in-charge.

The prime objective of the work under this contract consists of providing prompt and efficient operation and maintenance of complete electrical installation that covers all the internal and external electrical installations, sub stations, DG sets, UPS installations, Housing Colonies, Street lighting and earthing installations in the 25 acre campus of IUAC up to the entire satisfaction of Engineer-in-charge. The rates quoted shall include cost for all essential and contingent works, which although not specifically mentioned in this contract, but necessary for completion of the work to the entire satisfaction of Engineer-in-charge. This shall include the cost of all required tools/tackles, plants, machinery and manpower etc. The contractor shall have to deploy the following minimum manpower during the period of contract for round the clock operation and maintenance work.

3.3 SUPPLY OF MANPOWER BY THE CONTRACTOR

NUMBER OF MANPOWER ENVISAGED IN THE PROPOSED TENDER

S. No.	Details	Category	Nos.	Qualification	Experience	Remark (Working hours)
	General Shift					
1.	Supervisor	Graduate and above	1	3 years Diploma in Electrical/ 2 years ITI in Electrician	2 years for Diploma / 6 years for ITI in electrical maintenance	9.00am to 6.00pm except Sunday/ holiday(at discretion of Engineer-in-charge)
2.	Electrician / DG Operator	Skilled	1	2 years ITI in Electrician	2 years in electrical maintenance	9.00am to 6.00pm except one weekly off
3.	Helper	Semi-skilled	2	10 th class	2 years in electrical maintenance	9.00am to 6.00pm except one weekly off
	In Shifts					
4.	Electrician	Skilled	6+1 (reliever)	2 years ITI in Electrician	2 years in electrical maintenance	8 hourly shift, One weekly off through reliever
	Total		11			

Note: IUAC reserves the right to increase or decrease the manpower as per requirements during the execution of the works.

3.4 QUALIFICATION, LICENCE AND MINIMUM AGE OF WORKMEN:

3.4.1 The Contractor should possess valid 'A' class electrical contractor license valid during current year issued by the competent authority.

3.4.2 The Contractor shall deploy only experienced, highly skilled grade 'A' class electrician and semi skilled grade helpers who are capable of handling / maintaining of various equipments and systems covered and their minimum wage should be conforming to the latest minimum wage declared by the concerned authorities. No provision of overtime is left in the scope of work. The workmen deployed by the contractor should also possess necessary license/ certificate etc. if required under any law, rules and regulations issued by the appropriate authority. Frequent replacement of workmen, causing disturbances in work site will not be entertained.

3.4.3 Contractor should depute a Site Supervisor having qualification of 3 year Diploma in Electrical Engineering with a minimum of 2 years experience or an ITI Electrician certificate with minimum 6 years of experience in electrical maintenance including 2 years as supervisor. Site Supervisor shall execute routine Operation and Maintenance works and shall take instructions from IUAC Engineer for execution of minor additional works.

3.5 **OPERATIONAL INSTRUCTIONS:**

3.5.1 The contractor has to ensure the promptness in service and this is basically the essence of the contract. The contractor has to ensure close to 100% uptime of the systems. All endeavors will be made by the contractor to restrict to preventive maintenance and unforeseen outages will be kept to the minimum.

3.5.2 There should be 3 shifts in a day equally spaced. There should be a minimum of 1 Supervisor, 1 electrician and 2 helpers in general shift besides a dedicated minimum 2 Electricians for each shift i.e. for all 3 shifts for maintaining high up time of electrical systems. Reliever will relieve shift electricians and will work in general shifts for the remaining days of the month. IUAC reserves the right to increase or reduce the strength according to requirements during the contract.

3.5.3 General shift shall be from 9:00am to 6:00pm except Sundays as it will be 'off' day for general shift personnel. Saturdays and public holidays shall be working days for all the general shift personnel. National holidays will be 'off' days for all the general shift personnel. Supervisor may avail 'off' on public holidays solely at discretion of Engineer-in charge. Engineer-in charge at his discretion may make changes in the general shift timings as per the site requirements.

3.5.4 In addition to the above, three National Holidays (26th January, 15th August and 2nd October) and any special mandatory holidays as declared by Govt. of India from time to time should also be given to the manpower. The amount to be incurred by the contractor towards this will be reimbursed by IUAC in respective months.

3.5.5 In case of Supervisor proceeding on leave, Contractor must make prior alternate arrangement for the same and duties shall not be unattended.

3.5.6 Site working has to be arranged by the contractor all the year round including Sundays and Holidays. Furthermore the maintenance gang has to be so arranged by the contractor that it is geared / available for breakdown maintenance work 24 hours of the day. Contractor may have to deploy additional maintenance gang depending upon the requirement, which should be geared-up for 24 hours breakdown maintenance works, in-addition to minimum manpower specified.

3.5.7 While all efforts will be made to complete the maintenance activities in the normal hours, yet if the situations so warrant then the maintenance has to be done even beyond the normal hours without any extra cost. All manpower proposed to be deployed should be got interacted and approved by Engineer-in-charge before deployment at site. Documentary evidence of qualifications and experience to be furnished before deployment of manpower.

3.5.8 The successful bidder should depute two responsible people one week before actually taking over the system to get acquainted with the system without any extra cost to IUAC.

3.6 **SUFFICIENCY OF TENDER:**

The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates stated in the schedule of rates, which shall cover all his obligations under the contract and all matter and things necessary for proper completion of works.

3.7 PAYMENT:

Refer clause 2.7 of Commercial & General Conditions of Contract.

3.8 MINIMUM WAGES:

3.8.1 Minimum wages shall be as per “National Capital Territory of Delhi Govt.”, Employees Provident Fund (EPF) is calculated on a salary amount of Rs.15000/- and ESI applicable on minimum consolidated wage. The monthly wages to be paid to the personnel shall never be less than the minimum wages declared by the labour department of Govt. of Delhi from time to time in addition to benefits like EPF/ESI. In case of revision in wage by Govt. of Delhi from time to time, the difference shall be paid on submission of paid wage sheet. If contractor wishes to pay more than minimum wages to his manpower, the same may be paid from over head & profit component.

3.8.2 Total monthly amount will be revised on increase/decrease of minimum wages as per notification of the Govt. of (National Capital Territory) NCT of Delhi and as per manpower strength.

3.8.3 Site Engineer/Supervisor shall be paid a monthly salary at least of the category ‘supervisory staff (graduates and above) category’ with all additional benefit such EPF & ESI etc.

3.8.4 Amount towards mandatory requirements such as EPF & ESI shall be paid only on submission of the relevant authenticated documents. It is mandatory for the contractor to submit the employees wage bill along with EPF & ESI receipts, ECR statement, paid wages sheet duly signed by employees and the attendance record.

3.8.5 On deployment of worker(s), within two months, the contractor will provide Universal Account Number (UAN) for Provident Fund remittances along with other relevant details to the workers concerned and to the Centre for verification. Non-compliance of the foregoing requirements may lead to withholding of monthly payment of contractor besides other punitive measures as deemed fit to the Centre.

3.8.6 Submission of bill/receipt on account of payment made to statutory bodies/authorities i.e. ESI, EPF, Service Tax/GST etc. need to adhere with strict compliance. Non-compliance in regard to above may lead a penalty of Rs.5,000/- and Director's decision will be full and final as far as release of payment to the agency is concerned.

3.8.7 There won't be any deductions e.g. advance etc. from the employee’s wages in the Wages Sheet except absenteeism.

3.9 MONTHLY WAGES:

3.9.1 The monthly payment of wages to the manpower shall be made directly by the contractor on last working day of each month (30th/ 31st) and no amount shall be deducted from the wages of the workmen by way of the commission. The wages should always be paid through ONLINE bank transfer directly to the worker's bank account.

3.9.2 IUAC may at its discretion depute its representative to witness the payment. In case contractor fail to make above payment IUAC reserves the right to deduct the amount from monthly bills and make payment to the workmen and recover the amount so paid along with 10% overheads from the contractor's bill.

3.9.3 Delay in making monthly wages to his staff working at IUAC will be considered as disqualification on Contractors part and this will lead to termination of the Contract. In such a case IUAC’s decision will be final.

3.10 PENALTY CLAUSE:

- 3.10.1 100% of daily minimum wage will be deducted for each unattended duty. If staff is absent for more than 2 days, contractor should make alternative arrangement immediately failing to do so will attract a penalty decided solely by the Engineer-in-charge.
- 3.10.2 If the maintenance activities are not carried out as per the response time indicated in the Annexure - IV, suitable deductions on proportionate basis will be made from contractor's bills and the Engineer-in-charge reserves the right to determine the amount in question.
- 3.10.3 If the breakdown activities are not attended to on emergency basis as per response time indicated in the Annexure - IV, suitable deductions on proportionate basis will be made from contractor's bills and the Engineer-in-charge reserves the right to determine the amount in question.
- 3.10.4 Cleaning/Clearing of waste material/ debris etc. from the repair/work site will be the responsibility of the Contractor. Non compliance of this will also lead to imposition of fine Rs.100/-for each occasion on the contractor, which will be deducted from his bill.
- 3.10.5 Entire battery cost shall be recovered if any battery fails due to drying or low specific gravity of battery electrolyte or mishandling by the workmen. In such a case decision of Engineer-in-charge shall be final and binding.
- 3.10.6 In case of non availability of sufficient consumables / tools/ instruments at site, contractor shall be given time of 24 hours to arrange the same. If fail to, IUAC shall arrange the same on its own and recover actual expenditure from the Contractor along with 10% Departmental charges.
- 3.10.7 Safety shoes and uniform is mandatory and same shall be arranged by the contractor within 15 days of taking over site. In case of failure to adhere the same, it may be arranged by IUAC and actual expenditure will be recovered from Contractor's bills along with 10% departmental charges.

3.11 SUPPLY OF MATERIAL:

All required material shall be supplied by IUAC. However contractor has to give list of minimum stock of essential items to be maintained by the Department at site. The contractor shall assist in preparation of the spare parts list for various items required for day-to-day operation and maintenance work. Contractor shall provide his Supervisor with stock book so that all the material consumed in the maintenance gets recorded in with the Engineer-in-Charge.

- 3.11.1 **Registers/log books:** contractor at all times shall procure and maintain all required stationaries such as Sub station Log book/ D.G. Set Log Books etc required for which no extra cost will be paid.
- 3.11.2 **Consumables:** Contractor at all times shall procure and maintain stock of consumable as per the Annexure-IX.
- 3.11.3 **Tools and tackels.:** The contractor will provide all the necessary tools, equipments as per annexure-VIII.
- 3.11.4 **Safety Shoes:** The contractor shall provide one pair of safety shoes of Liberty make Art NO. 7198-01(N), 2198-319/ BATA/ Action Make to each of the employee deployed at site including two pairs of socks. Any other equivalent make /model of shoe shall be got approved by IUAC before procurement of the same. They are deemed to be included in the contractors scope and to be quoted in item no -5 of annexure-XI.

3.11.5 Uniform: The contractor shall provide two pairs of stitched uniform to each of the employee deployed at site. The quality/ color of the fabric should be got approved by IUAC before procurement of the same. In the event of extension of the contract after first year, fresh pair of uniforms (2 Pair) to be provided to each employee deployed at site. They are deemed to be included in the contractors scope and to be quoted in item no -5 of annexure-XI.

3.12 SAFETY AND SECURITY RULES GOVERNING THE CONTRACTOR'S EMPLOYEES WORKING IN THE CENTRE'S PREMISES:

3.12.1 Contractor shall take all necessary precautions and abide by relevant rules of safety including explosive rules and regulations and such other rules and regulations framed for working in industrial /office/residential setups. The contractor shall also take such other additional precautions and the Engineer-in-charge may direct resort to such other additional safety measures from time to time.

3.12.2 The contractor shall be responsible to enforce in his workforce strict discipline and safety consciousness required to be observed in official atmosphere and shall ensure that the work is carried out under constant supervision by competent supervisors who are adequately informed and experienced for handling the work in such an environment.

3.12.3 Without prejudice to the generality of the provisions under “Rules governing the Contractor's employees working in the Centre's premises” contractor shall take necessary precautions to ensure that no damage, whatsoever is caused to the existing things, facilities within the working area. In case contractor fails to adhere to this stipulation and if damage to the facilities results due to his manpower's negligence, the contractor shall be held responsible to compensate IUAC for such damage caused, as assessed by the Engineer-in-charge.

3.12.4 The contractor's employees working in the IUAC campus shall abide by the rules of IUAC. Any damage to the IUAC's property due to mishandling, carelessness etc. on the part of contractor or his workmen will be recoverable from the contractor's bills.

3.12.5 All the persons deployed by the contractor at IUAC will have to get the POLICE VARIFICATION done from competent authorities. The contractor has to submit the acknowledge slip of police verification for manpower.

3.12.6 All the persons deployed by the contractor at IUAC will have to carry valid gate-passes, which will be issued only after submission of their bio-data in desired format. Any negligence / offence on their part will attract immediate removal from site. It is mandatory for all the contractor's employees to wear badges with their Co's name embossed on the same and display it.

3.12.7 The contractor will provide all necessary tools, equipments, measuring instruments etc. (as per Annexure-III), needed for smooth operation and maintenance. Safe custody of all such items will be contractor's sole responsibility. No extra charges will be paid for the same.

3.12.8 Watch and Ward of all electrical installations till the system is taken back by IUAC shall be the sole responsibility of the contractor and pilferage if any shall be entirely to his account.

3.12.9 The maintenance work shall be carried out as per the norms set by the manufacturer of respective equipment, specification and specific instructions as may be issued by the IUAC's representative responsible for work from time to time.

3.12.10 During the execution of work, the contractor should follow all standard norms of safety measures/precautions to avoid accidents/damages to men, machines and buildings. On non-adherence of this clause, suitable fines, as decided by the Director, IUAC shall be imposed.

- 3.12.11 Manpower deployed by the contractor at our site for carrying out contracted works is strictly prohibited being associated with any other works other than the O&M works on the campus.
- 3.12.12 No material belonging to the contractor whether consumable or non-consumable should be brought inside the IUAC campus without proper entry at the main gate nor any material should be taken out without proper gate pass issued by the IUAC.
- 3.12.13 In case of any injury to Contractor's person at IUAC Campus, due to any reason, the Contractor shall be responsible for taking the person to the hospital/nursing home /dispensary for treatment at his own cost. If in the case of emergency IUAC vehicle is used, IUAC incurs any expenditure on the treatment of the person, the contractor will be suitably charged for the same.
- 3.12.14 If any Contractor's person is found to be misbehaving or found to be negligent in the duties assigned to him IUAC reserves the right to seek his removal from IUAC with immediate effect and contractor shall have to provide suitable replacement within 24 hours.
- 3.12.15 Under no circumstances the contractor will be permitted to sublet his work to another contractor, while working at IUAC. Likewise the Contractors persons will not be permitted to undertake any private jobs in the IUAC Campus.

3.13 STATUTORY OBLIGATIONS

- 3.13.1 The monthly wages to be paid to the personnel shall never be less than the minimum wages decided by the Delhi Administration from time to time in addition to benefits like EPF/ESI calculated on total monthly wages (not on any part of wage). In case of revision in wage by Labour Department of Delhi Govt. from time to time and the same shall be applicable with effect from the date of revision.
- 3.13.2 All statutory obligations under various laws as may be applicable to the contractor labour from time to time will have to be met with by the contractor for which no extra payment shall be made to him at any time during the contractual period.
- 3.13.3 In case of labour unrest/ dispute arising out of non-implementation of any law, the responsibility shall solely lie with the contractor and he shall remove/resolve the same satisfactorily at his cost and risk.
- 3.13.4 **EPF & ESI:** Documents related to EPF and ESI of the manpower deployed at site by contractor should be furnished to IUAC. EPF statement of all the manpower deployed by the contractor should be submitted to IUAC periodically or as and when asked for. EPF/ ESI statement must be issued to individual workman at the end of financial year. Original ESI cards of employees should be shown to IUAC for verification.
- 3.13.5 **BONUS to manpower:** Contractor may disburse the bonus to its workers as per latest **Government of India Payment of Bonus Act** after getting the approval of IUAC. Reimbursement will be done as per actual after disbursement of the same. However all statutory payments shall be done as per IUAC NORMS.
- 3.13.6 On the expiry of contract, contractor has to submit the clearance certificate from all the manpower deployed by him indicating no dues towards wages, EPF settlement etc., Contractor has to sign the EPF settlement papers or the people who leave the organization while working at IUAC and also after completion of the contract in our presence in case of a complaint or a dispute between contractor and his workmen.
- 3.13.7 Notice showing rate of wages must be displayed at work place. Other register maintained by contractor as per Delhi contract labour regulations like muster role, register of wages, register of deduction, register of overtime, register of fines, register of advances etc. applicable to contractor.

3.14 SALES TAX ON WORKS CONTRACT: Special attention is drawn to the recent regulation of imposition of the Sales tax on Composite works contract by certain State Governments. In case such Sales Tax is already in vogue, the offer of the tenderer shall be deemed to be inclusive of such Sales Tax. The tenderer shall get their name Registered under Sales Tax Authority of the state Government concerned.

3.15 INSTRUCTIONS TO THE TENDERERS FOR FILLING SCHEDULE OF RATES:

Quote for round the clock Operation and Maintenance of electrical installations is based on the total minimum charges required towards providing minimum manpower as per clause: 3.3 considering the present minimum wages as notified by Delhi Govt. w.e.f 01.10..2020 along with EPF & ESI.

The bidders have to fill the rates in Annexure -XI serial no. 4 for charges towards stationary & consumables as per clause 3.11.1 & 3.11.2 of 'Special Conditions of Contract' and as per annexure-IX. The rates in serial no. 5 shall be for charges towards tools & tackles as per annexure-VIII along with safety shoes, uniform etc as per clause 3.11.3, 3.11.4 & 3.11.5 of Special Conditions of Contract.

3.15.1 Minor Woks: Separate work order shall be placed for additional minor works for which the rates are to be offered in Annexure-XI.

3.15.2 Additional manpower: Contractor may have to supply additional manpower to carryout other IUAC works. However separate work order for such requirement shall be placed. All such supply of manpower shall be paid as per Annexure-XII.

3.15.3 Attention of all the bidders is drawn to the fact that this contract is technical in nature and is not a labour supply contract and therefore managing all the affairs of the electrical installations and the associated sub-systems in a responsible and dedicated manner will be entirely the responsibility of the bidder who is awarded the works. Contractor can not take the plea of minimum manpower deployed at site and escape from the overall responsibility. If necessary, contractor has to depute additional manpower for preventive/breakdown maintenance activities from time to time for which nothing extra shall be paid by IUAC.

ANNEXURE - I

RUTINE OPERATION AND MAINTENANCE WORKS:

- a. The bidder is strongly advised to understand the criticality of the application and the importance of maintaining more than 99.99 % uptime of the systems.
- b. To operate and maintain 4.5 MVA capacity Substation-I & 1000KVA capacity substation-II with all the equipment's as per Annexure-I &II, round the clock throughout the year (365 days of the year).
- c. To operate and maintain 3X750 kVA capacity AMF & PLC controlled DG sets as per the guidelines of the manufacturer to minimize the downtime and trouble free operation of DG sets. Routine B-checks of Diesel engines as per manufacturers schedule shall be carried out by the manufacturers authorized service agencies and the same is not in the scope of this contract. However, the manpower support to the external authorized service agency during servicing shall be provided by bidder without any extra cost. Spare parts/ materials required in such servicing will be supplied by the Department.
- d. General inspection & cleaning of 2X50 kW solar power plant's solar panels every 15 days. Taking performance evaluation reading of solar power plants & attending day to day problems.
- e. General cleaning & upkeep of 3x300 kVA, 4x200 kVA, 3x60 kVA UPS systems and associated batteries. All scheduled maintenance of UPS systems shall be carried out by the respective manufacturers through AMC contracts.
- f. Check and maintain engine oil level, coolant level etc., before starting the operation every day and maintain daily logbook / log sheet, recording all performance of the DG sets.
- g. Switching ON/OFF HT breakers/HT sources, transformers, LT feeders, Operation of DG sets, including checking and filling of diesel, distilled water in batteries etc., shall be routine work of the electrician manning substation.
- h. To keep check, clean and maintain all HT panel, LT Panels, Distribution Boards, Battery chargers, AMF Panels as per Annexure - I &II, and III round the clock throughout the year (365 days of the year).
- i. Checking of charging current of power factor improvement capacitor will be carried out by contractor on monthly basis. Regular check on the power factor, capacitors and other components of the panel.
- j. Every three months (by rotation) contractor has to provide internal cleaning of electrical panel with the help of blower, tighten the nuts and bolts in the panel and clean the ACBs.
- k. Half yearly checks: cleaning and tightening of all bus bars in electrical panels, cleaning of all cables, nuts and bolts of HT & LT side of transformers are to be provided by contractor as preventive maintenance.
- l. Daily repair & maintenance of lighting system, power distribution system, street lighting etc by replacement of defective/damaged components/parts/consumables.
- m. Arrangement of shut down of feeders as and when required taking all due precaution and due permission of Engineer-in-charge, except in dire emergency when shutdown becomes unavoidable for safety reasons.
- n. Providing temporary connections to construction/modification works and equipment's in IUAC as & when required.

- o. Maintenance of entire distribution system as per the maintenance schedule/programme given by Engineer-in-charge. Preventive and predictive maintenance of contactors, push buttons, indicating lamps, fuses etc.
- p. Preventive/predictive maintenance of PLC Synchronization panel/ AMF/Logic panel, battery, battery charger etc. of DB's inside buildings and from DB's to sub DB's. Repairing / replacing of ACB contact repairing / replacing of 3 ph, FSU, SFU switches (materials shall be provided by IUAC)
- q. Attending to day-to-day problems of HT/LT/UPS/AMF/Control panels installed in the building and rectifying the same.
- r. General maintenance of lights, fans, switches, sockets, meters, MCBs, MCCBs, DBs, and replacements of the same if required.
- s. To attend cable/bus-bar faults and repairing/ replacement/rectification/testing of faulty cables/bus-bars/wiring system of building as and when required.
- t. To keep check on over loading of the circuit and proper distribution of load. Proper upkeep of all distribution boards/systems.
- u. To arrange inspection /testing/ Measurement earth resistance of earth pits during dry days and take necessary action on directions from Engineer-in-charge. To keep check on proper earthing of various systems including retreating earth pits such as watering etc.
- v. Liaison with BSES Rajdhani Power Ltd. for restoring mains supply to IUAC and problems related to billing.
- w. Recording and forwarding Energy meter reading of IUAC residents on 20th of every month to the IUAC Engineer.
- x. Annual servicing of VCB, OCB, ACB, Relays & dehydration of Transformer Oil will be as per the procedure prescribed in the Annexure –VII. Order for these shall be placed and paid separately as per the rates quoted in Annexure-XI (Schedule of prices for minor additional works).
- y. Any other work assigned by IUAC within the scope of maintenance.

ANNEXURE - II

EQUIPMENT COVERED UNDER THE SCOPE OF WORK

No	EQUIPMENT DETAILS	TYPE & MAKE	QTY.
1.	Packaged type Sub Station of 1000 kVA capacity with RMU.	ABB	1 No.
2.	H. T. Panel 11 KV VCB type Incomer Panel	VMX type VCB from ALSTOM	3 Nos.
3.	H. T. Panel 11 KV VCB Incomer Panel	VMX type VCB from ABB	1 No.
4.	H. T. Panel 11 KV OCB	KAD type OCB from GEC	7 Nos.
5.	Transformers-(11 /0.433 KV)-1000 kVA	ONAN type outdoor from GEC	3 Nos.
6.	Transformers-(11 /0.433 KV)-500 kVA	ONAN type outdoor from GEC	3 Nos.
7.	Transformers-(11 /0.433 KV)-1600 kVA	ONAN packaged type outdoor from C&S	1 No.
8.	Transformers-(11 /0.433 KV)-1000 kVA	ONAN packaged type outdoor from ABB	1 No.
9.	1600 Amp ACB	M-PACT type English Electric	12 Nos
10.	1250 Amp ACB	M-PACT type English Electric	10Nos
11.	800 Amp ACB	M-PACT type English Electric	30Nos
12.	D.G.Sets 750 kVA With PLC synchronisation Panels	Cummins	3 Nos
13.	D.G.Sets 100 kVA With AMF Panels	Cummins	1 No.
14.	D.G.Sets 320 kVA With AMF Panels	Cummins	2 Nos.
15.	Automatic Power Factor Panel of capacity up to 350 KVAR.		5 Nos.
16.	Distribution Boards (cubicle type) with 32 A - 800 A TP MCCB's /TPN FSU		45 boards
17.	Soft Starter Panel for 200 hp.		2 nos.
18.	2 Change over panels for 320 kVA DG Set.		1 each
19.	3X300 kVA UPS System	RIELLO AROS UPS	1 Set
20.	4X200 kVA UPS System	RIELLO AROS UPS	1 Set.
21.	3x60 kVA UPS System	Liebert	3 Sets.
22.	2x60 kVA UPS System	Liebert	1 Set.
23.	Servo voltage stabilisers 75 kVA -130 kVA		2nos.
24.	Servo voltage stabilizers 500 kVA, 1000 kVA		1no. each
25.	4 way TPN MCB DB's - MDS Load star make		45 nos.
26.	Wall mounted SFU's (TPN)- 32A-250 A		250nos.
27.	Changeover Switches (TPN)-32 A-630 A		10 Nos.
28.	Fluorescent fittings 1x40 watt, 2 x 40 watts,4 x 20 watts, 1x28watt, 1x28watt, 3x14watt in Laboratory buildings & Utility Bldgs, Substation bldg.		2000 nos (Approx)
29.	Metal Halide and HPMV High bay flood light fittings(in Beam Hall I & II)		20 Nos.
30.	CFL/GLS Fittings 40 watts, 60 watts, 100 watts.		LOT
31.	Armoured cables 3 1/2 C, 25 - 240 sq. mm PVC insulated; 3 1/2 C, 240-400 sq. mm XLPE insulated ; 4 C , 10 -16 sq. mm PVC insulated		LOT
32.	Street Lighting(a) 9.5 m ht. Pole -150 watt		22 Nos.

	HPSV		
33.	Street Lighting(b) 7.5 m ht. Pole - 125 watt HPMV		22 Nos.
34.	Street Lighting(c) 3.0 mtr. Height. Post top lanterns, with 125 watt HPMV / 70 watt HPSV / 40 watt LED		200 Nos.
35.	Earth Pits		70 Nos

ANNEXURE – III

LIST OF BUILDINGS COVERED IN THE SCOPE OF WORK

<u>INDUSTRIAL/ OFFICE COMPLEX BUILDINGS</u>		
1. Main laboratory block building – 3 Story		
2. Utility building-I		
3. Utility building-II		
4. Utility building-III		
5. Sub station building		
6. Temp. sub station building		
7. Generator building		
8. Lhe plant building		
9. LEIBF and Mat. Science & LAB-II		
10. Old workshop building		
11. Engineering building		
12. 300+ Capacity Auditorium		
13. Cafeteria building		
<u>RESINDANTIAL COMPLEX</u>		
TYPE OF QTRS.	BLOCK NAME	NO. OF FLATS
Type –VI	Parijat Block	4
Type -V	Kalpataru Block	12
Type -IV	Kamdhenu Block	48
Type -III	Sumeru 1&2 Block	24
Type -II	Sumeru 3 Block	16
Type -II	Flatlet-II Block	12
<u>GUEST GHOUSES</u>		
TYPE OF QTRS.	BLOCK NAME	NO. OF FLATS
TYPE -VI	Nikunj Guest House	1
Type -II	Old Guest House (flatlet-I)-	14
Type -II	New Guest House	26
Type -I	Hostel block single room	15

ANNEXURE -IV

RESPONSE TIME

Kindly note that a minimum of 99.99% uptime of the system has to be maintained by contractor. In case of lower performance standard, suitable deductions from the running bills will be made on a proportionate basis.

S.No		Fault	Time
1	<u>Lighting</u>		
		Ceiling fan/Exhaust fan	One week
		Street light fitting	1 day
		street light terminations repair	2 days
		housing fans/light fittings	Same day
		Complaint of Cleaning of canteen/ lab/	Same day
		Any other lighting complaints	Same day
2	<u>LT panels/DB/ HT Panel/ AMF panel/ DG set</u>		
		Indication lamps	Same day
		Repair / Replacement of switch	Same day
		Clearing of fault and restoring supply	Same day
		Replacing of Capacitors	Same day

ANNEXURE –V

MAINTENANCE SCHEDULE-SUB STATION EQUIPMENTS

EQUIPMENT	DAILY	WEEKLY	MONTHLY
<u>Transformers</u> 3 X 500 kVA 4 X 1000 kVA	<ul style="list-style-type: none"> • Check oil leakage • Check oil level • Check silica gel colour • Check body temperature • Cleanliness of TR. & Yard. • Check for over loading. 	<ul style="list-style-type: none"> • Check & replace/recharge silica gel. • Removal of vegetation from yard. 	<ul style="list-style-type: none"> • Check & tight earth connections. • Check for cable terminations on H.T & L.T side. • Proper working of temperature indicator cum controller.
H.T.Panel & L.T. Panel 1&2 & Change-over Panels	<ul style="list-style-type: none"> • Check oil leakage in OCB. • Check for ACBs. • Check meters in panel. • Check for any spark. • Check cont actors • Check heating of switches. • Check for O/L & burning. • Check for low power factor. • Logging Sub Station data hourly 	<ul style="list-style-type: none"> • Check & replace Indicating lamps. • Check for space heaters. • Cleaning of the panels. Check • Sand buckets in yard. • Physical verification of Tools. • Check condition of the fire extinguisher 	<ul style="list-style-type: none"> • Total blow up of L.T.Panel with air blower for dust. • Check Tightness of bus bars. • Check Tightness of cable terminations. • Check Tightness of connections of control & protection circuit. • Check Earth connections to the panels.
Battery charger & Batteries	<ul style="list-style-type: none"> • Check for charging current • Check for Abnormal heating of components • Check Indicating lamps • Check Battery terminals 	<ul style="list-style-type: none"> • Check & Record Specific gravity of battery. • Topping up distilled water • Greasing of battery terminals 	<ul style="list-style-type: none"> • Dusting of the panel from inside with air blower. • Check for proper Earth connection to the panel.
<u>D.G.Sets & AMF Panels</u> 1 X 100 kVA 2 X 320 kVA 1 X 750 kVA	<ul style="list-style-type: none"> • Check for oil leakage from Tank/Engine sump/ piping • Check water level in radiator • Check Lub oil level in Engine • Clean the engine with dry cloth. • Check for burning of wire in AMF panels & battery. • Check for abnormal Heat/Noise. • Run engine for 5 minutes in case stands idle. • Logging all the reading in log book 	<ul style="list-style-type: none"> • Check for proper operation of AMF panels and take corrective measures. • Check engine mounting bolts • Check engine manifolds for exhaust leakage 	<ul style="list-style-type: none"> • Cleaning of Generator Sets. • Checking of Earthing connections. • Checking of Battery connections at D.G. end. • Checking holding coil. • Check for shock treatment chart. • Check for sand filled buckets. • Physical verification of Tools.
<u>Distribution Boards/Panels</u>	<ul style="list-style-type: none"> • Physical Inspection for any spark or heating. • Check for blowing of fuses • Check for any tripping of ACB/ MCCB/MCB. • Check for any damage to the cables 	<ul style="list-style-type: none"> • Attending all major replacement like switches etc. in DB's. • Any modification if required to be done 	<ul style="list-style-type: none"> • Cleaning of DB's from inside by air blower. • Check on Earthing connections to the DB.

Note: Wherever 'Check' appears above it shall mean check and if necessary do the repair / replacement and bring to the normal condition.

MAINTENANCE SCHEDULE FOR LIGHTING AND POWER

TO LABORATORY BUILDING / UTILITY BUILDINGS / WORKSHOP / HOSTEL / FLATLETS/ RESIDENTIAL BLOCKS/ GUEST HOUSES.

AREA	DAILY/WEEKLY	MONTHLY
Seminar Hall/ Council/ Committee/ Corridors/ Reception & library	<ul style="list-style-type: none"> • Check on proper working of light fittings. • Immediate action on replacement. 	<ul style="list-style-type: none"> • Replacing diffusers/ grills if needed.
Laboratories/Beam Hall and all other academic building	<ul style="list-style-type: none"> • Attending complaints of lights. • Attending complaints of Power. • Shifting of light / Power Point. 	<ul style="list-style-type: none"> • Replacing diffusers/ grills if needed. • Providing additional light / power points tapping from existing points.
Outdoor Feeder Pillars	<ul style="list-style-type: none"> • Repair /replacement of fuses. • Repair /replacement of cables/ terminations. 	<ul style="list-style-type: none"> • Cleaning/ tightening of all the nuts & bolts of bus bar and fuse base. etc.
Housing blocks	<ul style="list-style-type: none"> • Repair/ Replacement of all the material except tubes and bulbs. 	<ul style="list-style-type: none"> • Replacing diffusers/ grills if needed. • Cleaning of the switch boards
Hostels, guest houses & Canteen	<ul style="list-style-type: none"> • Repair/ Replacement of all the material including tubes and bulbs. • Providing additional light / power points tapping from existing points. 	<ul style="list-style-type: none"> • Cleaning of light fittings & Ceiling fans/ Ex. fans. • Cleaning of the Bus bar chamber & energy meter box. • Cleaning of the switch boards
Street lighting & Compound lighting	<ul style="list-style-type: none"> • Repair / replacement of lamps, chokes, igniters, starters and shades. 	<ul style="list-style-type: none"> • Cleaning of light fitting and pole box. • Tightening of all connections.

Note: 'Repair / Replacement' mentioned above shall deemed to include all below listed works as applicable.

ANNEXURE -VII

SERVICING OF ACB, OCB, RELAYS AND TRANSFORMER OIL

VCB/OCB/ACB	
<ol style="list-style-type: none">1. Dismantling the breaker.2. Cleaning of all the components, removal of Carbon deposition, dust particle and oily substances of lever mechanism, charging motor, gears and Arc chutes. With Diesel and Contacts with CRO2 / CTC.3. Changing of the damaged / rusted / defective components.4. Assembling the breaker.5. Tightening all the fasteners of the mechanism and back panel. <p style="text-align: center;">Setting:</p> <ul style="list-style-type: none">• Contact Gap Setting.• Pull Rod setting.• Trip prop setting.	<p style="text-align: center;">Measurement:</p> <ul style="list-style-type: none">• Closing Coil resistance.• Trip Coil resistance.• Contact resistance. <p style="text-align: center;">Testing:</p> <ul style="list-style-type: none">• Closing time.• Tripping time.• Spring charging time. <p style="text-align: center;">Lubrication:</p> <ul style="list-style-type: none">• Lubricating the inner mechanism, rollers & other linkages.• Apply grease for slide rails, racking rollers & earth knife.• Apply Petroleum Jelly on Clusters
Calibration of Protection Relays	
<ul style="list-style-type: none">• Dismantling of relay after shorting of CT's & Cleaning of relay with CTC / CRO2.• Measurement of Trip time at different current and time settings using Secondary Injection.• Calibration and setting of relay as per actual load conditions.• Assembling & mounting of relay on the panel, Measurement of CT current.	
Dehydration of Transformer oil:	
<ul style="list-style-type: none">• Dehydration of Transformer Oil Using Centrifuging Machine.• Testing of Dielectric Strength before and after Dehydration.• Dielectric Strength should not be less than 50 kV at 2-mm gap after Dehydration.	

ANNEXURE - VIII

**LIST OF TOOLS, EQUIPMENTS, MEASURING INSTRUMENTS
(MINIMUM QUANTITY AS MENTIONED SHALL BE MAINTAINED ALL TIME AT SITE)**

SL.NO.	ITEM DESCRIPTION	QUANTITY
1.	Ring Spanner	1 Set of 6
2.	Box Spanner	1 Set of 6
3.	Double Ended Fix Spanner	1 Set of 12
4.	Screw Driver Set (6" to 12")	2 Sets of 6
5.	Conduit Thread Cutting Set with Dies	1 set
6.	Adjustable Wrench	1 No.
7.	Hand Hammer 2kg	1 No.
8.	Hand Hammer 500 Grams	1 No.
9.	Mallet Hammer 500 Grams	1 No.
10.	Hack Saw frame with blades	2 Nos.
11.	Drill Machine (10 mm)	1 No.
12.	Hammer Drill Machine (22 mm)	1 No.
13.	Hydrometer	1 No.
14.	Rechargeable LED Torch	2Nos.
15.	Multi Meter MECO or Eqvt.	1 No.
16.	Tong tester (standard make) up to 300 amps	2 Nos.
17.	Test Lamp	2 Nos.
18.	Wire cutter/ stripper	2 Nos.
19.	Umbrella / rain coat-Big Size	2 Sets
20.	Electric blower for cleaning	1 No.
21.	Line Tester	1 No with each Electrician.
22.	Cutting Plier (8")	1 No with each Electrician.
23.	Feather dusters	2 Nos.
24.	11KV hand gloves	1 set

ANNEXURE - IX

**LIST OF CONSUMABLES
(MINIMUM STOCK TO BE MAINTAINED ALL TIME AT SITE)**

SL.NO.	ITEM DESCRIPTION	QUANTITY
1 1	Battery water	20 ltrs (stock all the time)
2 2	Insulation tape	10 nos (stock all the time)
3 3	Indication lamps	20 nos. (stock all the time)
4 4	Cotton dhoti	20 nos. (stock all the time)
5 5	Hacksaw blades,	1 Packet
6 6	Concrete drilling bits,	1 set from 6 – 18 mm in various sizes
7 7	Metal drilling bits,	2 sets from 2 – 12 mm in various sizes
8 8	CTC/CRC	Sufficient quantity
9 9	Vaseline for ACB & Battery terminals,	Sufficient quantity
10 10	Log book, complaint book, all stationery like register, sheets, pen and pencil	Adequate quantity

**FORMAT OF DECLARATION FROM BIDDERS IN LIEU OF EMD
(On Bidders letter Head)**

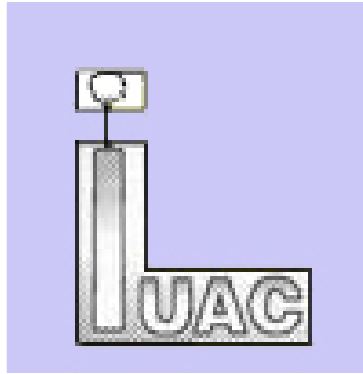
I /We, the authorized signatory of M/s
participating in the subject Tender No.for
the job of.....
....., do hereby declare:

i. that I / we have availed the benefit of waiver of EMD while submitting our offer against the subject Tender and No EMD being deposited for the said Tender.

ii. that in the event we withdraw / modify our bid during the period of validity OR I / we fail to execute formal contract agreement within the given timeline OR I / we fail to submit a performance security within the given timeline OR I / we commit any other breach of Tender Conditions / Contract which attracts penal action of forfeiture of EMD then I / we will be suspended from being eligible for bidding / award of all future contract (s) of Inter-University Accelerator Centre (IUAC) for a period of one year from the date of committing such breach.

Signature and seal of authorized signatory of bidder

Name of authorized signatory: _____



**INTER UNIVERSITY ACCELERATOR CENTRE (IUAC)
NEW DELHI**

TENDER NO: IUAC / NIT/05 / RK / 2021-22

**ROUND THE CLOCK OPERATION AND MAINTENANCE OF ELECTRICAL
INSTALLATIONS**

AT

INTER-UNIVERSITY ACCELERATOR CENTRE (IUAC)

PART-II (PRICE BID)

INTER-UNIVERSITY ACCELERATOR CENTRE (IUAC)

ARUNA ASAF ALI MARG

POST BOX NO. 10502

NEW DELHI – 110 067

SCHEDULE OF PRICES

PREAMBLE

This preamble is an integral part of the schedule of rates and definition and explanation given herein shall have as much force as though they are incorporated into the description of the items themselves in the schedule of rates.

Unless otherwise specifically stated in the contract, all items under the contract shall be covered and paid for in accordance with the items and relative rates mentioned in the schedule of rates.

The rates indicated against each item in the schedule of rates (annexure-XI) shall be for the complete works involved in execution of the item including all labour, materials, tools, tackles, transportation etc.

The bidders shall be deemed to have visited the site and studied the specifications and details of works to be done within the time schedule and to have acquainted him of the conditions prevailing at site.

Contractor shall engage sufficient number of personnel as may be required for effectively carrying out the jobs covered under the scope of tender in an efficient and prompt manner. Minimum personnel to be deployed by the contractor are given below. In case of absence of any personnel, amount shall be deducted by IUAC from the consolidated amount of quoted job as per penalty clause 3.10.

- 1 Supervisor/Site Engineer in general shift
- 2 Semi-skilled helper in general shift
- 2 Skilled electrician in each shifts (round the clock)

ABSTRACT OF PRICES

Name of the work: - Round The Clock Operation and Maintenance of Electrical Installations at Inter-University Accelerator Centre, New Delhi–110067

A) ANNEXURE- XI Monthly O&M Charges x12 months Rs.....

B) ANNEXURE- XII ADDITIONAL WORKS Rs.....

C) ANNEXURE- XII ADDITIONAL MANPOWER%

Total Amount (A+B) (Rs.).....

Amount in Words:

(Rupees.....
.....)

(Seal & Signature of Bidder)

ANNEXURE –XI

SCHEDULE OF PRICES FOR OPERATION & MAINTENANCE

**NAME OF WORK: ROUND THE CLOCK OPERATION AND MAINTENANCE
OF ELECTRICAL INSTALLATIONS AT INTER-UNIVERSITY
ACCELERATOR CENTRE (IUAC)
(TO BE FILLED BY BIDDERS)**

S. No.	Description of item	Monthly Total (In Rs.)
1	Total monthly charges for the Round the Clock Operation and Maintenance of Electrical Installations as per the minimum manpower given below, based on minimum wages w.e.f. 01/10/2020 in NCT Delhi. a) Site Engineer Cum Supervisor- 1 No. b) Electrician (Skilled category) - 8 Nos. c) Helper (Semi-skilled category) - 2 Nos.	20,430X1 = 20,430/- 18,797X8 = 1,50,376/- 17,069X2 = 34,138/- Total = 2,04,944/-
2	Monthly charges towards EPF amount (13% including Admn. Charges) on wages.	21,450/-
3	Monthly charges towards ESI amount (3.25%) on Item #1.	6,661/-
4	Monthly charges towards stationary & consumables as per clause no 3.11.1 & 3.11.2 of 'Special Conditions of Contract'.	
5	Monthly charges towards tools and tackles, safety shoes, uniform etc. as per clause no 3.11.3, 3.11.4 and 3.11.5 of 'Special Conditions of Contract'.	
6	Monthly amount of overhead and profit in Rupees. (Quote in % age is not allowed)	
7	Total Monthly Amount (In figures) Rs. Monthly Amount in words (Rs.....)	

Notes:

1. Goods & Services Tax (GST) extra as applicable. Reimbursement of GST shall be subjected to submission of documentary evidence of depositing the same to Govt. body.
2. Lowest bidder will be decided after adding annual amount from Annexure-XI and XII. However in case the lowest bidder so arrived is not found to be lowest for Annexure-XIII, IUAC may negotiate with the bidder to match his rates with the other bidder's lowest of Annexure-XIII.
3. **Manpower:** UAC reserves the right to increase or decrease the manpower as per requirements during the execution of the works.

(Seal & Signature of Bidder)

ANNEXURE –XII
SCHEDULE OF PRICES FOR ADDITIONAL MINOR WORKS

**NAME OF WORK: ROUND THE CLOCK OPERATION AND MAINTENANCE
OF ELECTRICAL INSTALLATIONS AT INTER UNIVERSITY ACCELERATOR
CENTRE (IUAC)**

(TO BE FILLED BY BIDDERS)

S. No.	Work Details	Qty Approx.	Unit Rate	Total (in Rs.)
1.	Dehydration of Transformer oil	7564 liters		
2.	Servicing of Oil Circuit Breakers (GEC Make, 440-630A, 350MVA) as per Annexure -VII	7 Nos.		
3.	Servicing of Vacuum Circuit Breakers (Alstom Make, 440-630A, 350MVA) as per manufacturers practice.	4 Nos.		
4.	Servicing of Air Circuit Breakers (EE /ABB Make, 800-1600A range) as per Annexure – VII.	40 Nos.		
5.	Testing & Calibration of O/C and E/F relays.	50 elements		
6.	Rewinding- up to 1400 mm ceiling fan and up to 450 mm exhaust fan.	20 Nos.		
7.	Replacement of shaft/bearings/bushes/greasing etc. for up to 1400mm ceiling fan and up to 450 mm exhaust fan.	10 Nos.		
8	Testing of earth electrode for its earth resistance and submission of report.	100 Nos.		
	Total			

Notes:

- Quantities mentioned in Annexure-XII are only for the comparison sake and actual quantity may vary.
- Lowest bidder will be decided after adding annual amount from Annexure-XI and XII. However In case the lowest bidder so arrived is not found to be lowest for Annexure-XIII, IUAC may negotiate with the bidder to match his rates with the other bidder's lowest of Annexure-XIII.
- All Applicable taxes shall be paid extra.

(Seal & Signature of Bidder)

ANNEXURE –XIII
SCHEDULE OF PRICES FOR ADDITIONAL MANPOWER

**NAME OF WORK: ROUND THE CLOCK OPERATION AND MAINTENANCE
OF ELECTRICAL INSTALLATIONS AT INTER-UNIVERSITY
ACCELERATOR CENTRE (IUAC)**

(TO BE FILLED BY BIDDERS)

S. No.	Work Details	% (To be filled by bidders)
1.	Extra % over the prevailing minimum wages for additional manpower if IUAC requests for carrying out works which are not covered in the scope of operation & maintenance works.	

Note:-

- 1. Extra % quoted by contractor should include all the factors over and above prevailing minimum wages (e.g. all types of taxes, contractors overhead and profits etc.). Contractor shall be paid prevailing minimum wages and the quoted extra %age only. Nothing over and above this workout shall be paid.**

(Seal & Signature of Bidder)