



आरोग्यम् सुख सम्पदा

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, RAIPUR

OFFICE OF THE
EXECUTIVE ENGINEER
PROJECT CELL AIIMS, RAIPUR

DRAFT NOTICE INVITING e-TENDER

N.I.T. NO. 45/EE/AIIMS/RPR/2023-24

NAME OF WORK : Operation & Maintenance of 33/11 KV, 11/0.433 KV Electrical Substations and 6x 2000 KVA HT DG Set with Electrical Installations at AIIMS Campus Raipur.

ESTIMATED COST : Rs. 1,82,24,468.00

EARNEST MONEY : Rs. 3,65,000.00

CONTRACT PERIOD : 12 Months

TYPE OF WORK : Maintenance

**e-sign by Prashant Kumar Ravi
Executive Engineer
AIIMS, Raipur**

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INSTRUCTIONS FOR ONLINE BID SUBMISSION

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. 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>**.

REGISTRATION:

- 1) Bidders are required to enrol 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 Enrolment” on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username 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) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify/nCode /eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC’s to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

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 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 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 / RAR / DWF/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.

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) Bidder has to select the payment option as “offline” to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- 5) 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 filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

- 7) 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.
- 8) The documents being submitted by the bidders would be encrypted using PKI encryption all 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.
- 9) Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 10) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 11) Upon the successful and timely submission of bids (i.e. 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.
- 12) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

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 Helpdesk number 0120-4200462, 0120-4001002.
- 3) For any further assistance, please contact to the office of Executive Engineer, AIIMS Raipur.

NOTICE INVITING e-TENDER

(a)	Name of Work	“Operation & Maintenance of 33/11 KV, 11/0.433 KV Electrical Substations and 6x 2000 KVA HT DG Set with Electrical Installations at AIIMS Campus Raipur”
(b)	Tender No.	45/EE/AIIMS/RPR/2023-24
(c)	Contract Period	12 Months
(d)	Estimated Cost	Rs. 1,82,24,468.00
(e)	Earnest Money Deposit (Mandatory to submit original EMD for participating in Bid and no need to submit hard copy of whole tender document)	Rs. 3,65,000.00 (to be submitted in the form of an account payee demand draft, fixed deposit receipt from a commercial bank, bank guarantee issued/ confirmed from any of the commercial bank in India in favour of AIIMS, Raipur in the office of Project cell, AIIMS, Raipur before the last date of opening of technical Bid.
(f)	Performance Guarantee	3% of Tendered value.
(g)	Security Deposit	2.5% of the Tendered Value.
(h)	Tender documents may be seen on	AIIMS web site www.aiimsraipur.edu.in and CPPP site https://eprocure.gov.in/eprocure/app
(j)	Last Date &Time of Submission	By 11.12.2023 UP TO 15:00 Hours through online.
(k)	Date & Time for opening of Technical Bid	On 12.12.2023 at 15:30 Hours.

1. The intending Bidder must read the Terms & conditions carefully. He/ She should only submit bid if consider himself/herself eligible and bidder in possession of all the documents required.
2. Information and Instructions for bidders posted on website shall form part of bid document.
3. The Bid documents consisting of specifications, the schedule of quantities of various types of items to be executed and the set of terms & conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.aiimsraipur.edu.in Or <https://eprocure.gov.in/eprocure/app>.

**Executive Engineer
AIIMS, Raipur**

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR e-TENDERING

The Executive Engineer, AIIMS, Raipur on behalf of Director, AIIMS, Raipur invites online **Percentage Rate/ Item-Rate bids in Two bid system (Technical cum Eligibility & Financial)** from eligible and registered contractors of appropriate list of CPWD /M.E.S. /BSNL (Construction) /Railway /C.G. P.W.D/ Chhattisgarh State Electricity board for the following work(s):-

Sl. No.	Description	Details
(a)	NIT No.	45/EE/AIIMS/RPR/2023-24
(b)	Name of Work:	“Operation & Maintenance of 33/11 KV, 11/0.433 KV Electrical Substations and 6x 2000 KVA HT DG Set with Electrical Installations at AIIMS Campus Raipur”
(c)	Estimated Cost	Rs. 1,82,24,468.00
(d)	Earnest Money Deposit (Mandatory to submit original EMD for participating in Bid and no need to submit hard copy of whole tender document)	Rs. 3,65,000.00 (to be submitted in the form of an account payee demand draft/ fixed deposit receipt from a commercial bank/ bank guarantee issued/confirmed from any of the commercial bank in India in favour of AIIMS, Raipur in the office of Project cell, AIIMS, Raipur before the last date of opening of technical Bid.)
(e)	Period of Completion	12 Months
(f)	Last Date & Time of Submission	By 11.12.2023 UP TO 15:00 Hours through online.
(g)	Date & Time for opening of Technical Bid	On 12.12.2023 at 15:30 Hours.

1. The intending bidder must read the terms and conditions of Tender document carefully. Bidder may submit bid having all required documents.
2. Intending bidders shall have to register at CPPP portal to participate in the tendering process. For details kindly visit website [http:// eprocure.gov.in/eprocure/app](http://eprocure.gov.in/eprocure/app) or In case the bidder requires any elucidation regarding the tender documents, may contact to the office of Project Cell, AIIMS Raipur before the opening of tender date.
3. For e-tendering of this tender, downloaded from AIIMS Raipur website and Central Public Procurement Portal (CPPP) e-Procurement website.
4. The intending bidders must have valid class-III digital signature to submit the bid. **Manual bid shall not be accepted in any circumstance**. The complete bidding process is online bidding; Bidder should have valid digital Signature Certificate (DSC) for online submission of bids.
5. The bid document consisting of 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 [http:// eprocure.gov.in/eprocure/app](http://eprocure.gov.in/eprocure/app) free of cost.

6. The bid can be submitted only after uploading the mandatory scanned documents up to 100 dpi Copies of eligibility documents and EMD as specified on the e-tendering website within the period of tender submission. Bidders can upload documents in the form of JPG format, PDF format and any other format as permissible by the e-tendering portal.
7. *Bidders must ensure to quote rate of each item. If any cell is left blank the same shall be treated as "0". Therefore, If any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0"(ZERO). After submission of the bid online the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.*
8. After submission of bid online, it can be revised any number of times before specified time on last date of submission of bid. *While submitting the revised bid, bidder can revise the rate of one or more item(s) any number of times (need not re-enter rate of all the items) but before last time and date of submission of bid as notified.*
9. Financial bids shall be opened online only for bidders for whom EMD and other uploaded documents are found in order and who are found to be eligible to bid for work. On opening date, the bidder can log in and see the bid opening process. After opening of bid he/she will receive the competitor bid sheets.
10. If the bidder is found ineligible after opening of technical cum eligibility, bid shall become invalid.
11. **The Bidders shall have to submit original instrument for EMD before the last date of opening of TECHNICAL cum Eligibility Bid to the office of Tender Opening Authority. Bid security will be refunded to the successful bidder on receipt of a performance security. Bid securities of the unsuccessful bidders should be returned at the earliest after L1 decided by Committee of AIIMS Raipur.**
12. The Technical cum Eligibility bid shall be opened first on due date and time as mentioned above. Opening of financial bids of contractors qualifying the eligibility shall be opened at a later date.
13. 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 criteria.
14. **Performance Guarantee:** The successful contractor will be required to furnish a Performance guarantee of **3% (Three Percent)** of Tendered Value after receiving notification of award in the form of **an account payee demand draft, fixed deposit receipt from a commercial bank, bank guarantee issued/ confirmed from any of the commercial bank in India** in the name of the "All India Institute of Medical Sciences, Raipur" which shall be kept valid for a period of 6 months beyond completion of all the contractual obligations. The Performance Guarantee can be forfeited in the event of any breach or negligence or non-observance of any condition of contract or for unsatisfactory performance or non-observance of any condition of the contract. Performance Security will be released after successful completion of work under the contract. *In case the contractor fails to deposit the said performance guarantee within the period including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with tender shall be returned after receiving the aforesaid performance guarantee.*

15. Sources and Verification of Bank Guarantees

Bank Guarantee for Bid Security (EMD), Performance Guarantee, Security Deposit should be irrevocable and operative Bank Guarantee (BG) as per format enclosed in the Bid Document and should be issued by a Scheduled Commercial (i.e. Indian or Foreign Banks included in the Second Schedule of Reserve Bank of India Act, 1934 excluding Co-operative banks or Regional

Rural Banks). ~~In case of foreign bidders or in case of GTE, if Bank Guarantee is from a foreign bank branch situated outside India, the Bank Guarantee must be issued through any of the Scheduled Commercial Bank. In case BG is issued directly by a bank outside India, it should be executed on letter Head of the Bank and should be advised and made payable through their Indian Branch/Corresponding Bank in India.~~ The Issuing Bank should also state the name and designation of the next Higher Authority of the Officials who have issued the Bank Guarantee. Bank guarantees submitted by the tenderers/ contractors as EMD/ performance securities need to be immediately verified from the issuing bank **before acceptance**. There may not be any need to get the Bank Guarantee vetted from legal/ finance authority if it is in the specified format. Guidelines for verification of BGs submitted by the bidders/ contractors against EMD/ performance security/ advance payments and for various other purposes are as follows:

- i) BG shall be as per the prescribed formats;
 - ii) The BG contains the name, designation and code number of the Bank officer(s) signing the guarantee(s);
 - iii) The address and other details (including telephone no.) of the controlling officer of the bank are obtained from the branch of the bank issuing the BG (this should be included in all BGs). The confirmation from the issuing branch of the bank is obtained in writing through registered post/ speed post/ courier. The bank should be advised to confirm the issuance of the BGs specifically quoting the letter of Procurement Entity on the printed official letterhead of the bank indicating address and other details (including telephone nos.) of the bank and the name, designation and code number of the officer(s) confirming the issuance of the BG; Pending receipt of confirmation as above, confirmation can also be obtained with the help of responsible officer at the field office, which is close to the issuing branch of the bank, who should personally obtain the confirmation from issuing branch of the bank and forward the confirmation report to the concerned procurement entity.
- 16.** Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost, all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions.
- 17.** *The Tender paper/documents can be seen / downloaded from Official website & submitted through Online or Site.*
- 18.** The competent authority on behalf of the Director, AIIMS, Raipur does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.
- 19.** Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable to rejection.
- 20.** The Competent Authority, the **Engineer-In-Charge**, reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.

- 21.** The contractor shall not be permitted to bid for works in the AIIMS, Raipur responsible for award and execution of contracts, in which his near relative is posted as an officer in any capacity between the grades of Executive Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazette officer in the AIIMS, Raipur. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.
- 22.** The bid for the works shall remain open for acceptance for a period of **90 days** from the date of opening of bids.
- 23.** This notice inviting bid shall form a part of the contract document. The successful bidder/ contractor, on acceptance of his bid by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of “The Notice Inviting bid, all the documents including additional conditions, specifications and drawings, GCC, if any, forming part of the bid as uploaded at the time of invitation of bid and rate quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
- 24.** Purchase preference shall be given to Class-I local supplier(s) based on their declaration of the percentage (%) of minimum local content used in the manufacturing of quoted product as per Public Procurement (Preference to make in India), Order 2017 notification issued by GoI, Ministry of Commerce and Industry, Department of Industrial Policy and Promotion (DIPP) vide order no. P-45021/2/2017-PP (BE-II) dated 15/06/2017 and order no. 31026/65/2020-MD dated 30/12/2020 issued by Ministry of Chemicals & Fertilizers, Department of Pharmaceuticals

“Local Content” means the amount of value added in India which shall be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

- 25.** It is expected that, all the participating BIDDER companies have understanding and prior knowledge about the “Make in India” Initiative and Price Preference Policy of Govt. of India. However, it is once again emphasized that before participating this e-tender please carefully read the “Make in India” Initiative and directives of Govt. of India, since in case if any “Make in India” Registered Company will participate against this e-tender, the Price preference as per the same will be given to such participating Bidder company for ensuring necessary compliances of “Make in India” Policy of the Govt. of India.
- 26. Eligibility of Bidder**

(a) **Minimum Eligibility Criteria :**

- (i) The Applicant should be registered contractors of appropriate list of CPWD /M.E.S. /BSNL (Construction) /Railway /C.G. P.W.D/ Chhattisgarh State Electricity board.
- (ii) Average annual financial turnover on construction works should be at least 30% of the estimated cost put to tender during the immediate last three consecutive financial years. The value of annual turnover figures shall be brought to current value by enhancing the actual turnover figures at simple rate of 7% per annum

- (iii) Experience of having successfully completed similar work in Govt./ Semi Govt./ PSU/ Autonomous Bodies of Govt. during last 7 years ending on previous day of last day of submission of tender. The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to previous day of last day of submission of tenders.

Three similar* works each of value not less than 40% of the estimated cost put to tender

OR

Two similar* works each of value not less than 60% of the estimated cost put to Tender

OR

One similar* work of value not less than 80% of the estimated cost put to tender

* “Similar Works” means **Operation and Maintenance Work of Electrical substation preferably HT 11 KV or above / Installation and Erection work of HT substation.**

(b) Bid Capacity and Technical Eligibility Criteria:

- (i) The bidder who comply with the above Minimum Eligibility Criteria will be eligible further for consideration of bid(s) only if their available bid capacity is more than the Estimated Cost Put To Tender for the work mentioned in this Notice Inviting Tender.

The available bid capacity shall be calculated as under:

Assessed available Bid Capacity = $(A*N*1.5-B)$

Where

‘N’ = Number of years prescribed for completion of work for which bid has been invited.

‘A’ = Maximum turnover in construction works executed in any one year during the last seven years taking into account the completed as well as works in progress. The value of completed works shall be brought to current costing level by enhancing at a simple rate of 7% per annum

‘B’= Value of existing commitment and ongoing works to be completed

The values for

A= Computed for the Bidder from **Performa-III**

N= No. of years for “Period of Completion” for work for which NIT is invited.

B= Computed for the Bidder from **Performa-VI**

Bidder shall submit details of ongoing works as per **Performa-III and Performa-VI**

- (i) For the Contractors to whom any work(s) in AIIMS Raipur is awarded and in progress, prior to Opening of Financial Bid, a Monthly Performance Report for contractors will be prepared by the Engineer-in Charge to ascertain their performance to complete any additional work in AIIMS Raipur within Stipulated Time of completion of work or Extended Time of completion of work (if any). Any adverse remark in the Monthly Performance Report for contractor shall result in rejection of Technical Bid of such contractor for this NIT. This criteria for Technical Eligibility of Bidder may be relaxed in the case of contractor whose performance has been found to be very high order with the approval of Director, AIIMS Raipur.

(c) Contractual Performance in Other Departments

Letter of past contractual performance to be submitted by bidder as per **Performa -VII**

Signing of bid document:

- a. If the bidder is an individual, the bid shall be signed by him above his full type written name and current address.

- b. If the bidder is a proprietary firm, the bid shall be signed by the proprietor above his full type written name and the full name of his firm with its current address.
- c. If the bidder is a firm in partnership, the bid shall be signed by all the partners of the firm above their full type written names and current addresses, or, alternatively, by a partner holding power of attorney for the firm. In the later case a certified copy of the power of attorney should accompany the application. In both cases a certified copy of the partnership deed and current address of all the partners of the firm should accompany the application.
- d. If the bidder is a limited company or a corporation, the bid shall be signed by a duly authorized person holding power of attorney for signing the application accompanied by a copy of the power of attorney. The bidder should also furnish a copy of the Memorandum of Articles of Association duly attested by a Public Notary.

27. In the bid documents the word / sentence shall be read as under :-

- a. President of India – Director, AIIMS, Raipur**
- b. The terms Director General includes CPM/ADG region/ SDG PR Special Director General / Additional Director General and CPM/ Chief Engineer of the Zone - Director/Executive Engineer/Executive Engineer, AIIMS, Raipur.**
- c. CPWD – AIIMS Raipur.**

28. Any dispute or difference arising out of this contract or in connection therewith which cannot be amicably settled between the parties shall be finally settled under the rules of council of Arbitration of India by one or more arbitrator appointed in accordance with the said rules. The arbitration shall take place at Raipur (Chhattisgarh) and the resulting award shall be final and binding upon the parties and shall be in lieu of any other remedy.

List of Mandatory Documents to be filled in by the bidders in various forms to be scanned and uploaded within the period of bid submission

1	Enlistment Order for the Contractor
2	Scanned Copy of EMD (Original to be submitted as mentioned in Information and Instructions for Bidders for e-Tendering)
3	Letter of transmittal (Annexure-A)
4	Vendor Details as per (Annexure-B)
5	Structure & Organization (Annexure-C)
6	Declaration by Bidder (Annexure-D)
7	Consent Letter (Annexure-E)
8	Self-Certification under Preference to "MAKE IN INDIA" Policy (Annexure -F)
9	GST Registration Certificate
10	Proof of Average Annual Financial Turnover on construction works should be at least 30% of the estimated cost put to tender during the immediate last three consecutive financial years (Proforma III)
11	Details of The Similar Works Completed In Last Seven Years (Performa-IV)
12	Details of ongoing/existing works (Proforma-VI)
13	Affidavit on non-judicial paper of Rs. 50/- duly attested by Notary/ Magistrate for PAST CONTRACTUAL PERFORMANCE (Proforma-VII)
14	Valid Electrical Contractor License

e-sign by Prashant Kumar Ravi
Executive Engineer
AIIMS, Raipur

LETTER OF TRANSMITTAL

From:

To

The Executive Engineer,
Project Cell, AIIMS, Raipur (C.G.)

Subject: Submission of bids for the work of “**Operation & Maintenance of 33/11 KV, 11/0.433 KV Electrical Substations and 6x 2000 KVA HT DG Set with Electrical Installations at AIIMS Campus Raipur**”

Sir,

Having examined the details given in the bid document for the above work, I/we hereby submit the relevant information.

1. I/we hereby certify that all the statement made and information supplied in the enclosed forms A to F and accompanying statement are true and correct.
2. I/we have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
3. I/we authorize Engineer-In-Charge or his representative to approach individuals, employers, firms and corporation to verify our competence and general reputation.

Certificate: It is certified that the information given in the enclosed eligibility bid are correct. It is also certified that I / We shall be liable to be debarred, disqualified / cancellation of enlistment in case any information furnished by me / us is found to be incorrect.

Enclosures:

Date of submission:

Signature(s) of Bidder(s)
Seal of bidder

FORM FOR DETAILED INFORMATION BY BIDDER (Vendor Details)

1.	Name of the Bidder	
2.	Permanent Account No (PAN)	
3.	Particulars of Bank Account	
	a) Name of the Bank	
	b) Account Number	
	c) Name of the Branch	
	d) Branch Code	
	e) Address	
	f) City Name	
	g) Telephone No	
4.	Legal status of the bidder (attach copies of original document defining the legal status)	
	a) An Individual	
	b) A proprietary firm	
	c) A firm in partnership	
	d) A limited company or Corporation	
5.	GST Registration Certificate No	
6.	Valid Email ID of the Bidder	
7.	Complete Postal Address of the bidder	

(Authorized Signature of the Bidder with Seal)

STRUCTURE & ORGANISATION

1. (a) Name

(b) Address of the bidder
2. (a) Telephone no.

(b) Telex no.

(c) Fax no.

(d) E-mail
3. Legal status of the bidder (attach copies of original document defining the legal status)
 - (a) An Individual
 - (b) A proprietary firm
 - (c) A firm in partnership
 - (d) A limited company or Corporation
4. Particulars of registration with various Government Bodies if any (attach attested photocopy)

Organization/Place of registration	Registration No.
1.	
2.	
3.	
5. Names and titles of Directors & Officers with designation to be concerned with this work.

Signature of Bidder(s) with Seal

DECLARATION

It is to certify that:

- 1) I/We agree with the terms and conditions of it and understood that it will form part of the agreement.
- 2) I hereby certify that none of my Relative(s) are employed in AIIMS Raipur, Chhattisgarh. In case at any stage, it is found that the information given by me is false/incorrect, AIIMS shall have the absolute right to take any action as deemed fit without any prior intimation to me”.
- 3) I/We undertake and confirm that eligible Work(s) has/have not been got executed through another contractor on back to back basis. Further, it is stated that, if such a violation comes to the notice of Department, than I/We shall be debarred for bidding in AIIMS in future forever. Also, if such a violation comes to the notice of AIIMS, Raipur before date of start of work, the Engineer-In-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.
- 4) I / We have signed (with stamp) uploaded documents of the tender before submitting the same.
- 5) All the information and documents given/ uploaded for bids are true.
- 6) I / We have provided our e-Mail id for any communication in this regard.
- 7) I have read carefully & understood the important instructions to the all bidders.

Date.....

Contractor

E-Mail: _____

(Sign with Seal)

CONSENT LETTER

“Operation & Maintenance of 33/11 KV, 11/0.433 KV Electrical Substations and 6x 2000 KVA HT DG Set with Electrical Installations at AIIMS Campus Raipur”

I/We hereby give my/ our consent to work as contractor till the completion of work and I/we will be responsible for execution of work only by skilled persons in the field of **related work** as per satisfaction of Engineer-In-Charge.

I/We have experience to technically execute, take measurements and will produce computerized measurement sheets of work before covering hidden work / job and other exposed works in time as per clause 6 otherwise measurements will be recorded by the representative of Engineer-In-Charge which will be bound to me. Final measurement with bill will be produced by me/us within one month after completion date otherwise representative of Engineer-In-Charge will prepare the same which will be acceptable and bound to me/us and no any claim in this regard will be made by me/us.

I/We will provide all invoices and related test certificates of materials as required by E-In-C. All Analysis of rates for Extra, Deviation items etc. will be produced by me/us in consultation with representative of Engineer-In- Charge on time for getting approval from Competent Authority of AIIMS before execution of work or otherwise the same will be prepared by the department and will be bound to me/us.

I/we will also engage suitable and skill Engineer(s) for the work as per Clause 32 of General Condition of Contract.

I further certify that the above particulars pertaining to me are correct.

I/We will produce all uploaded documents in original for physical verification before issue of Letter of Acceptance or / and as demanded by Engineer-In Charge before the payment.

I/We will submit “No Claim Certificate” in the approved format in company letter head after receiving final bill payment.

Signature of contractor with seal

Self-Certification under Preference to “MAKE IN INDIA” Policy

CERTIFICATE

In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15/06/2017, its revision dated 04/06/2020 and any subsequent modifications/Amendments from time to time and as applicable on the date of submission of tender, we hereby certify that we _____
(Name of Contractor/Firm/ Agency) are local **Contractors and will meet** the requirement of minimum Local content (50%) as defined in above orders for the material against Tender No _____, **if selected as Lowest Bidder**

~~Details of location at which local value addition will be made is as follows:~~

The information furnished hereinafter is correct to the best of my knowledge and belief and I undertake to produce relevant records before the procuring entity or any other Government authority for the purpose of assessing the local content of goods/services/works supplied by me.

In the event of the local content of the goods/services/works mentioned herein is found to be incorrect and not meeting the prescribed supplier class categorization criteria as per said order, based on the assessment of procuring agency(ies)/Government Authorities for the purpose of assessing the local content, action shall be taken against me in line with the PPP-MII order and provisions of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rule for which for which a bidder or its successors can be debarred for up two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

Thanking You

Seal and Signature of Authorized Signatory

Date: _____

ANNUAL TURNOVER FOR THE LAST THREE YEARS

S. No.	FINANCIAL YEAR	Annual Turnover from Construction Works (Rs. in Lacs)	Remarks
1	2020-21		
2	2021-22		
3	2022-23		

Note:

1 The bidder shall submit the Certificate from the Chartered Accountant, wherever the Annual Turnover is certified for the relevant financial year in which the minimum criteria of Annual Turnover is satisfied should also be submitted.

DETAILS OF THE SIMILAR WORKS COMPLETED IN LAST SEVEN YEARS

Sl. No.	Description of the work with Contract No./ Work Order No.	Department in which work carried out	Date of award	Stipulated date of completion	Date of actual completion	Value of completed work (Rs. in Lacs)	Reasons for delays, Penalty if any	Any other relevant information

Note:

1. The Bidder shall submit the attested Copies of the Completion Certificates from the Client i.e. Department(s) of Govt./Semi Govt./PSU/Autonomous Bodies of Govt..

DETAILS OF ON-GOING/EXISTING WORKS

Sl. No.	Description of The Work With Contract No./ Work Order No.	Department in which work is awarded	Date of award	Stipulated date of completion	Value Of work as per order (Rs. in lacs)	Value of Work completed so far (Rs. In lacs)	Anticipated date of Completion of work	Any other Relevant information

Note:

1. The copies of Work Orders of ongoing-awarded works and documentary proof for payment issued by the Client i.e. Department(s) of Govt./Semi Govt./PSU/Autonomous Bodies of Govt. shall be attached

PAST CONTRACTUAL PERFORMANCE

(Affidavit on non-judicial stamp paper of Rs.50/- duly attested by Notary/Magistrate)

This is to certify that We, M/s _____ [Name of the Bidder with address], in submission of the Bid "(Name of the Work and NIT No.)":

- i) have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements;
- ii) do not have records of poor performance such as abandoning the work, not properly completing the contract, inordinate delays in completion, litigation history or financial failures etc.;
- iii) have never been banned by any Central/State Govt. Departments/Public Sector Undertakings or Enterprises or Autonomous Bodies of Central/State Govt.;
- iv) have submitted all the supporting documents and furnished the relevant details as per the prescribed format.; and
- v) have submitted all the information and the requisite documents with the Bid and further certify that we are fully responsible for the correctness of the information and documents submitted by us.

SEAL AND SIGNATURE OF THE BIDDER

Note: Exceptions of the above, if any, shall be clearly mentioned with details by the bidder for evaluation/consideration if any.

CONSENT LETTER FROM ELIGIBLE ASSOCIATE AGENCY OF SPECIALIZED WORK(S)

Name of work: **“Supply, Installation, Testing and Commissioning of Cooling Tower (01 Nos) at Medical College AIIMS Raipur.”**

- ~~1. I / We hereby give my consent to associate with M/s, for executing the of work of (Mention specialized work(s)).~~
- ~~2. I / We will execute the work as per specifications and conditions of the agreement and as per directions of the Engineer in Charge for the corresponding specialized work(s) till the completion of the work.~~
- ~~3. I / We will be responsible for necessary action to handover the installations and for rectification of defects and repair during the maintenance / warranty period.~~
- ~~4. Also I / We will employ full time technically qualified Engineer / supervisor for the specialized work(s) component of the work as required for the work. I / We will attend inspection of officers of the department as and when required.~~

Date:

~~Signature with date of Main Agency /Contractor~~

~~Address:~~

~~Signature with date of Associate Specialized Agency~~

~~Address:~~

~~1. Witness with address~~

~~—(From main contractor side)~~

~~2. Witness with address~~

~~—(From associated agency side)~~

MEMORANDUM OF UNDERSTANDING [M.O.U] BETWEEN

1] M/S [Name of the firm/agency with full address]

—Enlistment Status

—Valid Upto:

—[Henceforth called the main contractor]

—And

2] M/S [Name of the firm/agency with full address]

—Enlistment Status

—Valid Upto:

—[Henceforth, called AssociatedspecializedAgency]

For the execution of Specialized Works : **“Operation & Maintenance of 33/11 KV, 11/0.433 KV Electrical Substations and 6x 2000 KVA HT DG Set with Electrical Installations at AIIMS Campus Raipur.”**

We state that M.O.U between us will be treated as an agreement and has legality as per Indian Contract Act [amended upto date] and the department [AIIMS] can enforce all the terms and conditions of the agreement for execution of the above work. Both of us shall be responsible for the execution of work as per the agreement to the extent this MOU allows. Both the parties shall be paid consequent to the execution as per agreement to the extent this MOU permits.

In case of any dispute, either of us will go for mediation by the EE , AIIMS, Raipur, Any of us may appeal against the mediation to the Director, AIIMS, Raipur. His decision shall be final and binding on both of us. We have agreed as under:

1] The associated specialized agency will execute all specialized work(s) in the wholesome manner as per terms and conditions of the agreement and as per the direction of the Engineer in charge.

2] That the Associated specialized agency has gone through the contract and has understood the scope of work required for the purpose of executing the specialized work(s).

3] All the machinery and equipments, tools and plants, special T&P required for execution of the specialized work(s), as per agreement, shall be the responsibility of the associated specialized agency.

4] The site staff required for the specialized work(s) shall be arranged by the associated specialized agency as per terms and conditions of the agreement.

5] Site order book maintained for the said work shall be signed by the authorized representative of main contractor as well as Associated specialized Agency.

~~6) All the correspondence regarding execution of the specialized work(s) shall be done by the Department with the Associated specialized agency with a copy to the main contractor.~~

~~In case of non-compliance of the provisions of agreement, the main contractor, as well as the associated agency shall be responsible.~~

~~The action under clauses 2 and 3 shall be initiated and taken against the main contractor.~~

~~SIGNATURE OF MAIN CONTRACTOR SIGNATURE OF ASSOCIATED SPECIALIZED AGENCY.~~

Date:

Place



ALL INDIA INSTITUTE OF MEDICAL SCIENCE RAIPUR
Percentage Rate Tender/ ~~Item Rate Tender~~ & Contract for Works

Tender for the work of: **“Operation & Maintenance of 33/11 KV, 11/0.433 KV Electrical Substations and 6x 2000 KVA HT DG Set with Electrical Installations at AIIMS Campus Raipur”**

e- T E N D E R

I/We have read and examined the notice inviting tender, schedule, A,B,C,D,E & F, specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the AIIMS Raipur within the time specified in Schedule 'F', viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respects in accordance with, such conditions so far as applicable.

I/We agree to keep the tender open for **Ninety (90) days** from the due date of opening of financial bid and not to make any modification in its terms and conditions.

A sum of **Rs. 3,65,000.00** is hereby forwarded in Receipt Treasury Challan/ Deposit at Call Receipt of a Scheduled Bank/ Fixed Deposit Receipts of a Scheduled Bank/ Demand Draft of a Scheduled Bank/ Bank Guarantee issued by a Scheduled Bank as earnest money. A copy of the earnest money in Receipt Treasury Challan/ Deposit at Call Receipt of a Scheduled Bank/ Fixed Deposit Receipts of a Scheduled Bank/ Demand Draft of a Scheduled Bank/ Bank Guarantee issued by a Scheduled Bank is submitted with tender. If I/We, fail to furnish the prescribed performance guarantee within prescribed tender, I/we agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that President of India or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the General Conditions of Contracts (CPWD). Further, I/we agree that in case of forfeiture of earnest money or performance guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has / have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for tendering in AIIMS Raipur in future for

period as per decision of Engineer-in-Charge. Also, if such a violation comes to the notice of Department before date of start of work, The Engineer – in – Charge shall be free to forfeit the entire amount of Earnest Money Deposited / Performance Guarantee.

I/We hereby declare that I/we shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived therefrom to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Dated #.....

Signature of Contractor#
Postal Address#

Witness : #

e-Mail id#

Address: #

Occupation: #
applicable

To be filled in by the contractor/witness as

ACCEPTANCE

The above tender (as modified vide letters mentioned hereunder) is accepted by me for and on behalf of the AIIMS Raipur for a sum of ₹. _____*

(Rupees _____*)

The letters referred to below shall form part of this contract Agreement:-

a) _____*

b) _____

c) _____

For & on behalf of the AIIMS Raipur.

Signature.....

Dated

Designation.....

GENERAL PARTICULAR & ADDITIONAL CONDITIONS OF CONTRACT

A. GENERAL CONDITIONS

Name of Work: **“Operation & Maintenance of 33/11 KV, 11/0.433 KV Electrical Substations and 6x 2000 KVA HT DG Set with Electrical Installations at AIIMS Campus Raipur”**

1. For all items of **Civil/Electrical/AC&R**;- CPWD specifications with up to date correction slips up to receipt of tender shall be followed. For the items which are not covered under CPWD Specifications; B.I.S. specifications shall apply. In this regard the decision of Engineer-in-charge shall be final.
2. Wherever any reference is made of any Indian Standard, it shall be taken as reference to the latest edition with all amendments/ revision issued thereto up to the date of receipt of tenders.
3. Unless otherwise specified, the agreement rates for all items of work of the schedule of quantities are for all heights, depths, leads and lifts involved in the execution of work.
4. Other agencies working at site will also simultaneously execute the work entrusted to them and the contractor shall offer necessary co-operation wherever required to other agencies.
5. On account of security consideration, there could be some restrictions on the working hours, movement of vehicles for transportation of materials. The contractor shall be bound to follow all such restrictions and adjust the program for execution accordingly, for which nothing extra shall be paid.
6. The work shall be carried out in a manner complying in all respects with the requirements of relevant bye laws of the local bodies, Labour Laws, minimum wages act, workmen compensation act and other statutory laws enacted by Central Govt. as well as State Govt.
7. All malba/ rubbish/ silt/ waste, garbage etc. generated due to any operation from buildings/ houses/ hostels and other open spaces whatsoever shall be disposed off on daily basis by the contractor to the specified common disposal point. After the collection of full truck load of the said malba (approx. 4.5 cubic meters), the same shall be disposed off by the contractor to the authorized municipal dumping ground and nothing extra shall be paid on this account. In case of non- removal/disposal in the specified period, the same would be disposed at risk & cost of contractor.
8. No residential accommodation shall be provided to any of the staff engaged by the contractor. The contractor shall not be allowed to erect any temporary set up for staff in the campus.
9. No claims of the labours shall be entertained by the Department including that of providing employment, regularization of services etc.
10. All required register will be issued by Engineer-in-Charge/Executive Engineer duly marked in chronological order but the contractor will have to arrange all such registers/stationery etc. Nothing extra shall be paid on this account.
11. All T&P, scaffoldings, ladders/Hydra etc, instruments/meters for Construction, consumable and Contingent Articles required for execution of the work shall be arranged by the contractor.
12. The contractor shall make all safety arrangement required for the labour engaged by him at his own cost. All consequences due to negligence or due to lapse of security/safety or otherwise

- shall remain with the contractor. The department shall not be responsible for any mishap, injury, accident or death of the contractor's staff. No claim in this regard shall be entertained / accepted by the department. Also Contractor is responsible to the damage caused to any man/material other than his team during execution and AIIMS will not be responsible for that.
13. Contractor shall be fully responsible for any damages caused to govt. property or allotter's property by his or his labor in carrying out the work and shall be rectified by the contractor at his own cost.
 14. GST and other Taxes as applicable shall be recovered/ paid from the contractor's bill as per Govt. of India/AIIMS Rules.
 15. Chases, holes & drilling works etc. shall be done using power operated tools in the cost of Contract. No extra will be paid for the same.
 16. The agency shall restore back the premises and other articles provided by the department to the department at the time of closure of the contract.
 17. In the case of discrepancy between the schedule of quantities, the Specifications and/or the Drawings, the following order of preference shall be observed :-
 - a) Description of schedule of quantities.
 - b) Additional specifications and special conditions, if any.
 - c) Contract clauses of General conditions of contract for Central P.W.D. works. (iv) CPWD specifications.
 - d) Architectural drawings.
 - e) Indian standards specifications/ BIS. (vii) Sound engineering practice. Any reference made to any Indian standards specifications in these documents, shall imply to the latest version of that standard, including such revisions/amendments as issued by the Bureau of Indian Standards up to last date of receipt of tenders. The contractor shall keep at his own cost all such publications of relevant Indian Standards applicable to the work at site.
 18. The contractor and /or his authorized agent should see the site order book every day and get the compliance of instruction given by the JE/AE/Engineer-in-charge (E-I/C) as per time schedule.
 19. The contractor will not pitch up tents for laborers, materials and his stores etc.
 20. No permanently / temporary huts / structures shall be constructed by the contractor at the site of work or at any government land / premises. Such structures, if any, found at the site or at AIIMS, Raipur land shall be demolished and removed at the cost of the agency without any notice.
 21. Any damage to the building structure, fittings or any other articles etc. done by the contractor or his workman during the execution of the work shall be made good by the contractor at his own cost.
 22. The contractor shall clear the site properly after the completion of the work.
 23. The Agency shall be solely responsible for compliance to the provisions of various Labor and industrial laws, such as, wages, allowances, compensations, EPF, Bonus, Gratuity, ESI etc. as per labour law relating to personnel deployed by it at AIIMS, Raipur site or for any accident caused to them and the institute shall not be liable to bear any expense in this regard. The Agency shall make payment of wages to workers engaged by it by the stipulated date irrespective of any delay in settlement of its bill by AIIMS, Raipur for whatever reason. The

Agency shall also be responsible

For the insurance of its personnel. The Agency shall specifically ensure compliance of various Laws / Acts, including but not limited to with their re-enactments / amendments / modifications etc.

- (a) The Payment of Wages Act 1936.
 - (b) The Employees Provident Fund & MP Act, 1952.
 - (c) The Contract Labor (Regulation) Act, 1970.
 - (d) The Payment of Bonus Act, 1965.
 - (e) The Payment of Gratuity Act, 1972.
 - (f) The Employees State Insurance Act, 1948.
 - (g) The Employment of Children Act, 1938.
 - (h) The Motor Vehicle Act, 1988.
 - (i) Minimum Wages Act, 1948.
24. Breach of Terms and Conditions: Noncompliance of any terms and conditions enumerated in the contract shall be treated as breach of contract. Or In Case of breach of any terms and conditions as mentioned above, the Competent Authority, will have the right to reject the bid at any stage without assigning any reason thereof and nothing will be payable by AIIMS, Raipur in that event the EMD and /or Performance Guarantee and/or security deposit shall also stands forfeited.
25. Termination of Contract: AIIMS, Raipur would have the right to terminate the contract by giving one month's notice before the expiry of the term, in case the work performance is not up to the standard, or in case there is any violation of AIIMS, Raipur rules & regulations, or if there is any lapse in compliance of any labor legislation, or if there is any incident of indiscipline on the part of the bidder or his staff and the agreement may be terminated by either party by giving one month's notice to the institution. The decision of AIIMS, Raipur's management in this regard would be final and binding on the bidder . In such an event, AIIMS, Raipur shall have the right to engage any other bidder to carry out the task.
26. Arbitration: The Arbitration shall be held in accordance with the provision of the Arbitration and conciliations Act, 1996 and the venue of arbitration shall be at Raipur. The decision of the Arbitrator shall be final and binding on the both parties.
27. Dispute Settlement: It is mutually agreed that all differences and disputes arising out of or in connection with this agreements shall be settled by mutual discussions and negotiations if such disputes and differences cannot be settled and resolved by discussions and negotiations then the same shall be referred to the sole Arbitrator appointed by the Director, AIIMS, RAIPUR whose decision shall be final and binding on both the parties. The contract shall be governed by laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such commercial dealings/ processing.
28. Guidelines issued by Hon'ble National Green Tribunal in O.A. No. 21 of 2015 and O.A. No. 95 of 2014 in the matter of Vardhaman Kaushik Vs. Union of India & other and Sanjay Kulshreshtha Vs Union of India & ors: Air Pollution of Dust from Construction and Demolition activity reg. issued vide letter No. DPCC/EIA/Ref-001 to 172/NGT-21/2015/225-408 dt. 17/04/2015 shall be complied by the Bidders.

B. TERMS & CONDITIONS FOR ELECTRICAL WORK

1. The work shall be carried out strictly in accordance with CPWD specifications for Electrical works 2013 (Internal) and 1995 part-II (External) as amended upto date in accordance with Indian Electricity Rules, 1956 India electrical Act, 2003 as amended upto date and as per instructions of the engineer-in-charge including as below and nothing will be paid extra.
- ~~2. The E&M agency shall possess a Valid Electrical License.~~
3. The electrical work shall be carried out as per actual requirement and quantity is given in the schedule of work may vary of either side and it is side possible that some of the item given in the Schedule of work may not require to be executed. The decision of Engineer-in-charge of the work, in this regard, shall be final and binding on the Tenderers. However tenderers are required to quote their rates for all the items given in the schedule of works attached.
4. All materials to be used on this work should brought in by the contractor to facilitate testing before use and shall be got approved from the Engineer-in-charge before installation at site.
5. The work shall be carried out according to approved drawing/details which shall be subsequently issued to the successful tenderer for execution of work and as per instructions of the Engineer-in-charge who will have the right to change the layout as per requirements at site and the contractor shall not have any right to change in layout.
6. All damages done to the building during execution of Electrical work shall be the responsibility of the contractor and the same will be made good immediately at his own cost to the satisfaction of the Engineer-in-charge. Any expenditure incurred by in this condition shall be recovered from the contractor and decision of the Engineer-in-charge about recovery shall be final.
7. All the debris of the electrical works should be removed and the contractor should be clear the site immediately clear off any rejected material from the site.
8. The bad workmanship will not be accepted and defects shall be rectified at contractor's cost to the satisfaction of the Engineer-in-charge. The program of electrical works are to be co-ordinate in accordance with the building work and no claim, for idle labor will stipulated in the tender, electrical work shall to be completed along with completion of civil work.
9. The contractor or his representative is to sign the site order book as & when required by the Engineer-in-charge and comply with the remarks therein.
10. The Contractor shall make his own arrangement at his own cost of electrical general tools and plants required for the work.
11. All materials to be used on this work shall be ISI marked & shall be got approved in written from the Technical sanctioning authority/Engineer-in-Charge before installation at site unless otherwise not covered under ISI.
12. Materials not being manufactured in India shall be CE marked & ENEC certified. In absence of any of above, materials shall be summarily rejected.
13. The makes, size of conduit and wires, shall be got approved from the Engineer-in-charge before taking up the execution.

14. Main Board and main distribution Board: the work shall be carried out according to the drawings/details as approved by the Engineer-in-charge, samples approved before the whole lot is brought to site and it shall include all inter connections etc. panel drawings shall be got approved before actual fabrication is taken up.
15. The connection, inter connection, earthing and inter earthing shall be done by the contractor where required and nothing extra shall be paid on this account.
16. Nothing extra shall be paid for inter connection with thimbles/wires/tapes/strips etc.
17. All interconnection in the panel, DB, cable-looping boxes shall be carried out with suitable cable commensurate with the current carrying capacity of incoming and outgoing cables complete with thimbles etc. as required for which nothing extra shall be paid.
18. Copper lugs shall be provided for terminating copper/aluminium/GI earth wire to all switchboards for which nothing extra shall be paid. All multi-stranded/ stranded wires shall be terminated through copper lugs.
19. Location of light fixtures, cable routes, power & light point etc. should be prepared & got approved from the Engineer-in-Charge before execution.
20. All panels, DB's, cable-looping boxes will be numbered and marked with paint / name plate, ferruling of circuit/submain etc and nothing extra will be payable on this amount.
21. All MCB, MCCB, MCB, DB's, RCBO's, RCCB with DB's shall be of same make / manufacturer.
22. Modular Switch / Socket's / Plates / Computer outlet / Telephone outlet and all accessories shall be of the single make only be provided. The contractor shall have to make the edges around the boxes wherever required shall have to be made by the contractor for which nothing extra shall be paid. The galvanized metal box shall be of the standard thickness as the GI boxes besides other requirement
23. The contractor shall have to provide the fish wire after removing the choking of the conduits. Even if subsequently the conduits are found choked, the choking will be get removed and / or the new conduits shall be provided at the risk and cost of the contractor.
24. The contractor shall provide junction boxes / looping boxes of required sizes and such boxes shall be measured as part of conduit / batten wiring without any extra payment.
25. M.S. dash fastener shall be used for installation of fittings and fixtures in ceiling and for providing suspenders for the angle support, conduiting, cable tray etc. for which nothing extra shall be paid.
26. Wherever ceiling roses are not required to be provided in the light/fan/exhaust fan points, due to site conditions, the contractor shall use suitable three pin connectors for which nothing extra shall be paid. Wiring shall be carried out with FRLS wires
27. Contractor shall provide polythene/PVC plastic cover for all MDB's/SDB's/DB's, panels, feeder pillars etc to protect them from rust/damages, during execution of work till the work is actually completed and handed over to the department.
28. Cables:-
 - a) Cables shall be bought from manufacturer only as per approved NIT.

b) The length of the cables required shall be measured w.r.t. site condition and these shall be delivered in section of approved length only, to avoid jointing as far as possible.

c) Cable delivery shall be scheduled in consultation with department only.

29. Earthing connections:-

a) All fans & fittings are to be properly earthed for which no extra will be paid.

b) Proper sleeving is to be provided to bare earth conductor in the switch boxes and also to bare Conductors used for inter switch looping inside the switch boxes for which no extra will be paid.

c) Termination of wiring inside DB's & main boards should be by crimped connections

d) Clamp type termination of earth strip (wherever provided) to pipe electrode will be made

30. The contractor shall bear all the expenses for the testing of the electrical material / switch gears etc. from the designated lab, as desired by Engineer-in-charge.

31. All repairs & patch work shall be neatly carried out to match with the original finish & all damages caused to the building installation during the execution of work shall have to be made good by the contractor immediately at his own cost to the entire satisfaction of Engineer-in-charge.

32. The entire installation shall be at risk and responsibility of the contractor until these are tested and handed over to the department.

33. Some of the items of work, if already executed in that case the successful tender shall have to use these items for completing the work. For wiring, the existing conduit wherever available / required shall be used by the contractor. The recovery will be made for these items at accepted rate of other agencies.

34. Watch and ward of the material shall be the responsibility of the contractor till they are handed over to the department for which nothing extra shall be paid.

~~35. The contractor shall ensure that the staff employed by him for execution of the electrical work, possess the valid electrical license issued by competent authority. Consequences arising due to the default of the contractor in not complying with the above condition shall be the responsibility of the contractor.~~

36. The contractor shall abide the specifications given in the tender where the specifications are not given CPWD specifications with as on date amendments shall be followed. Items where CPWD specifications are not covered, the decision of Engineer-in-charge shall be final and binding.

37. The contractor shall also assess the quantities of various items involved in the work and shall procure the material accordingly. If excess material is produced, it shall be the responsibility of the contractor and department will not pay for unused quantity.

38. In case any extra quantity gets procured in running bills i.e. more than to be, it shall be taken back and amount shall be adjusted.

39. The contractor/supplier shall have to produce all the relevant records to certify that the genuine material from the manufacturers has been supplied and erected. The invoice/challan of the materials shall be invariably submitted. Custom clearance paper in respect of materials imported from outside country reqd. to be submitted.

40. All the LED Bulbs / LED Fittings shall be guaranteed for a period of 3 years. In case of any defects during this period shall be got rectified without any extra cost.

41. Contractor shall be mandatorily be required to provide to the engineer-in charge certified copies of original invoices of all kind of materials, T&P etc. being used or procured for this agreement. Failure to provide any of such information to engineer-in charge to his satisfaction shall render the contractor ineligible for payment for such items and no claim what so ever on this account shall be admissible and decision of engineer-in charge in this regard shall be final and binding.
42. The contractor will have to arrange the required Computer, Printer, telephone, furniture etc. at his own cost pertaining to his job and he will take all the settings back only after the expiry of the agreement for which nothing extra shall be paid.
43. The contractor shall take immediate action to attend any complaint assigned to him through site order book/verbal instructions from Engineer-in-Charge or his representative over telephones from occupants. In all cases he shall attend the complaints in the specified duration as mentioned below.
 - (a) Emergent complaints: Complaints of emergent nature of works as instructed by Engineer in charge or his representative shall have to be attended immediately within 6 hours.
 - (b) Normal Complaints: Complaints relating to the trades shall have to be attended within 48 hours.

In case of failure to meet these deadlines, a lump-sum amount of Rs.1,000/- (Rupees ONE THOUSAND only) per complaint per day will be recovered from his bills. One default shall be treated as one complaint. This shall be without prejudice to other remedies available to Engineer-in- Charge under this contract to take action against the contractor.

C. TERMS AND CONDITIONS FOR AC&R WORK

1. The bidder Shall visit the site of installation & Commissioning of the Air conditioning machine and understand the nature & scope of the work and doubts of any nature and should be got clarified before quoting. Agency ascertains themselves with all the rules and regulations of the premises of AIIMS Raipur.
2. Packaging, forwarding, storage and safe-keeping of all the supplied materials shall be the sole responsibility of the bidder irrespective of the location of the material. Agency is responsible for all the materials on site (finished or unfinished). Any loss or damage cause to the materials incidental or otherwise shall be borne by the agency. The Institute shall assume no responsibility in this regard under any circumstances.
3. The equipment offered shall conform to the specifications as given in tender and shall be guaranteed against defective design, defective quality material supplied, manufacturing defects etc. for a minimum period of 15 months from the date of supply and 12 month after installation of Air conditioning machine.
4. The Agency shall give guarantee for the work executed and shall be responsible for the defects occurred during the period of 12 months after the completion of work and shall rectify the same at his own cost. the agency also give one year warranty of Air conditioning machine.
5. SITC for Machine must be carried out by the bidder, quarterly servicing will be done by the bidder within warranty period. The Contractor shall ensure running equipment's are available at default rated parameters & capacity. extra amount of refrigerant (if required) to run air conditioner as per parameters in the scope of agency. The healthiness of Air

conditioning machine shall be ensured with no water or refrigerant leakage, no abnormal sound, proper setting of thermostats and their tripping etc.

6. Damage to the building during execution of work shall be made as good as previous by the contractor, otherwise penalty will be imposed by the Engineer-In-Charge which will be final & bound to contractor.
7. The contractor shall handover the Air conditioning machine in healthy and working condition to the department after completion of work and any shortcoming / missing parts noticed at the time of handover shall be made good by the contractor free of cost, otherwise necessary deduction will be made from the bill which is bound to the contractor.
8. The agency shall ensure that its employees while on AIIMS Raipur premises or while carrying out their obligations under this contract, observe the standards of cleanliness, decorum and general discipline lay down by AIIMS Raipur. After completion of work area should be cleaned. the cleaning of dust, Oil Spillages, Welding butts, Metal Scraps, used nut bolts & all other scrap removal shall be in contractor's scope. Handling of Scrap generated arises on account of activities or any kind of material handling will be in agency scope.
9. Any malba generated due to dismantling/maintenance shall be cleared from the site of work immediately without any extra cost failing which same shall be done by the department and suitable recovery shall be made from the contractor.
10. All works related to installation of Air conditioning machine like making holes in the walls for passage of copper tubes and electrical cables, mounting of stands, minor Civil work like cutting of existing false ceiling and fitting of AC indoor unit etc. shall be done by the agency and all tools, and tackles including ladder etc. shall be arranged by the agency. However, for loading / unloading of Air conditioning machine in the scope of agency. the AIIMS Raipur shall not provide any labour to the contractor for lifting or transportation of the Air conditioning machine.
11. Agency shall be provides all spare parts list with their prices and It is mandatory to provide O&M user /maintenance manual after completion of work.
12. At the time of acceptance of the tender, agency shall furnish the details of workers along with contact details.
13. The contractor or his representative should not remove, disturb and dislocate the existing equipment and its parts from its positions until and unless it is authorized by the Engineer (AC/R).
14. Any of the skilled or unskilled workers at site found not up to the standard or undesirable will be required to be forthwith removed by the agency. If found under the influence of the above, contracting firm shall have to change /replace him, failing which we may terminate the contract.
15. Agency shall arrange to render efficient service as outlined by AIIMS Raipur. If due to any reason, the firm is not able to do the work, the same shall be got done from some other firm or from the open market at the risk & cost of the contractor and the expenditure incurred there on shall be recovered from the contractor including penalty imposed by the Engineer-In-Charge which will be bound to the contractor.

16. The agency will have to carry out the work in accordance with the drawings technical specifications / or other conditions after allocation of work and to the full satisfaction of AIIMS Raipur.
17. No accommodation for the labourers will be allowed within AIIMS Raipur.
18. Installation site distance between Indoor Unit and Outdoor Unit is deferment meters, therefore normal supply of copper tubing, insulation pipe and water drain pipe shall be accordingly and default parameter achieved as per this.
19. Installation, testing and commissioning report as per default parameter and 72 hour testing report duly certified by Engineer (AC&R).
20. It is expected from the agency that all the items specified for supply in the tender shall be strictly in accordance with the standards and quality specification by the respective manufacturers. Therefore the bidders are advised to go through the specifications of the items before submitting the bids.
21. The Bidder ensures that the items supplied against this tender are new, unused, of the most recent or current models and those they incorporate all recent improvements in design and materials. The Bidder further ensures that all items/goods supplied against this tender shall have no defect arising from design, materials or workmanship.

D. TERMS AND CONDITIONS FOR FIRE ALARM & WET RISER SYSTEM

1. **General:** These specifications cover manufacture all preparatory work & testing as may be necessary before dispatch & delivery of equipment's at site, assembly and installation, final testing, commissioning, and one year guarantee period.
2. **Submission of drawings**
The contractor shall submit the drawing to the Engineer-in-charge as per CPWD General Specifications for part v (wet riser & sprinkler system) 2006 for approval before start of work.
3. **Submission of manuals**
The successful tenderer should furnish well in advance copies of detailed instructions and manuals of manufacturers for all equipments such as fire alarm zonal panel, main control panel, amplifier, hooter and smoke detector regarding installation, adjustments operation and maintenance i/c preventive maintenance & troubleshooting.
4. **Quality of materials and workmanship**
 - (a) The components of the installation shall be of such design so as to satisfactory function under all conditions of operation.
 - (b) The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice. The entire installation shall be such as to cause minimum transmission of noise and vibration to the building structure.
 - (c) All equipments and materials to be used in work shall be manufactured in factories of good repute having excellent track record of quality manufacturing, performance and proper after sales services.
5. **Inspection and testing**
 - (a) Initial inspection of materials & equipments at manufacturer's works may be done if so required by the Engineer-in-Charge or his representative at his discretion. For item / equipment requiring initial inspection at manufacturer's works, the contractor will intimate the date of testing of equipments at the manufacturer's

works before dispatch. The contractor shall give sufficient advance notice regarding the dates proposed for such tests to the department's representative(s) to facilitate his presence during testing. The Engineer-in-Charge at his discretion may witness such testing. Equipments will be inspected at the manufacturer / authorized dealer's premises, before dispatch to the site by the contractor.

- (b) The department also reserves the right to inspect the fabrication job at factory at the discretion of the Engineer-in-charge and he successful tenderer has to make arrangements for the same.
- (c) The materials duly inspected by engineer-in-charge or his authorised representative shall be dispatch to site by the contractor.
- (d) No additional payment shall be made to the contractor for initial inspection / testing at the manufacturer's works by the representative of the Engineer-in-Charge. However, the department will bear the expenses of its representative deputed for carrying out initial inspection / testing.
- (e) The requirement of initial inspection can be dispensed with waived off by the Engineer-in-Charge.

6. Guarantee

- (a) The contractor shall guarantee the complete system to provide the specified flow and pressure under all conditions & outlets.
- (b) All equipment's shall be guaranteed for a period of 12 months or as agreed or as per the guarantee period mentioned by the OEM from the date of acceptance and taking over of the installation by the Department against unsatisfactory performance and/or breakdown due to defective design, material, manufacture, workmanship or installation. The equipment or component or any part thereof so found defective during the guarantee period shall be 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 in being caused by the department at the risk & cost of the contractor. The decision of Engineer-in-charge in this regard in this regard shall be final.

7. Drawings for approval on award of the work

The contractor shall prepare & submit three sets of following drawings and get them approved from the Engineer-in-charge/ authorized representative of E-I-C before the start of the work. The approval of drawings however does not absolve the contractor not to supply the equipment's materials as per agreement, if there is any contradiction between the approved drawings and agreement the decision of the engineer-in-charge shall be final binding on the contractor.

- (a) Electrical Layout drawings of the items to be installed on site.
- (b) Dimensioned drawings of all electrical panels.

8. COMPLETION DRAWINGS & DOCUMENTS

Three sets of the following laminated drawing shall be submitted by the contractor while handing over the installation to the Department. Out of this one of the sets shall be laminated on a hard base for display in the Electrical control room & Distribution Board. In addition one set will be given on compact disc.

- (a) Installations drawings giving complete details of all the equipment's, including their foundations.
- (b) Plumbing layout drawings giving sizes and lengths of all the pipes and the sizes and location of all types of valves, and including isometric drawings for the entire piping including the pipe connection to the various equipment's.

- (c) Line diagram and layout of all electrical control panels giving switchgear ratings and their disposition.
- (d) Control wiring drawings with all control components and sequence of operations to explain the operation of control circuits.

9. After sales services

The contractor/OEM shall ensure adequate and prompt after sales services in the form of maintenance, spares and personnel as and when required and shall minimise the breakdown period. In case of equipment supplied by other manufacturers the firm shall furnish a guarantee from the manufacturer for the same before the plant is taken over.

- (a) 3 sets of manufacture's technical catalogues of all equipment's and accessories.
- (b) Operation and maintenance manual of major equipment's, detailing all adjustments, operation and maintenance procedure.

E. GENERAL CONDITIONS FOR SUPPLY OF MATERIAL

1. The material shall be as per CPWD specifications with up to date correction slip and BIS Specifications wherever mentioned and as per List of approved makes (enclosed).
2. In the event of any variation between CPWD specifications and that in the IS Code the former shall take precedent over the later. In the event of variation between the nomenclature of item as per schedule of quantities and specifications, the former shall prevail.
3. ~~Material will be supplied by the contract or within 03 days after giving the requirement otherwise suitable amount imposed as a penalty shall be recovered from contractor's bill after giving notice as decided by the Engineer in charge. However, the materials in urgent nature shall be supplied within 02-03 Hours.~~
4. The sample of all the items shall have to be got approved by the Contractor from the Engineer-in-Charge/Executive Engineer or his Representative before the supply commences, the approval of sample shall be only in respect of workmanship and finish, and shall be without prejudice to the right of Engineer-in-Charge to get random samples tested out of the actual lot received as per additional conditions. This decision is the Prerogative of Engineer-in-Charge.
5. The contractor shall if required furnish the manufacturer's certificate that the material supplied satisfy the requirements of the relevant specifications.
6. The Engineer-in-Charge shall be at liberty to test respective sample (s) of each item of schedule of quantity in any approved laboratory as decided by him. The sample for testing shall be provided by the contractor. If the test proves satisfactory and the material is accepted, the testing charge in respect of satisfactory test shall be borne by the ~~department~~ **contractor**.
7. All other expenditure required to be incurred for making available the sample, conveyance and packing etc, shall be borne by the contractor himself. In case any sample of particular lot fails in testing the contractor shall be bound to replace the entire lot with fresh material of prescribed specifications and the rejected lot shall only be returned to the contractor after fresh lot is supplied. Testing charges in respect of failed sample will be borne by the contractor himself.

8. Rejected materials shall have to be removed by the contractor at his own cost within a week of the instructions of doing so. Also go down rent as decided by Engineer-in-Charge shall be charged by the department.
9. In case of any dispute regarding rejection of quantity of materials the decision of Engineer-in- Charge shall be final and binding upon the contractor.
10. Conditional tenders are liable to be summarily rejected.
11. The rates shall be quoted only in the schedule of quantities attached with the tender and nowhere else i.e. letter heads etc.
12. The contractors are specifically required to quote only one rate against each item. The rate Quoted for any item of material shall conform to the prescribed specifications.
13. The quantities are approximate and are liable to change up to any extent on either side. The Engineer- in-Charge reserves right to order deviation from the quantities mentioned in the tender. The contractor shall supply the additional quantity on the rates quoted in the tender documents irrespective of deviation limit mentioned elsewhere in the agreement. The contractor shall have no claim to any payment or compensation whatsoever on account of any profit or advantage which might have derive from the execution of supply in full as mentioned in tender but which did not derive any consequence of the full supply of material mentioned in tender not having been ordered. It is not necessary to use all items in the BOQ/Schedule during contract Period. The use shall be based on the requirement at Site. Contractor cannot claim Payment against Storage of items to maintain the deadline of completion of work as per Tender.
14. The maker of material shall be same as that of actually installed/fixed at site. But, in case of non-availability or due to any reason, Engineer-in-Charge can take decision to install equivalent/new items available in the BOQ/Schedule. In case of any dispute the decision of Engineer-in-Charge shall be final with regards to make/brand of material.
15. For materials used in this work, the record shall be maintained at site in a standard Performa to watch quality and consumption of the material.

e-sign by Prashant Kumar Ravi
Executive Engineer
AIIMS, Raipur

SCOPE OF WORK AND MAINTENANCE SCHEDULED (Substation)

Scope of work:-

1. This tender is for complete Operation and Maintenance of the 33/11 KV, 11/0.433 KV Electrical Substations and 6x 2000 KVA HT DG Set with Electrical Installations comprising Transformer, HT/ LT/ Control/ Auxiliary Panel, DG sets, SCADA system, Electrical cables, Rising mains, Tap-off box, End feed unit complete all the installation installed in substations etc. throughout the period of contract for 24x7 basis.
2. The details of the Substation constructed at AIIMS Raipur are as follows:
 - a) MRS-1: Feed power to all the 6 nos. of substation from S/S- 2 to S/S- 7 in ring mains circuit of 11KV.
 - b) Substation- 2: Feed power to Trauma, Ayush and Services buildings
 - c) Substation- 3: Feed power to Hospital block C&D
 - d) Substation- 4: Feed power to Hospital block A&B
 - e) Substation- 5: Feed power to Medical college and Auditorium
 - f) Substation- 6: Feed power to Nursing college
 - g) Substation- 7: Feed power to Administrative and Academic block
3. The list of major equipment of Installed at MRS & substations at AIIMS Raipur to which operation and maintenance has to be carried out in this work are given as Annexure-A.
4. The installation shall be maintained in the existing original condition/position. The Contractor shall be solely responsible for maintenance and upkeep of the equipment's in good conditions.
5. The supplying and topping up of transformer oil as and when required, filtration and centrifuging of oil once in a year as per schedule and as directed by Engineer-in-charge and with required quantity of material for maintenance such as tools & instruments, CTC, cloth, sand paper, nut and bolts with washer (S.S.), petroleum jelly, lubricating oil greases, HRC fuses for control supply & indication lamps shall also be covered in scope of work.
6. The preventive maintenance schedule shall be prepared and submitted in advance. The necessary shutdown may be taken with prior permission of the Engineer-in-Charge.
7. Performa for weekly, quarterly & yearly checking should be filled up after doing preventive maintenance of equipment's. The maintenance records shall be checked & verified by the competitive authority
8. Suitable shutdown shall be given for preventive maintenance of the complete system. All the equipment's should be thoroughly checked & maintained for proper functioning/operations of the equipment. All major structures, cable supports and steel frames shall be painted once in a year with approved colour.
9. Complete transformer yard and switch room should be kept clean done and grass roots should be Removed.
10. All the types of minor repairing works will be carried out by the agency on his own cost for which spares (if any) will be provided by the department free of cost.

11. The payment against maintenance during the contract period shall be made against monthly/ quarterly running bills of the accepted amount for AMC subject to satisfactory maintenance of the installation and submission of all formats such as weekly, monthly, quarterly & yearly as provided by the Engineer-in-charge duly filled and accepted by JE/AEE of the work.
12. Testing, calibrating & setting of all the relays, kWh meters installed at different Sub-stations has to be done ones in year as per schedule and report has to be submitted by the contactor in the office of JE/AE of the work.
13. The adequate team of manpower shall be available at site as per quantum of the work.
14. H.S.D., Oil, Water and Electricity for operation / maintenance will be arranged by the department.
15. Though the proposal has been made for recovery from the bill of the contractor in case of absence from duty and non-wearing the uniform and shoes by the workers deployed, but the contractor has to see that, immediately necessary substitute to be deployed in a pre-planned manner. Also contractor has to pay necessary dues to the persons deployed immediately after completion of the month period.
16. Liaisoning work with local Electricity board and Client for arranging shutdown of HT / LT lines for any repair work will be the responsibility of the contractor without any extra cost.
17. The employees for the contractor shall be of good character and of sound. The service provider shall ensure proper conduct of its personnel in office premises, and enforce prohibition of consumption of alcoholic drinks / drugs, shewing of pan / Gutka, smoking, using speakers for listening to music and loitering without any work. The workers should not be below the age of 18 years.
18. In case of any fault in the installation covered under this work requiring immediate rectification of the same to put the installation in running condition, the firm have to rectify the fault and if any material is required in doing so and not considered in schedule shall also arrange the same within a reasonable time and reimbursement will be done by AIIMS Raipur.
19. Statutory clearances: All statutory clearances, approvals/ permissions/ license either from pollution control board (CPBC), state electricity board or any other authority like explosive control permission, electricity inspector is in the Scope of Work.
20. The contractor will be responsible for attend the electrical inspectors inspection in this regard connection submit all required technical details/documents to the inspector and take necessary action to comply with the inspector observation and obtain inspector approval for Energization.
21. The contractor will have to arrange the required Computer, Printer, telephone, furniture etc. at his own cost pertaining to his job and he will take all the settings back only after the expiry of the agreement for which nothing extra shall be paid.
22. **Maintenance of records:** Following Documents / Records are to be maintained at site by the contractor:
 1. Attendance register
 2. Breakdown Report
 3. Maintenance Report
 4. Complaint Register
 5. Stock Register

6. User Certification of all works Executed.
7. List of tools and test equipment's available at site.

The cost of stationary required for maintenance of the above record are under the scope of Contractor.

Maintenance schedule

The following works/ checks are required to be performed on monthly / quarterly / half yearly basis and record all the activities in the log book with date which shall be counter signed by the Representative of Project Cell, AIIMS Raipur:

DUTIES IN GENERAL:

A) D.G. Set:

- 1) Check the cleaning of the D.G. sets, AMF panel, battery leads etc.
- 2) Inspection of the complete generator set and AMF panel, battery set for loose connections, leakage, cell charge ETC., in accordance with the given operation/maintenance manual and completing necessary rectifications, works before switching on the D.G. set on TEST RUN.
- 3) Proper precaution for smooth running of D.G. sets by complying instructions given in the manual for day to day operation of the viz, water level in the Radiator, fuel tank, lubricating oil etc.
- 4) Preparing the records of the work carried out on the D.G. Sets along with details of the connected load on the D.G. Sets, running hours of the D.G. sets, fuel consumption, temperature, voltage, Amp. Etc.
- 5) Maintaining the diesel consumption register of all the D.G. Sets.

B) H.T. SUB-STATION & L.T. DISTRIBUTION:

- 1) Recording readings of the energy meters along with established power factor.
- 2) Cleaning of the bushing, insulators once in every three months.
- 3) Cleaning the complete substation.
- 4) Ensuring the proper functioning of the capacitors Bank installed.
- 5) Ensuring proper connection/termination of various distribution cables in switchgears, junction boxes, control gears etc.
- 6) Testing and recording the earth insulation, continuity test, oil test as suggested in Indian Electricity Acts and Rules or as required by local electricity supplying Authority.
- 7) Preventive maintenance of switch gear installed in the LT panel i/c MCCB/Changeover/Bus bar etc.

C) Weekly checking

1. Transformers:

For oil cooled transformer: Checking of oil level (topping if reqd, value of transformer oil is not in permissible limit then complete filtration as per schedule), oil leakage, colour of silica gel (Breather) (heating if reqd.), Vent diaphragm, Tap position of transformer, neutral earthing connections up to earth pit etc.

2. HT Panels:

To be checked, indicating lamps, Ammeter, voltmeter along with selector switches earthing connection of panels, cleaning of external panel, these should be closed properly and no space be left which may allow the lizard or insects to enter.

Servicing and testing of HT breakers from OEM/OEA/Authorized dealers as per schedule.

3. Capacitor panels:

To be checked, indicating lamps, KWH meter, Ammeter, Voltmeter along with selector switches, earthing connection of panels, cleaning of external panel, these should be closed properly and no space should be left which may allow the lizard or insects to enter, visual inspection of contactors, SFU/ FSU, exhaust fan & APFC relay for any abnormality.

4. LT panels:

To be checked, indicating lamps, Ammeter, Voltmeter along with selector switches, earthing connection of panels, cleaning of external panel, these should be closed properly and no space should be left which may allow the lizard or insects to enter, visual inspection of ACBs, MCCb's SFU/ FSU, all relays for any abnormality.

Servicing and testing of LT breakers as per schedule.

Quarterly checking

1. Oil type transformers:

- i. HT and LT Bushing: Open cable box LT side and examine cracks, oil leakage etc. and rectify terminal tighten nut & bolts and clean if required.
- ii. Silica gel: Check condition of silica gel and replace if required, replace cup's oil.
- iii. Pressure relay: To be checked mechanical indication and operating mechanism.
- iv. Earth resistance of neutral earthing: Record value of resistance dry & wet condition of earth pit and rectify the same within permissible value.
- v. Breakdown test of transformer oil :
 - a) BDV with 2.5mm gap.
Top sample. kV
Bottom sample. kV
OLTC sample. kV
 - b) BDV with 4mm gap (for with stand) One minute/ For Breakdown
Top sample KV kV
Bottom sample KV kV
- vi. Magnetic oil level gauge Buchholze relay. : Checks its operation, control circuit and repair if required.
- vii. IR value: Checks its operation, control circuit and repair if required.

2. HT PANELS:

- i. Internal & external cleaning of panel.
- ii. Tightening of main connection bus bar and cable connection (outgoing)
- iii. Checking interlocking system (if required)
- iv. Oiling, greasing of operating mechanism.

- v. Auxiliary contacts, indicating devices, voltmeter, ammeter, KWH meter and selector switch etc. check and repair/replace if required.
- vi. Instrument & potential transformer to be checked found faulty then repair/ Replace..
- vii. To check setting the relay time and contacts of relay of each breaker and record / Relay calibration from OEM or specialised agency also in the scope of work.
- viii. Servicing of breakers.
- ix. Checking of panels heater and thermostats if required then repair/Replace.

3. CAPACITOR BANK PANEL

- i. Internal & external cleaning of panel.
- ii. Tightening of connection busbar and cable connection (outgoing)
- iii. Checking of APFC relay for proper functioning.
- iv. Auxiliary contacts, indicating devices, voltmeter, ammeter, and selector switch etc. check and repair/ replace if required.
- v. Instrument & current transformer to be checked.
- vi. Checking of contactors and SFU/ FSU/ MCCB.

4. LT PANELS

- i. Internal & external cleaning of panel.
- ii. Tightening of connection busbar and cable connection (outgoing)
- iii. Checking of interlocking system (if required)
- iv. Oiling, greasing of operating mechanism.
- v. Auxiliary contacts, indicating devices, voltmeter, ammeter, and selector switch etc. check and repair/replace if required.
Instrument & potential transformer to be checked.
- vi. To check setting the relay time and contacts of relay of each breaker and record.
- vii. Servicing of breakers.

5. DRY TYPE TRANSFORMER

- i. Visually inspect cover louvers, screens, and internal coil cooling ducts for dust build-up. If found, wait until the transformer is de energized to remove any panels.
- ii. Checking/testing of insulation resistance value of transformer. meggar values measurement, pi value checking, magnetic balance testing. temp scanner testing & calibration, varnishing/hv coating on required areas.
- iii. Tap changer (OLTC) general servicing& complete overhauling based upon number of operations & wear & tear on moving & fixed parts of tap changer mech. calibration of TPI. main spring inspection & adjustment. drive mechanism cabinet cleaning.

Half yearly checking

1. OIL TYPE TRANSFORMER

- i. HT and LT Bushing:- To open cable box and examine cracks in bushing. Tighten bolts if reqd., measure IR value with 10,000 Volts megger.
- ii. Silica gel:- Replacement of silica gel and cup oil.
- iii. Pressure relay:- To check the mechanical indication and operating mechanism.
- iv. (Earth resistance of neutral earthing):- Record value of resistance dry & wet condition of earth pit.
- v. Break down test of transformer oil:- BDV with 2.5mm gap
- vi. Top sample kV
- vii. Bottom sample kV
- viii. Cooling fan.- To check cooling fan operation (manual / auto) and all accessories (i.e. contacts, controlling circuit etc. remove fault or repair / replace damaged parts if required.
- ix. Buchholze relay, magnetic oil gauge: - Check its operation, control circuit and repair replace as required.
- x. IR value.

2. HT PANEL:

- Internal & external cleaning of panel.
- Tightening of main connection bus bar and cable connections
- Checking of interlocking system.
- Oiling greasing of operating mechanism
- Auxiliary contacts, indicating devices, voltmeter, ammeter, and selector switch etc. check and repair/replace if required.
- Instrument & potential transformer to be checked.
- To checking setting/ calibrating the relay time and contacts of relay of each breaker and record.

3. CAPACITOR BANK PANEL :

- Internal & external cleaning of panel.
- Tightening of connection busbar and cable connection
- Checking of APFC relay for their function.
- Auxiliary contacts, indicating devices, voltmeter, ammeter, and selector switch etc. check and repair/replace if required.
- Instrument & potential transformer to be checked.
- Cleaning of main and auxiliary contact of contactors and overhauling of exhaust fans.

4. LT PANEL (0.433KV SWITCHGEAR) :

- Internal & external cleaning of panel

- Tightening of connection busbar and cable connection
- Checking of interlocking system
- Oiling and greasing of operating mechanism.
- Auxiliary contacts, indicating devices, voltmeter, ammeter, and selector switch etc. check and repair/ replace if required.
- Instrument & current transformer to be checked.
- To check setting the relay time and contacts of relay of each breaker and record.

5. DRY TYPE TRANSFORMER

1. Visually inspect cover louvers, screens, and internal coil cooling ducts for dust build-up. If found, wait until the transformer is deenergized to remove any panels.
2. Checking/testing of insulation resistance value of transformer. megger values measurement, pi value checking, magnetic balance testing. temp scanner testing & calibration, varnishing/hv coating on required areas.
3. Tap changer (OLTC) general servicing & complete overhauling based upon number of operations & wear & tear on moving & fixed parts of tap changer mech. calibration of TPI. main spring inspection & adjustment. drive mechanism cabinet cleaning.

Yearly checking

1. OIL COOLED TRANSFORMER:

- **HT and LT Bushing:-** To open cable box and examine cracks in bushing. Tighten bolts if reqd., measure IR value with 10,000 Volts megger.
- **Silica gel:-** Replacement of silica gel and cup oil.
- **Pressure relay:-** To check the mechanical indication and operating mechanism.
- **Earth resistance of neutral earthing:-** Record value of resistance dry & wet condition of earth pit.
- **Break down test of transformer oil:-** BDV with 2.5mm gap
 - (A) Top sample kV
 - (B) Bottom sample. KV
- **Buchholze relay magnetic oil gauge:-** Check its operation, control circuit and repair/replace as required.
- **Centrifuging of transformer oil and check acidity:** Sludge and submit test report.
 - (A) B.D.V. 4mm gap for 1 minute 3 sample.
 - (B) B.D.V 2.5mm gap for breakdown 3 sample
 - (C) Sludge/Acidity value.
 - (D) IR Value

2. HT PANEL:

- Operation checking of breaker.

- Control circuit and its accessories i.e. aux Contactors, connection, coils etc. repair/replace if required.
- Check gas pressure and record heating system and its operation to be checked.
- Cleaning of circuit.

3. CAPACITOR BANK PANEL :

- Cleaning of panel internal & external.
- Checking of APFC relay for their function.
- Auxiliary contacts, indicating devices, voltmeter, ammeter, and selector switch etc .check and repair/ replace if required.
- Servicing of contactors, FSU/SFU.
- Checking and replacing of defective capacitors and thyrister module.

5. LT Panel

- Operation checking of ACB,s & MCCB,s
- Auxiliary contacts, indicating devices, voltmeter, ammeter, and selector switch etc. check and repair/ replace if required.
- Instrument & current transformer to be checked.
- To check setting the relay time and contacts of relay of each breaker and record. and also the calibration from Specialized agency is in scope of work.

5. DRY TYPE TRANSFORMER

4. Visually inspect cover louvers, screens, and internal coil cooling ducts for dust build-up. If found, wait until the transformer is de-energized to remove any panels.
5. Checking/ testing of insulation resistance value of transformer. meggar values measurement, pi value checking, magnetic balance testing. temp scanner testing & calibration, varnishing/hv coating on required areas .
6. Tap changer (OLTC) general servicing& complete overhauling based upon number of operations & wear & tear on moving & fixed parts of tap changer mech. calibration of TPI. main spring inspection & adjustment. drive mechanism cabinet cleaning.

Penalty clause

All the specific complaints about the Electrical system brought to the working agency shall be attended promptly. Any delay in attending the complaints shall be viewed seriously and penalty shall be imposed on the contractor as deemed fit by the Engineer-In-Charge.

1. Any staff found missing from duty, recovery shall be made for the day at the rates given below. (It is the responsibility of the agency to make alternative arrangements), in case, any staff proceeds on leave/for reliever duty. On failure, the recovery shall be made from bill at the rate given below:
 - a) Supervisor: 2000/- Per day
 - b) Highly Skilled staff : Rs. 1700/- Per day
 - c) Skilled staff : Rs.1500/- Per day

d) Semi-skilled staff: Rs. 1200/- per day

e) Unskilled staff : Rs.1000/- Per day

2. The contractor shall take immediate action to attend any complaint assigned to him through site order book/verbal instructions from Engineer-in-Charge or his representative over telephones from occupants. In all cases he shall attend the complaints in the specified duration as mentioned below.

a) Emergent complaints: Complaints of emergent nature of works as instructed by Engineer in charge or his representative shall have to be attended immediately within 6 hours. Failing which Rs.5,000/- per complaint per day will be recovered from his bills.

b) Normal Complaints: Complaints relating to the trades shall have to be attended within 48 hours. Failing which Rs. 1,000/- per complaint per day will be recovered from his bills.

3. In case of any power outage for which the contractor is held accountable suitable penalty will be imposed as recovered as decided by Engineer-in-charge.

DETAILS OF THE ELECTRICAL INSTALLATION INSTALLED AT AIIMS RAIPUR:

Sr No.	Description of item	Make	Qty	Amp Rating
[I]	List of Equipment at MRS-1 Sub Station			
A)	LOCATION MRS-1 SUB STATION			
1	10 MVA Transformer No. 1	Sudhir Vidyut		
a	33/11 KV, Oil Filled		1 Nos	HV-175/
b	With OLTC & RTCC			LV
c	Sr No.BO-11-231-2			524.86
	Make- Sudhir Intra Vidyut Ltd.			
2	Neutral Grounding Resistor	National Resistors Pune	1 Nos	200
	36.29 Ohms (For Transformer)			
	Make- National Resistore, Pune			
	Sr No.-645			
3	33 KV Breaker 1250 A	Siemens	2 Nos	1250
	Sr No.-26224			
4	33 KV Breaker 1250 A	Siemens	2 Nos	1250
	Sr No.-26225			
5	11 KV Breaker 1250 A	Siemens	1 Nos	1250
6	11 KV Breaker 1250 A	Siemens	1 Nos	1250
7	11 KV Breaker 1250 A	Siemens	1 Nos	1250
8	500 KVA, 11 KV/433 V	Sudhir Vidyut	1 Nos	26.24
	Dry type Transformer			
	Sr No 2781			
9	Station LT Panel	Advance, Haridwar	1 Nos	800
	800 A Incomer ACB			
10	3 C X 300 sq mm. Al,33 KV	K.E.I.(Armoured Cable,XLPE)	80 Metre MRS-1 CSEB to33 KVI/C	

11	3 C X 300 sq mm. Al,33 KV	K.E.I.(Armoured Cable,XLPE)	32 Metre MRS-1 33KV O/Gto Transfo	
12	3 C X 150 sq mm,11 KV	K.E.I.(Armoured Cable,XLPE)	MRS-110 MVA Trafo to 11 KV I/C	
13	10 MVA Transformer No 2	Sudhir Vidyut	1 No	
	33/11 KV, Oil Filled,			HV-175/
	Sr No.BO-11-213-1			LV 524.86
	With OLTC & RTCC			
14	33 KV Breaker 1250 A (4 PANEL BOARD)		1 No	1250
	Sr No. N8-26225	Siemens		
15	11 KV Breaker 1250 A (6 PANEL BOARD)		6 No.	VCB
	Sr No. N8-15246			1250
O/G	Sr No. N8-15246			1250
I/C #2	Sr No. N8-15234			1250
O/G	Sr No. N8-15237			1250
16	11 KV Breaker 1250 A (10 PANEL BOARD)	Siemens	10 No	VCB
a	Sr No. N8-15231		O/G # 1	1250
b	Sr No. N8-15226		I/C # 1	800
c	Sr No. N8-15224		I/C # 2	800
d	Sr No. N8-15228		I/C # 3	800
e	Sr No.N8-15225		I/C # 4	800
f	Sr No. N8-15229		I/C # 5	800
g	Sr No. N8-15227		I/C # 6	800
h	Sr No. N8-15233		B/C	1250
i	Sr No. N8-15232		O/G # 2	1250
j	Sr No. N8-15230		O/G # 3	1250
17	11 KV Breaker 1250 A (ATS-1)	Siemens	3 No	VCB
a	Sr No. N8-15240		I/C # 1	1250
b	Sr No. N8-15241		I/C # 2	1250
c	Sr No. N8-15248		O/G	1250

18	11 KV Breaker 1250 A (ATS-2)		Siemens	3 No	VCB
a	Sr No. N8-15243			I/C # 1	1250
b	Sr No. N8-15244			I/C # 2	1250
c	Sr No. N8-15238			O/G	1250
19	11 KV Breaker 1250 A (ATS-3)		Siemens	3 No	VCB
a	Sr No. N8-15242			I/C # 1	1250
b	Sr No. N8-15245			I/C # 2	1250
c	Sr No. N8-15247			O/G	1250
20	Neutral Grounding Resistor		National Resistors, Pune	1 No.	400
	212 Ohms (For DG)			1 No.	
	Sr Nos. 640641				
21	Neutral Grounding Resistor		National Resistors, Pune	1 No.	200
	36.29 Ohms (For Transformer)				
	Sr No.644				
22	GI Chemical Pipe Earthing		Alltec	12 No	
23	Copper Plate Earthing		----	4 No	
24	G.I. Plate Earthing		---	4 No	
25	Battery Charger with battery bank		Voltran		24 V,DC, 200 AH
	Sr No.10060/2493				
26	800 Amps Compact Bus ducting Type SBA, Run BW		C&S	10.99 Mtr	800
[II]	6 Nos, 11 KV, 2000 KVA, 1500 RPM DG Sets				
1	DG Set 2000 KVA, 11 kV		Make- Sterling generator	6 No.	
DG-1	Sr No. P11H761340		PERKINS/Stamford.		119.1
DG-2	Sr No. P12B857920		PERKINS/Stamford.		119.1
DG-3	Sr No. P12B857910		PERKINS/Stamford.		119.1
DG-4	Sr No. P11J780550		PERKINS/Stamford.		119.1
DG-5	Sr No. P12B857870		PERKINS/Stamford.		119.1
DG-6	Sr No. P12B857860		PERKINS/Stamford.		119.1
2	*Each DG set along with self starter, Starter Panel Battery 12 V, 180 AH, Lead Acid, 4 Nos		Batteries Exide make	6 No. (Sets)	
3	Day Tank 990 Ltr Capacity for each DG		Indo Asiatic Engineers Pvt Ltd Delhi	6 No	
	In Manual Mode all DG sets tested at site on available load				
4	DG Auxilary Panel		Advance Panels and Swtgears		

5	Computer with Display for DG PLC Software (Engineering Station)	HP	1-No	
6	Computer with Display for DG SCADA Software (Server)	HP	1-No	
7	GI Chemical Pipe Earthing	Alltec	12 No	
8	Copper Plate Earthing	----	4 No	
9	G.I. Plate Earthing	----	3 No	
10	Residential Silencers (Hospital Type)	----	6 No	
11	30 Mtr High Exhaust Chimney Structure	Pipe is JindalMake	1 No	
12	6 Nos 500 mm Dia MS Pipe having 5.4 mm Pipe Thickness (Up to 30 Mtr Chimney Height)	Pipe is JindalMake	6 Nos	
13	Remote Radiators as per BOQ Item, (2.1/13)each having 3 Nos 7.5 HP Fans	International Coil Ltd	6 Nos	
14	Supply, installation, testing and commissioning of Remote Radiators suitable for 2000KVA , FCW 200 etc as required.			
15	Fresh air inlet & hot air outlet fans of 1200 mm dia. with 6pole motor, 4 Nos for each DG Set, 44000CFM each.	ABB	24 Nos	
16	Monobloc casing type water circulating pump sets Suitable for 2000KVA - 15 HP complete with TEFC motor, machined base plate, mechanical seal spring type vibration isolator or synthetic rubber mats etc.	KIRLOSKAR	12 Nos	
17	heat exchanger Pump, 7.5 HP	ABB	6 Nos	
18	Station UPS Incoming Supply Panel for 5 KVA UPS	Advance	1 No	
19	Station UPS OutgoingSupply Panel for 5 KVA UPS	Advance	1 No	
20	5 KVA UPS with Exide Make Main Free Batteries	APC/Schneider	1 No	
21	Control/Relay and Synchronisation Panel for 6 Nos DG Sets (Having 1 No S-7 300 Siemens PLC)	AEAB, Delhi	1 No	
	Note- Detailed List of DG Auxilaries are in attached Appendix-A and Appendix-B			
[III]	Bulk Oil Storage and Fuel Transfer System			
	as per BOQ Sub Head 3			

1	20 KL Capacity Underground HSD Diesel Storage Tank	Indo Asiatic Engineers Pvt Ltd Delhi	2	---
2	Pumping Station for HSD Tank to Day tank Diesel Pumping			
3	Pump # 1, 2 HP	Kirloskar		
4	Pump # 2, 2 HP	Kirloskar		
5	Feeder Panel Near HSD Tank	Advance Panels and Swtchgears		
6	Supplying and Fixing Sump Tank 990 ltr 3mm thick as required. (BOQ 3/13)		2-No	---
7	Pumping Station for Sump Tank to Day tank Diesel Pumping			---
8	Pump # 1, 1 HP	Kirloskar		---
9	Pump # 2, 1 HP	Kirloskar		---
10	Feeder Panel Near Sump Tank	Advance Panels and Swtchgears		---
11	Providing and Fixing Fire Bucket of 9 Ltr Capacity made of 24 gauge MS Sheet on existing structure (BOQ 3/10)		16 Nos	---
12	Supplying and Fixing Buffer tanks 990 ltr 3mm thick as required. (BOQ 3/12)	Indo Asiatic Engineers Pvt Ltd Delhi	2-No	---
13	Oil Piping and Valves etc 1 Lot		1-Lot	---
[IV]	List of Equipment at Sub Station # 2, HVAC			
B}	LOCATION S/S-2 SUB STATION			
1	11 KV Breaker 1250 A		4 No	VCB
	make Siemens			
I/C # 1	Sr No.	N8-15251	Siemens	1250
O/G # 1	Sr No.	N8-15260	Siemens	1250
O/G # 2	Sr No.	N8-15262	Siemens	1250
Tie Fdr	Sr No.	N8-15265	Siemens	1250
2	2500 KVA, 11 KV/433 V		Sudhir Vidyut	1 No
	Dry type Transformer No.2			HV-131.21/ LV 3333
	make- Sudhir Vidyut			
	Sr No.	2776		
3	2500 KVA, 11 KV/433 V		Sudhir Vidyut	1 No
	Dry type Transformer No.1			HV-131.21/ LV 3333
	make- Sudhir Vidyut			

	Sr No.	2745			
4	1000KVAR Capacitor bank		Advance Panels and Switchgears	2 No	1333
	make- Advance		Haridwar		
	Sr No.	---			
5	Main LT Panels 2 A & 2 B		Advance Panels and Switchgears	1 No	4000
6	GI Chemical Pipe Earthing		Alltec	6 No	
7	Copper Plate Earthing			4 No	
8	Battery Charger with battery bank		Voltran		24 V,DC, 200 AH
	Sr No.	10165/2493			
BUS DUCTS INSTALLATION QUANTITIES					
	L.T bus duct with Aluminium busbars of following capacity suitable for connection between Transformer set and ACB of the main L.T. panel including tinned copper flexible and connection at both ends & flexible expansion joint in between the length of busduct				
9	4000 Amp Rating Bus duct		C&S	81.335 Mtr	4000
10	2500 Amp Rating Bus duct		C&S	35.57 Mtr	2500
11	Rising Mains fed from Sub Station No 2				
i)	Ayush/PMR BLDG. UPS RISING MAIN, RUN -AR		C&S	16.5 Mtr	200
ii)	AYUSH /PMR BLDG. RM-1 LIGHT & POWER, RUN-AT		C&S	13.30 Mtr	200
iii)	RM 2 L&P PMR BLDG,Rising Main, RUN - AS		C&S	16.80 Mtr	315
iv)	TRAUMA CENTRE UPS Rising Main; RUN-BV		C&S	12.80 Mtr	400
v)	TRAUMA LIGHT & POWER Rising Main; RUN -BU		C&S	12.80 Mtr	400
*	Utility panel (Fire & Water Pumps); having 1 No 4 Pole 400 A MCCB I/C and 1 No 250 TPNL O/G & 1 No 100 A TPNL O/G		Advance Panels and switchgears	1 No	400

[V]	LOCATION S/S-3 SUB STATION			
1	11 KV 4 HT Panel Switch board having 11 KV VCBs(1250 A Rating)	Siemens	4Nos	VCB
I/C # 1	Sr No. N8 15252	I/C # 1		1250
O/G # 1	Sr No. N8 15254	O/G # 1		1250
O/G # 2	Sr No. N8 15257	O/G # 2		1250
Tie Fdr	Sr No. N8 15266	Tie Fdr		1250
2	11 kV/433 V, 2500 KVA Dry Type	Sudhir Vidyut	1No	HV-131.21/ LV 3333
	Transformer No 1			
	Sr No. 2771			
3	11 kV/433 V, 2500 KVA Dry Type	Sudhir Vidyut	1No	HV-131.21/ LV 3333
	Transformer No 2			
	Sr No. 2772			
4	Main LT Panels 3 A & 3 B	Advance Panels and Switchgears	1 No	4000
5	Essential Panel S/S # 3	--- do ---		
6	600 KVAR APFC Panel	Advance Panels and Switchgears	2 No	800
7	GI Chemical Pipe Earthing	Alltec	6 No	---
8	Copper Plate Earthing	---	4 No	---
9	Battery Charger with battery bank	Voltran	1 No	24 V,DC, 200 AH
	Sr No.10164/2493			
[VI]	At Sub Station # 3 Equipment List			
	BUS DUCTS INSTALLATION QUANTITIES			
	Supply, erection, testing & commissioning of L.T bus duct with Aluminium busbars of following capacity suitable for connection between Transformer set and ACB of the main L.T. panel including tinned copper flexible and connection at both ends & flexible expansion joint in between the length of busduct			
10	4000 Amp Rating Compact Bus duct	C&S	71.185 Mtr	4000
11	2000 Amp Rating Compact Bus duct	C&S	30.715 Mtr	2000
12	800 Amp Rating Compact Bus duct	C&S	89.355 Mtr	800
13	630 Amp Rating Compact Bus duct	C&S	99.483 Mtr	630
14	400 Amp Rating Compact Bus duct	C&S	19.912 Mtr	400
15	315 Amp Rating Compact Bus duct	C&S	57.434 Mtr	315
**	Rising Mains Belonging to Sub Station No 3 area C & D Blocks			

1	RMM 3 & 4 MEDICAL Rising Main S/S # 3, SHAFT # 1 ; RUN-BB	C&S	17.35 Mtr	630
2	RM-3&4 UPS Rising Main S/S# 3, SHAFT# 1 ; RUN- BA	C&S	16.85 Mtr	630
3	RM 3 L&P Rising Main ; S/S # 3, SHAFT# 1 ; RUN-BC	C&S	16.85 Mtr	800
4	RM 2 - AHU Rising Main; shaft # 2 OF S/S # 3, RUN - BE	C&S	17.45 Mtr	315
5	RM 4 L&P Rising Main; S/S # 3, SHAFT # 2 ; RUN BD	C&S	16.85 Mtr	800
6	RM 1 - AHU Rising Main; shaft # 4, S/S # 3, , RUN-AY	C&S	17.60 Mtr	315
7	RMM 1 & 2 MEDICAL Rising Main , S/S # 3; SHAFT # 3; RUN-AV	C&S	17.60 Mtr	400
8	RM 2 L&P Rising Main S/S # 3, SHAFT # 3 ; RUN-AX	C&S	17.60 Mtr	630
9	RM 1 L&P Rising Main S/S # 3, SHAFT # 3 ; RUN- AW	C&S	17.60 Mtr	630
10	RM 1& 2 UPS Rising Main S/S# 3, SHAFT # 4 ; RUN -AU	C&S	17.00 Mtr	630
[VII]	LOCATION S/S-4 SUB STATION			
1	11 KV 4 HT Panel Switch board having 11 KV VCBs(1250 A Rating)	Siemens	4Nos	VCB
a	Sr No. N8 15249	I/C # 1		1250
b	Sr No. N8 15263	O/G # 1		1250
c	Sr No. N8 15255	O/G # 2		1250
d	Sr No. N8 15268	Tie Fdr		1250
2	11 kV/433 V, 2500 KVA Dry Type	Sudhir Vidyut	1No	HV- 131.21/ LV 3333
	Transformer No 1			
	Make- Sudhir Vidyut			
	Sr No. 2770			
3	11 kV/433 V, 2500 KVA Dry Type	Sudhir Vidyut	1No	HV- 131.21/ LV 3333
	Transformer No 2			
	Make- Sudhir Vidyut			
	Sr No. 2777			
4	Main LT Panels 4A & 4B		1 No	4000 A
5	600 KVAR APFC Panel	Advance Panels and Switchgears Haridwar	2 No	800
6	GI Chemical Pipe Earthing	Alltec	6 No	
7	Copper Plate Earthing		4 No	

8	Battery Charger with battery bank	Voltran	1 No	24 V,DC, 200 AH
	Sr No.10062/2493			
	At Sub Station # 4			
	BUS DUCTS INSTALLATION QUANTITIES			
	L.T bus duct with Aluminium busbars of following capacity suitable for connection between Transformer set and ACB of the main L.T. panel including tinned copper flexible and connection at both ends & flexible expansion joint in between the length of busduct			
9	4000 Amp Rating Compact Bus duct	C&S	73.475 Mtr	4000
10	2000 Amp Rating Compact Bus duct	C&S	30.775 Mtr	2000
11	800 Amp Rating Compact Bus duct	C&S	60.033 Mtr	800
12	630 Amp Rating Compact Bus duct	C&S	142.02 Mtr	630
13	400 Amp Rating Compact Bus duct	C&S	110.26 Mtr	400
14	315 Amp Rating Compact Bus duct	C&S	33.275 Mtr	315
**	Rising Mains Belonging to Sub Station No 4 area A & B Blocks			
1	RM 3 - AHU Rising Main; S/S # 4 shaft # 1, RUN-BL	C&S	17.60 Mtr	315
2	RM 5 L&P Rising Main S/S # 4; Shaft # 1; RUN-BJ	C&S	17.60 Mtr	630
3	RMM -6 Rising Main , MEDICAL , S/S # 4; RUN -BH, Shaft # 1	C&S	17.60 Mtr	400
4	RMM -5 Rising Main , MEDICAL , S/S # 4; SHAFT 2; RUN -BG	C&S	17.60 Mtr	400
5	RM 6 L& P Rising Main , S/S # 4, shaft # 2; RUN -BK	C&S	17.60 Mtr	630
6	RMM -7 Rising Main, MEDICAL , S/S # 4, SHAFT # 3 ; RUN -BN	C&S	17.60 Mtr	400
7	RM -8 L&P rising Main , S/S # 4, shaft- 3; RUN- BR	C&S	17.60 Mtr	630
8	RM 7 L&P; S/S # 4 Rising Main ; SHAFT # 3; RUN-BQ	C&S	17.00 Mtr	800
9	RM -4 AHU Rising Main , S/S # 4, SHAFT # 4; RUN-BS	C&S	17.60 Mtr	400
10	RM 7 & 8 UPS Rising Main S/S# 4; shaft # 4; RUN-BT	C&S	17.00 Mtr	630
11	RM 5 & 6 UPS Rising Main S/S# 4, shaft-4; RUN -BM	C&S	17.60 Mtr	630

12	RMM-8 Medical Rising Main , S/S # 4,shaft # 4; RUN-BP	C&S	17.60 Mtr	630
[VIII]	LOCATION S/S-5 SUB STATION			
1	1500 KVA, 11 KV/433 V	Sudhir Vidyut	1 No	78.83/
	Dry type Transformer No.2			2000
	Sr No. 2778			
2	1500 KVA, 11 KV/433 V	Sudhir Vidyut	1 No	78.83/
	Dry type Transformer			2000
	Sr No 2750			
3	11 KV VCB at S/S # 5		2 No	
O/G# 1	Sr No. N8-15256	Siemens		1250
I/C	Sr No. N8-15250	--- do ---		1250
O/G# 2	Sr No. N8-15259	--- do ---		1250
TIE	Sr No. N8-15264	--- do ---		1250
4	Main LT Panels 5 A & 5 B		1 No	2500
5	600 KVAR APFC Panel	Advance Panels and Switchgears	2 No	800
		Haridwar		
6	GI Chemical Pipe Earthing	Alltec	8 No	
7	Copper Plate Earthing		4 No	
8	Battery Charger with battery bank	Voltran	1 No	24 V,DC, 200 AH
	Sr No.10061/2493			
9	Supply Arrangement for Nursing College			
	NURSING COLLEGE Rising Main; RUN -H	C&S	8.30 Mtr	400
10	Supply arrangement to Auditorium Building			
	2 Runs of 3.5 C X 300 sq mm LT Aluminium XLPE Cables			
i)	From S/S # 5 LT Panel to auditorium L&P Supply	K.E.I.	206 Mtr	300
ii)	From S/S # 5 LT Panel to HVAC Supply of auditorium	K.E.I.	194 Mtr	300
11	RISING MAINS OF SUB STATION # 5 AREA (MED COLLEGE)			
I)	RMA-1 Rising Main Medical College, SHAFT # 1 ; RUN -A	C&S	8.80 Mtr	400
II)	RM-2 Rising Main of Medical College, SHAFT # 1; RUN -B	C&S	8.5 Mtr	630
III)	RMA-3 Rising Main at Medical College, SHAFT # 2 ; RUN-D	C&S	8.5 Mtr	630
IV)	UPS Rising Main, Medical College; SHAFT # 2 , RUN-C	C&S	8.80Mtr	200
V)	RM-1 Rising Main of Medical College, SHAFT # 2 ; RUN-E	C&S	8.5 Mtr	630

VI)	RMA-2 Medical College, SHAFT # 3, Rising Main; RUN-F	C&S	8.80 Mtr	400
VII)	RM-3 Rising Main of Medical College, SHAFT # 3 ; RUN-G	C&S	8.5 Mtr	630
	At Sub Station # 5			
	BUS DUCTS INSTALLATION QUANTITIES			
	L.T bus duct with Aluminium busbars of following capacity suitable for connection between Transformer set and ACB of the main L.T. panel including tinned copper flexible and connection at both ends & flexible expansion joint in between the length of busduct			
12	2500 Amps Compact Bus Duct	C&S	27.35 Mtr	2500
13	2000 Amp Rating Compact Bus duct	C&S	33.905 Mtr	2000
14	630 Amp Rating Compact Bus duct	C&S	19.740 Mtr	630
15	200 Amp Rating Compact Bus duct	C&S	8.815 Mtr	200
16	DCP Type Fire Extinguisher, 9/10 Kg	Minimax	2 No	---
[IX- A]	LOCATION S/S-6 SUB STATION			
1	11 KV 4 HT Panel Switch board having 11 KV VCBs(1250 A Rating)		4Nos	VCB
I/C # 1	Sr No.N8 15253		Siemens	1250
O/G # 1	Sr No. N8 15261		--- do ---	1250
O/G # 2	Sr No. N8 15258		--- do ---	1250
Tie Fdr	Sr No. N8 15267		--- do ---	1250
2	11 kV/433 V, 750 KVA Dry Type		Sudhir Vidyut	1No
	Transformer No 1			HV-39.36/
	Make- Sudhir Vidyut			LV 1000
	Sr No. 2780			
3	11 kV/433 V, 750 KVA Dry Type		Sudhir Vidyut	1No
	Transformer No 2			HV-39.36/
	Make- Sudhir Vidyut			LV 1000
	Sr No. 2751			

4	400 KVAR Capacitor Panel	Advance Panels and Switchgears	2 No	533
	make- Advance	Haridwar		
5	Main LT Panel, 6 A & 6B	Advance Panels and Switchgears	1 No	1600
6	Sub Station No 6 Essential Panel	--do--	1 No	1600
7	GI Chemical Pipe Earthing	Alltec	6 No	
8	Copper Plate Earthing		4 No	
9	Battery Charger with battery bank	Voltran	1 No	24 V,DC, 200 AH
	Sr No.10166/2493			
	At Sub Station # 6			
	BUS DUCT INSTALLATION QUANTITIES			
	L.T bus duct with Aluminium busbars of following capacity suitable for connection between Transformer set and ACB of the main L.T. panel including tinned copper flexible and connection at both ends & flexible expansion joint in between the length of busduct			
10	2000 Amp Rating Compact Bus duct	C&S	27.135 Mtr	2000
11	1250 Amp Rating Compact Bus duct	C&S	21.760 Mtr	1250
12	800 Amp Rating Compact Bus duct	C&S	11.290 Mtr	800

[IX- B]	SUPPLY ARRANGEMENT TO 6 HOSTELS AND STP			
A }	NSH HOSTEL			
1	MAIN PANEL HOSTEL	ADVANCE	1 No	400
	(Having 1 No I/C MCCB 4 Pole, 400 A Rating and 2 Nos 315 A TPNL MCCB for O/G)			
2	Student Nurse Hostel Rising Main (RM-1, RUN -N)	C&S	19.80 Mtr	315
3	Student Nurse Hostel Rising Main (RM-2, RUN -P)	C&S	19.80 Mtr	315
B }	BOYS HOSTEL			
1	MAIN PANEL HOSTEL	ADVANCE	1 No	400
	(Having 1 No I/C MCCB 4 Pole, 400 A Rating and 2 Nos 315 A TPNL MCCB for O/G)			

2	Boys Hostel Rising Main (RM-1, RUN -J)	C&S	16.05 Mtr	315
3	Boys Hostel Rising Main (RM-2, RUN -K)	C&S	16.05 Mtr	315
C } Girls HOSTEL				
1	Girls Hostel Rising Main (Run L)	C&S	23.05 Mtr	315
D } Resident HOSTEL				
1	MAIN PANEL HOSTEL	ADVANCE	1 No	400
	(Having 1 No I/C MCCB 4 Pole, 400 A Rating and 2 Nos 315 A TPNL MCCB for O/G)			
2	Resident Hostel Rising Main (Run S)	C&S	17.80 Mtr	315
3	Resident Hostel Rising Main (Run T)	C&S	17.80 Mtr	315
E } Nurses HOSTEL				
1	MAIN PANEL HOSTEL	ADVANCE	1 No	400
	(Having 1 No I/C MCCB 4 Pole, 400 A Rating and 2 Nos 315 A TPNL MCCB for O/G)			
2	Nurse Hostel Rising Main (RM-1, RUN -L)	C&S	26.30 Mtr	315
3	Nurse Hostel Rising Main (RM-2, RUN -M)	C&S	26.30 Mtr	315
F } PG/Intern HOSTEL				
1	MAIN PANEL HOSTEL	ADVANCE	1 No	400
	(Having 1 No I/C MCCB 4 Pole, 400 A Rating and 2 Nos 315 A TPNL MCCB for O/G)			
2	PG and Intern Hostel, Rising Main (Run Q)	C&S	23.05 Mtr	315
3	PG HOSTEL, Rising Main , RUN-R	C&S	23.05 Mtr	200
CABLE SUMMARY				
G} LOCATION MRS-1 SUB STATION				
1	3 C X 300 sq mm, 33 KV, XLPE Cable 1 Length, MRS-1, from CSPDCL 33 KV 2 pole structure to 33 KV HT Incomer Panel	KEI	80.0 Mtr	300
2	3 C X 300 sq mm, 33 KV	KEI	32.0 Mtr	300
	XLPE Cable 1 Length, MRS-1			

	33KV O/G-1 to Trafo-1				
3	3 C X 300 sq mm, 33 KV		K.E.I.	40.5 Mtr	300
	XLPE Cable 1 Length, MRS-1				
	33KV O/G-2 to Trafo-2				
4	3 C X 300 sq mm, 11 KV		K.E.I.	60 Mtr	300
	XLPE UE Cable 2 Length				
	10 MVA Trafo# 1 to 11 KV breaker				
*	3 C X 300 sq mm, 11 KV		K.E.I.	612 Mtr	300
	XLPE Cable 2 Length, MRS 1 to SS # 2				
4	3 C X 300 sq mm, 11 KV		K.E.I.	20 Mtr	300
	XLPE Cable 2 Length,6 panel board O/G #1 to ATS #1 I/C-1				
5	3 C X 300 sq mm, 11 KV		K.E.I.	24 Mtr	300
	XLPE Cable 2 Length,6 panel board O/G #3 to ATS #3 I/C-1				
6	3 C X 300 sq mm, 11 KV		K.E.I.	38 Mtr	300
	XLPE Cable 2 Length 10 panel board O/G #1 to ATS #1 I/C-2				
7	3 C X 300 sq mm, 11 KV		K.E.I.	19.90 Mtr	300
	XLPE Cable 2 Length 10 panel board O/G #3 to ATS #3 I/C-2				
8	3 C X 150 sq mm, 11 KV		K.E.I.	64 Mtr	210
	XLPE UE Cable 1 Length DG #1 to 10 panel board I/C-1				
9	3 C X 150 sq mm, 11 KV		K.E.I.	58 Mtr	210
	XLPE UE Cable 1 Length DG #2 to 10 panel board I/C-2				
10	3 C X 150 sq mm, 11 KV		K.E.I.	52 Mtr	210
	XLPE UE Cable 1 Length DG #3 to 10 panel board I/C-3				
11	3 C X 150 sq mm, 11 KV		K.E.I.	46 Mtr	210
	XLPE UE Cable 1 Length DG #4 to 10 panel board I/C-4				
12	3 C X 150 sq mm, 11 KV		K.E.I.	40.50 Mtr	210
	XLPE UE Cable 1 Length DG #5 to 10 panel board I/C-5				
13	3 C X 150 sq mm, 11 KV		K.E.I.	44 Mtr	210
	XLPE UE Cable 1 Length DG #6 to 10 panel board I/C-6				
14	3 C X 150 sq mm, 11 KV		K.E.I.	82 Mtr	210
	XLPE UE Cable 1 Length DG #1 to NGR#1				

15	3 C X 150 sq mm, 11 KV		K.E.I.	80 Mtr	210
	XLPE UE Cable 1 Length DG #2 to NGR#2				
16	3 C X 150 sq mm, 11 KV		K.E.I.	77.50 Mtr	210
	XLPE UE Cable 1 Length DG #3 to NGR#3				
17	3 C X 150 sq mm, 11 KV		K.E.I.	70 Mtr	210
	XLPE Cable 1 Length DG #4 to NGR#4				
18	3 C X 150 sq mm, 11 KV		K.E.I.	68 Mtr	210
	XLPE UE Cable 1 Length DG #5 to NGR#5				
19	3 C X 150 sq mm, 11 KV		K.E.I.	57 Mtr	210
	XLPE UE Cable 1 Length DG #6 to NGR#6				
20	3 C X 300 sq mm, 11 KV		K.E.I.	600 Mtr	300
	XLPE Cable 2 Length MRS #1 to S/S #6				
B}	LOCATION No-2 SUB STATION				
1	3 C X 300 sq mm, 11 KV				
	XLPE Cable 2 length SS #2 to S/S #4		K.E.I.	622 Mtr	310
2	3 C X 300 sq mm, 11 KV		K.E.I.	27 Mtr	310
	XLPE Cable 2 Length HT PANEL TO 2 TRANSFORMERS S/S #2				
	LOCATION No-3 SUB STATION				
**	3 C X 300 sq mm, 11 KV, AL XLPE Armoured Cable, fromS/S # 4 to S/S # 3		K.E.I.	880.60 Mtr	310
**	3 C X 300 sq mm, 11 KV, AL XLPE Armoured Cable, fromS/S # 5 to S/S # 3		K.E.I.	630.00 Mtr	310
C}	LOCATION No-4 SUB STATION				
1	3 C X 300 sq mm, 11 KV				
	XLPE Cable 2 length		K.E.I.	27 Mtr	310
	HT PANEL TO 2 TRANSFORMERS				310
D}	LOCATION No-5 SUB STATION				
1	3 C X 300 sq mm, 11 KV		K.E.I.	15 mtr	310
	XLPE Cable 1 length				
	HT PANEL TO 1 TRANSFORMER-2				
**	3 C X 300 sq mm, 11 KV, AL XLPE Armoured Cable, fromS/S # 5 to S/S # 6		K.E.I.	1040 Mtr	310
E}	LOCATION No-6 SUB STATION				
1	3 C X 300 sq mm, 11 KV		K.E.I.	27 Mtr	310
	XLPE Cable 2 Length HT PANEL TO 2 TRANSFORMERS S/S #6				
[XI]	SCADA Equipment at 6 Locations of Sub Stations				

	1	SCADA system for monitoring and controlling of various electrical parameters of Substation Equipments complete as required and as per Technical specification. The system should be able to work on minimum 100 mbps speed and comprising of the following : -		1 No(s)	---
	a	PLC Programming Software, Licenced version to support all five language of IEC61131-3 (IL, ST,LD,FBD,SFC). 1 set	Allen Bradley	1 No(s)	---
	b	Suppling, installation, testing and commissioning a set of the media converters to inter-connect the different sub-systems i/c field instrumentation, RTUs/Processors,CPU's & OFC cable Gateway ,transferring & monitoring the data & signals to the respective components-1 lot		1 No(s)	---
	c	Suppling, installation, testing and commissioning of Redundant PLC, Redundant In rack power supply and I/O Modules at remote locations (all 6 Sub Stations) for Controlling and monitoring the status of switchgears with 100% redundancy as per system Archetecture & TS. 6 lots	Allen Bradley	1 No(s)	
	d	Suppling, installation, testing and commissioning of Communication Gateway, RS485 MODBUS (19.2kbps) to Ethernet TCP/IP (10 MBPS) with 24vDC, & 230vAC 50Hz, shall be provided to connect all the MODBUS Devices viz. MFM, ACB, Numerical Relays, DG Controllers, APFCR etc., The Supplier shall desing the gateways so that each gateway shall take only 10 such devices to maintain the data speed. - 6 Lot		1 No(s)	---
	2	(Cat-6-a) cable suitable for ethernetTCP/IP application with 0.9 mm thick tinned copper conductor,		27 Mtr	---
	3	Fiber Optic cable 6 core, armoured for Outdoor application as per the relevant IS standard to form the backbone data communication network.	Finolex	2778 Mtr	---
		(It is distributed in 6 Link Routes in the Ring Main fashion)			

4	Dedicated Branded Computer for SCADA - Core 2 dual core Personal Computer with 3.2 GHz, 3GB RAM, 160 GB HDD, 2 Serial and 1 parallel ports,1 LAN port, 2 spare USB port DVD Combo, latest licenced Antivirus software (original) compatible with OS & Color Monitor 21" LCD, UPS (1 KVA) – Suitable for CPU & monitor, A4 Size colour printer , pen drive etc.as per specification.	HP/Ellatice Automation	2 Nos	---
5	Supply ,Installation Testing and Commissioning of Server for SCADA Application with Redundant Mode.SCADA licensed Development & Run Time Software, Customized to Customer requirements , for data logging and generation of reports on desired formats for all the electrical parameter for Hourly, Daily, Weekly, Monthly & Yearly Basis.as per Technical specification.	HP/Ellatice Automation	2 Nos	---

I] Rising mains List				
S.N.	ITEM		QTY	Amp Rating
1	400 A Rising Main at Trauma Centre, each 12.5 Mtr	C&S	2 Nos	400
2	200 A Rising Main at Ayush Bldg, 13.50 Mtr Length)(L&P)	C&S	1 No	200
3	315 A Rising Main at PMR Bldg, 16.50 Mtr Length(L&P)	C&S	1 No	315
4	200 A UPS Rising Main at PMR Bldg, 16.50 Mtr Length	C&S	1 No	200
	RM's AT SS # 4	C&S		
5	315 A Rising Main at Shaft-1 for RM-3 AHU, 17.0 Mtr	C&S	1 No	315
6	400 A Rising Main at Shaft-2 for RMM-5, 17.0 Mtr	C&S	1 No	400
7	400 A Rising Main at Shaft-1 for RMM-6, 17.0 Mtr	C&S	1 No	400
8	400 A Rising Main at Shaft-3 for RMM-7, 17.0 Mtr	C&S	1 No	400
9	400 A Rising Main at Shaft-4 for RMA-4 AHU, 17.0 Mtr	C&S	1 No	400
10	630 A Rising Main at Shaft-1 for RM-5 &6 UPS, 17.0 Mtr	C&S	1 No	630
11	630 A Rising Main at Shaft-1 for RM-5 L&P, 17.0 Mtr	C&S	1 No	630
12	630 A Rising Main at Shaft-2 for RM-6 L&P, 17.0 Mtr	C&S	1 No	630

13	630 A Rising Main at Shaft-3 for RM-8 L&P, 17.0 Mtr	C&S	1 No	630
14	630 A Rising Main at Shaft-4 for RMM-8, 17.0 Mtr	C&S	1 No	630
15	630 A Rising Main at Shaft-4 for RMM-7&8 UPS, 17.0 Mtr	C&S	1 No	630
16	800 A Rising Main at Shaft-3 for RM-7 L&P, 17.0 Mtr	C&S	1 No	630

RM's AT SS # 5

17	RMA-1 RISING MAIN , 400 A	C&S	1 No	400
18	RM-2 RISING MAIN , 630 A	C&S	1 No	630
19	RMA-2 RISING MAIN , 400 A	C&S	1 No	400
20	RM-3 RISING MAIN , 630 A	C&S	1 No	630
21	RMA-3 RISING MAIN , 630 A	C&S	1 No	630
22	RM-1 RISING MAIN , 630 A	C&S	1 No	630
23	UPS Rising Main 200 Amp	C&S	1 No	200
24	400 A Rising Main at Nursing College shaft # 1 and # 2,total 8.0 Mtr	C&S	1 No	400

RM's AT SS # 6 RELATED (HOSTELS)

25	315 A Rising Main at NSH Hostel, each 26 Mtr	C&S	2 No	315
26	315 A Rising Main at Boys Hostel, total 32.10Mtr	C&S	2 No	315
27	315 A RH Hostel, each 17.3 mtr	C&S	2 No	315
28	315 A Girls Hostel, 23.6 mtr	C&S	1 No	315
29	300/315 Amps RISING MAIN AT NH HOSTEL; each 26.30 Mtr	C&S	2 No	315
30	300/315 Amps RISING MAIN AT PG/Intern HOSTEL; each 26.30 Mtr	C&S	1 No	315
31	200 Amps RISING MAIN AT PG/Intern HOSTEL; each 26.30 Mtr	C&S	1 No	200

RM's AT SS # 3

32	630 A RMM 3 & 4 MEDICAL S/S # 3	C&S	1 No	630
33	630 A RM 3&4 UPS S/S# 3	C&S	1 No	630
34	630 A RM 2 L&P S/S # 3	C&S	1 No	630
35	630 ARM 1 L&P S/S # 3	C&S	1 No	630
36	630 A RM 1& 2 UPS S/S# 3	C&S	1 No	630
37	315 A RM 1 - AHU; shaft # 4, S/S# 3	C&S	1 No	315
38	315 A RM 2 - AHU; shaft # 2 OF S/S# 3	C&S	1 No	315
39	800 A RM 3 L&P; S/S # 3	C&S	1 No	800
40	800 A RM 4 L&P; S/S # 3	C&S	1 No	800
41	400 A RMM 1 & 2 MEDICAL , S/S # 3	C&S	1 No	400

11 KV, AL, XLPE, Armoured

J] Cable

1	Total No of Runs = 51 Runs	KEI	5611 Mtr	310
K] LT POWER CABLES				
1	3.5 C X 300 Sq mm, AL, XLPE, Armoured Cables, Total 72 Runs	KEI	7782.30 Mtr	300
2	3.5 C X 185 Sq mm, AL, XLPE, Armoured Cables, Total 9 Runs	KEI	1317 Mtr	225
3	3.5 C X 120 Sq mm, AL, XLPE, Armoured Cables, Total 16 Runs	KEI	694 Mtr	227/258
4	3.5 C X 95 Sq mm, AL, XLPE, Armoured Cables, Total 2 Runs	KEI	50 Mtr	199/221
5	3.5 C X 70 Sq mm, AL, XLPE, Armoured Cables, Total 2 Runs	KEI	961 Mtr	167/176
6	3.5 C X 50 Sq mm, AL, XLPE, Armoured Cables, Total 2 Runs	KEI	250.50 Mtr	134/140
7	3.5 C X 25 Sq mm, AL, XLPE, Armoured Cables, Total 61 Runs	KEI	2716.0 Mtr	97/95
8	3 C X 10 Sq mm, AL, XLPE, Armoured Cables, Total 2 Runs	KEI	83.0 Mtr	30
9	3 C X 6 Sq mm, AL, XLPE, Armoured Cables, Total 2 Runs	KEI	211.0 Mtr	39
10	3 C X 4 Sq mm, AL, XLPE, Armoured Cables, Total 3 Runs	KEI	216.0 Mtr	23
11	3 C X 4 Sq mm, Cu, PVC, Armoured Cables, Total 27 Runs	KEI	2425.0 Mtr	30
K] LT CONTROL/SCADA CABLES				
1	6 P X 2 C X 2.5 sq mm shielded, Cu Cable; No of Runs - 6	KEI	663 Mtr	7
2	6 C , Multimode. Fibre Optic Cable, No of Runs-6	Finolex	3759 Mtr	---
3	Cat-6-A, Armoured Cable, 1 Length	KEI	27 Mtr	---
4	3 C X 1.5 sq mm Cu Cable, 172 Runs	KEI	3785 Mtr	17
5	4 C X 2.5 sq mm Cu Cable, 164 Runs	KEI	3072 Mtr	24
6	3 C X 2.5 sq mm Cu Cable, 19 Runs	KEI	389 Mtr	24
7	16 C X 2.5 sq mm Cu Cable, 2 Runs	KEI	83 Mtr	13
8	2 C X 2.5 sq mm Cu Cable, 79 Runs	KEI	2065 Mtr	27
9	12 C X 2.5 sq mm Cu Cable, 31 Runs	KEI	1251 Mtr	14
10	2 C X 4.0 sq mm Cu Cable, 46 Runs	KEI	1380 Mtr	51
11	10 C X 1.5 sq mm Cu Cable, 158 Runs	KEI	3843	11

			Mtr	
12	2 C X 1.5 sq mm shielded, Cu Cable, 58 Rums	KEI	1614 Mtr	20
13	3 C X 4 sq. mm, Cu Cond., Control Cable, 37 Runs	KEI	2154 Mtr	30
L]	Copper Earth Strips			
1	25 X5 mm Cu Earth Strips as per BOQ Item 1.6/2	----	488.44 Mtr	
2	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode, as required. (BOQ Item 1.6/3)	----	102.10 Mtr	
3	50 X5 mm Cu Earth Strips as per BOQ Item 1.6/4	----	2673.27 Mtr	
4	Supplying and laying 65 mm dia GI pipe Medium Class ISI marked in ground from earth electrode to building entry as required. (BOQItem 1.6/5)	Jindal	621.62 Mtr	
5	Supplying and laying 65 mm dia GI pipe Medium Class ISI marked in ground from earth electrode to building entry as required.(BOQ 2.2/15)	Jindal	77.24 Mtr	
6	P/F 25 mm X 5 mm GI earth strip in surface/ recess: (BOQ 2.2/18)	----	625.77 Mtr	
7	P/F 25 mm X 5 mm GI earth strip in surface/ recess: (BOQ 2.2/19)	----	261.99 Mtr	
8	Providing and fixing 50 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required. (As per BOQ 2.2/20)	----	1239.14 Mtr	

M]	Earth Pits			
1	Chemical G.I. Pipe earthing as per BOQ 1.6/1 Item	Altech	68 Sets	
2	Copper earth plate electrode: (BOQ 2.2/11)	----	38 Sets	
3	G.I. earth plate electrode: (BOQ 2.2/12)	----	3 Sets	

FORM OF EARNEST MONEY DEPOSIT

(Bank Guarantee Bond)

WHEREAS, contractor..... (Name of contractor) (Hereinafter called "the contractor") has submitted his tender dated..... (date) for the construction of (name of work) (hereinafter called "the Tender")

KNOW ALL PEOPLE by these presents that we (name of bank) having our registered office at (Hereinafter called "the Bank") are bound unto (Name and division of Executive Engineer) (hereinafter called "the Engineer-in-Charge") in the sum of Rs. (Rs. in words) for which payment well and truly to be made to the said Engineer-in-Charge the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank thisday of 20... . THE CONDITIONS of this obligation are:

(1) If after tender opening the Contractor withdraws, his tender during the period of validity of tender (including extended validity of tender) specified in the Form of Tender;

(2) If the contractor having been notified of the acceptance of his tender by the Engineer-in-Charge:

(a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to contractor, if required; OR

(b) fails or refuses to furnish the Performance Guarantee, in accordance with the provisions of tender document and Instructions to contractor,

We undertake to pay to the Engineer-in-Charge either up to the above amount or part thereof upon receipt of his first written demand, without the Engineer-in-Charge having to substantiate his demand, provided that in his demand the Engineer-in-Charge will note that the amount claimed by his is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date* after the deadline for submission of tender as such deadline is stated in the Instructions to contractor or as it may be extended by the Engineer-in-Charge, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATESIGNATURE OF THE BANK

WITNESS

SEAL (SIGNATURE, NAME AND ADDRESS)

*Date to be worked out on the basis of validity period of 6 months from last date of receipt of tender.

Form of Performance Security (Guarantee) Bank Guarantee Bond-Format – I

(On a stamp paper of appropriate value from any Nationalized Bank or Scheduled Bank)

To
EXECUTIVE ENGINEER,
AIIMS RAIPUR,
TATIBANDH,
RAIPUR – 492099

Dear Sir,

In consideration of the AIIMS Raipur having offered to accept the terms and conditions of the proposed agreement between.....and M/s (hereinafter called "the said Contractor(s)") for the work (hereinafter called "the said agreement") having agreed to production of an irrevocable Bank Guarantee for Rs. (Rupees only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

1. We, (hereinafter referred to as "the Bank") hereby undertake to pay to the Government an amount not exceeding Rs. (Rupees..... Only) on demand by the AIIMS Raipur.

2. We,(indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demure, merely on a demand from the AIIMS Raipur stating that the amount claimed as required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. (Rupeesonly)

3. We, the said bank further undertake to pay the AIIMS Raipur any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

4. We, (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the AIIMS Raipur under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in- Charge on behalf of the Government certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. We, (indicate the name of the Bank) further agree with the AIIMS Raipur that the AIIMS Raipur shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the AIIMS Raipur against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to

the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the AIIMS Raipur or any indulgence by the AIIMS Raipur to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

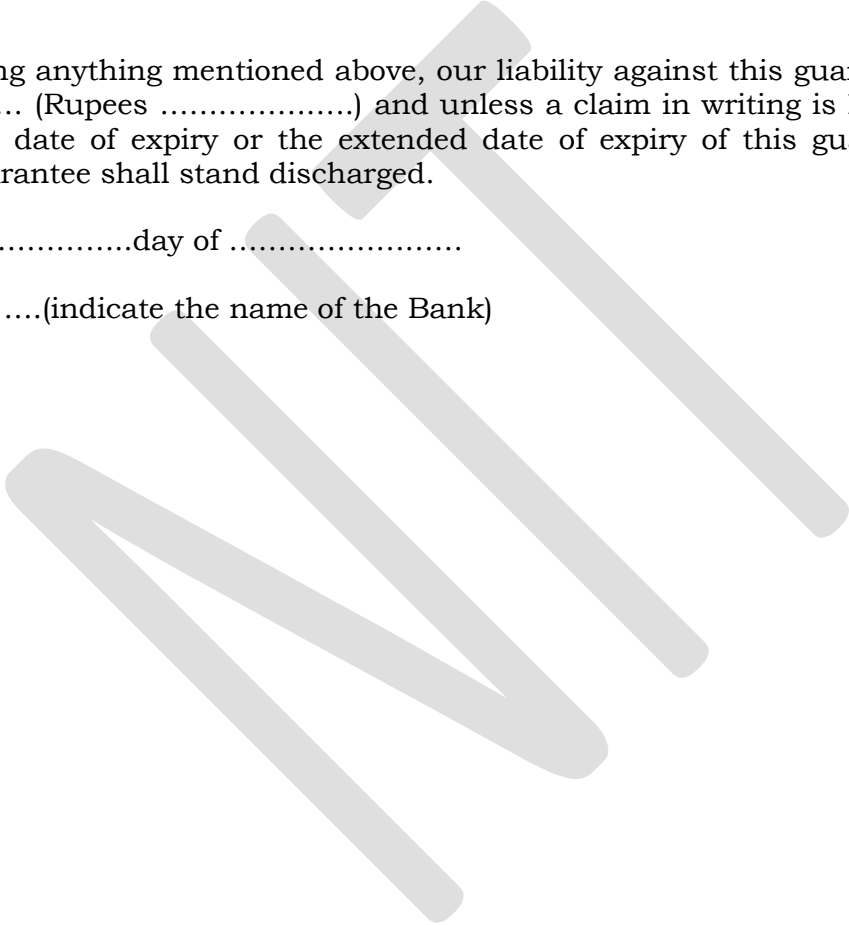
7. We, (indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the Government in writing.

8. This guarantee shall be valid up tounless extended on demand by the AIIMS Raipur.

Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated theday of

for.....(indicate the name of the Bank)



SPECIAL CONDITIONS OF CONTRACT

1. GENERAL

- 1.1 Wherever any reference to any Indian Standard Specifications of BIS or other International standards of ASTM/BS/EN occurs in the documents relating to this contract, the same shall be inclusive of all amendments issued there-to or revisions thereof, if any, up to the date of receipt of tenders.
- 1.2 The contractor shall work according to the programme of work as approved by the Engineer-in-charge, for which purpose, the contractor shall submit a programme of the work within 07 days from the stipulated date of start of the work based on computer software and shall update the same every fortnight.
- 1.3 The contractor shall take instructions from the Engineer-in-charge for stacking of materials at site. No excavated earth or building materials shall be stacked on areas where the buildings, roads, services or compound walls are to be constructed.
- 1.4 If as per Municipal or prevailing rules of the secured campuses owned by paramilitary forces, Institutions etc, the huts for labour are not to be erected at the site of work by the contractors, the contractors shall provide such accommodation at such locations as are acceptable to local bodies with all provisions concerning labour safety & sanitation as contained in the relevant clause of the contract, for which nothing shall be payable.
- 1.5 Unless otherwise provided in the Schedule of quantities, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing shall be payable to him on this account.
- 1.6 The working drawings appearing at para 8.1(iii) of conditions of contract in the form CPWD-7/8, shall mean to include both architectural and structural drawings respectively. The structural and architectural drawings shall be properly correlated before executing the work. In case of any difference noticed between architectural and structural drawings, final decision, in writing of the Engineer-in-charge shall be obtained by the contractor before proceeding further.
- 1.7 Some restrictions may be imposed by the security staff etc. on the working and for movement of labour, materials etc. The contractor shall be bound to follow all such restriction / instructions including issue of identity cards to all persons authorized by him to do work / visit the work site and nothing shall be payable on this account.
- 1.8 The contractor shall make his own arrangements for obtaining electric connections, if required, and make necessary payments directly to the department concerned.
- 1.9 The contractor shall conduct his work, so as not to interfere with or hinder the progress or completion of the work being performed by other contractor (s) or by the Engineer-in-Charge and shall as far as possible arrange his work and shall place and dispose off the materials being used or removed, so as not to interfere with the operations of other contractors, or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of Engineer-in-Charge. The contractor shall be responsible for any damage due to hindrance caused by him.
- 1.10 Cast iron pipes and fittings without ear shall be used. However, pipes and fittings with ears may be accepted without any extra payment. In such cases, clamps are not required and no extra payment shall be made for fixing the pipes in a different manner.
- 1.11 Any cement slurry added over base surface for bond or for continuation of concreting, for protecting reinforcement bars, its cost shall be deemed to have been included in the

respective items, unless specified otherwise and nothing extra shall be payable nor extra cement shall be considered in the cement consumption on this account.

- 1.12 Stacking of materials and excavated earth including its disposal shall be done as per the directions of the Engineer-in-Charge. Double handling of materials or excavated earth if required at any stage shall have to be done by the contractor at his own cost.
- 1.13 No claim for idle establishment & labour, machinery & equipments, tools & plants and the like, for any reason whatsoever, shall be admissible during the execution of work as well as after its completion.
- 1.14 Only Star headed Stainless Steel screws shall be used unless otherwise specified.
- 1.15 Work shall be carried out in professional manner with finished product serving the intended purpose with specified strength, durability and aesthetics.
- 1.16 Work activities shall be executed in well thought out sequences such that consequent activities not adversely affecting previously done work. Nothing extra shall be payable to protect the works already done.
- 1.17 The contractor shall prepare all the needed shop drawings well in advance and get them approved before placing the order and execution of the item.
- 1.18 The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer-in-Charge may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer - in -Charge and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications.

2. RATES

- 2.1 The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work, profile, setting lay out on ground, establishment of reference bench mark(s), installing various signage, taking spot levels, survey with total station, construction of all safety and protection devices, compulsory use of helmet and safety shoes, and other appropriate safety gadgets by workers, imparting continuous training for all the workers, barriers, preparatory works, construction of clean, hygienic and well ventilated workers housings in sufficient numbers as per drawing supplied by Engineer in charge, working during monsoon or odd season, working beyond normal hours, working at all depths, height, lead, lift, levels and location etc. and any other unforeseen but essential incidental works required to complete this work. Nothing extra shall be payable on this account and no extension of time for completion of work shall be granted on these accounts.
- 2.2 The rates quoted by the bidder, shall be firm and inclusive of all taxes and levies.
- 2.3 No foreign exchange shall be made available by the Department for importing (purchase) of equipment, plants, machinery, materials of any kind or any other items required to be carried out during execution of the work. No delay and no claim of any kind shall be entertained from the Contractor, on account of variation in the foreign exchange rate.
- 2.4 All ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp required to be made for working at the basement level, temporary structure for plants and machineries, water storage tanks, installation and consumption charges of temporary electricity, telephone, water etc. required for execution of the work, liaison and pursuing for obtaining various No Objection Certificates, completion certificates from local bodies etc., protection works, testing facilities / laboratory at site of work, facilities for all field

tests and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in-Charge), shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities. Nothing extra shall be payable on these accounts. Before start of the work, the Contractor shall submit to the Engineer-in-Charge, a site / construction yard layout, specifying areas for construction, site office, positioning of machinery, material yard, cement & other storage, fabrication yard, site laboratory, water tank etc.

- 2.5 For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, not with-standing the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them.
- 2.6 All material shall only be brought at site as per program finalized with the Engineer-in-Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.

3. CLEANLINESS OF SITE

The Contractor shall not stack building material / malba / muck/ rubbish on the land or road of the local development authority or on the land owned by the others, as the case may be. So the muck, rubbish etc. shall be removed periodically as directed by the Engineer-in-Charge, from the site of work to the approved dumping grounds as per the local byelaws and regulations of the concerned authorities and all necessary permissions in this regard from the local bodies shall be obtained by the Contractor. Nothing extra shall be payable on this account. In case, the Contractor is found stacking the building material / malba as stated above, the Contractor shall be liable to pay the stacking charges / penalty as may be levied by the local body or any other authority and also to face penal action as per the rules, regulations and bye-laws of such body or authority. The Engineer –in-Charge shall be at liberty to recover, such sums due but not paid to the concerned authorities on the above counts, from any sums due to the Contractor including amount of the Security Deposit and performance guarantee in respect of this contract agreement.

4. INSPECTION OF WORK

In addition to the provisions of relevant clauses of the contract, the work shall also be open to inspection by the Engineer-In-Charge, AIIMS Raipur and other senior officers of AIIMS Raipur and his authorized representative. The contractor shall at times during the usual working hours and at all times at which reasonable notices of the intention of the Engineer-in-Charge or other officers as stated above to visit the works shall have been given to the Contractor, either himself be present to receive the orders and instructions or have a responsible Site Engineer duly accredited in writing, to be present for that purpose Senior Officers of AIIMS Raipur Authorities shall also be inspecting the on-going work at site at any time with or without prior intimation.

5. CO-OPERATION WITH OTHER CONTRACTORS/SPECIALIZED AGENCIES/SUB-CONTRACTORS

- 5.1 The Contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupants of the adjacent properties and to the

public in general .The Contractor shall take all care, as not to damage any other adjacent property or other services running adjacent to the plot. If any damage is done, the same shall be made good by the Contractor at his own cost and to the entire satisfaction of the Engineer-in-Charge. The Contractor shall use such methodology and equipment's for execution of the work, so as to cause minimum environmental pollution of any kind during construction. Further, the Contractor shall take all precautions to abide by the environmental related restrictions imposed by Pollution control board.

Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of adjoining buildings. No claim what so ever on account of site constraints mentioned above or any other site constraints, inadequate availability of skilled, semi-skilled or unskilled workers in the near vicinity, non-availability of construction machinery spare parts and any other constraints not specifically stated here, shall be entertained from the Contractor. Therefore, the Tenderers are advised to visit site and get first-hand information of site constraints. Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.

- 5.2 The Contractor shall cooperate with and provide the facilities to the sub-Contractors and other agencies working at site for smooth execution of the work. The contractor shall indemnify STC, BSF, authorities.

Against any claim(s) arising out of such disputes. The Contractor shall:

- (i) Allow use of scaffolding, toilets, sheds etc.
- (ii) Properly co-ordinate their work with the work of other Contractors.
- (iii) Provide control lines and benchmarks to his Sub-Contractors and the other Contractors.
- (iv) Provide electricity and water at mutually agreed rates.
- (v) Provide hoist and crane facilities for lifting material at mutually agreed rates.
- (vi) Co-ordinate with other Contractors for leaving inserts, making chases, alignment of services etc. at site.
- (vii) Adjust work schedule and site activities in consultation with the Engineer-in-Charge and other Contractors to suit the overall schedule completion.
- (viii) Resolve the disputes with other Contractors/ sub-contractors amicably and the Engineer-in-Charge shall not be made intermediary or arbitrator.

- 5.3 The work should be planned in a systematic manner so as to ensure proper co-ordination of various disciplines viz. sanitary & water supply, drainage, rain water harvesting, electrical, firefighting, information technology, communication & electronics and any other services.

- 5.4 Other agencies will also simultaneously execute and install the works of sub-station / generating sets, air-conditioning, lifts, etc. for the work and the contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings trenches etc. as may be required for such related works (for which inserts, sleeves, brackets, conduits, base plates, clamps etc. shall be supplied free of cost by the department unless otherwise specifically mentioned) and the contractor shall fix the same at time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.

- 5.5 The contractor shall conduct his work, so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-in-Charge and shall as far as possible arrange his work and shall place and dispose off the

materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and in a proper co-ordinate manner and shall perform it in proper sequence to the complete satisfaction of others.

6. SAFETY MEASURES AT CONSTRUCTION SITE

In order to ensure safe construction, following shall be adhered for strict compliance at the site:-

- (i) The work site shall be properly barricaded.
- (ii) Adequate signages indicating 'Work in Progress – Inconvenience caused is Regretted' or Diversion Signs shall be put on the sites conspicuously visible to the public even during night hours. These are extremely essential where works are carried out at public places in use by the public.
- (iii) The construction malba at site shall be regularly removed on daily basis.
- (iv) All field officials and the workers must be provided with safety helmets, safety shoes and safety belts.
- (v) Proper MS pipe scaffoldings with work – platforms and easy-access ladders shall be provided at site to avoid accidents.

Necessary First-Aid kit shall be available at the site.

The above provisions shall be followed in addition to the provisions of General Condition of Contract.

7. FIELD TESTING INSTRUMENTS

(Following instruments in sufficient quantity as directed by the Engineer- in- Charge shall be made available by the contractor. It shall be ensured that the instruments always remain in serviceable condition else the same will be replaced. In case of non-availability of instrument Engineer-In-Charge will purchase the same and the invoice amount will be deducted from the bill and will be bound to contractor in the interest of work.

- (1) Steel tapes – 3 m / 5m / 7.5m / 15m / 30m
- (2) Vernier Calipers.
- (3) Micrometer screw 25 mm gauge.
- (4) A good quality plumb bob.
- (5) Spirit level, minimum 30 cms long with 3 bubbles for horizontal vertical.
- (6) Wire gauge (circular type) disc.
- (7) Foot rule.
- (8) Long nylon thread.
- (9) Rebound hammer for testing concrete
- (10) Dynamic penetrometer.
- (11) Magnifying glass
- (12) Screw driver 30 cms long
- (13) Ball pin hammer, 100 gms.
- (14) Plastic bags for taking samples
- (15) Moisture meter for timber
- (16) Earth resistance tests
- (17) Total station
- (18) Multimeter,
- (19) Meggar

- (20) Refrigerant Leak detector
- (21) Pipe Bender
- (22) Thermometer
- (23) Hygrometer
- (24) CFM Meter
- (25) Step Ladder
- (26) Cordless drill

8. THE CONTRACTOR SHALL SUBMIT 'METHOD STATEMENT' FOR THE APPROVAL SOON AFTER THE AWARD OF WORK

'Method Statement' is a statement by which the construction procedures for important activities of construction are stated, checked and approved. Method Statement shall have description of the item with elaborate procedures in steps to implement the same. The specification of the materials involved their testing and acceptance criteria, equipments to be used, precautions to be taken, mode of measurements etc.

9. TESTING OF MATERIALS

- 9.1 The contractor shall arrange carrying out of all tests required under the agreement through the laboratory as approved by the Engineer-in-Charge and shall bear all charges in connection therewith including fee for testing unless specified otherwise. In all cases cost of samples and to & fro carriage shall be borne by the contractor. Contractor shall establish a laboratory at site of work at his own cost. The laboratory shall be equipped with all necessary equipment as per requirement of specification or as per direction of Engineer-in-Charge. A list of laboratory equipment to be maintained by the contractor is enclosed at Para 13 page 40 & 41. Establishing the laboratory at site shall not absolve the contractor from fulfilling the criteria of getting the test done in independent approved laboratories as per DG, CPWD, O.M. No. DG/MAN/308 dated 29.05.2014. The decision of the Engineer-in-Charge of allowing any test in the site laboratory shall be final.
- 9.2 Even ISI marked materials may be subjected to quality test at the discretion of the Engineer-in-Charge besides testing of other materials as per the specifications described for the item/material. Whenever ISI marked materials are brought to the site of work the contractor shall, if required by the Engineer-in-Charge, furnish manufacturer test certificate or test certificate from approved testing laboratory to establish that the material procured by the contractor for incorporation in the work satisfy the provisions of IS codes relevant to the material and/or the work done.
- 9.3 Substandard Material/Work: In case any material/work is found substandard the same shall be rejected by the Engineer-in-Charge and the same shall be removed from the site of work within 48 hour, failing which the same shall be got removed by the Engineer-in-Charge at the risk and cost of the contractor without giving any further notice and time.

SPECIAL CONDITIONS FOR ASSOCIATION OF SPECIALIZED AGENCIES

1. The main contractor shall have to associate other specialized agency(s) (Joint ventures are not accepted) for execution of each of the these specialized work(s), who fulfils the eligibility criteria as defined in Eligibility of Bidder, within 7 days of issue of letter of intent and also after taking prior approval from the Engineer-in-charge.
2. The agency shall submit the similar work experience documents in respect of experience of having satisfactory completed similar works as defined in Eligibility of Bidder.
3. However the main contractor shall also be eligible to carry out himself any or all of the above specialized works without associating any specialized agency provided:-
The main agency fulfills the prescribed eligibility criteria respectively for the above specialized work(s).
4. The intending bidder if does not possess eligibility criteria for specialized works or he could not associate any specialised agency for specialized works before tendering then he shall upload an undertaking that if "I/We shall become the lowest tenderer then I/We shall submit the documents of Associated specialized Agencies/OEM/Authorized service provider of the specialized E&M services as per the eligibility criteria mentioned in the special conditions of NIT for association of specialized agencies after acceptance of tender along with Performance Guarantee.
5. The main contractor shall have to submit documents such as self-attested copies of Certificates of Work Experience/Completion issued by client department clearly indicating
 - 1.Name of work
 2. Scope of Work
 3. Agreement No.
 4. Estimated Cost
 5. Tendered Cost
 6. Final Value of Work Done
 7. Date of Start
 8. Stipulated date of Completion
 9. Actual date of completion
6. Nature of the Work etc. (In case some of above said details are not mentioned in the Completion certificate, the firm shall attach sample proof in support of above details), self attested copy of valid Electrical contractor license, GST registration of the proposed associated specialized agencies for verification (if required) and for approval of the department as per eligibility requirement mentioned in above condition no.3 after acceptance of tender alongwith Performance Guarantee. Main contractor shall also be required to furnish either copy of applicable licenses/registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board of proposed associated specialized agencies along with above documents.
7. Consent letter of such selected associated specialized agencies for association shall also be enclosed in the prescribed format as per FORM-A along with documents mentioned.

8. If the main contractor fails to submit all the documents of the proposed associated specialized agency(s) as mentioned as above, after acceptance of tender along with Performance Guarantee then department shall reject his/her tender.
9. After approval of associated specialized agencies by Engineer-in-charge, the main contractor will submit MOU signed with the associated specialized agency as per FORM-B in shape of affidavit on stamp paper duly attested by notary in original within 7 (Seven) Days after issue of approval letter (for associate specialized agency). The MOU shall be signed by both the parties i.e. main contractor As 1st party and associated specialized Agency as 2nd party, independently for all specialized work(s).
10. All technical discussions during currency of the contract shall be attended by the associated specialized agencies and the main contractor. Commercial/Technical submissions for the specialized work(s) shall be signed and submitted by the associate specialized agencies along with the main contractor.
11. The associated specialized agencies and the main contractor shall attend the site during inspection of the work by the Engineer-in-Charge or higher authority.
12. The main contractor shall be entirely responsible and answerable for all the works done by his associated specialized agency regarding their quality, adherence to the laid down specification, terms and conditions, warranty/guarantee etc as per the agreement and he shall be liable to bear any compensation that may be levied by the department under any of the clauses of the agreement.
13. In the event of the concerned Associated specialized Agency not performing satisfactorily or failure to complete the specialized works(s), the main contractor on written directions of the Engineer-in-charge, shall remove the Associated specialized Agency deployed on the work and shall submit name of new associated specialized Agency as per eligibility criteria mentioned in the NIT to execute the left over specialized work(s) without any loss of time after completion of all formalities mentioned as above. Also if main contractor wants to change the associated specialized agency during the currency of the contract he shall submit name of new associated specialized Agency as per eligibility criteria mentioned in the NIT to execute the left over specialized work(s) after completion of all formalities mentioned as above.
14. The main contractor shall be responsible and liable for proper and complete execution of the all works including specialized work(s) and ensure coordination and completion of all associated specialized works.
15. Running payment for the work shall be made to the main contractor. In case main contractor fails to make the payment to the associated specialized agency(s) by him within 15 days of receipt of each running account payment then on the written complaint of any associated specialized agency(s) for such work, Engineer-in-Charge shall serve the show cause to main contractor and after considering the reply of the same he may make the payment directly to the concerned associated specialized agency(s) for the work as per the terms & conditions of the agreement/M.O.U. drawn between main contractor and associated specialized agency(s) fixed by him, if reply of main contractor either not received or found unsatisfactory. Such payment made to the associated specialized agency(s) shall be recovered by Engineer-in-Charge from the next RA/final bill due to main contractor as the case may be.

FORM OF APPLICATION BY THE CONTRACTOR FOR SEEKING EXTENSION OF TIME

(PART – I)

1. Name of contractor
2. Name of work as given in the agreement
3. Agreement no.
4. Estimated amount put tender
5. Date of commencement of work as per agreement
6. Period allowed for completion of work as per agreement
7. Date of completion stipulated in agreement
8. Period for which extension of time has been given previously:

	SE's letter no. and date	Extension granted	
		Months	Days
(a) 1st extension			
(b) 2nd extension			
(c) 3rd extension			
d) 4th extension			
(e) Total extension previously given.....			

9. Reasons for which extension have been previously given (copies of the previous applications should be attached)
10. Period for which extension if applied for
11. Hindrances on account of which extension is applied for with dates on which hindrances occurred and the period for which these are likely to last.

Serial no	Nature of hindrance	Date of occurrence	Period for which it is likely to last	Period for which extension required for this particular hindrance	Overlapping period if any, with reference to item.	Net extension applied for	Remarks, if any
a	b	c	d	e	f	g	h

Total period on account of hindrances mentioned above..... Months Days

12. Extension of time required for extra work.
13. Details of extra work and the amount involved:
 - a. Total value of extra work
 - b. Proportionate period of extension of time based on estimated amount put to tender on account of extra work.
14. Total extension of time required for 11 & 12

Submitted to the Sub Divisional Officer

Signature of contractor
Dated:.....

GUARANTEE BOND TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS

The Agreement made this day of two thousand and between son of of (hereinafter called the Guarantor of the one part) and the PRESIDENT OF INDIA (hereinafter called Government of the other part).

WHEREAS this agreement is supplementary to a contract (hereinafter called the Contract) dated and made between the GUARANTOR of the one part and the Government of the other part, whereby the Contractor, inter alia, undertook to render the buildings and structures in the said contract recited completely water and leak-proof.

AND WHEREAS GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak-proof for five years from the date of giving of water proofing treatment.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak-proof and the minimum life of such water proofing treatment shall be five years to be reckoned from the date after the Construction period prescribed in the contract.

Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose:

- (a) Misuse of roof shall mean any operation which will damage proofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof;
- (b) Alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts;
- (c) The decision of the Engineer-in-Charge with regard to cause of leakage shall be final.

During this period of guarantee the guarantor shall make good all defects and in case of any defect being found, render the building water-proof to the satisfaction of the Engineer-in-Charge at his cost, and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-Charge calling upon him to rectify the defects, failing which the work shall be got done by the Department by some other contractor at the GUARANTOR'S cost and risk. The decision of the Engineer- in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if GUARANTOR fails to execute the water proofing or commits breach thereunder then the GUARANTOR will indemnify the Principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Government the decision of the Engineer-in-Charge will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Obligorand by and for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

Signed, sealed and delivered by OBLIGOR in the presence of

- 1.
- 2.

Signed for and on behalf of THE PRESIDENT OF INDIA by in the presence of

- 1.

LIST OF SPECIALIZED ITEMS / JOBS

List I - Civil Works

1. ** Water proofing treatment work.
2. Steel work in steel bridge work, space frames for long span structures, steel towers.
3. ** Special foundations including all types of piles.
4. RCC Overhead Tank with independent staging.
5. Structural Repair and Rehabilitation/ Retrofitting works.
6. Soil Investigation and Survey Work.
7. ** Facade cleaning system and façade cleaning.
8. Custom made wooden furniture (factory made).
9. Diaphragm walls.
10. Post construction Anti-termite chemical treatment.
11. Water Treatment Plants
12. Security to vacant bungalows/premises.
13. Tentage works.
14. Washing/dry cleaning works.
15. Synthetic play area surface for games.
16. Electronic / Digital Signages.
17. Environment Impact Assessment Study and Environment Clearance.
18. Mechanized Housekeeping Work .

Note:

**For these works, Specialized Agencies shall have to be associated by the duly approved specialized agency by Engineer-In-Charge in case the Contractor does not possess the requisite eligibility and experience as per the NIT conditions to carry out these works..

Electrical Works

LIST- II (A)

S. No. Supplying /fabrication, installation, testing and commissioning of the following

1. Kitchen equipment
2. Lifts, escalators and conveyors
3. Simultaneous interpretation systems
4. Gas plants.
5. Cold storage plant
6. Hot Water/Steam Boilers
7. Public address system; conferencing system, automatic vote recording system, recorders
8. Stage lighting
9. Projector and other special equipment for theatre
10. Repairs and calibration of various types of measuring instruments and relays etc.
11. Testing of transformer oil and dehydration and other type of high potential test.
12. Frequency Convertor
13. Temporary illumination, security lighting and wiring for power outlets for metal detectors in connection with Republic Day and Independence Day Celebrations.
14. EPBAX system (equipments).
15. EPBAX system (cabling and wiring).
16. Illumination of heritage caves and fiber optic lighting system
17. Security system and alarm
18. Building Automation System
19. Hydraulic platform /Lift
20. Incinerator
21. Laundry equipment
22. Centralized clock system.

23. Interior/exterior flood lighting of heritage/Monumental buildings/structures involving Computer aided design and evolution of special mounting arrangements for luminaries:
24. Gas pipe line
25. Modular OT
26. Electrically Operated Gate
27. Fountain Work
28. Water supply motors and pumps of 100 hp or more
29. Mechanized Car Parking Systems
30. VRV/VRF Type Air-Conditioning Systems
31. Oxygen Generation Plant
32. CCTV and Allied Equipments
33. Access Control System
34. Hydro Pneumatic Pumps
35. Providing and fixing of Sensor operated Gates
36. Precision Air Conditioning System
37. LAN System
38. SITC of active power factor filter
39. SITC of Solar Photo Voltaic Power generation system

LIST-II (B)

S. No. Supplying /fabrication, installation, testing and commissioning of the following

1. Diesel Generating Set
2. Heating, Ventilation and Air-conditioning System
3. Sub-station equipment
4. Fire fighting system (including wet riser and sprinkler system, portable fire extinguishers)
5. Fire detection and alarm system

NO CLAIM CERTIFICATE

(On company letterhead)

To,

Executive Engineer,
Project Cell, AIIMS, Raipur

Name of Work :

Agreement No. :

Sub: No claim declaration / certificate

We have received the sum of Rs. (Rupees only) in full and final settlement of all the payments due to us for the above stated work under the above mentioned contract agreement, between us and AIIMS, Raipur. We hereby unconditionally, and without any reservation whatsoever, certify that with this payment, we shall have no claim whatsoever, of any description, on any account, against Procuring Entity, against aforesaid contract agreement executed by us. We further declare unequivocally, that with this payment, we have received all the amounts payable to us, and have no dispute of any description whatsoever, regarding the amounts worked out as payable to us and received by us, and that we shall continue to be bound by the terms and conditions of the contract agreement, as regards performance of the contract.

Yours faithfully,

Signatures of contractor

or Officer authorised to sign the contract documents

on behalf of the contractor

(Company stamp)

Date:

Place:

APPROVED MATERIALS LIST (CIVIL)

Note:

1. Unless otherwise specified, the brand/make of the material as specified in the item nomenclature or in the particular specifications or in the list of approved materials attached in the tender, shall be used in the work.
2. The Contractor shall obtain prior approval from the Engineer-in-charge before placing order for any specific material/ Brand/ Make.
3. Whenever the specified brand of material is not available then, the Engineer-in-charge may approve any material equivalent to that specified subject to proof being offered by the Contractor for its equivalence and its non-availability to his satisfaction.

1.	Acid/Alkali Resistant Tile	Somany/ Nitco/ Kajariya/ Bell
2.	Premium Acrylic Emulsion Paint: Interior	Asian (Royale)/ ICI (Velvet)/ Berger (Luxol Silk)/ Nerolac Impression
3.	Admixures& Epoxy	FOSROC/ Aquomix/ BAL-ENDURA/ROFF/Dr.Fixit/CICO/SIKA/BASF
4.	Aluminium Composite Panel	Alpolic/ Aluco Bond/ Reynobond/ Euro bond/ Al-strong/Aludewr
5.	Aluminium Extrusions/ Sections	Hindalco/ Indalco/ Jindal/Indian Aluminium Co.
6.	P.T.M.T. Accessories	Prayag, PRAKASH, SHURYA/Supreme/Kingston
7.	Annealed Float Glass	Saint Gobain/ Modi Guard/ Hindustan Pilkington/TATA
8.	Centrifugally Cast Iron Pipe & Fittings	Neco/ RIF/ Kapilansh/ BIC/SKF/Electrosteel
9.	Ceramic Tiles	Kajaria/ Somany/ Nitco/ Orient Bell/ Johnson/Varmora/AGL/OASIS/Marbito
10.	Cement Concrete Chequered tiles	Raj-Tiles/ Bharat/ Rigid Tiles/Advance/Ultra Tiles/NITCO
11.	CP Bottle Trap	Parryware / Hindware/ Jaquar/ GRAFDOER by VMS BathwarePvt. Ltd./Prayag
12.	CP Brass Bibcock/ Pillarcock/ Stopcock/ Angle Valve/ Concealed Stop Cock & CP fittings (Normal Range)	Marc(oriental series)/ Parko/ Jaquar (Continental series)/SPRING COLLECTION OF PRIMA /GEM/ESS/Plumber/ GRAFDOER by VMS BathwarePvt. Ltd. /L&K Metro/Vardhman/'Coral' series of parryware/'JOY' & 'VINTAGE' series of KEROVIT by Kajaria /Prayag
13.	CP Waste Coupling	Mark/ GRAFDOER by VMS BathwarePvt. Ltd./ Parko or equivalent /Prayag
14.	Curtain Carrier	Vista levlor or equivalent.
15.	Dash fastener/ Expansion Bolt/Stone Cladding Clamp	M/s DevAshish/HILTI/Fischer/Bosch/Wurth/Trixel.
16.	Door closer/ floor springs	Dorma/ Haffle/ Falcon/Godrej/Dorset/Kich/Sandhu/Hardwyn
17.	Drapery Rod	Vista Levlor or equivalent.
18.	Flushing cistern (single/Dual Flush) as per IS: 7231	Sleek Dual flush PVC cistern of Hindware / 'Slimline'ofParryware /Prayag
19.	EPDM Gasket	AnandLescuyer or equivalent.

20.	Epoxy Primer & Paints	Berger/ Pidilite/ CICO/ BASF/ SIKA/Asian/Nerolac/ICI Kansai Akzo Nobel.
21.	Fibre Glass Shelf	Kamal/ Bath King or equivalent.
22.	Float/Clear/Frosted/Toughened /Refractive Glass	Modi Float/ Saint Gobain/ Asahi/AIS/Modiguard.
23.	Flush Doors / Shutters as per IS: 2202	Kutty flush door/ Anchor/ Century/ Kitlam/Archid/JAYNA/Ashiyana Brand by Evergreen Industries/ Bhimsaria Door/ Century/ Greenply /Archid/Kitply/Selected Products Company/Jain Doors pvt. ltd./Duro/Durian
24.	Flush Valve	Aquel/ Marc/ Parryware/ Jaquar /Prayag
25.	FRP Shutters/frame	Fibre Glass Engineers/ Raipur/ Aashoo Model or equivalent/JAYNA/ Selected Products Company.
26.	Galvanized/Stainless Steel Anchor Fasteners	Shakti/ Arrow/ Hilti/ Fischer
27.	GI fitting	Tata/ Jindal/ Zenith/UNIK/AVR/Zoloto.
28.	GI Pipe	Tata/ Zenith/ Jindal (HISAR)/Prakash Surya.
29.	Glass Mosaic Tile	Bissazza/ Saon or equivalent.
30.	Gun Metal Gate Valve	Zoloto/ Leader/ SAINT
31.	False Ceiling system	Boral Gypsum / India Gypsum/ Laffarge/ St. Gobain(Gyproc)/ Armstrong/Hunter Dougals/Aearolite/Gridsquare/Interarch
32.	Hardner	Hard crete of Snowcem India/ MC Deritop F.H.
33.	Jet Assembly for EWC	Parryware/ Jaquar/ Grohe/ Kohler
34.	Laminate	Marino/ Greenlam/ Decolam/ Century/ Formica/ Kitlam/Action TESA/Sunmica/Durian
35.	Low Level PVC Cistern Single flush	Sleek model Cistern of PVC of Hindware or 'Slimline' model of Parryware, JINDAL /Prayag
36.	Melamine Polish	Melamine Gold of Asian Paint/Wudfinof pidilite/Timbertone of ICI Dullex/ Beegel.
37.	Metal False Ceiling	Nittobo / Armstrong / Trac / Durlum / Huntordonglas/Aerolite
38.	Mineral Fibre/Calcium silicate Ceiling	Armstrong / Nitobo / Daiken / Hunter Douglas/ Aerolite
39.	Modular SS Railing System	Metallica India / Stark steel Fabricator / D-line International Denmark / Mobel Hardware.
40.	M.S .Pipe (Railing)	Jindal / Prakash Surya/ Tata/ RINIL
41.	Marine Plywood / BWP Ply	Kitply / Duro / Century/ Greenlam/ Durian
42.	Non asbestos high impact polypropelene reinforced Cement sheet	Everest or equivalent
43.	Oil Bound Distemper/Dry Distemper	Asian (Professional Acrylic Distemper)/Maxilite of ICI / Bisan of Berger/Nerolac (Beauty Acrylic Distemper)
44.	Water closet (Orissa Pan/Indian type) & fittings, accessories as per IS : 2556	Parryware / Hindware / 'KEROVIT' by Kajaria/ESSCO by Jaquar.
45.	PE-AL-PE Composite pipes	Jindal or equivalent.
46.	Plastic Connection Pipe	Parryware/Kamal Delux or equivalent.
47.	Plywood/Veneer	Archid/ Kitply/ Green ply/ Century/JAYNA/Green Ply/Merino/Duro/Durian

48.	Polyester Powder Coating	Nerolac/ Berger/ J&N
49.	Poly Sulphide Sealant	PIDISEALbyM/s Pidilite Industry/RDL941-TECHSEALChokseyChemicals/BASF/SIKA/Fosroc
50.	Polymer Modified Cementitious grout	BalEndura/ PidiliteKeroKoal/Ultratech/Ardex/Ferrous Crete.
51.	Pre-laminated Particle Board IS : 12823 (Gr-I/ Type-II)	Kitlam/ Tesa/ Archidply/Eco brand/Century/Bhutan board/Action Tesa/Greenlam/Merino
52.	Primer (Cement Primer)	Decoprime WT of Asian/ white primer of ICI/BP white of Berger/ Nerolac
53.	PVC Rain Water Pipe & Fitting	Finolex/ Classic of Kisan/ Kasta/ Supreme/AKG.
54.	PVC Shutter and frames	Rajshri/ Sintex/Polyline/Duroplast/Jain wood Industries.
55.	PVC Tiles	Arm Strong/ LG or equivalent.
56.	Screws	GKW / Nettle Fold or equivalent.
57.	Silicon Sealant	G.E./ DOW Corning/Waker/BASF/Pidilite/ROFF
58.	Solid Plastic Seat Cover for EWC	EWC standard seat cover white of Parryware/Hindware/'KEROVIT' by Kajaria
59.	Stainless Steel	Jindal Stainless Steel/ Salem Steel
60.	Stainless Steel Screws	Kundan/ Arrow or equivalent.
61.	Stainless steel Sink with or without Draining board.	Nirali/ Hindware/ Frankee/ Cobra/AMC/ GRAFDOER by VMS BathwarePvt. Ltd./Parryware/Neelkanth/Nirali
62.	Structural Silicon Sealant	Dow Corning/ Wacker/ GE/ Du-pont
63.	Structural steel	TATA/ SAIL/ RINL/TISCO/JSW Steel ltd./Jindal steel & Power ltd.
64.	Super plasticizer	MC Baucheme/ Sika/ Fosroc
65.	Synthetic Enamel Paints	Gloss Synthetic Enamel of ICI(Dulux)/Asian (Apolite Premium gloss)/Berger (Luxol Hi Gloss)/ Synthetic Hi Gloss of Nerolac
66.	Terrazzo tiles /Mosaic Tiles	Raj-Tiles/ Bharat/ Rigid Tiles/NIC/A-1/GTC
67.	Cement Concrete Paver Block &Kerb stone	Rigid Tiles/ Raj-Tiles/Advance
68.	Textured Exterior wall paint	Spectrum/ Ultratech / Heritage by Bakelite coating and paints/Asian paint/Berger/Nerolac/Luxture.
69.	Towel Ring/Towel Rod/Towel Rack	Kamal/ Marc or equivalent /Prayag
70.	Pre-Painted/powder coated CRC windows	M/s classic engineers and fabricators/ M/s JK Enterprises Jaipur/ Nclalltek&seccolor ltd. Hyderabad/ ultimate safety metals.
71.	Veneer	Archid/ SUN/ Durian/ Ventura/ NLDK
72.	Virtuosos China Wash Basin Oval	Hindware / Parryware /'KEROVIT' by Kajaria/CERA/Jaguar/ESSCO by Jaquar /Prayag
73.	Vitreous China Floor moulded European with Cistern Complete	Parryware / Hindware /'KEROVIT' by Kajaria/ CERA/Jaguar/ ESSCO by Jaquar /Prayag
74.	Vitreous China Floor Mounted European W.C. without cistern	Parryware / Hindware /'KEROVIT' by Kajaria/ CERA/Jaguar/ ESSCO by Jaquar/Prayag
75.	Vitreous China Half stall Urinal	Model No. 6002 Urinal flat back large of Hindware or magnum of Parryware/ ESSCO by Jaquar/Prayag
76.	Vitreous China laboratory Sink	Hindware / Parryware /'KEROVIT' by Kajaria/ CERA/Jaguar/ ESSCO by Jaquar/Prayag

77.	Vitreous China Low Level Cistern for European W.C.	Hindware / Parryware / KEROVIT' by Kajaria/ CERA/Jaguar/ ESSCO by Jaquar/Prayag
78.	Vitreous China Pedestal for Wash Basin	Pedstal of Parryware / Hindware or equivalent/ CERA/Jaguar/ ESSCO by Jaquar/Prayag
79.	Vitreous China Wall Mounted W.C. with vitreous Cistern (component)	Parryware / Hindware / KEROVIT' by Kajaria/ CERA/Jaguar/ ESSCO by Jaquar/Prayag
80.	Vitreous China Wall Mounted W.C. without Cistern.	Parryware / Hindware / KEROVIT' by Kajaria/ CERA/Jaguar/ ESSCO by Jaquar/Prayag
81.	Vitreous China Wash Basin Rectangular without Pedestal	Hindware / Parryware / KEROVIT' by Kajaria/ CERA/Jaguar/ ESSCO by Jaquar/Prayag
82.	Vitrified /Porcelain Tile	Marbogranit/ Euro/ Somany/ diamond of Naveen /Granamite of Bell /OASIS/ceramic/ Granito/ Kajaria/ M/s Restile//Rak/ Johnson/Nitco/ Varmora/AGL/Marbitto.
83.	Waste Pipe	Kamal with brass checknut/Viking
84.	Water Proofing Compound (Liquid)	Pidiproof Ltd./CICO/ Super plast by M/s Structural water proofing/ Impermo/FOSROC/Dr.Fixit (Pidilite Industries))/BASF/ROFF/SIKA/ArdexEndura (BalEndura).
85.	White Cement	JK White/ Birla White.
86.	CPVC Pipes as per IS: 15778	AKG/Ashirvad/PRIME FLOW OF KRISHI POLYMERS/Supreme/KSR by Kisan irrigation/Flowguard plus by finolex/Prince /Prayag
87.	Teak wood/hard wood wire mesh & panel doors	A-1 Teak product Indore or equivalent.
88.	Reinforcement steel	Tata/Sail/RINL/Jindal/Jindal steel & power ltd.
89.	Block Boards as per IS: 1659	JAYNA/Century/Greenply/Archid/Kitply or equivalent.
90.	Brass bib cocks/stop cock	Marc/Parko/Jaquar/SPRING COLLECTION OF PRIMA as per IS : 781 or equivalent/Prayag
91.	Brass ball cocks (Float valve)	Marc/Parko/Jaquar /SPRING COLLECTION OF PRIMA as per IS:1703 or equivalent/Prayag
92.	Water meter	SPRING COLLECTION OF PRIMA as per IS: 779 or equivalent.
93.	HDPE Pipes as per IS:4984	KRISHNA plast pipes/KSR by Kisan irrigation/Supreme/Reliance/Jain
94.	uPVC Pipes as per IS: 4985	KRISHNA plast pipes/AKG/ KSR by Kisan irrigation/Supreme/Astral/Prince/Ashirwad/Prayag
95.	uPVC Screen and casing pipes for bore well/tube well as per IS : 12818	KRISHNA plast pipes/KSR by Kisan irrigation/Supreme/Prayag
96.	uPVC-SWR Pipes SN 8 as per IS: 13592	KRISHNA plast pipes/KSR by Kisan irrigation/Finolex/AKG/Supreme/Prince/Ashirwad/ Astral/Prayag
97.	Wooden Shutter with frame	Siesto Brand by Bramsaria doors or equivalent.
98.	uPVC Windows/Doors	SIESTO Brand by Bhimsaria Polymers/Duroplast/Fenesta/Komerling/Wintech/Al uplast
99.	Cement (OPC/PPC)	A.C.C., Jaypee Cement, Ultratech, Shri Cement, JK

		Lakshmi, GujratAmbuja Cement and Cement Corporation of India.
100	Corrugated GI Sheets	Tata, Essar , Sail JSW, Bhusan
101	Colour coated profile sheets	Tata (Ezydeck)/Lloyd Superdeck/JSW/Jindal
102	Float Glass Profile Sheet TATA (transparent)	Tata, Modiguard, Saint Gobain
103	Aluminium doors & window fittings (Heavy duty)	Jyoti , Argent, Everest/Kilong/Alualpha/classic/Ebco
104	Steel/Wood primer / paint	ICI delux, nerolac, berger, asian
105	Bitumen 85/25 Emulsion (MS)	HPCI, IOCL,BPCL
106	PVC water storage tanks	Sintex, water well, Siltank, Polywell/Plasto/ 'SILTANK' by Supreme
107	Bitumen VG-30, VG-10	As per particular specification of item from IOCL, BPCL, HPCL.
108	Rigid Phenolic foam for cold and hot insulation as per IS: 13204	Phenotherm manufactured by Bakelite Hylam ltd
109	Surface Texture Finishes	Heritage manufactured by Bakelite Coatings & paints ltd. or equivalent
110	FRP Chhajjas	Selected Products Company or equivalent.
111	FRP Porta cabin	Selected Products Company or equivalent.
112	G.I. Wire-mesh/Netting	Selected Products Company or equivalent.
113	Wall Putty (White Cement based)	Buildwell (Walplast Products Pvt. Ltd.)/Birla wall care/JK white/Berger/Asian paints/ferrous Crete
114	AAC block	'Ecorex' manufactured by EcorexBuildtechpvt. Ltd. or equivalent.
115	UPVC Agriculture/Pressure pipes and fittings	AKG Extrusion Pvt Ltd. or equivalent /Prayag
116	UPVC underground drainage & sewerage pipes SN 8 as per IS:15328	KSR by Kisan irrigation/Finolex/AKG/Supreme/Prayag
117	Fabrication of aluminium& UPVC doors, windows, Facades including ACP and glazing work	Skyler World or equivalent.
118	Fabrication of aluminium structural glazing and aluminium doors & windows.	KANHA ALU AND FAB PVT. LTD., Raipur or equivalent.
119	Processing and fabrication of glass (toughened, DGU and lamination	Wadhwa Glass Works (P) Ltd., Raipur or equivalent.
120	Glass reinforced Gypsum (GRG) false ceiling	'Diamond' manufactured by Diamond International Inexpvt. Ltd/Gyproc by Saint Gobain.
121	Wooden shutter with frame	'Bhimsaria' or equivalent
122	PPR-C pipes as per IS: 15801	KSR brand/Supreme/Prayag
123	PVC fittings as per IS: 10124 and IS: 7834	KSR brand or equivalent/Prayag
124	PVC underground draingae pipes (structured wall type) as per IS: 16098	Supreme or equivalent/Prayag
125	PVC septic tanks	'Safegard' by Supreme or equivalent
126	PVC underground water tanks	'Amrutam' by Supreme or equivalent

127	PVC readymade toilet blocks	'Cleanage' by Supreme or equivalent
128	PVC chambers & Manholes	Supreme or equivalent
129	Pre-Painted/powder coated CRC windows	M/s classic engineers and fabricators/ M/s JK Enterprises Jaipur/ Nclalltek&seccolor ltd. Hyderabad/ ultimate safety metals.
130	White cement based polymer modified self curringmortor	Ultratech/Dr.Fixit/ Sika/ Fosroc
131	Gypsum plaster	Ferrous crete/ Gyproc (Elite-90)/ Ultratech
132	Tile Adhesive	Ferrous Crete / Ardex/ Endure (Gold Star)/ Pidilite (Fevimatex)/ Weabr (Saint Gobain)
133	Integral water proofing compound with cement (for plaster & mortar)	FOSROC/ Conplast 421/Dr.fixit : LW+/ Sika : sikacim/Asian Paints: Smart care vitalia& equivalent product of BASF/CICO/ArdexEndura
134	Water proofing for bathroom/toilet/balcony & other wet areas.	Fosroc: Brush Bond/CICO:Tapecrete/Dr.fixti : Pidilite 2k/Sika: Nito Bond/Asian Paints: Damp Block 2k & Equivalent Product of BASF/Ardex endure
135	Crystalline water proofing compound.	Fosroc : Fosroc crystalline/Dr.Fixit: Dr.fixit crystalline/Sika: Sika Crystalline/Asian Paints:Crystalline Quart & Equivalent Product of BASF/CICO/ArdexEndura
136	Polycarbonate sheet	GE Plastic/Lexan/MG Polyplast
137	Fire rated doors	Signum fire protection/Shakti Metdoor/NAVAIR/Sukri/Promat International
138	Stainless steel railing Accessories	Jindal/Dorma/Kich/GEZE/Godrej/Hardwyn
139	Stainless steel door & windows fittings	Jindal/Dorma/Kich/Dorset/Godrej/Ozone
140	Acrylic Distemper 1 st quality (washable/Readymix/Low VOC)	Asian Paints (Tractor Aqua Lock Paint)/ Berger: commando or equivalent paints of Nerolac or ICI-Dulux.
141	Plastic emulsion plaint	Asian paint: (Apolite Heavy Duty Premium Emulsion paint)/ Nerolac :Impressio/Berger:Easy clean/ICI-Dulax:Velvet touch
142	Acrylic Smooth Exterior Paint	Asian Paint : (Apex/ Professional Premium Exterior Emulsion/ Nerolac: XL/Berger: Weather coat/ICI-Dulux: Weather Shielded
143	Premium Acrylic Smooth Exterior Paint with Silicon Additive	Asian paint: Apex Ultima/Nerolac: XL Total/Berger: Weather coat all guard/ICI dulux: Weather Shield max
144	Fire paint	Asian paints/Akzo Nobel Coatings India ltd./ PROMAT/Jotun
145	D.I. Pipes & fittings	Electrosteel/Jindal/Tata Ductura/Kapilansh/Kesorom
146	C.I. manhole covers, frames & CI Gratings	Neco/Raj iron Foundary Agra/BIC/SKF/Kapilansh
147	SFRC manhole cover & Grating	K.K./Jain Pragati
148	C.P. Brass fittings (Superior Range)	Jaquar/Grohe/Roca/Prayag
149	Sanitary ware fittings & Accessories (Superior range)	Kohler/Roca/Hindware/Parryware/Prayag

150	Mirror glass	Atul/Modi Guard/Golden Fish
151	Extruded Polystyrene Insulation Board	Dow Corning/Supreme/Taxes/Analco
152	Heat Resistant Tiles	Swastik/Thermatek
153	Floor Hardener	Ironite/Ferrok/Hardonate
154	Modular Expansion Joint	Herculus/Sanfield India Ltd. Vexcolt
155	Glass Wool	Dow Corning/ U.P. Twinga/Isover
156	UPVC Doors and window hardware	Rotto/Dorset/Kinlong
157	AAC Block adhesive	Ecorex/Ultratech/ArdexEndura/Ferrous Crete
158	Ready Mix Plaster	Ultratech/Ferrous Crete/Saint Gobain
159	Post tension slab	Ultracon technology limited/Tech-9/CRUX
160	Acoustical Wall paneling	Hush or equivalent to be decided by Engineer-in-charge.
161	Sports Vinyl Flooring	Ebaco or equivalent to be decided by Engineer-in-Charge

APPROVED MATERIALS LIST (ELECTRICAL)

1. Unless otherwise specified, the brand/make of the material as specified in the item nomenclature or in the particular specifications or in the list of approved materials attached in the tender, shall be used in the work.
2. The Contractor shall obtain prior approval from the Engineer-in-charge before placing order for any specific material/ Brand/ Make.
3. Whenever the specified brand of material is not available then, the Engineer-in-charge may approve any material equivalent to that specified subject to proof being offered by the Contractor for its equivalence and its non-availability to his satisfaction.

Sl. No.	Item	Acceptable Makes
1	PVC insulated Copper wire / Telephone wire	KEI / HAVELLS / RR Kabel / Polycab / Finolex/ Anchor/ (All with ISI Marked)
2	MCCB / Switch Gear with Thermomagnetic releases	L&T/Seimens/Legrand / Schneider/Hager/ABB/ GE/C&S Electric
3	MCCB with Variable microprocessors based releases (o/c, s/c, e/f)	L & T (D-Sine) , ABB (ISO Max), Siemens, Schneider (NS Compact), GE (Recold Plus), Legrand (DPX)
4	MCB / MCB Prewired DB / RCCB/ Industrial Socket not less than 10 K.	Legrand / L&T / Hager / Seimens / Schneider/ Havells/ ABB/HPL
5	Steel Conduit.	BEC / AKG / MK / Rama / Finolex
6	PVC Conduit	BEC,AKG, MK, Anchor, Finolex, Steel Craft, Saraswati, Swastik , Polycab
7	Casing Caping	Saraswati, Polycab, Precision, Astral
8	Call Bell / Buzzer / Ceiling rose / Electronic Regulator.	Anchor / Vinay Clair / Polo Rider / North West.
9	Brass Batten / Angle Holder.	Kinjal / Antex / Emperor.
10	Modular Switch / Socket / Blanking Plate /PVC Box / Metal (GI)Switch Box (the gauge of GI Box shall not less than 16 SWG/1.2mm, depth≥60mm & of the same make that of Switch) Front Plates, Telephone, T.V. Outlets Socket / Fan Regulator.	Crabtree (VERONA), Anchor (Vision), L&T(Entice), MK (Citric), Legrand (Myrius), Schneider (Opale).
11	Lamp for (light fittings)	Philips / Osram/ GE/ Bajaj/ Wipro/Crompton.
12	XLPE insulated PVC sheathed 1.1 KV grade Al. conductor armoured UG cable.	Finolex/ Cable Corporation of India / R.R. Kabels/ Universal Cable/Havells/KEI/ Polycab.
13	Galvanize Octagonal Street light pole/ High Mast & galvonised bracket.	Bajaj/ Transrail/ Valmont/Aster.
14	HRC Protection Fuses/ Fuse Fittings.	Siemens/ L&T/ Schneider /ABB
15	Selector Switches/ Indicating Lamps (LED type)	AE/ Enercon/ L&T/ Neptune/ Conserve/ Secure/ Keycee/ Vaishnav

16	Digital Ammeter/ Voltmeter	Conserve/ Secure/Enercon/AE/ MECO/ Universal/ Rishab/ Yokins
17	Current. Transformer	L&T/ A.E./ Kappa/ IMP/ GE or equivalent
18	LUGS, Thimble, Cable Glands	Dowels/ Multi/ COMET/ Hex/ Jhonson / Gripwell/Comex/Comed
19	Timer	L&T/ Siemens/ Schinder/ Hager/ Legrand
20	Modular Blanking Plate	Clipsal, Crabtree, MK, Anchor, Legrand, L&T, ROMA, Siemens Northwest
21	G.I. Pipe	Jindal/ Tata/ Prakash/Surya
21	Power contactor	L&T / Siemens / Schinder/Legrand /ABB
22	Fluorescent Tube Fittings	Surya, Keslec, Trilux, Bajaj, Osram, GE , Wipro, Crompton Philips
23	Tap-off Box (Plug in Type), End Feed Unit	C&S Electric & Switchgear, L & T, ABB, Siemens, Schneider, Tricolite
24	LT Panels / Feeder Pillars / Floor Panels for upto 400A i/c switchgear	L & T, ABB, Siemens, Schneider, Tricolite, Adlec, CRS, Sudhir, Jakson, Advance Panel (Narela), Adhunik, Havells.
25	MPCB	L&T, ABB, Siemens, Schneider
26	LED fittings	Havells/Wipro/CGL/Philips/Bajaj/Osram
27	LED Make	Nichia / citizen/ Lumileds / APT/ Electronics/Cree/Osram /Bridgelux.
28	Static voltage stabilizer	Reputed make as approved by Engineer-in-charge
29	Loudspeaker, Amplifier, Volume controller	JBL, BOSE, BOSCH, Electro- Voice, Sennheiser, D&B audiotechnik, Meyer Sound
30	Ceiling Fan	Havells/Bajaj/Usha/Crompton

APPROVED MATERIALS LIST

(MANUAL FIRE ALARM SYSTEM/ WET RISER SYSTEM)

1. Unless otherwise specified, the brand/make of the material as specified in the item nomenclature or in the particular specifications or in the list of approved materials attached in the tender, shall be used in the work.
2. The Contractor shall obtain prior approval from the Engineer-in-charge before placing order for any specific material/ Brand/ Make.
3. Whenever the specified brand of material is not available then, the Engineer-in-charge may approve any material equivalent to that specified subject to proof being offered by the Contractor for its equivalence and its non-availability to his satisfaction.
4. If any makes stated above does not comply with the technical specifications given in the tender then such a make shall not be allowed.

SNo	Details of Equipment / materials	Make
1	Fire alarm Zonal Panel, Main Control Panel , sounder MCB, Talkback unit/ Response Indicator/Detector	Agni Instruments Engineers India Pvt ltd / Safeway Security System / Electroquip / Steel age Industries (Minimax) (Honeywell)/ Edward/ / Notifier Notifier/ Johnson control/ Honeywell/ Siemens/ Bosch/ASES (Agni Suraksha)
2	Amplifier/Microphone/Hooter	Ahuja/Philips/ Agni Instruments Engineers / Safe way security System / Agni suraksha / Notifier
3	CO2/ABC fire extinguisher	Minimax/Ceasefire/Kanex(All with ISI marked)
4	Smoke detectors	Apollo series 65 / system sensor
1	Terrace Monoblock pump set	Kirloskar model – KDS- or similar model of Mather & Platt / Grandfos/Wilo/Jyoti.
2	MS Pipe / GI Pipe	Tata / Jindal (Hissar)/ SAIL (all with ISI marked)
3	CI Butterfly valve.	Audco / Advance / Kirloskar / SANT./KARTAR /Zoloto
4	CI Non return valve	Kirloskar / Kalpna/ Indian Valve company / SANT./KARTAR/ Zoloto
5	Landing valves/ Hydrant valves	Newage / Minimex / Padmini / Getech/Omex.
6	Gun metal branch pipe	Minimax / Newage / Padmini / Getech/Omex.
7	RRL Hose pipe	Newage / Minimex / Padmini / CRC.
8	Hose Cabinet	Minimax / Newage / Padmini / CRC/Getech.
9	FBC	Minimax / Newage / Padmini / CRC/Getech.
10	First Aid hose reel.	Jyoti / CRC/ Padmini / Maruti.
11	Hose reel drum	Minimax / Newage / Padmini / Getech.
12	Gun metal valves	Sant / Leader / Kirloskar / Zoloto.
13	Pressure gauge	Feibig / H.Guru / indfos.
14	Pressure Switch	Danfoss / Ranutrol / H.Guru.
15	Electrical panel	Any CPRI approved manufacturer.
16	MCCB/MCBs	L&T/ Legrand / Siemens/ Schneider.
17	Starter	L&T / Siemens / ABB/ C & S.

18	Digital Voltmeter / Ammeter	AE/L&T.
19	Selector Switch	Kaycee / L&T / AE.
20	Indicating lamp	L&T / Siemens / BCH / Kaycee.
21	CTs	AE/L&T .
22	Sprinkler/flexible connection for sprinkler	Lifeguard/exflame/safefire/Tyco/Aquamist/Newage /spray safe/HD
23	Installation valve (ISI marked)	Lifeguard/ spray safe/HD/ Tyco
24	Branch pipe, nozzle and couplings	Fireshield/Lifeguard/Swastik/Shootfire/Safefire/Tyco/Newage/Minimax/Safex
25	Suction/Pot/Y-strainer	VTM/Anergy/Emerald/Sant/Leader



APPROVED MATERIALS LIST (AC & R)

1. Unless otherwise specified, the brand/make of the material as specified in the item nomenclature or in the particular specifications or in the list of approved materials attached in the tender, shall be used in the work.
2. The Contractor shall obtain prior approval from the Engineer-in-charge before placing order for any specific material/ Brand/ Make.
3. Whenever the specified brand of material is not available then, the Engineer-in-charge may approve any material equivalent to that specified subject to proof being offered by the Contractor for its equivalence and its non-availability to his satisfaction.

S.no.	Item	Acceptable Makes/ Manufactures
1	Air conditioner	DIAKIN / HITACHI / MITSUBISHI / O General / BLUE STAR / CARRIER
2	INSULATION:-	
a	FIBREGLASS	FGP / UP TWIGA / KHIMCO
b	EXPANDED POLYSTYRENE	BEARDSELL / COOLINE
c	EXPANDED POLYETHYLENE	NIKIFOAM / PROFEEL / Supreme/EQVT
d	NITRILE FOAM	AEROFLEX / Supreme/ ARMAFLEX / Totaline/Thermo flex
3	GRILLES / DIFFUSERS	COSMOS / DYNACRAFT/ CARYAIRE/
4	PRE-FILTERS	KIRLOSKAR / DYNA / KLENZAIDS / AIRTECH
5	Power and control CABLES	KEI/Finolex/RR Kabel/Havells/polycab
6	Drain Piping	SUPREME / PRINCE / Apollo/Dutron/Ashirvad/Finolex/Astral
7	Ventilation/Exhaust fans	KRUGER / COMEFRI / NICOTRA / Usha/ Crompton/ Havells/ GE/ Bajaj
8	Copper piping	MANDEV/RAJCO/MEHTA/Totaline/Godrej
9	PVC insulated Copper wire (FRLS), Cables / Telephone wire	Havells / RR Kabel / Polycab / Finolex/ Anchor/ L&T (All with ISI Marked)
10	Circuit breakers/MCB / MCB DB's / RCCB	Legrand / L&T / Hager / Seimens / Schneider/ MDS/ GE/ Hager/ ABB
11	Industrial Socket	MDS/ HAVELLS/ Hager/ ABB
12	PVC Conduit	AKG/ MK/ Anchor/ Finolex/ Steel Craft/ Saraswati/ Swastik
13	Casing Caping	Saraswati/ Polycab/ AKG
14	LUGS, Thimble, Cable Glands	Dowels/ Commet/ Hex/ Jhonson / Gripwell/ Comex/Comed
15	Duct sheet metal	Sail/Jindal/Tata/Hindalco/JSW

PROFORMA OF SCHEDULES

SCHEDULE 'A'

Schedule of quantities enclosed on separate sheets from page :

SCHEDULE 'B'

Schedule of materials to be issued to the contractor:

S.No.	Description of item	Qty.	Rates in figures & words at which the material will be charged to the contractor.	Place of issue
1	2	3	4	5
		----- NIL ----- -----		

SCHEDULE 'C'

Tools and plants to be hired to the contractor

S.No.	Description	Hire charges per day	Place of issue
1	2	3	4
		----- NIL -----	

SCHEDULE 'D'

Extra schedule for specific requirements/
document for the work, if any. : Nil

SCHEDULE 'E'

Reference to General Condition of Contract : CPWD GCC-2023 (Maintenance Works) modified and amendment up to the last date of submission of tender.

Name of work : "Operation & Maintenance of 33/11 KV, 11/0.433 KV Electrical Substations and 6x 2000 KVA HT DG Set with Electrical Installations at AIIMS Campus Raipur."

Estimated Cost of work : Rs. 1,82,24,468.00

- (i) Earnest money : **Rs. 3,65,000.00**
(To be returned after receiving of Performance Guarantee)
- (ii) Performance Guarantee : 3% of tendered value.
- (iii) Security Deposit : 2.5% of tendered value.

SCHEDULE 'F'

GENERAL RULES & DIRECTIONS:

Officer inviting tender : **Executive Engineer, AIIMS Raipur on behalf of Director AIIMS Raipur.**

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3. : See below

Definitions:

2(v) Engineer-in-Charge : **Executive Engineer, AIIMS Raipur**

2(viii) Accepting Authority : **Executive Engineer, AIIMS Raipur (C.G)**

2(x) Percentage on cost of materials and labour to cover all overheads and profits : **15%**

2(xi) Standard Schedule of Rates : **As per Market Rates & DSR 2022**

2(xii) Department : **Project Cell, AIIMS Raipur.**

9(ii) Standard CPWD contract Form : **GCC 2023 (Maintenance Works) & CPWD Form 7/8 as modified & corrected up to last date of receipt of Bid/tender.**

CLAUSE 1

(i) Time allowed for submission of Performance Guarantee, programme chart (Time and progress) and applicable labour Licenses, registration with EPFO, ESIC and BOCW welfare board or proof of applying Thereof from the date of issue of letter of acceptance : **07 Days**

(ii) Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period Provided in (i) above : **03 Days**

CLAUSE 2

Authority for fixing compensation under clause 2 : **Superintending Engineer/ Director, AIIMS**

CLAUSE 2A

Whether Clause 2A shall be applicable : **NA**

Authority to decide:

- (i) Extension of time : Executive Engineer, AIIMS Raipur (C.G.)
~~(ii) Rescheduling of mile stones : Executive Engineer/Director, AIIMS Raipur~~
 (iii) Shifting of date of start in case of delay in handing over of site : Executive Engineer/Director, AIIMS Raipur

CLAUSE 5

Time allowed for execution of work – 12 Months

Number of days from the date of issue of letter of acceptance for reckoning date of start : **10 Days**

Mile stone(s) as per table given below:-

Sl No	Description of Milestone (Physical)	Time allowed in days (from date of start)	Amount to be withheld in case of non-achievement of
1	←		
2	NIL		
3			
4			→

Authorities:

- (i) To take action under clause 5:- **Executive Engineer, AIIMS Raipur or his successor**

PROFORMA OF SCHEDULES CLAUSE 5**Schedule of handing over of site**

Part	Portion of Site	Description	Time Period for handing over reckoned from date of issue of letter of Intent.
Part A	Portion without any hindrance	All works	10 days
Part B	Portions with encumbrances	NA	NA
Part C	Portions dependent on work of other agencies	NA	NA

CLAUSE 5A

Whether Clause 5A shall be applicable : **NA**

CLAUSE 7

Gross work to be done together with :
net payment /adjustment of advances
for material collected, if any, since the
last such payment for being eligible to
interim payment.

Running Account Bills to be
submitted by Contractor and
payment to be made after 30 days
from payment of Previous RA Bills.

CLAUSE 7 A

Whether clause 7A shall be applicable : **YES**

CLAUSE 8

Authority to decide compensation on account if
contractor fails to submit completion plans : **Superintending Engineer/Director,
AIIMS**

CLAUSE 10A : **As required by Engineer-in-
Charge**

CLAUSE 10B (II)
Whether Clause 10 B (ii) shall be applicable : **Not Applicable**

CLAUSE 10C
Component of labour expressed as percent of
value of work : **Not Applicable**

CLAUSE 10CC : **Not Applicable**

CLAUSE 11
Specifications to be followed for execution of work : CPWD General Specifications for
Electrical Works, Part-I (Internal-2013),
Part-II (External-1994), Part-IV (Sub
Station- 2013), amended up to date
and additional terms & conditions
attached.

CLAUSE 12

Authority to decide deviation upto 1.5 times : **Executive Engineer/Director, AIIMS**
of tendered amount **Raipur**

**The Completion cost of any agreement for maintenance works including works of up-
gradation, aesthetic, special repair, addition/alteration should not exceed two times the
contract amount. Deviation up to 1.25 times of Contract amount shall be approved by
Engineer-in-Charge with recorded reasons. Deviation beyond 1.25 times up to 1.50 times
of contract amount shall be approved by SE with recorded reasons. In exceptional case,
Director, AIIMS, Raipur shall have power to approve the deviation beyond 1.50 times up
to 2.0 times of Contract amount with recorded reason and take suitable corrective
action.**

12.2 & 12.3

Deviation Limit beyond which clauses
12.2 & 12.3 shall apply for building work : No limit

Maintenance works including works of up-gradation, aesthetic, special repair, addition / alteration.

D) In the case of Extra Item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plus cost index considered in the estimated cost put to tender plus/minus percentage above/below quoted contract amount. Payment of Extra Item, in case of non-schedule items (Non-DSR items) shall be made as per Office Memorandum No DG/CON/313 dated 17.02.2021.

E) In the case of contract items, which exceed the limit laid down in Schedule F, the contractor shall be paid rates specified in the schedule of quantities.

12.5

(i) Deviation Limit beyond which clauses
12.2 & 12.3 shall apply for foundation work
(except items mentioned in earth work subhead : No limit
in DSR and related items)

(ii) Deviation Limit for items mentioned in earth
work subhead of DSR and related items : No limit

CLAUSE 16

Competent Authority for deciding reduced rates : Superintending Engineer/ Director, AIIMS Raipur

CLAUSE 18

List of mandatory machinery, tools & plants : As required by Engineer -in- Charge to be deployed by the contractor at site

CLAUSE 19 C..... Engineer- in charge (Executive Engineer)

CLAUSE 19 D..... Engineer- in charge (Executive Engineer)

CLAUSE 19 G Engineer- in charge (Executive Engineer)

CLAUSE 19 K Engineer- in charge (Executive Engineer)

CLAUSE 19 L Not Applicable

CLAUSE 25

Constitution of Dispute Redressal Committee (DRC): [AIIMS, Raipur](#)

CLAUSE 32 : **Applicable**

Requirement of Technical Representative(s) and recovery Rate

Sl. no.	Minimum qualification of technical representative	Disciplin	Designation (Principal technical / Technical representative)	Minimum Experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36 (i)	
						Figure	Words
1	Graduate Engineer or Diploma Engineer	Site Engineer	2 or 5	2 or 5	1	Rs. 15000/- per month	Rupees Fifteen thousand only.

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.

Diploma holder with minimum 10 year relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

CLAUSE 38

- (i) Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of : Not Applicable
- (ii) Variations permissible on theoretical quantities
- (a) Cement
- For works with estimated cost put to tender not more than Rs. 25 lakh : 3% Plus/minus
- For works with estimated cost put to tender more than Rs. 25 lakh : 2% Plus/minus
- (b) Bitumen all works : 2.5% Plus & only & nil on minus side
- (c) Steel Reinforcement and Structural steel section for each diameter, section and category : 2% Plus/minus
- (d) All other materials : Nil

SCHECULE OF RATES

NAME OF WORK : **Operation & Maintenance of 33/11 KV, 11/0.433 KV Electrical Substations and 6x 2000 KVA HT DG Set with Electrical Installations at AIIMS Campus Raipur.**

Sl. No.	Item Description	Quantity	Units	Estimated Rate in Rs. P	TOTAL AMOUNT With Taxes in Rs. P
1	2	3	4	5	6
1	<p>Manning and operation of Substation by manpower/operators for following co-located Substaion in Hospital Campus.</p> <p>A) 01 Nos. 33KV/11 kV Substation Including 33 KV Switchyard.</p> <p>B) 07 Nos. 11 KV/440 V co-located Substaion & substation equipments including Bus Ducts, raising mains.</p> <p>C) 6X2000 kVA HT DG sets and its Local control panel.</p> <p>Substation to be operated in 03 shift on daily basis including Sunday & holiday.</p> <p>The total operating staff per day- 30 nos. including reliever to be duputed in shift manner as per schedule and as directed by Engineer-in-Charge required.</p> <p>(a) Highly skilled (ITI with 8 year experience): 7 mandays (b) Skilled (ITI with 5 year experience): 6 mandays (c) Semi skilled (ITI with 3 year experience): 7 mandays (d) Un skilled: 4 mandays (e) Supervisor (Diploma with 3 year experience): 3 mandays (f) Dedicated Skilled staff for SCADA : 3 mandays.</p> <p>Note: 1 job: 30 Nos. manpower per day as detailed above.</p>	365.00	Job	33971.00	12399415.00
2	<p>Annual Maintanace of 6 Nos, 2000 kVA, 11kV HT DG Sets Perkins Powered with its Engine, Local control panel, Breaker panel, Local distributiun panel, auxiliary breaker panels, Injector Calibration and associated equipments includes preventive maintenance, Breakdown call and Special visit of Engineer in Every months to ensure Healthyness of DG sets complete as required and as per direction of Engineer In charge.</p> <p>Maintenance of DG sets is to be got executed through OEM/ OEA/ Authorised Dealer/Distributor</p>	1.00	Job	2510289.00	2510289.00
3	<p>Annual Maintenance of Central SCADA System of 6 nos Substation and Synchronization panel</p>	1.00	Job	1359740.00	1359740.00

	includes Software upgradation, Breakdown call and visit of Engineer in Every Quater complete as required for proper functioning of SCADA system and as per direction of Engineer in charge. Maintenance of SCADA system is to be got executed through OEM or OEM authorised Dealer/Distributor.				
4	Transformer Oil Testing complete including Chemical, Electrical, Physical (Taking the Sample from Site and tested in the local Laboratory)	12.00	Each	6973.00	83676.00
5	Transformer Oil Filtration (Including All) as required and as per direction of Engineer In charge.	11000.00	Litre	4.00	44000.00
6	Topup of EHV Grade transformer oil as required and as per direction of Engineer In charge.	200.00	Litre	145.00	29000.00
7	Relay Setting, calibration and testing of following relays through Secondary Injection.				
7.1	Differential Relay DuoBIAS-M 7SR22422-2AA-11-OAAO/BB IN-1/5A Fn-50/60HZ Vn-63.5/110V Vx-30/220V B1-19 (33KV Panel Board) (to be got executed through OEM/ OEA/ Authorized dealer)	6.00	Each	13946.00	83676.00
7.2	Areva make Numerical O/C & E/F Protection Relay MiCOMP111 Auxiliary Supply-24 V DC Make- siemens (33KV Panel Board) (to be got executed through OEM/ OEA/ Authorized dealer)	2.00	Each	6973.00	13946.00
7.3	Areva make Numerical O/C & E/F Protection Relay MiCOMP111 Auxiliary Supply-24 V DC Make- siemens Electric In-1A/5A 9A-200A) (11KV Panel Board) (to be got executed through OEM/ OEA/ Authorized dealer)	20.00	Each	6973.00	139460.00
7.4	Auxiliary Relay	11.00	Each	1674.00	18414.00
8	Servicing and testing (Time Interval Test, Contact Resistance Test, IR Test, Coil Resistance, Motor Resistance Test) of 33kV/11kV HT VCB breaker complete as required and as per direction of Engineer In charge. Servicing and testing of VCB breakers to be got executed through OEM/ OEA/ Authorized dealer.	20.00	Each	27892.00	557840.00
9	Servicing and testing (Insulation, timing) of 440V LT ACB breaker complete as required and as per direction of Engineer In charge.	10.00	Each	13946.00	139460.00
10	Supply of Lub Oil Filter (Cat Part No.4324909) For 2000 KVA DG Set as Specified and as Directed by Engineer-In- Charge.	6.00	Each	3489.00	20934.00
11	Supply of Fuel Filter (Cat Part No.4759205) For 2000 KVA DG Set as Specified and as Directed by Engineer-In- Charge.	2.00	Each	8739.00	17478.00
12	Supply of Cylinder Head (Tappet) Cover gasket (Part No.SE478F) For 2000 KVA DG Set as Specified and as Directed by Engineer-In- Charge.	12.00	Each	1339.00	16068.00
13	Supply of perkins ELC Coolant For 2000 KVA DG Set as Specified and as Directed by Engineer-In-	400.00	liter	964.00	385600.00

	Charge.				
14	Supply of BELT (Part No.-541/398) as Specified and as Directed by Engineer-In- Charge.	2.00	Each	3231.00	6462.00
15	Supply of TIR 7400 15W40 (Part No.1410-1969) For 2000 KVA DG Set as Specified and as Directed by Engineer-In- Charge.	600.00	liter	443.00	265800.00
16	Supplying, installing on wall, testing and commissioning of following capacity rising mains made of 1.6mm thick IP 42 sheet steel enclosure duly painted with powder coating, wall straps, fully PVC insulated 4 nos aluminium bus bars having current density of 130 A/sq cm at nominal current rating in convenient sections and suitable for 415 V, 3 phase, 4 wire, 50 Hz, A.C. supply with extension joints, fire proof barriers, expansion joints, thrust pads including jointing and earthing with 2 runs of galvanised iron strips etc. as required. (Rising mains conforming to IS 8623, TEC 439)				
16.1	800 A (S.C. rating for 1 sec - 50 kA)	10.00	Metre	13321.00	133210.00