

INDIAN INSTITUTE OF TECHNOLOGY INDORE

SIMROL, KHANDWA ROAD, INDORE 453552

www.iiti.ac.in



TENDER DOCUMENT FOR

Non-Comprehensive Annual Operation & Maintenance
Contract of 33/11 kV Main Receiving Substation, 4nos. of
11/0.433 kV Load Substations and 11kV D.G. Set of IIT Indore

Tender No. IITI/ES/MRS-O&M/NIT/01/2016-17

Notice Inviting Tender

Tender No. IITI/ES/MRS-O&M/NIT/01/2016-17

Dated: 03/11/2016

On behalf of Indian Institute of Technology Indore, sealed tenders are invited in “TWO-COVER SYSTEM” (Technical and Price Bid) from eligible agencies / service providers / contractors having experience in execution of contracts of similar nature and magnitude of work.

Sr. No.	Name of Work	Cost of Tender Documents (Non-returnable)	Period of downloading tender document	Date & time of Pre-bid meeting	Last date & time of Submission of tender
		Earnest Money (EMD)			
1.	Non-Comprehensive Annual Operation & Maintenance Contract of 33/11 kV Substation, 04 Nos. of 11/0.433 kV Load Sub-stations and 11kV D.G. Set of IIT Indore	₹ 5,000/-	November 4, 2016 To November 18, 2016	11:00 AM of November 15, 2016	03:00 PM of November 18, 2016
		₹ 1 lakh			

Detail tender document is available on IIT Indore website. Interested agencies may download the detail tender document from website www.iiti.ac.in/tender.php

Executive Engineer (Electrical)

Details of Notice Inviting Tender

Non-Comprehensive sealed tenders are invited from eligible “A” class electrical contractors / agencies for the work of “Non-Comprehensive Annual Operation & Maintenance Contract of 33/11 kV MRS , 4nos. of 11/.433kV load Substations and 11 KV D.G. set of IIT Indore”.

Eligibility Criteria

1. Bidder must have working experience with state PWDs, CPWD, Railways and public / private sector organizations and successfully completed one similar work of Rs 42 lakhs or two similar work of Rs 32 lakhs or three similar works of Rs. 21 lakhs during the last seven years ending previous day of last date of submission of application. Similar works means operation and maintenance of HT Substations. The Bidder should have full knowledge and experience of handling EHT/ HT (minimum upto 33 KV) / LT line. Documentary evidence to substantiate above fact must be submitted along with the bid.

2. Bidder must be a “A” class electrical contractor / Agency and must have the working experience of “Operation & maintenance” of EHT/ HT Electrical sub-stations of minimum 33KV.

3. The bidder should have had average annual financial turn over (gross) of Rs. 60 lakhs on works during the last three consecutive financial year. Balance sheets (may range from six to eighteen months) duly audited by chartered accountant should be submitted along with the bid document. Year in which no turnover is shown would also be considered for working out the average.

General Terms & Conditions

1. The bidder should have own testing equipments for the proper and timely execution of the work and he should submit a list of these equipments .Else , he should certify that he would be able to manage the equipments by hiring etc. and submit the list of firms with their consent from whom he proposes to hire. The name of equipments, sl. no. of the equipment should be submitted.

2. The bidder should have sufficient no. of technical and administrative employees for the proper and timely execution of the work .The bidder should submit a list of these employees with their C.V. stating clearly how they would be involve in this work.

3. The tender documents can be seen/ downloaded from institute website: www.iiti.ac.in and all future Corrigendum/Corrigenda will be uploaded on our website.

4. An EMD of amount Rs. One Lakh in the form of demand draft of a scheduled bank drawn in favour of Registrar, IIT Indore should be enclosed with the application.
5. EMD of unsuccessful Bidders shall be returned after the award of the contract to successful bidder. EMD of successful Bidder shall be refunded after deposit of the Performance security deposit of 5% of total order value (format for performance security deposit will be provided to the successful bidder). No interest shall be paid on the EMD/security deposit. This EMD/ Security deposit shall be forfeited if he/they fails to comply with any of the conditions of the contract. Performance security deposit would be returned after successful completion of the contract period.
6. This operation & maintenance contract will be valid for a period of one (01) year from the date of issue of work order/service order. However the contract may extend for next year on same terms and conditions if the contractors performance is found satisfactory. The performance would be evaluated by institute authorities before renewal of contract. Scope of work and cost of such extension may be mutually decided.
7. The tenders will be in **two-bid system**.
Envelope-I shall be **super scribed** as “**Technical Bid**” and shall contain the following (Part- I: Technical bid of tender must be filled by tenderer Annexure-I)-
 - i) Tender Cost deposit of Rs five thousand as demand draft of a scheduled bank and drawn in favour of Registrar, IIT Indore.
 - ii) Earnest Money Deposit (EMD) of Rs. one lakh as demand draft of a scheduled bank and drawn in favour of Registrar, IIT Indore.
 - ii) Copy of Sales Tax/TIN number.
 - iii) Copy of service tax registration.
 - iv) Copy of PAN card.
 - v) Copy of EPF and ESI registration.
 - vi) Copy of Experience Certificates from the clients regarding the quality and duration of services rendered during last seven years as described above.
 - vii) Copy of work orders from the client regarding the work awarded during last seven years as described above.
 - viii) Copy of work orders of on-going work at other sites.
 - ix) A self certificate showing the track record of contracting firm/contractor on the company letter head.

- x) List of testing equipments owned and/or certification of hiring the equipments with the list of firms with their consent letter.
- xi) List of technical & administrative employees with their C.V. and HT licensed engineer / technician.
- xii) Copy of Latest Income Tax Return.
- xiii) Duly signed & stamped of complete downloaded tender document.
- xiv) Valid "A" Class Electrical Contractor license.

Note: **Tenders received without Tender Cost & EMD will not be accepted.**

8. Technical Bid shall be submitted vide a letter on the letter head of the tenderer as per the enclosed format (Annexure-II).

9. Envelope-II should be super scribed with "Financial Bid" and should contain only the contractor's/agencies quoted rates in the given format (Annexure-IV). Financial offer shall be opened only of those who have submitted proper EMD / tender cost and have qualified in the Technical Bid as per eligibility criteria and on submission of documents as per para 7 of General Terms and Conditions.

10. Both the sealed envelope i.e. Envelope-I and Envelope-II shall be put in another third envelope and sealed properly super scribed with "Non-Comprehensive Annual Operation Contract of 33/11 kV MRS, 4nos. of 11/.433kV load Substations and 11 KV D.G. set of IIT Indore addressed to Executive Engineer (Electrical), IIT Indore.

11. The duly completed sealed envelope, superscripting the name of work will be received in the office of Executive Engineer (Electrical), Estate Section, PHY-02, Academic POD-03, IIT Indore, Khandwa Road, Simrol, Indore-453 552 only up to 03:00 pm on date 18/11/2016. This will be opened on the same day at 03:30 pm Bidder's representative may be present with their ID proof at the time of bid opening. Any tender received after the prescribed time may not be accepted/ considered for opening.

12. Institute will not be responsible for any postal delay.

13. Before submitting the tender, please go through complete tender document and terms and conditions on which the work will be awarded and shall be executed by the successful tenderer.

14. Tenders submitted shall remain **valid for 90 days** from the date of opening for the purpose of acceptance and award of work.

- 15.** Before tendering, the tenderer shall inspect the site to fully acquaint himself about the conditions in regard to accessibility of site, nature and extent of ground working conditions of site and movement of labour etc. required for the satisfactory execution of the work contract. No claim whatsoever on such accounts shall be entertained by the Institute in any circumstances after award of tender.
- 16.** The tender will be awarded to the bidder who will be qualified in technical evaluation and also quote lowest price (L1) in total cost.
- 17.** In addition the successful contractor shall submit the documents showing the experience of the deputies for the awarded work.
- 18.** Except writing rates and amount, the tenderer should not write any conditions or make any changes, additions, alterations and modifications in the printed/downloaded form of tenders. If any changes, additions, alterations, modifications are detected in the submitted bid even at a later date when contract has been awarded, the contract will be liable to be void. The decision of Director IIT Indore will be final & binding to the contractor in this regard.
- 19.** The track record of the contracting firm/contractor should be clean and should not have any involvement in illegal activities or financial misappropriation / frauds etc. **A self-certificate on the company letter head shall be attached.**
- 20.** The authorized person of the contracting firm/ contractor must put his signature on all the pages of the tender documents invariably in having accepted all the terms and conditions in respect of this tender work.
- 21.** If the successful Bidder fails to accept the LOI (Letter of Intent), the EMD amount will be forfeited and the second lowest bidder in the list of selected agencies may be given the opportunity for the contract.
- 22.** IIT Indore reserves the right to accept or reject any or all tender bids without assigning any reasons whatsoever and his decision will be binding on all the parties.

Special conditions of the contract:

The following special instructions/ conditions are applicable to tenderer.

1. The tenderer shall supply the following information along with the tender:

- Names and addresses of the clients whose similar works have been executed by the tenderer. IIT Indore reserves right to verify such credentials.
- Number of people proposed to be involved for this work with detailed site set up, their qualifications, responsibilities etc. This information would be used for tender evaluation and later on to assess contractor's progress with regard to adequacy of manpower.
- Copy of contractor's license (wherever applicable) issued by the electrical licensing authorities of Government of M.P. /Govt. of India.
- Any other information the tenderer feels necessary to make his offer complete, without changing or without having intent to modify / change any of the tender condition to be submitted in a separate sheet.
- Deviation/Any exclusion, deviation from specification shall be clearly spelt out and listed at one place in the offer only and tenderer shall substantiate the same with appropriate reasons. In absence of the same, it will be considered that tenderer has followed the specification fully in words and spirit.

2. Tools, tackles and consumables:

- Testing equipments required for the work shall be in good condition (calibrated annually) and arranged by the contractor. The testing instruments shall be of sufficient capacity and quantity as per the site requirements. The instruments like insulation tester, earth tester, earthing rods, multi-meters, testing kits, thermometer etc. shall be required at site during day to day operation activities.
- The contractor shall be fully responsible for arranging the supply of regularly required tools & tackles, cable crimping tools, ladders etc. In addition to above, the personal protective equipments (PPE) like helmets, safety belts, hand gloves, safety shoes, torch etc. for all working persons shall also be arranged.
- The consumable items like appropriate lubricants, transformer oil, jelly, cotton waste, dungry cloth, emery paper, CRC & CTC and material required for regular housekeeping including detergents, phenyl etc. shall be provided

by the contractor.

3. Maintenance of records:

The contractor shall maintain all records such as log books, schedule of maintenance activity, complaint register, maintenance activity record, attendance register, work permit file, tags file, event register, test records for various tests conducted, material requisition book and other statutory registers for manpower employed etc. as per the profarma certified/provided by IIT. Records of major breakdown occurred during the contract period shall be maintained separately indicating its cause, location and type of repairs carried out. These all records shall be handed over to IITI on time to time basis (minimum monthly basis). The cost of stationery required for maintenance of the above record shall be borne by the contractor.

The contractor shall also submit the following monthly records to IITI

- a. Following month's duty roaster.
 - b. Actual duty roaster for the preceding month with approval of IITI's representative.
 - c. Spares and consumables available with the contractor and spares and consumables required for next month operation/maintenance, if any.
 - d. Action points pending from IITI side, if any.
 - e. Materials consumed in the preceding month, if any.
 - f. No. of faults occurred during the previous month & its action taken report.
 - g. Information for refilling of the used/ outdated fire extinguishers, top up of transformer oil, etc.
- 4.** The contractor shall employ the required number of technical and non-technical manpower including relievers. During contract period, the contractor shall depute qualified, experienced and competent manpower as per the site set-up/staff requirement specified in the tender. During execution of maintenance activities, in case some additional manpower is required, contractor shall provide the same free of cost. For entry in institute, contractor shall submit the details for gate pass of all deputies.
- 5.** The contractor shall not be entitled for any additional payment during the tenure of the contract due to increase in cost of manpower or any. Breakdown/emergency maintenance shall be carried out as and when required, irrespective of the shift of operation, in this regard no additional payment shall be made.

6. The price offered by the contractor shall include the charges for any minor maintenance, the details of which may not be explicitly available in the tender specification but it is essential for this work. This shall also include working of the operation team beyond general shift hours, if required.

7. Faults, repairs and replacement:

- In case of faults/repairs/damages, the contractor should immediately submit a detailed fault analysis report, the details of repair/rectification schedule. Fault finding, diagnosis of the fault and preparation of the fault analysis report including arrangement instruments, tools etc. are in the contractor's scope.
- On completion of replacement of spares but before energization of the system, the replacement shall be physically checked and tested. These checks and tests shall be conducted by the contractor under the supervision of its own engineers / IITI engineers and contractor shall furnish the final status and test results to IITI. Any defect observed during such check and tests shall be made good by the contractor free of cost within the contract completion period.
- Any damages caused by the contractor's staff to the spares provided by IITI shall be fully borne by the contractor. In this regard decision of IITI shall be final and binding to the contractor

8. Housekeeping:

The contractor shall maintain the installations (33kV MRS and other specified substations) clean and tidy inside as well as around the installations and substation buildings. This shall also include sweeping, mopping, cleaning of cobwebs, removal of scrap generated during contract period, etc. in the substations building and regular removal of wild vegetation from substations yard. All required materials for housekeeping like broom, cobweb broom, mop, bucket, soap, detergents, phenyl, etc. and tools for wild vegetation control shall be arranged by the contractor. No rags and waste etc. shall be thrown near the building. This shall be deposited in the scrap yard and dustbins provided nearby, as per the department instructions. Also furniture and fixture therein shall be maintained.

9. It is the responsibility of the contractor to hand over the entire system to IITI on completion of the contract period in working condition. The final handing over / taking over will be done after joint inspection by IITI and contractor on the completion of contract period. The liability towards damage/ replacement shall be limited to 05% (Five percent) of the order value.

10. Inspection:

- Inspection will be carried out by IITI as and when required. The log book for all the MRS, Load Sub-stations and D.G. set shall be submitted to IIT Indore before submission of RA bill of every month for checking and certification.
- Periodic inspection by statutory bodies/ authorities will be under the scope of contractor. Contractor shall intimate IITI authority the schedule of such periodic inspection.

11. Safety

- Specifications and standards: The operation and maintenance shall be in conformity with relevant Indian Standard specification, National Electric codes, Indian Electricity Rules.
- The contractor, his agents, representatives, workmen etc. shall strictly observe the orders pertaining to fire/LV/HV/EHV (Electrical) precautions prevailing within the restricted areas/electrical substations etc.
- The contractor, his agents, representatives, workmen etc shall strictly adhere to the fire/electric shock precautionary measures while working near the explosive areas/HV/LV/Electrical substation areas. During such times, the workmen should be headed by their site supervisor as a precautionary measure. The regular team of the contractor shall be very well aware of fire fighting, Cardio-Pulmonary Resuscitation, first aid etc.
- While working at height, Personal Protective Equipments (PPE) like safety belts, helmet, ladder and scaffoldings etc. shall be used as per the recommended safety guidelines.

12. Accident or injury to workmen:

- IITI shall not be responsible for any injury or loss of any workers of the contractor that may take place while on work. Any compensation or

expenditure towards treatment for such injury or loss of life shall be the sole responsibility of the contractor. The contractor is solely responsible for any damage or injury or accident that may occur to any of his personnel working under this contract. He will not claim any compensation from IITI.

- In order to meet any type of emergency, a dedicated vehicle along with driver shall be made available by the contractor in IIT Indore.

13. Site set-up/staff:

- The contractor shall deploy the staff at IITI sites as per the given details. IITI reserves the right to take interview of the deputies to be involved for this work.
- One electrical engineer having B.E. Electrical and minimum 05 years experience or Diploma in Electrical with 07 years experience of attending operation, maintenance and trouble shooting of electrical sub-station (33 KV and above) and also possessing a valid electrical license/ electrical competence certificate has to be made available for operation and breakdown maintenance work in general shift and as & when required .The engineer's residence should be within 05 kms. area from the institute for the purpose of immediate availability in emergency.
- Technicians should be ITI passed and minimum 05 years experienced in operation, maintenance and trouble shooting of electrical sub-station (up-to 33 KV) possessing a valid electrical license/ electrical competence certificate holder.
- Helpers should be ITI passed or a valid electrical license/ electrical competence certificate holder and minimum of 03 years experienced. This will be deemed to be covered in the quoted cost. The engineer will be responsible and shall be supervising the system and other activities and record the findings in logbook.
- **Dedicated vehicle with driver shall be available at site during the general shift so as to inspect, operate and maintain all the sub-stations. Also at the time of break-down emergency at any time, the vehicle with driver shall be available.**
- Contractor team at site shall be in uniform (of the approved pattern) during the duty time which should be proper, clean and tidy.
- If any staff employed by the agency is found absent, an amount at double the rate of min. fair wage applicable per shift shall be recovered from the contractor's bill.

- Staff for 33/11 kV Main Receiving Substation & all ESS

Shift	Site Engineers	Shift Technicians	Helpers
General	One	One (Maintenance)	One (Maintenance)
Shift-A	-	Three	Two
Shift-B	-	Three	Two
Shift-C	-	Three	Two

14. Theft of Parts:

Contractor shall be fully responsible for theft, burglary, fire or any mischievous deeds by his workers/ staff and shall replace the items under such category. Any loss occurred due to negligence will be recovered from the contractor. Security/ Safety of all installations in all substations will be the responsibility of contractor.

15. Materials, Consumables & Tools etc.:

For performance of contract, the Contractor will arrange all the materials/ consumables, tools & machines/ testing equipment's required for execution of said jobs ,which will be included in quoted rates. No extra payment for the same will be made by the Institute.

16. During the period of Non-comprehensive operation contract, no payment what so ever towards replacement of parts or consumables etc. shall be entertained. It shall be included in rates quoted.

17. Rates quoted in the financial bid must be inclusive of all central, state and local taxes etc. including trade tax on works contract. Rate are also inclusive of payment to the Labour Department in accordance with the prevailing Labour law, including all statutory liability fixed by the Labour commissioner or any other law enforcement agency. Also, if new taxes are introduced, same also would be applicable.

18. All the statutory fees/ charges needs to be paid for functional/ operational of substations shall be paid to government bodies by contractor. IITI will reimburse the same after the submission of original receipt to IITI.

- 19.** Rates quoted in the financial bid must include re-setting of relays by secondary injection of current and tighten the screws, nuts/bolts, HT/LT Connections, HT cable gantry, rising mains, bus gantry etc. of entire 33/11kV electric substation, 04 nos. Load sub-stations and 11 KV D.G. set.
- 20.** A minimum quantity of consumable/spares for breakdown maintenance may be kept at site to minimize time of maintenance. All consumable/spare parts shall be of same make & type as installed as far as possible or approved list of State PWD/CPWD.
- 21.** Contractor shall be solely responsible for payment of wages/salaries and allowances to their personnel as per the rules or act applicable under government order. All central, state, local laws & bye laws applicable will be observed by the contractor and IIT Indore will be kept indemnified of such payable by the contractor.
- 22.** Daily attendance of the staff shall be maintained by the contractor and the contractor shall make it available to Engineer-in charge of IIT Indore for inspection as and when required.
- 23.** Without taking prior approval from the Engineer-in -charge, no fittings/ materials will be removed for the purpose of repairs. It will be the contractor's responsibility to provide alternative services, temporary arrangements for such items removed during the period of repair.
- 24.** Any unauthorised person (or visitor) shall not be allowed to come inside the campus without the approval of Engineer in charge and Security officer. Staff deployed at IIT Indore will get the temporary ID card and which shall be available with the concern at the time of duty. For the purpose of proper identification of the employees of the contractor deployed for the work, contractor shall issue identity cards bearing their photographs/ identification etc. and such employees shall display their identity cards at the time of duty.
- 25.** Engineer-in-charge, IIT Indore shall be at liberty to carry out surprise check on the persons as deployed by the contractor in order to ensure that persons

deployed by him are doing their duties.

26. For performing the assigned work, the contractor shall deploy medically and physically fit persons (Preferably below the age of 50). The contractor shall ensure that the persons are punctual and disciplined and remain vigilant in performance of their duty. Persons so engaged by the contractor shall be from amongst properly trained electrician of high integrity and good conduct, and shall be conversant in the local language i.e. Hindi. In no circumstances, persons below 18 years of age should be employed.
27. The contractor shall further keep the IIT Indore indemnified against any loss to the IIT Indore property and assets. IIT Indore shall have further right to adjust and/or deduct any of the amounts as aforesaid from the payments due to the contractor under this contract.
28. The contractor shall ensure that the persons so deployed do not allow any property of the IIT Indore related to Equipment's to be taken out of the premises without a Gate Pass signed by the Engineer in-charge of the IIT Indore.
29. Saturdays / Sundays should be utilized primarily for the maintenance purposes, where shutdown is required, in consultation with & approval of the engineer-in-charge of IIT Indore.
30. In case, any staff not found up to the mark and not able to work properly or behave improperly, he will have to be changed as per the instruction of the Engineer in charge, IIT Indore.
31. **SUSPENSION** :- IIT Indore may by written notice of suspension to the contractor , suspend all payments to contractor hereunder if the contractor fails to perform any of its obligations under this contract, including the carrying out of the services provided that such notice of suspension (i) shall specify the nature of the failure and (ii) request the contractor to remedy such failure within the period not exceeding fifteen (15) days, after such notice of suspension.
32. **TERMINATION** :- Termination to the contractor may be given after the occurrence of any of the events specified below:

- a) If the contractor fails to remedy a failure in the performance of their obligations.
 - b) If the contractor fail to comply with any final decision reached as a result of arbitration proceedings.
 - c) If the IITI, in its sole discretion and for any reason whatsoever ,decides to terminate this contract.
 - d) If the contractor, in the judgement of the IITI has engaged in corrupt or fraudulent practices in executing the contract.
 - e) In case the contract is terminated, the balance amount of fee if any , paid earlier (advance) shall be paid back by the contractor to IITI within thirty days of termination letter , failing which the same shall be recovered by encashing the existing performance security deposit submitted by contractor.
- 33.** The contractor shall keep the equipment well maintained, neat and clean and adhere to the breakdown maintenance of various equipments. Maintenance of the basic fire fighting systems like sand filled buckets, fire extinguishers shall also be deemed to be included in the contract.
- 34.** The contractor/agency shall submit list of engineers/technicians & their working hours to be furnished and any change must be informed to the institute accordingly before the changes is affected.
- 35.** Approval of the statutory bodies like CEA/ local bodies and shall be deemed to be included in the contract as soon as the present approval expires. The contractor shall notify IIT Indore in writing about such approvals to be taken and inform the compliance of the same. The fees paid to the CEA/ local bodies as per the challan will be reimbursed to the contractor by IIT Indore. The original challan and approvals shall be handed over to IIT Indore.
- 36.** The persons deployed by the contractor for the services mentioned above shall be the employees of the contractor for all intents and purposes and that the persons so deployed shall remain under the control and supervision of the contractor.
- 37.** The contractor shall maintain a complaint/ fault register. As & when a complaint arises in respect of any electrical problem, the contractor's employee shall enter

the complaint in register & ensure remedial action proactively & instantly.

- 38.** The contractor shall at his own cost, if required, take necessary insurance cover in respect of the aforesaid services rendered to IIT Indore and shall comply with the statutory provisions of Contract Labour (Regulation & Abolition) Act, 1970; Employees State Insurance Act; Workman's Compensation Act, 1923; Payment of Wages Act, 1936; The Employees Provident Fund (and Miscellaneous Provisions) Act, 1952; Payment of Bonus Act, 1965; The Minimum Wages Act, 1948; Employer's Liability Act, 1938; and/or any other rules/ regulations and/ or statutes that may be applicable to them. The contractor shall indemnify the Institute against all claims which may be made upon the Institute whether under the aforesaid statutes or any other statute in force during the currency of this contract.
- 39.** Contractor shall deploy his persons in such a way that they get weekly rest. The working hours / leave, for which the work is taken from them, do not violate relevant provisions of Shops and Establishment Act. The contractor shall arrange to provide reliever equally qualified in case of absence/leave/off etc. The contractor shall in all dealings with the persons in his employment have due regards to all recognized festivals, days of rest and religious or other customs. In the event of the contractor committing a default or breach of any of the provisions of the Labour Laws including the provisions of Contract Labour (Regulation and Abolition) Act, 1970 as amended from time to time or in furnishing any information, or submitting or filling any statement under the provisions of the said regulations and rules which is materially incorrect, he shall without prejudice to any other liability pay to the Director, IIT Indore, a sum as may be claimed by IIT Indore.
- 40.** Contractor shall be deposit 5% of the contract value along with the acceptance of contract as performance security deposit (format for performance security deposit will be provided to the successful bidder) to IIT Indore and this will be refunded after the successful completion of the contract. The validity of the performance security deposit should be beyond 30 days of contract period.
- 41.** Contractor shall keep the IIT Indore indemnified against all claims whatsoever in respect of the employees deployed by the contractor, in case any employee of the contractor so deployed enters in dispute of any nature whatsoever, it will be the primary responsibility of the contractor to contest the same. In case IIT

Indore is made party and is supposed to contest the case, the IIT Indore will be reimbursed for the actual expenses incurred towards Counsel fee and other expenses, which shall be paid in advance by the contractor to IIT Indore on demand. Further, the contractor shall ensure that no financial or any other liability comes on IIT Indore in this respect of any nature whatsoever and shall keep IIT Indore indemnified in this respect.

- 42.** No accommodation & transportation facility will be provided by the IIT Indore. However the sitting space, table, chairs, almirah, internet connection, telephone line etc facility at only MRS building may be provided by IIT Indore after receiving the contractor request.
- 43. PAYMENT:** - Payment will be made once in two months after satisfactory completion of service and on presentation of bill. No advance payment will be made. Income tax and all other statutory tax deduction at source as per the rules in force will be deducted from the bill and the amount so deducted will be credited to the Income tax authority and a certificate of the amount credit will be issued by the Account Section of Institute.
Service Tax: - The amount of service tax, if any, charged by the contractor from the Institute on account of the services rendered by him. The copy of challan of service tax must be submitted by the contractor with next month bill.
- 44.** Institute reserves the right to curtail or enhance the scope of work either by deletion of certain items entirely or by reducing/ increasing the quantities of certain items as required and reviewed by the Institute from time to time and therefore, the final value of the work shall be worked out and paid to the extent of work actually carried out.
- 45.** In the event of any question, dispute/ difference arising under the agreement or in connection herewith (except as to matters the decision of which is specially provided under the agreement) the same shall be referred to the sole arbitration by the Director, IIT Indore & his decision will be final and binding to the contractor.
- 46.** The Arbitrator may give interim awards and/or directions, as may be required, Subject to the aforesaid provisions the Arbitrator & Conciliation Act, 1996 and the rules made hereunder and any modification thereof from time to time being in force shall be deemed to apply to the arbitration proceedings under this

clause.

47. JURISDICTION: Disputes of any nature that may be arise in connection with the execution of this order shall be governed by the laws of India and subject to the jurisdiction of courts situated in Indore, India only.

Place:

Signature

Name

Date

Technical Specifications / Detailed description for schedule of works

Name of work: Non-Comprehensive Annual Operation & Maintenance
Contract of 33/11 kV MRS, 4 nos. of 11/0.433kV load
Substations and 11kV D.G. set of IIT Indore.

A. Introduction: The scope of work includes round the clock Operation and Maintenance of the 33/11kV Main Receiving Substation (MRS), four numbers of 11/0.433kV Electrical substations and 11KV D.G. set respectively at IIT Indore. The scope of work of this tender starts from the 6-pole structure at 33/11kV substation up to outgoing of different load substations i.e. upto L.T. panels of 433 volts (LT panels included).

a. 33/11kV Main receiving substation (MRS): Receives power from Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited (MPPKVVCL) indore with double feeder 33 KV overhead incoming line one from Memdi 132 KV Substation and the another one from Simrol 33 KV Substation. MRS comprises 6-pole structure for receiving 33kV supply, two 33/11kV; 6.3MVA ONAN Oil filled Power Transformers, 33 KV switch boards, , 11 kV switch boards, Battery banks, Dual FCBC battery charger with DCDB, HT/LT cables etc. MRS feeds electrical power to various electrical substations in the campus. A list of equipments for MRS installation is enclosed as Annexure-III. The contractor shall provide round the clock Operation & maintenance services at this substation.

b. Other Electrical substations (11/0.433kV): The installed capacity of these load substations varies from 630 kVA to 2500 kVA. 11 KV RMU panels include in these sub-stations. The contractor shall provide operation & maintenance services for the following load centre substations.

ESS-13	-	630 KVA
ESS-7A	-	2500 KVA
ESS-02	-	1600 KVA
ESS-05	-	2000 KVA (02 Nos.)

c. 11 KV D.G. Set: 11kV DG set complete with fuel pumps, piping, HSD tank, D.G. stack and 11 KV switchboards with controller & Synchronizing panels etc.

B. Detailed scope of work for 33/11kV MRS:**1. Activities:**

- a. Operation, manning and maintenance on round the clock basis of the 33/11 kV MRS.
- b. All Electrical items shall be maintained as per the maintenance schedule of various equipments at 33kV MRS.
- c. In addition to activities as per the maintenance schedule of equipments, general quarterly / half yearly / yearly maintenance shall also include tightening and cleaning activities, as feasible.
- d. Preventive maintenance shall be carried out as per the schedule given, during the year by a specialist Engineer from OEM or authorized System house of OEM for relay calibration, CT of 11 & 33 kV, testing of 11KV , 33kV vacuum circuit breakers, transformers ,ACBs , OLTC (as applicable), Battery chargers, DG set, high velocity water spray system. This shall include the quarterly / half yearly /yearly activities as per the maintenance schedule. The obsolete equipments for which OEM and their authorized system house is not available, an experienced person can be deputed during preventive maintenance of particular equipment. The contractor shall submit the documents showing the experience of the deputies for similar equipments.
- e. The contractor person shall trace, inform and rectify the running breakdowns to keep the system healthy.
- f. On observation of the faulty response, if required, testing of the CT for ratio test, insulation resistance (IR) and all other test required for system shall be carried out.
- g. All the meters / equipments which will be used at site by contractor shall be calibrated, also shall be furnished to IITI as & when required.
- h. Verification/testing of interlocks, as feasible. Verification/testing of control and protection scheme logic, as feasible.
- i. The scope of work also includes co-ordination with the MPPKVVCL from where the present power at 33kV is taken. If there is a deficiency in power supply from MPPKVVCL or there is a failure or breakdown in power etc. the contractor should ensure that the power is restored at the earliest possible time. Such co-ordination activity will be deemed to be covered under the Price quoted by the contractor.
- j. All the information of any event, incident, activity, planning, etc. shall be provide to IITI as per approved procedure.

- k. Care should be taken so that the system does not lead to major breakdown and in case the system goes into fault, it should be rectified within the shortest stipulated time period as under-

Sr.No.	Particulars	Specified Time Period	Penalty
1	Minor break down (fault in 11kV, VCB panels, breakers panels and switchyard accessories etc.)	4 hrs. (for restore supply)	Rs. 200.00 per hour of delay
2	Major break down (fault in Transformers & 33kV Switchgears panels)	8 hrs. (for restore supply)	Rs. 500.00 per hour of delay

- l. If the power supply to any 33/11/0.415kV substation suffers even for a day (24 hrs.), an amount equal to 10% of the monthly contracted amount per day (reckoned from the day of breakdown up to restoration) will be deducted from the monthly payment.
- m. If maintenance work is not carried out as per schedule, 5% of monthly rate of this contract will be deducted from the monthly bill.
- n. In case of short deployment of manpower as given in the contract, the Institute will make suitable deduction from the monthly bills which may be 2% of monthly bill.

2. Important points to be noted by the contractors:

- a. Annually testing of the oil of main transformers (6.3MVA, 33/11kV) shall include physical tests, electrical tests, Dissolved Gas Analysis (DGA) as per relevant Indian standard (IS 1866 and IS 10593/9434). The contractor shall also make the arrangement for collection and sending the oil samples for all transformers. After testing of oils the reports shall be submitted to IIT Indore.
- b. Calibration reports of the instruments used at site for testing of the system shall be submitted along with the test reports.
- c. Meter reading of MPPKVCL meter shall be carried out as per approved format. Also the area and path to that meter shall kept clean and accessible.
- d. Daily housekeeping activities shall be carried out.

3. Schedule of activities for various equipments:

During shift operation of the substation it is the duty of the available staff to monitor the installation and take safe remedial action that does not require disconnection of the apparatus.

A check should be made for the locks & doors in the substation are in good condition, no leaks have developed in the building roof, the ventilating systems are operating normally. The checks shall also be made for the prescribed safety aids are in place and in good condition, the earthing connection intactness, packing of the cables entering or leaving a cable trench or tunnel within the premises are intact, the equipment ventilating louvers clean, the access roads leading to the oil filled apparatus are unobstructed and maintain approach for the fire fighting. For any extra requirement (which is not in contract) the contractor shall inform the institute official well in time. The other important checks/observations to be made are as under.

A. General checks/ observations:

- (i) Cleanliness.
- (ii) Any sign of cracking and chipping of bushings/insulators, oil leakages and integrity of the other visible parts of switchyard and indoor equipments from safe distance.
- (iii) Temperature of critical equipments.
- (iv) Alarms & indications of indoor equipments.

B. Mechanical checks/ observations:

- (i) Indications of the operating circuits including associated system.
- (ii) Checking of foundation bolts, structure etc.
- (iii) Tightness of terminal connection, piping junctions and bolted joints.
- (iv) Health of corrosion protection treatment and take remedial action.
This shall include touch ups/Marking and minor painting.

Maintenance schedule of various equipments

1. At 33/11kV MRS

1.1. 33kV/11kV Switchgears

S. No.	Item of Maintenance	Periodicity
1.	Recording of electrical parameters like Voltage, currents, frequency, power, KVA etc.	Each Shift
2.	Outside visual inspection	Each shift
3.	Outside cleaning	Weekly
6.	Operational tests	Yearly
7.	Measurement of Contacts resistance.	Yearly
8.	Measurement of Contacts IR value	Yearly
9.	Servicing including Checking of adjustments, alignment, operation (electrical/manual) and lubrication of mechanism. This shall also include thorough cleaning, removal of old grease, dirt, measurement of switching time etc.	Yearly
10.	Visual inspection, thorough cleaning of all compartments of the panel, tightening of power and control circuits.	Yearly
11.	Checking of the earth connection	Yearly
12.	CT ratio & insulation resistance measurement	Yearly
13.	PT ratio & insulation resistance measurement	Yearly
14.	Polarity of DC supply.	Yearly
15.	All applicable tests and calibration (by current injection of relay)	Yearly
16	Cable Jointing	As and when required

1.2. Power distribution transformers (6.3MVA):

S. No.	Item of Maintenance	Periodicity
1.	Winding temp of power transformer	Each Shift
2.	Oil temperature	Each Shift
3.	Outside visual inspection including dehydrating breather	Each Shift
4.	Check for oil Level and oil leaks	Each Shift
5.	Checking of oil level in the oil seal of breather and top up if necessary.	Monthly.
6.	Measurement of Earth leakage current (at neutral grounding conductor)	Quarterly.

7.	Testing of transformer oil (including OLTC) for BDV.	Half Yearly.
8	Measurement of earth resistance, checking of earth in system and rectification if required.	Half Yearly
9.	Cleaning of bushing and external surface of tank cooling pipes.	Half Yearly.
10.	Measurement of IR values.	Half Yearly.
11.	Physical tests, electrical tests, Dissolved Gas Analysis test of transformer oil, as specified	Yearly
12.	Checking of terminal loose connections if any and tightening the same.	Yearly / As and when required
13.	Servicing of the tap changer equipment. OLTC and RTCC	Yearly / As and when required
14.	Oil filtration	Yearly
15.	Reactivation or replacement of breathers silicagel	As and when required

1.3. Battery & DC supply system:

S. No.	Items of maintenance	Periodicity
1.	Outside visual inspection	Every shift
2.	Battery charger voltage / current reading	Every shift
3.	Ventilation and lighting system in battery room	Daily
4.	Intactness of containers	Daily
5.	Sulphation and buckling of plates	Daily
6.	Corrosion traces	Daily
7.	Cleaning of battery equipment	Monthly
8.	Visual inspection of electrical connections	Monthly
9.	Petroleum jelly application	Monthly
10.	DC distribution board terminal connections	Monthly
11.	Battery charger servicing	Yearly
12.	Boost charging	As and when required
13.	Checking earth connection	Yearly

1.4. 6-Pole Structure

S. No.	Items of maintenance	Periodicity
1.	Outside visual inspection	Every shift
2.	Switchyard Cleaning	Weekly
3.	Isolators maintenance	Yearly

1.5. Earthing

S. No.	Items of maintenance	Periodicity
1.	Outside visual inspection	Every shift
2.	Physical Checks and Cleaning	Weekly
2.	Earth Resistance Value measurements	Half-Yearly

1.6. Internal & External Trench (within substation area)

S. No.	Items of maintenance	Periodicity
1.	Physical Checks and Cleaning	Quarterly
2.	Rain Water drain	As Required

1.7. SCADA

S. No.	Items of maintenance	Periodicity
1.	Physical Checks and Cleaning	Weekly
2.	Schedule maintenance as required by OEM	

1.8. NGR Panel

S. No.	Items of maintenance	Periodicity
1.	Physical Checks and Cleaning	Weekly
2.	Schedule maintenance	Half Yearly

2. At other Load Centre Substations

2.1 11 kV Ring main unit

The maintenance mainly involves following jobs:

S. No.	Item of Maintenance	Periodicity
1.	Outside cleaning	weekly
2.	Check inside of the doors/covers for dust deposit, water ingress, contamination, pest etc. and clean thoroughly.	Yearly/ as & when required
3.	Measurement of insulation resistance (IR)	Yearly
4.	Check protector cap fitted on SF ₆ filling valve	Yearly
5.	SF ₆ gas indicator in 'Green' zone.	Yearly

6.	Proper earth connection	Yearly
7.	Check for operation & interlocks	Yearly
8.	Relay testing and calibration by current injection	Yearly
9.	Checks for correct setting of protective device and prepare record	Yearly
10.	Check external labels, fixings and cables connections etc.	Yearly

Testing Kits and other accessories required for testing & calibration shall be arranged by the contractor.

2.2 Distribution transformers: Transformers (as per the list of equipments) at substations have been installed to feed the various loads of that area.

S. No.	Item of Maintenance	Periodicity
1.	Winding temp of power transformer	Daily
2.	Recording of electrical parameters like voltage, current, KVA etc.	Daily
3.	Recording of neutral currents and load balancing in The three phases, if feasible.	As and when required
4.	Measurement of earth resistance, checking of earthing system continuity, healthiness and rectification if required.	Half Yearly
5.	Measurement of IR values.	Yearly.
6.	Thorough cleaning for dust, dirt and moisture etc. The cast coils (HT & LT) shall be cleaned by hot air blower.	Yearly.
7.	Checking of terminal loose connections if any and tightening the same, foundation health.	Yearly

2.3 L.T. TTA Isolator, Main Normal Panel, Emergency Panel & External MDB :

The LT panels are being fed by the distribution transformers and distributing power to various loads of that area. LT TTA are having Incoming & Outgoing Air Circuit Breakers (ACBs), Main panel & Emergency panel are having Outgoing MCCBs, control and protection devices, Control Transformers, control wiring, Busbars, panel heaters, enunciators and measuring instruments (including multifunctional meters), and instrument transformers etc. The periodic maintenance activities shall be as given below:

S. No.	Item of maintenance	Periodicity
1.	Outside cleaning of panels	weekly
2.	Checking healthiness of contacts (auxiliary & main) surface, mounting of contacts spring.	Yearly/as and when required
3.	Checking healthiness of control relays, contactors, wiring, fuses and isolating contacts/jaws, meters etc	Yearly
4.	Operational Checks	Yearly
5.	Arc chutes- inspection & maintenance for dust, dirt, foreign material, flow or cracks and take remedial action, if required.	Yearly/as and when required
6.	Servicing of ACBs and MCCB including checking of mechanism for operation (electrical/manual), adjustment, alignment	Yearly

2.4 L.T. Bus duct: The substation is provided with LT air insulated/ sandwich bus ducts for power transfer between transformers and Panels. The health of bus duct is to be regularly monitored and maintained periodically as given below.

S. No.	Item maintenance	Periodicity
1.	IR value	Yearly
2.	Checking of gaskets, seals for cracks & damages, expansion rubber bellow etc.	Yearly
3.	Cleaning (for dust & dirt, ingress of water) and checking gaps of bus bars at flanges	Yearly
4.	Minor paint touch ups, if required	Yearly

2.5 Automatic Power Factor Correction Panel (APFC): APFC panel having ACB, MCCB/MCB and contactor control for power factor improvement has been provided at some of the load centre substations. The schedule of maintenance activities shall be as under:

S. No.	Item maintenance	Periodicity
1.	Physical checks, outside cleaning	weekly
2.	V, I, kVAR & temp monitoring	daily
3.	Operational checks of switch gears	Half yearly
4.	Healthiness of capacitors & capacitor current measurement	Quarterly
5.	Thorough Cleaning, tightness, etc.	Yearly

3. 11KV D.G.Set :

3.1. **Work to be done on daily basis:**

Specific gravity, water level and voltage of batteries.
 Cleaning of battery terminal, if required
 Running of DG sets at least for 10 minutes every day in winter/rainy season
 Checking of oil level in day tank
 Physical inspection of DG set & AMF panel
 Lub oil level in the DG set.
 General cleaning of DG set .
 General inspection of cooling towers, pumps etc.
 Temperature of inlet & out let water in CT.
 Ph of CT water.

3.2. A log Book is to be maintained on regular basis by the contractor duly signed by Engineer Incharge. The log book should contain minimum following data entry or as specifies by the manufacturer.

1. Specific Gravity of battery
2. Voltage of battery
3. Electrical parameter of the DG set like Current, voltage, frequency, p.f, KW, KWh, KVA etc
4. Diesel level in day tank
5. lub oil level.
6. Running hours of the DG set
7. Water temperature.
8. Room temperature
9. Noise level

10. Lub oil pressure
11. Consumption of diesel

3.3 Work to be done on monthly basis:

'B'/ 'C' checks as per manufacturers instructions.
Cleaning of strainers in the fuel line.
Watering of earth pits.

3.4 Work to be done on half yearly basis:

Safety checks of the DG sets
Operation of all the relays
Checking of electrical panels
Checking & cleaning of contacts of ACB, relays etc.
Checking of safety interlocks
Checking of functionality of relay and calibration if required.
Checking of insulation resistance
Checking of earth resistance.
Cleaning of cooling tower
Tighten the blades of cooling tower.
Any other checking required as per manufacturer's recommendations

3.5 Work to be done on yearly basis:

- 1 Repeat half yearly work
- 2 Change the battery, if required.
- 3 Any other checking required as per manufacturer's recommendations

PART-I: TECHNICAL BID

Name of work- Non-Comprehensive Annual Operation & Maintenance Contract of 33/11 kV Substation, 04 Nos. of 11/0.433 kV Load Sub-stations and 11 KV D.G. Set of IIT Indore.

1	Name of the Contractor/Agency	
2	Address & Contact number	
3	Name of person, who has signed the tender	
4	Details of Tender cost (DD no. and Amount)	
5	Details of EMD (DD no. and Amount)	
6	Permanent Account Number (copy should be attached)	
7	Sales Tax/TIN number (copy should be attached)	
8	Service Tax Registration number (copy should be attached)	
9	EPF registration number (copy should be attached)	
10	ESI registration number (copy should be attached)	
11	Experience certificates related to operation and maintenance of HT Substations during last seven years issued from clients as per tender (copy should be attached)	
12	Copy of work orders related to operation and maintenance of HT sub-stations of on-going works at other sites	
13	A self certificate showing the track record of contracting firm/contractor on the company letter head.	
14	List of testing equipments owned or certification of hiring the equipments with the list of firms with their consent letter.	
15	List of technical & administrative employees with their C.V.	
16	Copy of latest Income Tax Return	
17	Duly signed & stamped of complete downloaded tender document	
18	Valid "A" Class Electrical Contractor license.	

I Son of resident of who is (Proprietor/ partner/ Director etc.) of M/s..... with sound mind and without any pressure would like to state that - If any document or information furnished with tender is found forged or fabricated at any time, the Institute has full right to terminate the contract and forfeit my/our EMD or Security Deposit.

Place:

Signature of Bidder with seal

Date:

Name & Address

ANNEXURE-II

FORMAT OF LETTER ACCOMPANYING TECHNICAL BID

From: _____

To

The Director,
Indian Institute of Technology,
Indore. (M.P.)

Sub: Tender for Non- Comprehensive Annual Operation Contract of 33/11 kV Substation, 04 Nos. of 11/0.433 kV Load Sub-stations and 11 KV D.G. Set of IIT Indore.

Dear Sir,

In response to the above and in full agreement with the terms and conditions as stipulated by you, I/We offer my/our competitive and firm offer as follows:

i) I / We understand that minimum wages will be required to be paid as per the terms and conditions stipulated by the Regional Labour Commissioner as notified by the Government from time to time. In addition, I/We also understand that all statutory payments like PF / ESI/ Bonus/ Gratuity / EDLI / Admin. Charges, etc. also need to be paid as prescribed under various statues, by me/us.

ii) The tender fee of Rs..... is deposited vide enclosed demand draft No..... dated..... drawn on.....

iii) The Earnest Money Deposit of Rs. is given vide enclosed Demand draft No..... dated..... drawn on.....

iv) I / We have valid registration in respect of Employees Provident Fund/Employees State Insurance/Service Tax etc. Copies of the above and other documents mentioned in the tender document are enclosed herewith.

v) I / We also understand that the Director, IIT Indore has the right to accept or reject my/our tender/bid without assigning any reasons whatsoever and his decision will be binding on me/us.

Encl: As above

Yours sincerely

Place:

Auth. Signatory:

Date:

Name:

Seal:

ANNEXURE - III**List of Equipments at 33/11kV MRS, IIT Indore**

Sl. No.	Descriptions of item	Qty.	Rating	Make	Year of Mfg.
1	Power Transformers 33/11 kV ONAN with OLTC	2 Nos.	6.3MVA	Kirloskar, CTR(OLTC)	2015
2	33 kV isolators at 6-pole structure	5 Set.	400Amps.		---
3	33kV Swithboard having relays, MF meters, Indication lamps.	1set	1250A	Schneider	2015
4	33kV VCB with 220V DC closing and tripping coils and 230 Volts AC spring charging motor.	4 Nos.	1250A	Schneider	2015
5	33kV/110V Line PT indoor type included in switchboard	1 No.	33kV/110v.	Schneider	2015
6	RTCC	2 No.		Kirloskar	2015
7	11 kV Switch Board having relays, MF meters, Indication lamps.	2 set	800A	Schneider	2015
8	11kV VCB with 220V DC closing and tripping coils and 230 Volts AC spring charging motor.(14 No. Panel)	12 Nos.	800A	Schneider	2015
9	11kV VCB with 220V DC closing and tripping coils and 230 Volts AC spring charging motor.(7 No. D.G. panel)	06 Nos.	800A	Schneider	2015
10	Battery Charger Dual FCBC	01 No.	415VAC	Amara Raja	2015
11	Ni-Cd Battery cells	01 Set	110nos.	Amara Raja	2015
12	D.G. Synchronizing Panel	01 Nos	11kV	Captiva	2015
13	NGR for Power transformer	02 Nos	6.6kV/315A	Resitech	2015
14	NGR for D.G.	01 Nos	6.6kV/105A	Resitech	2015
15	UPS for MRS	01 Ns	5kVA	Numeric	2015
18	D.G. Set , 11 KV	01 Nos	2000 KVA	Captiva	2015
19	Earth Pits	As per Location			2016
19	Miscellaneous equipment and systems including illumination, lightning protection , grounding , distribution boards.	Lot			

List of Equipments at 11/.433kV ESS-13, IIT Indore

Sr. No.	Descriptions of item	Qty.	Rating	Make	Year of Mfg.
1	11 KV RMU	1 set	12kV/630 A	Schneider	2015
2	Distribution Transformers, 11/.433kV Dry type.	1 No.	650 kVA	Kirloskar	2015
3	LT Bus-duct Sandwich type	3 Nos	1000A	Schneider	2015
4	LT TTA isolator panel Comprising ACB.	1 Set	1200A	Schneider	2015
5	LT TTA Main Normal panel Comprising ACBs and MCCBs	1 set	800A	Schneider	2015
6	LT TTA Main Emergency panel Comprising ACBs and MCCBs	1 set	1000A	Schneider	2015
7	External MDB panel comprising of MCCB.	1 set.	450A	Schneider	2015
8	APFC Panel comprising of ACB	1 set.	200 kVAR	Epcos	2015
9	UPS	1 No.	2 kVA	Numeric	2015
10	Earth Pit	As per Location			2016

List of Equipments at 11/.433kV ESS-7A, IIT Indore

Sr. No.	Descriptions of item	Qty.	Rating	Make	Year of Mfg.
1	11 KV RMU	1 set	12kV	Schneider	2015
2	Distribution Transformers, 11/.433kV Dry type	1 No.	2.5MVA	Kirloskar	2014
3	LT Bus-duct Sandwich type	1 No	4000A	Schneider	2015
4	LT TTA isolator panel Comprising ACB.	1 Set	4400A	Schneider	2015
5	External MDB panel comprising of MCCB.(As per SLD)	1 set.	300A	Schneider	2015
6	APFC Panel comprising of ACB	1 set.	650 kVAR	Epcos	2015
7	UPS	1 No.	2 kVA	NUMERIC	2015
8	Earth Pit	As per Location			2016

List of Equipments at 11/.433kV ESS-05, IIT Indore

Sr. No.	Descriptions of item	Qty.	Rating	Make	Year of Mfg.
1	11 KV RMU	1 set	12kV/630 A	Schneider	2015
2	Distribution Transformers, 11/.433kV Dry type	2 No.	2000 kVA	Kirloskar	2015

3	LT Bus-duct Sandwich type	06 Nos.	3200A	Schneider	2015
4	LT TTA isolator panel Comprising ACB.	2 set	3600A	Schneider	2015
5	LT TTA Main Normal panel Comprising ACBs and MCCBs	1 set	2200A	Schneider	2015
6	LT TTA Main Emergency panel Comprising ACBs and MCCBs	1 set	2200A	Schneider	2015
7	External MDB panel comprising of MCCB.(As per SLD)	1 set.	300A	Schneider	2015
8	APFC Panel comprising of ACB	2 set.	650 kVAR	Epcos	2015
9	UPS	1 no.	5 kVA	NUMERIC	2015
10	Earth Pit	As per Location			2016

List of Equipments at 11/.433kV ESS-02, IIT Indore

Sr. No.	Descriptions of item	Qty.	Rating	Make	Year of Mfg.
1	11 KV RMU	1 set	12kV/630 A	Schneider	2015
2	Distribution Transformers, 11/.433kV Dry type	1 no.	1.6 MVA	Kirloskar	2015
3	LT Bus-duct Sandwich type	3 nos	2500A	Schneider	2015
4	LT TTA isolator panel Comprising ACB.	1 set	2800A	Schneider	2015
5	LT TTA Main Normal panel Comprising ACBs and MCCBs	1 set	2200A	Schneider	2015
6	LT TTA Main Emergency panel Comprising ACBs and MCCBs	1 set	1400A	Schneider	2015
6	External MDB panel comprising of MCCB.(As per SLD)	1 set.	300A	Schneider	2015
4	APFC Panel comprising of ACB	1 set.	550 kVAR	Epcos	2015
5	UPS	1 no.	5 kVA	NUMERIC	2015
5	Earth Pit	As per Location			2016

SCADA SYSTEM :

1	Complete SCADA system	Lot	Schneider	2016
---	-----------------------	-----	-----------	------

ANNEXURE-IV

PART-II: FINANCIAL BID

(The basic price quoted shall be inclusive of all taxes and duties except service tax)

Sl. No.	Description of work	Charges per month (In Rs.)	Yearly amount (In Rs.)
1	Non- Comprehensive Annual Operation Contract of 33/11 kV Substation, 04 Nos. of 11/0.433 kV Load Sub-stations and 11 KV D.G. Set of IIT Indore on round the clock basis and as per the terms and conditions mentioned in the tender document. Bidder must submit the detailed cost analysis.		
2	Non- Comprehensive Annual Maintenance Contract of 33/11 kV Substation, 04 Nos. of 11/0.433 kV Load Sub-stations and 11 KV D.G. Set of IIT Indore on round the clock basis and as per the terms and conditions mentioned in the tender document. Bidder must submit the detailed cost analysis.		
	Taxes (if any)		
	Grand total (In figure)		
	Grand total (In words)		

Dated Signature of the Tenderer with seal

Name & Designation