



**Name of Work: SITC of cloud-based energy management solution.**

**NIT No.-MNIT/NIT/E/2024-25/17**

# **Tender BID DOCUMENT**

**Registrar, Malaviya National Institute of Technology, Jaipur (Raj)**

**Name of work: SITC of cloud-based energy management solution.**

**NIT No.-MNIT/NIT/E/2024-25/17**

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**This tender document contains pages from 1 to 45.**

# Malaviya National Institute of Technology Jaipur

## 1. PRESS NOTENOTICE INVITING E-TENDER

The Registrar, Malaviya National Institute of Technology, Jaipur, invites online Item rate tenders from the reputed contractors under valid category for the following work:

The complete Tender document can be viewed and downloaded only from the website [www.mnit.ac.in](http://www.mnit.ac.in), [www.eprocure.gov.in](http://www.eprocure.gov.in) Vendors are requested to submit their online bid for mentioned item as per detailed technical specification given and Price Bid as per BOQ on CPP Portal. The Important information related to tender are as follows:

1.	Tender No.	<b>MNIT/NIT/E/2024-25/17</b>
2.	Name of work	<b>SITC of cloud-based energy management solution.</b>
3.	Estimated cost	<b>Rs.997083.00</b>
4.	Earnest Money	<b>Rs. 19942.00</b> <b>EMD in the form of Demand Draft</b> in the name of The Registrar, MNIT payable at Jaipur or NEFT/RTGS in the bank account details as under:- Bank Name: ICICI Bank Ltd., Bank Branch: MNIT Jaipur Account Holder: Registrar MNIT Jaipur, J.L.N. Marg,Jaipur BankAccountNo: 676805000011 Bank IFSC Code: ICIC0006768
6.	Period for completion	02 Months
7.	Date of Issue/Publishing	01.04.2025 (17:00 Hrs)
8.	Document Download/Sale Start Date	01.04.2025 (17:00 Hrs)
9.	Document Download/Sale End Date	23.04.2025 (14:00 Hrs)
10.	Last Date and Time for Uploading of Bids	23.04.2025 (14:00 Hrs)
11.	Date & Time of Opening of Technical Bids	24.04.2025 (14:00 His)
12.	Date of Opening of Financial Bids	Will be informed later
13.	<b>Category and class of contractor</b>	The bidder shall be an original equipment manufacturer of meter, DCU & EMS software and shall have designed, manufactured & tested experience for at least three years in same as per following manner.

		<p>A. Three similar completed works costing not less than the amount equal to 40(forty) percent of the estimated cost.</p> <p>B. Two similar completed works costing not less than the amount equal to 50 (fifty) percent of the estimated cost.</p> <p>C. One similar completed work costing not less than the amount equal to 80 (eighty) percent of the estimated cost.</p> <p>And</p> <p>The firm should have minimum annual average turnover in last three year financial ending on 31.03.2024 amounting <b>Rs.299125.00</b> (To ascertain the CA certificate or Audited balance sheet of last three financial years(21-22,22-23 &amp; 23-24) is required</p>
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The contractors appropriate category to participate in the tender of above description may apply. The registration / enlistment of the contractors shall be valid on the last date of submission of tender. In case the last date of submission is extended, the enlistment/registration of contractor shall also be valid up to extended date of submission.

The tenderer shall submit attested copied of their registration/enlistment certificate along with tender document. The original copies of registration/enlistment certificate might be called upon by the Registrar, MNIT at any time after the opening of tender. The Registrar reserves the right to verify the documents for his full satisfaction including sending of the same to respective issuing department for verification of authenticity. Any information furnished by tenderer found incorrect will attract stringent legal action against him upto the extent to debar him from tendering in future and forfeiture of entire EMD and performance security.

Earnest money shall be deposited at the time of submission of tender documents. The earnest money shall be in the form of Demand Draft/ Banker's cheque of a scheduled bank issued in favour of Registrar, MNIT, Jaipur.

The successful tenderer shall have to submit a performance guarantee of 5% (Five percent) of the composite tendered amount in the appropriate form as given in PWD-6 attached with tender document within 15 days of issue of letter of acceptance.

**The complete set of tender documents is available at MNIT's website <http://www.mnit.ac.in> and CPP Portal [www.eprocure.gov.in](http://www.eprocure.gov.in) and may be downloaded from there.**

## 2. INFORMATION AND INSTRUCTIONS TO CONTRACTORS

### A. About CPP Portal

#### 1. Instructions to Bidders

Instructions for Online Bid Submission

Department of Expenditure has issued the directive to publish the tender document on the Central Public Procurement Portal (URL:<http://eprocure.gov.in/eprocure/app>). The bidders are required to submit soft copies of their bids electronically on the CPP Portal using valid Digital Signature Certificates. Below mentioned instructions are meant to guide the bidders for registration on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal. For more information, bidders may visit the CPP Portal <http://eprocure.gov.in/eprocure/app>. Tender document can also be downloaded from MNIT Jaipur Website ([www.storepurchase@mnit.ac.in](mailto:www.storepurchase@mnit.ac.in))

#### 1.1 Registration Process

- a) Bidders to enroll on the e-Procurement module of the portal <http://eprocure.gov.in/eprocure/app> by clicking on the link “Click here to Enroll”. Enrolment on the CPP Portal is free of charge.
- b) The bidders to choose a unique username and assign a password for their accounts. 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.
- c) Bidders to register upon enrolment their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India with their profile.
- d) 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 DSCs to others which may lead to misuse. Foreign bidders are advised to refer “DSC details for Foreign Bidders” for Digital Signature requirements on the portal.
- e) Bidder then logs in to the site through the secured login by entering their user ID / password and the password of the DSC / eToken.

#### 1.2 Tender Documents Search

- a) Various built in options are available in the CPP Portal to facilitate bidders to search active tenders by several parameters. These parameters include Tender ID, organization, location, date, value, etc.
- b) 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.
- c) 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.
- d) 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.

#### 1.3 Bid Preparation

- a) **Bidder** should take into account any corrigendum published on the tender document before submitting their bids.
- b) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.
- c) 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.

*Signature of Tenderer(s)*

- d) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document /Schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black and white option.
- e) 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” area available to them to upload such documents. These documents may be directly submitted from the “My Space” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process

#### **1.4 Bid Submission**

- a) Bidder to log into the site well in advance for bid submission so that he/she upload the bid in time
- b) i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- c) The bidder to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- d) Bidder to select the payment option as “on-line” to pay the tender fee/ EMD wherever applicable and enter details of the instrument.
- e) A standard BOQ format has been provided with the tender document to be filled by all the bidders. Bidders to note that they should necessarily submit their financial bids in the prescribed format and no other format is acceptable.
- f) 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.
- g) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data, which cannot be viewed by unauthorized persons until the time of bid opening.
- h) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- i) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- j) Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

#### **1.5 Assistance to Bidders**

- a) 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.
- b) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Help desk. The contact number for the help desk is 1800 2337315.

#### **1.6 General Instructions to the Bidders**

The tenders will be received online through portal <https://eprocure.gov.in/eprocure/app>. In the Technical Bids, the bidders are required to upload all the documents in .pdf format.

Possession of Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card Token in the company’s name is a prerequisite for registration and participating in the bid submission activities through <https://eprocure.gov.in/eprocure/app>. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site <https://eprocure.gov.in/eprocure/app> under the link ‘Information about DSC’. Bidders are advised to

*Signature of Tenderer(s)*

follow the instructions provided in the `Instructions to the Bidders for the e- Submission of the bids online through the Central Public Procurement Portal for e- Procurement at <https://eprocure.gov.in/eprocure>

## **B. Other instructions to contractors**

The contractor submitting the tender should read the schedule of quantities, additional & special conditions, additional specification, particular specification and other terms and given in the NIT and drawings. The tenderer should also read the General Conditions of contract for CPWD Works 2020 & CPWD form 7 as modified & corrected up to date , which is available as Govt. of India Publications. However provisions included in the tender document shall prevail over the provisions contained in this standard form. The contractor should also visit the site of work and acquaint himself with the site and soil conditions before tendering. The following conditions which already form part of the tender conditions are specially brought to his notice for compliance while filling the tender. They are requested to comply following.

1. The main contractor shall execute the electrical works also. He shall be either an eligible contractor himself or associate with himself an eligible electrical contractor for execution of electrical works as Para 16.1.1 The contractor shall submit the name(s) of agency valid in appropriate class eligible to bid of the minor component of work before the issue of letter of acceptance.
2. After acceptance of the bid by competent authority, the Registrar, MNIT shall issue letter of award. After the work is awarded, the main contractor will have to enter into one agreement with Registrar, MNIT and has also to sign two or more copies of agreement depending upon number of Ex.En's of major & minor components. Registrar MNIT will operate complete agreement including major & minor components of work.
3. Tenders with any conditions including that of conditional rebates and use of correction fluid anywhere in the tender document shall be rejected forthwith. Such tenders shall be entered in tender opening register but these shall neither be read out nor entered in the tender opening register at the time of opening of tender.
4. The rate(s) must be quoted in decimal coinage. Amount must be calculated and rounded in full Rupees by ignoring fifty paise and considering more than fifty paise as rupees one. Rates must be quoted both in words & figures. Amounts should be worked out for all the items. Rates in words should start with word Rs. And finish with word "only" and there shall not be undue gap in the words of the rates.
5. The successful tenderer shall be required to submit a Performance Guarantee of 5% (Five percent) of the composite contract amount within a period of issue of letter of acceptance as specified in schedule 'F'. This period can be further extended by Registrar upto a maximum period of 7 days (with late fee @0.1% per day of Performance Guarantee amount) days on written request of the

contractor.

6. The contractor shall have to execute guarantee bonds in respect of water supply and sanitary installation works and water proofing works as per Performa at Annexure III& IV.
7. GST/Sales tax/VAT, purchase tax, turn over tax, Excise duty, work contract tax or any other tax / CESS on materials/Labour as applicable shall be paid by the contractor himself. The contractor shall quote his rates considering all such taxes.

**Registrar,  
MNIT, Jaipur**



### 3. NOTICE INVITING TENDER

Percentage rate composite tender consisting of Electrical services are invited from approved and eligible for **SITC of cloud-based energy management solution.**

1. The enlistment of the contractors shall be valid on the last date of submission of tender. In case the last date of submission of tender extended, the enlistment shall be valid up to extended date of submission.
2. The work is estimated to cost: **Rs. 997083.00**  
  
This estimated cost is however merely a rough guide.
3. The Registrar, MNIT, will deal with all matters relating to the invitation of tenders.
4. The eligibility of tenderer will correspond to the combined estimated cost of different components put to tender.
5. Agreement shall be drawn with the successful bidders on prescribed Form No. CPWD- 8 which is available as a Govt. of India Publication. Tenderers shall quote his rates as per various terms and conditions of the said form which will form part of the agreement. However, the provisions included intender documents shall prevail over the corresponding provision contained in standard CPWD form no.8.
6. The time allowed for carrying out the work will be **2 (Two Months)** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
7. The site for the work is available.
8. The architectural and structural drawing shall be made available in phased manner, as per requirement of the same as per approved program of completion submitted by the contractor after award of the work.
9. Bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms & conditions of contract to be complied with and other necessary documents including Standard General Conditions of Contract Form can be seen and downloaded at free of cost from website [www.mnit.ac.in](http://www.mnit.ac.in), [www.eprocure.gov.in](http://www.eprocure.gov.in)
10. Tenders shall be accompanied with Earnest money as mentioned in NIT @ 2% of composite estimated cost in form of Demand Draft/ Banker's cheque of a scheduled bank issued in favour of Registrar, MNIT, Jaipur, having validity for 3 months or more from the last date of receipt of tenders.
11. The tender fee/cost of tender documents as mentioned in NIT shall be deposited with tender submission in form of Demand draft/Banker's cheque of scheduled bank separately from DD/banker's cheque of EMD.
12. The Contractor, whose bid is accepted, will be required to furnish performance guarantee of 5% (Five Percent) of the composite tendered amount within the period specified in Schedule "F". This guarantee shall be in the form of banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any scheduled bank or Guarantee Bonds of any Scheduled bank in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.
13. Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, 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 tender. A tenderer 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 tenderer 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 tender by a tenderer 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 and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

14. The Registrar, MNIT, Jaipur does not bind himself to accept the lowest or any other tender and reserves to himself the authority to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
15. 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 for rejection.
16. The Registrar, MNIT, Jaipur reserves the right of accepting the whole or any part of the tender and the bidders shall be bound to perform the same at the rate quoted.
17. The contractor shall not be permitted to bid for works in the MNIT responsible for award and execution of contracts, in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of Superintending 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 gazetted officer in the MNIT or in the Ministry of Human Resources & Development. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of MNIT.
18. The bid for the works shall remain open for acceptance for a period of Ninety (90) days from the date of opening of eligibility bid. If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the Registrar, MNIT shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidder shall not be allowed to participate in the bidding process of the work.
19. This notice inviting Tender 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:
  - a. The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
20. If the Registrar, MNIT will call tenders for the composite work. The cost of Earnest Money will be fixed with respect to the combined estimated cost put to tender for the composite tender.
21. The main contractor shall execute the minor component of work also i.e. electrical component. He should be either an eligible electrical contractor himself or he may associate an eligible electrical contractor of appropriate class based on estimated cost of electrical component, before the issue

- of letter of acceptance. The name of agency for minor component of work shall be approved by the Registrar, MNIT.
22. It will be obligatory on the part of the main contractor to tender and sign the tender documents for all components.
  23. In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Registrar. The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Registrar is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.
  24. On the acceptance of composite tender the letter for commencement of work shall be issued by the Registrar to main contractor for entire composite work. The main contractor has to enter into agreement with contractor(s) associated by him for execution of minor component(s). Copy of such agreement shall be submitted to Registrar as well as to EE in charge of major component. In case of change of associate contractor, the main contractor has to enter into agreement with the new contractor associated by him.
  25. In case the main contractor fails to associate agency for execution of minor component within prescribed time or furnish incomplete details or furnish detail ineligible agency even after the tenderer is given due opportunity, the entire scope of minor component shall be withdrawn from the tender and the same shall be got executed by the Registrar at the risk & cost of main contractor.
  26. All running and final bill payments for the major component shall be made by Registrar to the main contractor. Running & final bill payment for minor components shall also be made by the Registrar directly to the main contractor.
  27. Tenders with any condition including that of conditional rebates in the tender document shall be rejected forthwith.
  28. The contractor shall have to execute guarantee bonds in respect of water supply and sanitary installation works and water proofing works as per Performa at Annexure III & IV.
  29. The main contractor will give detailed execution program of the work which will form part of this agreement with the department. He will indicate in the program, the time/stage of the work when the agencies of minor component will be deployed by him.
  30. The main contractor shall be responsible for acts of commission and non-commission of the electrical contractor associated by him as per the above condition.
  31. Completion certificate of composite work shall be recorded by the Registrar on the written recommendation of Engineers-in-charge of both major & minor component of work.
  32. Security Deposit @5% (Five percent) of the gross amount of bill shall be deducted from each running bill of the contractor till the sum along with the sum already deposited as earnest money amounts to security deposits @5% of accepted composite tendered amount of the work. Security deposit on civil & electrical part shall be deducted collectively.
  33. A provision of Integrity Pact (IP) was introduced in GCC-2014. In the OM it is mentioned that at the time of submission of bid, it shall be mandatory to sign the pact by the bidder failing which the bidder will stand disqualified from the tendering process and such bid would be summarily rejected.

**Registrar,  
MNIT, Jaipur.**

**4. FORM OF PERFORMANCE SECURITY (GUARANTEE)  
BANK GUARANTEE BOND**

In consideration of the President of India (hereinafter called “The Government”) having offered to accept the terms and conditions of the proposed agreement between ..... And ..... (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 Government.

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 demand from the Government 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.....(Rupees.....only)

3. We, the said bank further undertake to pay the Government 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 Government under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineering-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 Government that the Government 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 Government 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 Government or any indulgence by the Government 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 evoke this guarantee except with the previous consent of the Government in writing.

8. This guarantee shall be valid up to.....unless extended on demand by the Government.

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

## AFFIDAVIT

I / We have submitted a bank guarantee for the work \_\_\_\_\_ (Name of work) Agreement No. \_\_\_\_\_

Dated \_\_\_\_\_ from \_\_\_\_\_ (Name of the Bank with full address) to the Registrar MNIT, Jaipur with a view to seek exemption from payment of performance guarantee in cash. This Bank guarantee expires on \_\_\_\_\_.

I / We undertake to keep the validity of the bank guarantee intact by getting it extended from time to time at my / our own initiative upto a period of \_\_\_\_\_ months after the recorded date of completion of the work or as directed by the Engineer in charge.

I / We also indemnify the Government against any losses arising out of nonencasement of the bank guarantee if any.

(Deponent)

Signature of Contractor

**Note : The affidavit is to be given by the Executants before a first class Magistrate.**

**7. CPWD-7**

**Malaviya National Institute of Technology Jaipur**

State - Rajasthan

**Percentage Rate Tender & Contract for Works**

(A). Tender for the work of : \_\_\_\_\_

i) To be submitted **by 05.00 P.M. on 23.04.2025** through online on CPP Portal

Issued to : \_\_\_\_\_(contractor)

Signature of officer issuing the documents \_\_\_\_\_

Designation \_\_\_\_\_

Date of Issue: \_\_\_\_\_

**TENDER**

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 document 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 Director, Malaviya National Institute of Technology, Jaipur 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-I 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.

We agree to keep the tender open for ninety (90) days from the due date of submission thereof and not to make any modifications in its terms and conditions.

A sum of **Rs 19942.00** is hereby forwarded in Demand draft / Deposit at call Receipt of a Schedule Bank as earnest money. If I/we, fail to commence the work specified I/we agree that the said Director, Malaviya National Institute of Technology, Jaipur or his successors in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, up to maximum of the percentage mentioned in Schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provision containing in Clause 12.2 and 12.3 of the tender form.

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 there from 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.

I/we agree that should I/we fail to commence the work specified in the above memorandum an amount equal to the amount of the earnest money mentioned in the form of invitation of tender shall be absolutely forfeited to the Institute and the same may at the option of the competent authority on behalf of the Director of the Institute be recovered without prejudice to any other right or remedy available in law out of the deposit in so far as the same may extend in terms of the said bond and in the event of deficiency out of any other money due to me/ us under this contract or otherwise.

Dated .....

Signature of Contractor

Postal Address:

Witness:

Address:



Occupation:

**ACCEPTANCE**

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the Director, Malaviya National Institute of Technology, Jaipur for a sum of Rs.. ..

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

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

- a)
- b)
- c)

For & on behalf of the Director Malaviya National Institute of Technology, Jaipur

Signature \_\_\_\_\_

Dated .....

Designation - Registrar, MNIT

## **8. General Rules & Directions**

1. In the event of tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorizing him to do so, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act' 1952.
2. Receipts for payment made on account of work, when executed by a firm, must also be signed by all the partners, except where contractors are described in their tender as a firm in which case the receipts must be signed in the name of the firm by one of the partners or by some other person having due authority to give effectual receipts for the firm.
3. Any person who submits a tender shall fill up the usual printed form, stating at what rate he is willing to undertake each item of the work. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort including conditional rebates will be summarily rejected. Tender shall have the name and number of the works to which they refer, written on the envelopes.  
The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paise and less and considering more than fifty paise as rupee one.
4. The officer inviting tender or his duly authorized assistant will open tenders in the presence of intending contractors who may be present at the time, and will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, a receipt for the earnest money forwarded therewith shall thereupon be given to the contractor who shall thereupon for the purpose of identification sign copies of the specifications and other related documents. In the event of a tender being rejected, the earnest money forwarded with such unaccepted tender shall thereupon be returned to the contractor remitting the same, without any interest.
5. The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.
6. The receipt of an accountant or clerk for any money paid by the contractor will not be considered as any acknowledgement or payment to the officer inviting tender and the contractors shall be responsible for seeing that he procures a receipt signed by the officer inviting tender or a duly authorized cashier.
7. The memorandum of work tendered for and the schedule of materials to be supplied by the Institute and their issue-rates, shall be filled and completed in the office of the officer inviting tender before the tender form is issued. If a form is issued to an intending tenderer without having been so filled in and incomplete, he shall request the officer to have this done before he completes and delivers his tender.
8. The tenderers shall sign a declaration under the officials Secret Act 1923, for maintaining secrecy of the tender document drawings or other records connected with the work given to them.
9. (i) The Contractor whose tender is accepted will be required to furnish performance guarantee of 5% (Five Percent) of the tendered amount within specified period. This guarantee shall be in the form of Govt. Securities or fixed deposit receipt of any scheduled bank or State Bank of India.  
  
(ii) The contractor whose tender is accepted will also be required to furnish by way of Security Deposit for fulfillment of his contract, an amount equal to 5% of the tendered value of the work. The Security deposit will be collected by deductions from the running bills of the contractor at the rates mentioned above and the earnest money if deposited in cash at the time of tenders will be treated as a part of the Security deposit. The Security amount will also be accepted in cash or in the shape of Govt. Securities. Fixed Deposit Receipt of a Scheduled Bank or State Bank of India will also be accepted for this purpose provided confirmatory advice is enclosed.
10. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-charge shall be communicated in writing to the Engineer-in-charge.
11. Sales-tax, purchase tax, turnover tax, service tax, VAT, GST, Octroi or any other tax / CESS in respect of this contract shall be payable by the contractor and Institute will not entertain any claim whatsoever in respect of the same.
12. The contractor shall give a list of employees of MNIT Jaipur related to him.
13. The tender for the work shall not be witnessed by contractors who himself/ themselves has/ have tendered or who may and has/ have tendered for the same work. Failure to observe this condition would render, tenders of the contractors tendering, as well as witnessing the tender, liable to summary rejection.
14. The tender for composite work includes in addition to building work all other works such as sanitary and water supply installations drainage installation, electrical work, air-conditioning work, horticulture and landscape work, roads and paths and fire fighting etc. The tenderer must associate himself with agencies of appropriate class which are eligible to tender for such works.
15. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Director may in his discretion without prejudice to any other right or remedy available in law cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.
16. Since this is a composite tender, item/ items of same nomenclature may appear under different sub-heads. The contractor has to ensure that for such identical items, the rates quoted are same at all the places. In case any variation in the quoted rates is found for such items, the lowest of all such quoted rates will be taken as the tendered rate for that particular item, and the tender will be evaluated accordingly.

### **9. ADDITIONAL CONDITION FOR MISUSE OF PAYMENT RECEIVED AGAINST ADVANCE PAYMENTS**

1. Till the work is almost completed to the satisfaction of Engineer-in-charge,
  - (i) Contractor shall not divert any advance payments or part thereof for any purpose other than needed for completion of the contracted work. All advance payments received as per terms of the contract (i.e. mobilization, secured against materials brought at site, secured against plant & machinery and / or for work done during interim stages, etc.) are required to be re-

*Signature of Tenderer(s)*

- invested in the contracted work to ensure advance availability resources in terms of materials, labour, plant & machinery needed for required pace of progress for timely completion of work.
- (ii) All running account bills preferred by the contractor for advance payments shall be processed only if Engineer-in-charge is satisfied that upto date investments (excluding security deposit & performance guarantee, which are not considered as investments) made by the contractor against contracted work are more than the payments received. Accordingly, all running account bills shall be supported with an account of upto date payments received vis-à-vis upto date investments made on the work to enable engineer-in-charge to check to his satisfaction that the payments made by engineer-in-charge are property utilized only on the work and nowhere else.”

#### **10. COMMITTED PROGRAM OF COMPLETION FROM CONTRACTOR SIDE**

1. On acceptance of work, contractor has to submit a committed program of completion keeping in the view of the prescribed mile stones, stipulated period of completion duly signed by him. The program submitted by contractor shall be monitorable in a format as may be acceptable to Engineer-in-charge.
2. On receipt of the prescribed Performance Guarantee and aforesaid committed program of completion necessary letter to commence the work shall be issued to contractor by Registrar, MNIT and the site of work would be handed over to contractor thereafter.

#### **11. GENERAL CONDITIONS OF CONTRACT**

##### **Definitions:**

1. The contract means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of the Director, MNIT Jaipur and the Contractor together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-charge/ Architects and all these documents taken together shall be deemed to form one contract and shall be complementary to one another.
2. In the contract, the following expressions shall, unless the context otherwise requires have the meanings, hereby respectively assigned to them :-
  - i) The expression works or work shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.
  - ii) The site shall mean the land/ or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.
  - iii) The contractor shall mean the individual, firm or company, whether incorporated or not, undertaking the works shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.
  - iv) The Director, MNIT Jaipur means their nominees also.
  - v) Director means the Director of MNIT Jaipur.
  - vi) The Engineer-in-charge means the Engineer of MNIT Jaipur who shall supervise and be in-charge of the work.
  - vii) Architect means the Architect appointed by MNIT
  - viii) Centre means the MNIT Jaipur.
  - ix) Department means MNIT Jaipur.
  - x) Government means Govt of India or Govt. of Rajasthan as applicable.
  - xi) Accepting authority shall mean the authority who accepts the tender.
  - xii) Excepted Risk are risks due to riots (other than those on account of contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power, any acts of Institute, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by Institute of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to Institute faulty design of works.
  - xiii) Market Rate shall be the rate as decided by the Engineer-in-charge on the basis of the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in Schedule 'F' to cover, all overheads and profits.
  - xiv) Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard Schedule of Rates mentioned in Schedule 'F' hereunder, with the amendments thereto issued upto the date of receipt of the tender.
  - xv) District Specifications means the specifications followed by the State Govt in the area where the work is to be executed.
  - xvi) Tendered value means the value of the entire work as stipulated in the letter of award.

##### **Scope & Performance**

3. Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
4. Headings and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
5. The contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications. Schedule of Rates and such other printed and published documents, together with all drawings as may be forming part of the tender papers. None of these documents shall be used for any purpose other than that of this contract.

##### **Works to be carried out**

6. The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and in the full and entire execution and completion of the works. The descriptions given in the Schedule of quantities shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognised principles.

**Sufficiency of Tender:**

7. The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and the rates and price quoted in the Schedule of Quantities, which rates and prices shall except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.

**Discrepancies and Adjustment of Errors**

8. The several documents forming the contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General conditions.

- 8.1 In case of discrepancy between the schedule of Quantities, the specification and/or the drawing, the following order of preference shall be observed:

- (i) Description of schedule of quantities i.e. nomenclature of item.
- (ii) Particular specification, additional conditions and special conditions, if any.
- (iii) CPWD specifications.
- (iv) Indian standard specifications of B.I.S.
- (v) Drawings.
- (vi) Decision of Engineer-in-charge.

If there are varying or conflicting provisions made in any one document forming part of the contract, the accepting authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.

- 8.2 Any error in description, quantity or rate in Schedule of quantities or any omission there from shall not vitiate the contract or release the contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.

**Signing of Contract**

9. The successful tenderer/contractor, on acceptance of his tender 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 tender, all the documents if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
- (i) No payment for the work done will be made unless contract is signed by the contractor.

**12. CLAUSES OF CONTRACT**

**APPLICABILITY SUBJECT TO PROFORMA OF SCHEDULES:**

**Clause – I**

**Performance Guarantee**

i) The contractor shall submit an irrevocable Performance Guarantee of 5% (Five Percent) of the tendered amount in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period specified in Schedule 'F' from the date of issue of letter of acceptance. This period can be further extended by the Engineer-in-charge upto a maximum period as specified in Schedule 'F' on written request of the contractor stating the reason for delays in procuring the Bank Guarantee, to the satisfaction of the Engineer-in-Charge. This Guarantee shall be in the form of Deposit at call receipt of an scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay Order of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Govt. Securities or Fixed Deposit Receipts or Guarantee Bonds of any scheduled Bank or the State Bank of India in accordance with the form annexed hereto. In case a fixed deposit receipt of any bank is furnished by the contractor to the Institute as part of the performance guarantee and the bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Institute to make good the deficit.

ii) The performance Guarantee shall be initially valid upto the stipulated date of completion plus 60 days beyond that. In case the time of completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest.

iii) The Institute shall not make a claim under the Performance guarantee except for amounts to which the Institute is entitled under the contract (notwithstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:

(a) Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Institute may claim the full amount of the Performance Guarantee.

(b) Failure by the contractor to pay to the Institute any amount due, either as agreed by the contractor or determined under any of the clauses/conditions of the agreement, within 30 days of the service of notice to this effect by engineer-in-Charge.

iv) In the event of the contract being determined or rescinded under provision of any of the clause/condition of the agreement, the performance guarantee shall stand forfeited in full and shall be absolutely at the disposal of the Institute.

**Clause – 1 A**

**Recovery of Security Deposit :-**

*Signature of Tenderer(s)*

The person/persons whose tender(s) may be accepted (hereinafter called the contractor) shall permit Institute at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 5% of the gross amount of each running bill till the sum along with the sum already deposited as earnest money, will amount to security deposit @ 5% of the tendered value of the work. Such deductions will be made and held by Institute by way of Security Deposit unless he/ they has/have deposited the amount of Security at the rate mentioned above in cash or in the form of Govt. Securities or fixed deposit receipts. In case a fixed deposit receipt of any Bank is furnished by the contractor to the Institute as part of the security deposit and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Institute to make good the deficit.

All compensations or the other sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the sale of a sufficient part of his security deposit or from the interest arising therefrom, or from any sums which may be due to or may become due to the contractor by Institute on any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions or sale as aforesaid, the contractor shall within 10 days make good in cash or fixed deposit receipt tendered by the State Bank of India or by Scheduled Bank or Institute Securities (if deposited for more than 12 months) endorsed in favour of the Institute, any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof. The security deposit shall be collected from the running bills of the contractor at the rates mentioned above and the Earnest money if deposited in cash at the time of tenders will be treated a part of the Security Deposit.

**Note – 1 :** Government papers tendered as security will be taken at 5% (five percent) below its market price or at its face value, whichever is less. The market price of Government paper would be ascertained by the Engineer –in-charge at the time of collection of interest and the amount of interest to the extent of deficiency in value of the Government paper will be withheld if necessary.

**Note – 2 :** Government Securities will include all forms of Securities mentioned in rule No. 274 of the G.F Rules except fidelity bond. This will be subject to the observance of the condition mentioned under the rule against each form of security.

**Note - 3 :** Note 1 & 2 above shall be applicable for both clause 1 & 1 A

#### **Clause -2**

##### **Compensation for Delay :-**

If the contractor fails to maintain the required progress in terms of clause 5 or to complete the work and clear the site on or before the contract or extended date of completion, he shall without prejudice to any other right or remedy available under the law to the Institute on account of such breach, pay as agreed compensation the amount calculated at the rate of 1.5% (One decimal five percent) per month as the Director of Institute (whose decision in writing shall be final and binding ) may decide on the amount of tendered value of the work for every completed month (as applicable) that the progress remains below that specified in Clause 5 or that the work remains in-complete. This will also apply to items or group of items for which a separate period of completion has been specified.

Provided always that the total amount of compensation for delay to be paid under this Condition shall not exceed 10% of the Tendered Value of work

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Institute. In case, the contractor does not achieve a particular milestone mentioned in Schedule 'F', or the re-scheduled milestone (s) in terms of clause 5.4, the amount shown against that milestone shall be withheld to be adjusted against the compensation levied at the final grant of Extension of Time. Withholding of this amount on failure to achieve a milestone shall be automatic, without any notice to the contractor. However, if the contractor catches up with the progress of the work, on the subsequent milestone (s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone (s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.

#### **Clause – 3**

**When Contract can be determined:** - Subject to other provisions contained in this clause the Director may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/ or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

- i). If the contractor having been given by the Director a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or unworkman like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- ii). If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- iii). If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Director (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Director.
- iv). If the Contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any, stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Director.
- v). If the contractor persistently neglects to carry out his obligations under the contract and / or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Director.
- vi). If the contractor commits any acts mentioned in Clause 21 hereof:  
When the contractor has made himself liable for action under any of the cases aforesaid, the Director on behalf of the MNIT Jaipur shall have powers:
  - a). To determine or rescind the contract as aforesaid (of which termination or rescission notice in writing to the contractor under the hand of the Director shall be conclusive evidence). Upon such determination or rescission the Earnest Money Deposit, security deposit already recovered and the performance guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Institute.
  - b). After giving notice to the contractor to measure up the work of the contractor and to take such whole or the balance work as shall be un-executed out of his hands to give it to another contractor to complete the work. The contractor whose contract is determined or rescinded as above shall not be allowed to participate in the tendering process for the balance work.

*Signature of Tenderer(s)*

In the event of above courses being adopted by the Director the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer –in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

**Clause – 3A**

In case, the work cannot be started due to reasons not within the control of the contractor within 1/8<sup>th</sup> of the stipulated time of completion of the work, either party may close the contract. In such eventuality, the Earnest Money Deposit and the Performance Guarantee of the Contractor shall be refunded, but no payment on account of interest, loss of profit or damages etc. shall be payable at all.

**Clause – 4**

**Contractor liable to pay compensation even if action not taken under clause 3 :-**

In any case in which any of the powers conferred upon the Director by Clause – 3 thereof, shall have become exercisable and the same are not exercised, the non exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the Director putting in force all or any of the powers vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of the Director which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of the Director) all or any tools plant, materials and stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work/or any part thereof, paying or allowing for the same in account at the contract rates or, in the case of these not being applicable, at current market rates to be certified by the Engineer-in-Charge whose certificate thereof shall be final, and binding on the contractor otherwise the Director by notice in writing may order the contractor or his clerk of the works, foreman or other authorised agent to remove such tools, plant, materials or stores from the premises (within a time to be specified in such notice) in the event of the contractor failing to comply with any such requisition, the Director may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor.

**Clause – 5**

**Time and Extension for delay:-**

The time allowed for execution of the Works as specified in Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such time period as mentioned in letter of award after the date on which the Director issues written orders to commence the work or from the date of handing over of the site whichever is later. If the contractor commits default in commencing the execution of the work as aforesaid Institute shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money absolutely.

5.1 As soon as possible after the contract is concluded the contractor shall submit a Time and Progress Chart for each milestone and get it approved by the Engineer-in –charge. The chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Director and the contractor within the limitations of time imposed in the contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work as per milestone given in schedule 'F'.

5.2 If the work(s) be delayed by :-

- i) Force majeure or
- ii) Abnormally bad weather, or
- iii) Serious loss or damage by fire or
- iv) Civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
- v) delay on the part of other contractors or tradesmen engaged by Director in executing work not forming part of the contractor.
- vi) Any other cause which, in the absolute discretion of the authority mentioned in schedule 'F' is beyond the contractor's control.

Then upon the happening of any such event causing delay, the contractor shall immediately give notice thereof in writing to the Director but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Director to proceed with the works.

5.3 Request for rescheduling of milestones and extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed form. The contractor may also, if practicable, indicate in such a request the period for which extension is desired.

5.4 In any such case the Director of the Institute may give a fair and reasonable extension of time and reschedule the milestones for completion of work. Such extension shall be communicated to the contractor by the Director of the Institute in writing, within 3 months of the date of receipt of such request. Non-application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Director and this shall be binding on the contractor.

**Clause – 6**

**Measurements of Work Done :-**

Engineer- in- Charge shall, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract.

All measurements of all items having financial value shall be entered in Measurement Book and/ or level field book so that a complete record is obtained of all works performed under the contract.

All measurements and levels shall be taken jointly by the Engineer- in- Charge or his authorised representative and by the contractor or his authorised representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer- in- Charge or his authorized representative and the contractor or his authorised representative in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by the concerned parties.

If for any reason the contractor or his authorised representative is not available and the work of recording measurements is suspended by the Engineer- in- Charge or his representative, the Engineer- in- Charge and the department shall not entertain any claim from contractor for any

loss or damages on this account. If the contractor or his authorised representative does not remain present at the time of such measurements after the contractor or his authorised representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurements, then such measurements recorded in his absence by the Engineer- in- Charge or his representative shall be deemed to be accepted by the Contractor.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels. Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant `Standard method` of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The contractor shall give not less than seven days notice to the Engineer- in- Charge or his authorised representative in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer- in- Charge or his authorised representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Engineer- in- Charge's consent being obtained in writing the same shall be uncovered at the contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer- in- Charge or his authorised representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that recording of measurements of any item of work in the measurement book and/ or its payment in the interim, on account of final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

#### **Clause-6A**

##### **Computerised measurement book**

Engineer In Charge Shall, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract.

All measurement of all items having financial value shall be entered by the contractor and compiled in the shape of the Computerized Measurement Book having pages of A-4 size as per the format of the department so that a complete record is obtained of all the items of works performed under the contract.

All such measurement and levels recorded by the contractor or his authorized representative from time to time, during the progress of the work, shall be got checked by the contractor from the Engineer-in-Charge or his authorized representative as per interval or program fixed in consultation with Engineer-in-Charge or his authorized representative. After the necessary corrections made by the Engineer-in-Charge, the measurement sheets shall be returned to the contractor for incorporating the corrections and for resubmission to the Engineer-in-Charge for the dated signatures by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance.

Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurements would be got checked/test checked from the Engineer-in-Charge and /or his authorized representative. The contractor will, thereafter, incorporate such changes as may be done during these checks/ test checks in his draft book, duly bound and with its pages machine numbered. The Engineer-in-Charge and /or his authorized representative would thereafter check the MB and record the necessary certificates for their check / test checks.

The final fair computerized measurement book given by the contractor, duly bound with its pages machine numbered should be 100% correct and no cutting or over-writing in the measurements would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit a fresh computerized MB with its pages duly machine numbered and bound the Divisional Office records, and allotted a number as per the Register of Computerized MBs. This should be done before the corresponding bill is submitted to the Division Office for payment. The contractor shall submit two spare copies of such computerized MB's for the purpose of reference and record by the various officers of the department.

The contractor shall also submit to the department separately his computerized Abstract of Cost and the bill based on these measurements, duly bound, and its pages machine numbered along with two spare copies of the bill. Thereafter this bill will be processed by the Division Office and allotted a number as per the computerized record in the same way as done for the measurement book meant for measurements.

The contractor shall without extra charge, provide all assistance with every appliance, labour and other things necessary for checking of measurements/levels by the Engineer-in-Charge or his representative.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications or local custom in the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The contractor shall give not less than seven days notice to the Engineer-in-Charge or his authorized representative in charge of the work before covering up or otherwise placing beyond the reach of checking and or test checking the measurement or any work in order that the same may be checked and or test checked and correct dimensions thereof be taken before measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his representative in-charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or place beyond the reach of checking and/ or test checking being obtained in writing the same shall be uncovered at the Contractor's expense, or in default thereof no payment of allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge in charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded by contractor and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that checking and / or test checking the measurements of any item of work in the measurement book and / or its payment in the interim, on account of final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

#### **Clause – 7**

##### **Payment on intermediate certificate to be regarded as advances:-**

*Signature of Tenderer(s)*

The interim or running account bills shall be submitted by the contractor for the work executed on the basis of recorded measurements on the format of the Institute in triplicate on or before the date of every month fixed for the same by the Engineer-in-charge. The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment / adjustment of advances for material collected, if any, since the last such payment is less than Rs. Five lakhs in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved. Engineer-in-charge shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, Engineer-in-charge shall prepare or cause to be prepared such bills in which event no claims whatsoever due to delays on payment including that of interest shall be payable to the contractor. Payment on account of amount admissible shall be made by the Engineer-in-charge certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Engineer-in-Charge. All such interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer-in-charge relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate (s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/ are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Engineer-in-charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

Pending consideration of extension of date of completion interim payments shall continue to be made as herein provided, without prejudice to the right of the department to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

**Clause – 8**

**Completion certificate and completion plans :-**

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-charge and within thirty days of the receipt of such notice the Engineer-in-charge shall inspect the work and if there is no defect in the work shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or(b) for which payment will be made at reduced rates shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his/ their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of the execution thereof, and not until the work shall have been measured by the Engineer-in-charge. If the contractor shall fail to comply with the requirements of this clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning of dirt on or before the date fixed for the completion of work, the Engineer-in-Charge may at the expense of the contractor remove such scaffolding surplus materials and rubbish etc and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realised by the sale thereof.

**Clause 8A**

**Contractor to keep site clean :-**

The splashes and droppings from white washing, colour washing, painting etc on walls, floor windows etc shall be removed and the surface cleaned simultaneously with the completion of these items of work in the individual rooms, quarters or premises etc where the work is done without waiting for the actual completion of all the other items of work in the contract. In case the contractor fails to comply with the requirements of this clause, the Engineer-in-charge shall have the right to get this work done at the cost of the contractor either departmentally or through any other agency. Before taking such action, the Engineer-in-charge shall give ten days notice in writing to the contractor.

**Clause 8 B**

**Completion plans to be submitted by the Contractor :-**

The contractor shall submit five sets of completion plans within thirty days of the completion of the work along with soft copy. In case, the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum equivalent to 2.5% of the value of the work subject to ceiling of Rs. 1,00,000/- (Rupees One Lakhs Only) as may be fixed by Director of the Institute concerned and in this respect the decision of the Director of the Institute shall be final and binding on the contractor.

**Clause 9**

**Payment of final bill :-**

The final bill shall be submitted by the contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in-charge whichever is earlier. The contractor shall make no further claims after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by engineer-in-charge, will as far as possible be made within six months from the date of receipt of the bill by the Engineer-in-charge or his authorised representative.

**Clause 10**

**Materials supplied by the government**

Materials which Government will supply are shown in Schedule 'B' which also stipulates quantum, place of issue and rate(s) to be charged in respect thereof. The contractor shall be bound to procure them from the Engineer-in-Charge.

As soon as the work awarded the contractor shall finalize the programme for the completion or work as per clause 5 of this contract and shall give his estimates of materials required on the basis of drawings or schedule of quantities of the work. The Contractor shall give in writing his requirement to the Engineer-in-Charge which shall be issued to him keeping in view the progress of work as assessed by the Engineer-in-Charge, in accordance with the agreed phased programme of work indicating monthly requirements of various materials. The contractor shall place his indent in writing for issue of such materials at least 7 days in advance of his requirement.

Such materials shall be supplied for the purpose of the contract only and the value of the material so supplied at the rates specified in the aforesaid schedule shall be set off or deducted as and when material are consumed in items or work (including normal wastage) for which payment is being made to the contractor, from any sum then due or which may therefore become due to the contractor under the contract or otherwise or from the security deposit. At the time of submission of bills, The contractor shall certify that balance of material supplied is available at site in original good condition.

The contractor shall submit alongwith every running bill (on account or interim bill) material wise reconciliation statements supported by complete calculations reconciling total issue, total consumption and certified balance (diameter/section wise in the case of steel) and resulting variations and reasons therefore. Engineer-in-Charge shall (whose decision shall be final and binding on the contractor) be within his rights to follow the procedure of recovery in clause 42 at any stage of the work if reconciliation is not found to be satisfactory.

*Signature of Tenderer(s)*



The contractor shall bear the cost of getting the material issued, loading, transporting to site, unloading, storing under cover as required, cutting assembling and joining the several parts together as necessary. Notwithstanding anything to the contrary contained in any other clause of the contract and (or the CPWA Code) all stores/materials so supplied to the contractor or procured with the assistance of the Government shall remain the absolute property of Government and the contractor shall be the trustee of the stores/ materials and shall not be removed/ disposed off from the site of the work on any account and shall be at all times open to inspection by the Engineer-in-Charge or his authorized agent. Any such stores/ materials remaining unused shall be returned to the Engineer-in-Charge in as good a condition in which they were originally supplied at a place directed by him, at a place of issue or any other place specified by him as he shall require, but in case it is decided no to take back the stores /materials the contractor shall have no claim for compensation on any account of such stores/ material so supplied to him as aforesaid and not used by him or any wastage in or damage to in such stores/materials.

On Being required to return the stores/materials, the contractor shall hand over the stored/ materials on being paid or credited such price as the Engineer-in-Charge shall determine having due regard to the condition of the stores/materials. The price allowed for credit to the contractor, however, shall be at the prevailing market rate not exceeding the amount charged to him. excluding the storage charge, if any. The decision of the Engineer-in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to account for contravention of the terms of the licenses of permits and / or for criminal breach of trust, be liable to Government for all advantages or profits resulting of which in the usual course would have resulted to him by reason of such breach provided that the contractor shall in no case be entitled to any compensation or damages on provided further that the contractor shall be bound to execute the entire work if the materials are supplied by the Government within the original scheduled time for completion of the work plus 50% thereof or schedule time plus 6 months whichever is more if the time of work exceeds 12 months, but if a part of the materials only has been supplied with in the aforesaid period, then the contractor shall be bound to do so much of the work as may be possible with the materials and stores supplied in the aforesaid period. For the completion of the rest of the work the contractor shall be entitled to such extension of time as may be determined by the Engineer-in-Charge whose decision in this regard shall be final and binding on the contractor.

The Contractor shall see that only the required quantities of materials are got issued. Any such material remaining unused and in perfectly good/original condition at the time of completion or determine of the contract shall be returned to the Engineer-in-Charge at the stores from which it was issued or at a place directed by him by a notice in writing. The contractor shall not be entitled for loading, transportin, unloading and stacking of such unused material except for the extra lead, if any involved, beyond the original place or issue.

#### **Clause 10A**

##### **Materials to be provided by the contractor: -**

The contractor shall at his own cost provide all materials required for the works. The contractor shall, at his own expense and without delay, supply to Engineer-in-charge samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer-in-charge furnish proof, to the satisfaction of the Engineer-in-charge that the materials so comply. The Engineer- in-charge shall within five days of supply of samples or within five days of the receipt of test result intimate to the contractor in writing whether samples are approved by him or not. If samples are not approved the contractor shall forthwith arrange to supply to the Engineer-in- Charge for his approval fresh samples complying with the specifications laid down in the contract. When materials are required to be tested in accordance with specification, approval of the Engineer-in-charge shall be issued after the test results are received.

The contractor shall at his risk and cost submit the samples of materials to be tested or analysed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Engineer-in-charge. The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

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. The Engineer-in-Charge or his authorised representative and Architect shall at all times have access to the work and to all such workshops and places where work is being prepared or from where materials manufactured articles, or machinery are being obtained for the works and the contractor shall afford every facility and every assistance in obtaining the right to such access.

The Engineer-in-charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default the Engineer-in-charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-in-charge shall also have full powers to require other proper materials to be substitute thereof and in case of default the Engineer-in-Charge may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the contractor.

#### **Clause 10 B**

##### **Secured Advance on Non-perishable Materials :-**

The contractor, on signing an indenture in the form to be specified by the Engineer-in-charge shall be entitled to be paid during the progress of the execution of the work upto 75% of the assessed value of any materials which are in the opinion of the Engineer-in-charge nonperishable, non-fragile and noncombustible and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/ or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this sub-clause are incorporated in the work the amount of such advance shall be recovered/ deducted from the next payment made under any of the clause or clauses of this contract.

Such secured advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of the Engineer-in-charge provided the contractor provides a comprehensive insurance cover for the full cost of such materials. The decision of the Engineer-in-charge shall be final and binding on the contractor in this matter. No secured advance, shall however, be paid on high-risk materials such as ordinary glass, sand, petrol, diesel etc.

Mobilization advance (ii) Mobilization advance not exceeding 10% of the tendered value may be given, if requested by the contractor in writing one month of the order to commence the work. In such a case, the contractor shall execute a Bank Guarantee Bond from a Scheduled Bank as specified by the Engineer-in-Charge for the full amount of mobilization advance before such advance is released. Such advance shall be into one or more installments to be determined by the Engineer-in-Charge at his sole discretion. The first installment of such advance shall be released by the Engineer-in-Charge to the contractor on a request made by the contractor to the Engineer-in-Charge in this behalf. The second and subsequent installments shall be released by the Engineer-in-Charge only after the contractor furnishes a proof of the satisfactory utilization of the earlier installment to the entire satisfaction of the Engineer-in-Charge.

Provided always that provision of Clause 10 B (ii) shall be applicable only when provided in 'Schedule F'.

Plant & Machinery (iii) An advance for plant, machinery & shuttering material required for the work and brought to site by the contractor may be given if requested by the contractor in writing within one month of bringing such plant and machinery to site. Such advance shall be given on such plant and machinery, which in the opinion of the Engineer-in-Charge will add to the expeditious execution of work and improve the

quality of work. The amount of advance shall be restricted to 5% percent of the tender value. In the case of new plant and equipment to be purchased for the work, the advance shall be restricted to 90% of the price of such new plant and equipment paid by the contractor for which the contractor shall produce evidence satisfactory to the Engineer-in-Charge. In the case of second hand and used plants and equipment, the amount of such advance shall be limited to 50% of the depreciated value of plant and equipment as may be decided by the Engineer-in-Charge. The contractor shall, if so required by the Engineer-in-charge, submit the statement of value of such old plant and equipment duly approved by a Registered Valuer recognized by the Central Board of Direct Taxes under the Income-Tax Act, 1961. No such advance shall be paid on any plant and equipment of perishable nature and on any plant and equipment of a value less than Rs. 50,000/-. Seventy five per cent of such amount of advance shall be paid after the plant & equipment is brought to site and balance twenty five percent on successfully commissioning the same.

Leasing of equipment shall be considered at par with purchase of equipment and shall be covered by tripartite agreement with the following:

Leasing company which gives certificate of agreeing to lease equipment to the contractor.

Engineer in Charge, and

The contractor.

This advance shall further be subject to the condition that such plant and equipment (a) are considered by the Engineer-in-Charge to be necessary for the works; (b) and are in working order and are maintained in working order; (c) hypothecated to the Government as specified by the Engineer-in-Charge before the payment of advance is released. The contractor shall not be permitted to remove from the site such hypothecated plant and equipment without the prior written permission of the Engineer-in-Charge. The contractor shall be responsible for maintaining such plant and equipment in good working order during the entire period of hypothecation failing which such advance shall be entirely recovered in lump sum. For this purpose, steel scaffolding and form work shall be treated as plant and equipment.

The contractor shall insure the plant and Machinery for which mobilization advance is sought and given, for a sum sufficient to provide for their replacement at site. Any amounts not recovered from the insurer will be borne by the contractor.

**Interest & Recovery** (iv) The mobilization advance and plant and machinery advance in (ii) & (iii) above bear simple interest at the rate of 10 per cent per annum and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance. Recovery of such sums advanced shall be made by the deduction from the contractors bills commencing after first ten per cent of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10 in such a way that the entire advance is recovered by the time eighty per cent of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount up to the date of recovery of the installment.

(v) If the circumstances are considered reasonable by the Engineer-in-Charge, the period mentioned in (ii) and (iii) for request by the contractor in writing for grant of mobilization advance and plant and equipment advance may be extended in the discretion of the Engineer-in-Charge.

(vi) The said bank guarantee for advances shall initially be made for the full amount and valid for the contract period, and be kept renewed from time to time to cover the balance amount and likely period of complete recovery together with interest.

#### **CLAUSE 10 C**

##### **Payment on account of Increase in Prices/Wages due to Statutory Order (s)**

If after submission of the tender, the price of any material incorporated in the works (not being a material supplied from the engineer-in-Charge's stores in accordance with Clause 10 thereof) and/ or wages of labour increases as a direct result of the coming into force of any fresh law, or Statutory rule or order (but not due to any changes in excise, sales tax, VAT etc) and such increase in the price and/or wages prevailing at the time of the last stipulated date for receipt of the tenders including extensions if any for the work, and the contractor thereupon necessarily and properly pays in respect of that material (incorporated in the works) such increased price and/ or in respect of labour engaged on the execution of the work such increased wages, then the amount of the contract shall accordingly be varied and provided further that any such increase shall not be payable if such increase has become operative after the stipulated date of completion of the work in question.

If after submission of the tender, the price of any material incorporated in the works (not being a material supplied from the engineer-in-Charge's stores in accordance with Clause 10 thereof) and/or wages of labour is decreased as a direct result of the coming into force of any fresh law or statutory rules or order (but not due to any changes in sales tax) and such decrease in the prices and/or wages prevailing at the time of receipt of the tender for the work. The Institute shall in respect of materials incorporated in the works (not being materials supplied from the Engineer-in-Charge's stores in accordance with Clause - 10 hereof) and/or labour engaged on the execution of the work after date coming into force of such law statutory rule or order be entitled to deduct from the dues of the contractor, such amount as shall be equivalent to the difference between the prices of the materials and/or wages as prevailed at the time of the last stipulated date for receipt of tenders including extensions if any for the work and the prices of materials and/or wages of labour on the coming into force of such law, statutory rule or order. The contractor shall, for the purpose of this condition, keep such books of account and other documents as are necessary to show the amount of any increase claimed or reduction available and shall allow inspection of the same by a duly authorized representative of the Institute and further shall, at the request of the engineer-in-Charge may require any documents so kept and such other information as the Engineer-in-Charge may require.

The contractor shall, within a reasonable time of his becoming aware of any alteration in the prices of any such materials and/or wages of labour, give notice thereof to the Engineer-in-Charge stating that the same is given pursuant to this condition together with all information relating thereof which he may be in position to supply.

#### **CLAUSE 10 CA (NOT APPLICABLE)**

##### **Payments due to variation in prices of materials after receipt of tender**

If after submission of the tender, the price of materials mentioned in Schedule-F increase / decreases beyond the price (s) prevailing at the time of the last stipulated date for receipt of tenders (including extensions, if any) for the work, then the amount of the contract shall accordingly be varied and provided further that any such variations shall be effected for stipulated period of Contract including the justified period extended under the provisions of Clause 5 of the Contract without any action under Clause 2.

However for work done during the justified period extended as above, it will be limited to indices prevailing at the time of stipulated date of completion or as prevailing for the period under consideration whichever is less.

The increase/decrease in prices shall be determined by the All India Wholesale Prices Indices of Materials as published by Economic Advisor to Government of India, Ministry of Commerce and Industry and base price for material as issued under the authority of MNIT, JAIPUR as valid on the last stipulated date of receipt of tender, including extension if any and for the period under consideration. In case, price index of a particular material is not issued by Ministry of Commerce and Industry, then the price index of nearest similar material shall be followed.

The amount of the contract shall accordingly be varied for all such materials and will be worked as per the formula given below for individual material:-

Adjustment for component of individual material

*Signature of Tenderer(s)*

$$V = P \times Q \times \frac{CI - CI0}{CI0}$$

Where,

V = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

P = Base Price of material as issued by MNIT, JAIPUR valid at the time of the last stipulated date of receipt of tender including extensions, if any.

Q = Quantity of material as used in the works since previous bill.

CI0 = All India Wholesale Price Index for the material as published by the Economic Advisor to Government of India, Ministry of Industry and Commerce as valid on the last stipulated date of receipt of tenders including extensions, if any.

CI = All India Wholesale Price Index for the material for period under consideration as published by Economic advisor to Government of India, Ministry of Industry and Commerce. Provided always that provisions of the preceding Clause 10 C shall not be applicable in respect of materials covered in this Clause.

**CLAUSE 10 CC (NOT APPLICABLE)**

**Payment due to Increase / Decrease in Prices/Wages after Receipt of Tender for Works**

If the prices of materials (not being materials supplied or services rendered at fixed prices by the department in accordance with clause 10 & 34 thereof) and/or wages of labour required for execution of the work increase, the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contract shall accordingly be varied, subject to the condition that such compensation for escalation in prices and wages shall be available only for the work done during the stipulated period of the contract including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2. However, for the work done during the justified period extended as above, the compensation as detailed below will be limited to prices/wages prevailing at the time of stipulated date of completion or as prevailing for the period under consideration, whichever is less. No such compensation shall be payable for a work for which the stipulated period of completion is equal to or less than the time as specified in Schedule F. Such compensation for escalation in the prices of materials and labour, when due, shall be worked out based on the following provisions:-

i) The base date for working out such escalation shall be the last stipulated date of receipt of tenders including extension, if any.

ii) The cost of work on which escalation will be payable shall be reckoned as below:

a) Gross value of work done upto this quarter: (A)

b) Gross Value of work done upto the last quarter: (B)

c) Gross value of work done since previous quarter (A-B) (C)

d) Full assessed value of Secured Advance (Excluding materials covered under Clause 10CA) fresh paid in this quarter: (D)

e) Full assessed value of Secured Advance (Excluding materials covered under Clause 10CA) recovered in this quarter. (E)

f) Full assessed value of Secured advance for which escalation is payable in this quarter (D-E): (F)

g) Advance payment made during this quarter (G)

h) Advance payment recovered during this quarter (H)

i) Advance payment for which escalation is payable in this quarter (G-H) (I)

j) Extra Items paid as per Clause 12 based on prevailing market rates during this quarter: (J)

Then,  $M = C + F + I - J$

$N = 0.85 M$

k) Less cost of material supplied by the department as per Clause 10 and (K) recovered during the quarter:

l) Less cost of services rendered at fixed charges as per Clause 34 and (L) recovered during the quarter

**Cost of work for which escalation is applicable:**

$W = N - (K+L)$

iii) Components for materials (except cement, reinforcement bars, structural steel or other materials covered under clause 10CA) labour, P.O.L., etc. shall be pre-determined for every work and incorporated in the conditions of contract attached to the tender papers included in Schedule 'E'. The decision of the Engineer-in-Charge in working out such percentage shall be binding on the contractors.

iv) The compensation for escalation for cement, steel, materials and P.O.L. shall be worked as per the formula given below:-

(a) Adjustment for component of 'Cement'

$$V_c = W \times \frac{X_c \times CI - CI0}{100 \times CI0}$$

V<sub>c</sub> = Variation in cement cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

W = Cost of Work done worked out as indicated in sub-Para (ii) of Clause 10 CC.

X<sub>c</sub> = Component of cement expressed as percent of total value of work.

CI = All India Wholesale Price Index for cement for the period under consideration as published by the Economic Advisor to Government of India, Ministry of Industry and Commerce. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing of the period under consideration, whichever is less, shall be considered.)

CI0 = All India Wholesale Price Index for cement as published by Economic advisor to Government of India, Ministry of Industry and Commerce as valid on the last stipulated date of receipt of tenders including extensions, if any.

(b) Adjustment for component of 'Steel'

$$V_s = W \times \frac{X_s \times SI - SI0}{100 \times SI0}$$

V<sub>s</sub> = Variation in steel cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

W = Cost of Work done worked out as indicated in sub-Para (ii) of Clause 10 CC.

X<sub>s</sub> = Component of steel expressed as percent of total value of work.

SI = All India Wholesale Price Index for steel (bars & rods) for the period under consideration as published by the Economic Advisor to Government of India, Ministry of Industry and Commerce. However the Price Index shall be minimum of the following:

i) Index for the month when the last consignment of steel reinforcement for the work is procured or

ii) Index for the month in which half of the stipulated contract period is over.

iii) Index for the period under consideration.

For the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the principle as for the period within stipulated period of completion, will apply.

*Signature of Tenderer(s)*

SIO = All India Wholesale Price Index for steel (bar & rods) published by Economic advisor to Government of India, Ministry of Industry and Commerce as valid on the last stipulated date of receipt of tender including extensions, if any.  
(c) Adjustment for civil component (except cement and steel) of all construction 'Materials'

$$V_m = W \times \frac{X_m}{100} \times \frac{MI - MIO}{MIO}$$

V<sub>m</sub> = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

W = Cost of Work done worked out as indicated in sub-Para (ii) of Clause 10 CC.

X<sub>m</sub> = Component of 'materials' expressed as percent of the total value of work.

MI = All India Wholesale Price Index for all commodities for the period under consideration as published by the Economic Advisor to Government of India, Ministry of Industry and Commerce. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.)

MIO = All India Wholesale Price Index for all commodities valid on the last stipulated date of receipt of tenders including extensions, if any, as published by the Economic advisor to Government of India, Ministry of Industry and Commerce

(d) Adjustment for component of 'POL'

$$V = W \times \frac{Z}{100} \times \frac{FI - FIO}{FIO}$$

V<sub>f</sub> = Variation in cost of Fuel, Oil & Lubricant i.e. increase or decrease in the amount in rupees to be paid or recovered.

W = Cost of Work done worked out as indicated in sub-Para (ii) of Clause 10 CC.

Z = Component of Fuel, Oil & Lubricant expressed as percent of the total value of work.

FI = All India Wholesale Price Index for Fuel, Oil & Lubricant for the period under consideration as published by the Economic Advisor to Government of India, Ministry of Industry and Commerce, New Delhi. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.)

FIO = All India Wholesale Price Index for Fuel, Oil & Lubricant valid on the last stipulated date of receipt of tender including extensions, if any.

v) The following principles shall be followed while working out the indices mentioned in Para (iv) above.

a) The compensation for escalation shall be worked out at quarterly intervals and shall be with respect to the cost of work done as per bills paid during the three calendar months of the said quarter. The first such payment shall be made at the end of three months after the month (excluding) in which the tender was accepted and thereafter at three months' interval. At the time of completion of the work, the last period for payment might become less than 3 months depending on the actual date of completion.

b) The index (MI/FI etc.) relevant to any quarter/period for which such compensation is paid shall be the arithmetical average of the indices relevant to three calendar months. If the period up to date of completion after the quarter covered by the last such installment of payment, is less than three months, the index MI and FI shall be the average of the indices for the months falling within that period.

vii) The compensation for escalation for **labour** shall be worked out as per formula given below:-

$$V_L = W \times \frac{Y}{100} \times \frac{LI - LIO}{LIO}$$

V<sub>L</sub> = Variation in labour cost i.e. amount of increase or decrease in the amount in rupees to be paid or recovered.

W = Value of Work done, worked out as indicated in sub-para (ii) above.

Y = Component of labour expressed as percentage of the total value of work.

LI = Minimum wages in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as applicable on the last date of the quarter previous to the one under consideration. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the minimum wages prevailing on the last date of quarter previous to the quarter pertaining to stipulated date of completion or the minimum wages prevailing on the last of the quarter previous to the one under consideration, whichever is less, shall be considered.)

LIO = Minimum daily wage in rupees of an unskilled adult male mazdoor fixed under any law, statutory rule or order as on the last stipulated date of receipt of tender including extensions, if any.

viii) The following principles will be followed while working out the compensation as per subpara (vi) above.

a) The minimum wage of an unskilled male mazdoor mentioned in sub para (vi) above shall be the higher of the wage notified by Government of India, Ministry of Labour and that notified by the local administration both relevant to the place of work and the period of reckoning.

b) The escalation for labour also shall be paid at the same quarterly intervals when escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials and/or P.O.L. is paid under this clause. If such revision of minimum wages takes place during any such quarterly intervals, the escalation compensation shall be payable at revised rate only for work done in subsequent quarters.

c) Irrespective of variations in minimum wages of any category of labour, for the purpose of this clause, the variation in the rate for an unskilled adult male mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component.

ix) In the event the price of materials and/or wages of labour required for execution of the work decrease/s, there shall be a downward adjustment of the cost of work so that such price of materials and/or wages of labour shall be deductible from the cost of work under this contract and in this regard the formula herein before stated under this Clause 10CC shall mutatis mutandis apply, provided that:

a) No such adjustment for the decrease in the price of materials and/or wages of labour aforementioned would be made in case of contracts in which the stipulated period of completion of the work is equal to or less than the time as specified in Schedule 'F'.

b) The Engineer-in-Charge shall otherwise be entitled to lay down the procedure by which the provision of this sub-clause shall be implemented from time and the decision of the Engineer-in-Charge in this behalf shall be final and binding on the contractor.

x) Provided always that the provision of the preceding clause 10C and 10CA shall not be applicable for contracts where provisions of this clause are applicable but in cases where provisions of this clause are not applicable, the provisions of Clause 10C and 10CA will become applicable.

*Signature of Tenderer(s)*

## **CLAUSE 10 D**

### **Dismantled Material Institute Property**

The contractor shall treat all materials obtained during dismantling of a structure, of the site for a work, etc. as Institute's property and such materials shall be disposed off to the best advantage of Institute according to the instructions in writing issued by the Engineer-in-Charge.

### **Clause – 11**

**Work to be executed in accordance with specifications, drawings, orders etc.:-** The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner both as regards materials and otherwise in every respect in strict accordance with CPWD Specifications 1996 Vol.I to VI with upto date correction slips and CPWD specifications 1994 for internal electrification and 1995 for external electrification with upto date correction slips . The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the Engineer-in-charge and the contractor shall be furnished free of charge one copy of the contract documents together with specifications, designs, drawings and instructions as are not included in the standard specifications of Central Public Works Department specified in schedule 'F' or in any Bureau of Indian Standard or any other, published standard or code or, Schedule of Rates or any other printed publication referred to elsewhere in the contract.

The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

### **Clause 12**

**Deviations/Variations Extent and Pricing :-** The Director shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Director and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.

12.1 The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the contractor, as follows:-

- i). In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus.
- ii). 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-charge.

12.2 In the case of extra item(s) the contractor may within fifteen days of receipt of order of occurrence of the item(s) claim rates, supported by proper analysis, for the work and the engineer-in-charge shall within one month of the receipt of the claims supported by analysis after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

In the case of substituted items, the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the aforesaid para.

- a) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted) the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).
- b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted) the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so, decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

12.3 The contractor shall send to the Engineer-in-Charge once every three months upto date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer-in-Charge which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right. However, the Director may authorize consideration of such claims on merits.

12.4 Any operation incidental to or necessarily has to be in contemplation of tenderer while filling tender, or necessary for proper execution of the item included in the Schedule of quantities or in the schedule of rates mentioned above, whether or not, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

### **Clause 13**

**Foreclosure of Contract due to Abandonment or Reduction in Scope of Work :-** If at any time after acceptance of the tender, Institute shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the works to be carried out, the Director shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.

The contractor shall be paid at contract rates full amount for works executed at site and in addition, a reasonable amount as certified by the Engineer-in-charge for the items hereunder mentioned which could not be utilised on the work to the full extent in view of the foreclosure:-

- i). Any expenditure incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site office; storage accommodation and water storage tanks.
- ii). Institute shall have the option to take over contractor's materials or any part thereof either brought to site or of which the contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work) provided, however, Institute shall be
- iii). shall offer or give or agree to give to any person in Institute service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for Institute; or

- iv). Shall enter into a contract with Institute in connection with which commission has been paid or agreed to paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Accepting Authority/ Director ; or
  - v). Shall obtain a contract with Institute as a result of wrong tendering or other non- bonafide methods of competitive tendering; or
  - vi). being an individual , or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors: or
  - vii). Being a company, shall pass a resolution or the Court shall make an order for the winding up of the company, or a receiver or manager on behalf of the debenture holders or otherwise shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manager ; or
  - viii). shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days; or
  - ix). assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Accepting Authority :
- The Accepting Authority may, without prejudice to any other right or remedy which shall have accrued or shall accrue hereafter to Institute, by a notice in writing to cancel the contract as whole or only such items of work in default from the Contract.

The Director shall on such cancellation by the Accepting Authority have powers to :

- a). take possession of the site and any materials, constructional plant, implements, stores etc., thereon; and/or
- b). carry out the incomplete work by any means at the risk and cost of the contractor.

On cancellation of the contract in full or in part, the Director shall determine what amount, if any, is recoverable from the contractor for completion of the works or part of the works or in case the works or part of the works is not to be completed, the loss or damage suffered by Institute. In determining the amount, credit shall be given to the contractor for the value of the work executed by him upto to time of cancellation, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor.

Any excess expenditure incurred or to be incurred by Institute in completing the works or part of the works or the excess loss or damages suffered or may be suffered by Institute as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to Institute in law be recovered from any moneys due to the contractor on any account, and if such moneys are not sufficient the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor shall fail to pay the required sum within the aforesaid period of 30 days the Director shall have the right to sell any or all of the contractor's unused materials, constructional plant, implements, temporary buildings, etc and apply the proceeds of sale thereof towards the satisfaction of any sums due from the contractor under the contract and if thereafter there be any balance outstanding from the contractor, it shall be recovered in accordance with the provisions of the contract.

Any sums in excess of the amounts due to the Institute and unsold materials, constructional plant, etc. shall be returned to the contractor, provided always that if cost or anticipated cost of completion by Institute of the works or part of the works is less than the amount which the contractor would have been paid had he completed the works or part of the works, such benefit shall not accrue to the contractor.

**Clause -14**

**Carrying out part work at risk & cost of contractor**

If contractor:

- (i) At any time makes default during currency of works or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in the respect from the Engineer-in-charge or
- (ii) Commits default in complying with any of the terms and conditions of the contract does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by the Engineer-in-charge or
- (iii) Fails to complete the works or items of work with individual dates of completions, on or before the dates so determined and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer-in-charge.

The Engineer-in-charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to government, by a notice in writing to take the part work/ part incomplete work of any item(s) out of his hands and shall have powers to:

- (a) Take possessions of the site and materials, constructional plant, implements, stores, etc. Thereon, and / or
- (b) Carry out the part work / part incomplete work of any items by any means at the risk and cost of the contractor.

The Engineer-in-charge shall determine the amount, if any, is recoverable from the contractor for the completion of the part work / part incomplete work of any item(s) taken out his hands and execute at the risk and cost of the contractor, the liability of contractor on account of loss or damage suffered by the institute because of action under this clause shall not exceed 10% of the tendered value of the work.

In determining the amount, credit shall be given to contractor with the value of work done in all respect in the same manner and at the same rates as if it had been carried out by the original contractor under the terms of his contract, the value of contractor's material taken over and incorporated in the work and use of plant and machinery belonging to the contractor. The certificates of the Engineer-in-charge as to the value of work done shall be final and conclusive against the contractor provided also that if expenses incurred by the department are less than the amount payable to the contractor as his agreement rates, the difference shall not be payable to contractor.

Any excess expenditure incurred or to be incurred by the institute in completing the part work/part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by the institute as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to institute in law or as per agreement be recovered from any money due to the contractor on any account , and if such money is insufficient , the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-charge shall have the right to sell any or all of the contractors' unused materials, construction plants, implements, temporary buildings at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract.

In the event of the above course being adopted by the Engineer-in-charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or produced any materials or entered into any engagement or made any advance on any account or with a view to the execution of the work or the performance of the contract.

**Clause - 15**

**Suspension of work**

i). The contractor shall, on receipt of the order in writing of the Director, (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as the Director may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of the following reasons :

- a). On account of any default on the part of the contractor or
- b). For proper execution of the works or part thereof for reasons other than the default of the contractor or
- c). For safety of the works or part thereof

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Director.

ii). If the suspension is ordered for reasons (b) and (c) in sub-para (I) above :

a). The contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25% for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part and :

b). If the total period of all such suspensions in respect of an item or group of items or work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as the Director may consider reasonable in respect of salaries and/ or wages paid by the contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto 2% to cover indirect expenses of the contractor. Provided the contractor submits his claim supported by details to the Director within fifteen days of the expiry of the period of 30 days.

iii). If the works or part thereof is suspended on the orders of the Director for more than three months at a time, except when suspension is ordered for reason (a) in sub-para (I) above, the contractor may after receipt of such order serve a written notice on the Director requiring permission within fifteen days from receipt by the Director of the said notice, to proceed with the work or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by the Institute or where it affects whole of the works, as an abandonment of the works by the Institute, shall within ten days of expiry of such period of 15 days give notice in writing of his intention to the Director. In the event of the contractor treating the suspension as an abandonment of the contract by the Institute, he shall have no claim to payment of any compensation on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as the Director may consider reasonable, in respect of salaries and/ or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Director within 30 days of the expiry of the period of 3 months.

#### **Clause 16**

**Action in case work not done as per specifications** :- All works under or in course of execution or executed in pursuance of the contract shall at all times be open and accessible to the inspection and supervision of the Director, his authorised subordinates in charge of the work / architect and all the superior officers of the Institute and the Chief Technical examiner's office, and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the contractor's agent shall be considered to have the same force as if they had been given to the contractor himself. If it shall appear to the Engineer-in-charge or his authorised subordinates incharge of the work or to the Architect or the Chief Technical Examiner or his subordinate officers, that any work has been executed with unsound, imperfect or unskillful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract the contractor shall, on demand in writing which shall be made within six months of the completion of the work from the Engineer-in-charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the failing to do so within a period specified by the Engineer-in-charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under clause 2 of the contract (for non-completion of the work in time) for this default.

In such case the Engineer-in-charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the Director may consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and/ or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the contractor. Decision of the Director to be conveyed in writing in respect of the same will be final and binding on the contractor.

#### **Clause – 17**

**Contractor Liable for damages, defects during maintenance period** :- If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road curb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part is being executed, or if any damage shall happen to the work while in progress, from any cause whatever of if any defect, shrinkage or other faults appear in the work within **twelve months (Six months)** in the case of any work other than road work costing Rs. 1,00,000/- (and below) after a certificate final or otherwise its completion shall have been given by the Director as aforesaid arising out of defect or improper materials or workmanship the contractor shall upon receipt of a notice in writing on that behalf make the same good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The security deposit of the contractor shall not be refunded before the expiry of **twelve months** after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later.

#### **Clause 18**

**Contractor to Supply Tools & Plants etc.** :- The contractor shall provide at his own cost all materials, plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specification or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage there of to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out works, and counting, weighing and assisting the measurement for examination at any time and from time to time of the work or materials. Failing his so doing the same may be provided by the Engineer-in-charge at the expense of the contractor and the expenses may be

deducted, from any money due to the contractor, under this contract or otherwise and/or from his security deposit or the proceeds of sale thereof, or of a sufficient portions thereof.

**Clause 18A**

**Recovery of compensation paid to workman** :- In every case in which by virtue of the provisions sub-section (1) of section 12, of the Workmen's Compensation Act, 1923, Institute is obliged to pay compensation to a workman employed by the contractor, in execution of the works, Institute will recover from the contractor for the amount of the compensation so paid ; and, without prejudice to the rights of the Institute under sub-section (2) of Section 12, of the said Act, Institute shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Institute to the contractor whether under this contract or otherwise. Institute shall not be bound to contest any claim made against it under sub-section (1) Section 12, of the said Act, except on the written request of the contractor and upon his giving to Institute full security for all costs for which Institute might become liable in consequence of contesting such claim.

**Clause 18 B**

**Ensuring Payment and Amenities to Workers if Contractor fails** :- In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and of the Contract Labour (Regulation and Abolition) Central Rules, 1971, Institute is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act the Rules framed by Institute from time to time for the protection of health and sanitary arrangements for workers employed by Institute Contractors, Institute will recover from the contractor the amount of wages so paid or the amount of expenditure so incurred, and without prejudice to the rights of the Institute under sub-section (2) of Section 20 and sub-section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970, Institute shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Institute to the contractor whether under this contract or otherwise Institute shall not be bound to contest any claim made against it under sub-section (1) of Section 20, sub- section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the Institute full security for all costs for which Institute might become liable in contesting such claim.

**Clause 19**

**Labour Laws to be complied by the Contractor** : - The contractor shall obtain a valid licence under the Contract Labour (R & A) Act 1970, and the Contract Labour (Regulation and Abolition) Central Rules 1971, before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also abide by the Provisions of Child Labour (prohibition and Regulation) Act, 1986.

The contractor shall also comply with the provisions of the building and other construction workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Welfare Cess Act, 1996. The Contractor shall also abide the provisions of Contract Labour (Regulations and Abolition) Act 1970 and the Contract Labour Regulation & Abolition Central Rules 1971.

Any failure to fulfil this requirement shall attract the penal provisions of this contract arising out of the resultant non-execution of the work. The Contractor shall also abide by the provisions of child labour (Prohibition and Regulations) Act, 1986.

**Clause 20**

**Minimum Wages Act to be complied with:**

The Contractor shall comply with all the provision of the Minimum Wages Act, 1948, amended from time to time and rules framed thereunder and other labour laws affecting contract labour that may be brought from time to time.

**Clause 21**

**Work not to be sublet. Action in case of insolvency:** The Contract shall not be assigned or sublet without the written approval of the Director. And if the contractor shall assign or sublet his contract, or attempt to do so or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise shall either directly or indirectly be given, promised or offered by the contractor, or any of his servants or agent to any public officer or persons in the employ of Institute in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Director on behalf of the Board of Governors of the Institute shall have power to adopt any of the courses specified in Clause 3 hereof as he may deem best suited to the interest of the Institute and in the event of any of these courses being adopted the consequences specified in the said Clause 3 shall ensue.

**CLAUSE 22 :**

All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of the Institute without reference to the actual loss or damage sustained, and whether or not any damage shall have been sustained.

**CLAUSE 23**

**Changes in firm's constitution to be intimated:** Where the Contractor is a partnership firm, the previous approval in writing, of the Director shall be obtained before any change is made in the constitution of the firm. Where the Contractor is an individual or a Hindu undivided family business concern, such approval as aforesaid, shall likewise, be obtained before the Contractors enters into any partnership agreement where under the partnership firm would have the right to carry out the work hereby undertaken by the Contractor. If previous approval, aforesaid, is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 21 hereof and the same action may be taken and the same consequences shall ensue as provided in the said Clause 21.

**CLAUSE 24**

**Directions for execution of works:** All works to be executed under the contract shall be executed under the direction and subject to the approval of the Director of the Institute who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

**CLAUSE 25**

**Settlement of Disputes & Arbitration:** Except where otherwise provided in the contract all questions and all disputes relating to the meaning of the specification, design, drawings and instructions here - in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be referred for adjudication through arbitration by a sole arbitrator appointed by the Director of Institute or if there be no Director of the Institute the administrative head of the said Institute. If the arbitrator so appointed is



unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed in the manner aforesaid. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

It is a term of this contract that the party invoking Arbitration shall give a list of disputes with amounts claimed in respect of each such dispute alongwith the notice for appointment of arbitrator and giving reference to the rejection by the Director of the Institute of the appeal.

It is also a term of this contract that no person other than a person appointed by such Director of the Institute or the administrative head as aforesaid should act as arbitrator and if for any reason that is not possible, the matter shall not be referred to arbitration at all.

It is also a term of this contract that if the contractor does not make any demand for appointment of arbitrator in respect of any claims in writing as aforesaid within 120 days of receiving the intimation from the Engineer-in-Charge that the final bill is ready for payment, the claim of the contractor shall be deemed to have been waived and absolutely barred and the Institute shall be discharged and released of all liabilities under the contract in respect of these claims.

The arbitration shall be conducted in accordance with the provisions of the Arbitration and conciliation Act, 1996, (26 of 1996) or any statutory modifications or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause.

It is also a term of this contract that the arbitrator shall adjudicate on only such disputes as are referred to him by the appointing authority and give separate award against each dispute and claim referred to him and in all cases where the total amount of the claims by any party exceeds Rs.1,00,000/- the arbitrator shall give reasons for the award.

It is also a term of the contract that if any fees are payable to the arbitrator these shall be paid equally by both the parties.

It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims. The venue of the arbitration shall be such place as may be fixed by the Arbitrator in his sole discretion. The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award (including the fees, if any, of the arbitrator) shall be in the discretion of the arbitrator who may direct to any by whom and in what manner such costs or any part thereof shall be paid and fix or settle the amount of costs to be so paid.

#### **CLAUSE 26**

**Contractor to Indemnify Institute against patent Rights:** The Contractor shall fully indemnify and keep indemnified the Board of Governors of the Institute against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part of thereof included in the Contract. In the event of any claims made under or action brought against Institute in respect of any such matter as aforesaid the Contractor shall be immediately notified thereof and the Contractor shall be at liberty at his own expense, to settle any dispute or to conduct any litigation that may arise therefrom. Provided that the Contractor shall not be liable to indemnify the Board of Governors of the Institute if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer in Charge in this behalf.

#### **CLAUSE 27**

**Lump sum Provision in Tender:** When the estimate on which a tender is made includes lump sum in respect of parts of the work, the Contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates, as are payable under this contract for such items, or if the part of the work in question is not in the opinion of the Engineer-in-Charge payable of measurement, the Engineer-in-Charge may at his discretion pay the lump sum amount entered in the estimate, and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against the Contractor with regard to any sum payable to him under the provisions of the clause.

#### **CLAUSE 28**

**Action where no specifications are Specified:** In case of any class of work for which there is no such specifications as referred to in Clause 11, such work shall be carried out in accordance with the Bureau of Indian Standard Specifications. In case there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturer's specifications, if not available then as per District Specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-Charge.

#### **CLAUSE 29**

**With-holding and lien in respect of Sums due from Contractor:** (i) Whenever any claim, for payment of a sum of money arises out of or under the contract or against the contractor, the Institute shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any deposited by the contractor and for the purpose aforesaid, the Institute shall be entitled to withhold the security deposit, if any furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the Contractor, the Institute shall be entitled to withhold and have lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with the Director pending finalization of adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Institute will be kept withheld or retained as such by the Institute till the claim arising out of or under the contract is determined by the arbitrator (if the contract is governed by the arbitration clause) by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause where the contractor is a partnership firm or a limited company, the Institute shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/ limited company as the case may be, whether in his individual capacity or otherwise.

(ii) Institute shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract etc. to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for Institute to recover the same from him in the manner prescribed in sub-clause (i) of this clause or in any other manner legally permissible and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by Institute to the contractor, without any interest thereon whatsoever.

Provided that the Institute shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Institute on the one hand and the contractor on the other under any term of the contract permitting payment for work after assessment by the Engineer-in-Charge.

**CLAUSE 30**

**Lien in respect of claims in other Contracts:** Any sum of money due and payable to the Contractor (including security deposit returnable to him) under this contract may be withheld or retained by way of lien by the Institute or any other contracting person or persons through Engineer-in-Charge against any claim of the Institute or such other person or persons in respect of payment of a sum of money arising out of or under any other Contract made by the Contractor with the Institute or with such other person or persons.

It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Institute will be kept withheld or retained as such by the Institute or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

**CLAUSE 31**

**Water supply:** The Contractor(s) shall make his/ their own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the condition that the water used by the contractor(s) shall be fit for construction purposes.

**CLAUSE 32**

**Alternate water arrangement:**The contractor shall be allowed to construct temporary wells in Institute land for taking water for construction purposes only after he has got permission of the Engineer-in-Charge in writing. No charges shall be recovered from the contractor on this account, but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.

**CLAUSE 33**

**Return of Surplus materials:** Notwithstanding anything contained to the contrary in this contract, where any materials for the execution of the contract are procured with the assistance of Institute either by issue from Institute stocks or purchase made under orders or permits or licenses issued by Institute the contractor shall hold the said materials economically and solely for the purpose of the contract and not dispose of them without the written permission of the Institute and return, if required by the Engineer-in-Charge, all surplus or unserviceable materials that may be left with him after the completion of the contract or at its termination for any reason whatsoever on being paid or credited such price as the Engineer-in-Charge shall determine having due regard to the condition of the materials. The price allowed to the contractor however shall not exceed the amount charged to him excluding the element of storage charges. The decision of the Engineer-in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition the contractor shall in addition to throwing himself open to action for contravention of the terms of the license or permit and / or for criminal breach of trust, be liable to Institute for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.

**CLAUSE 34**

**Plant & Machinery:** The contractor shall arrange at his own expense all tools, plant, machinery and equipment.

**CLAUSE 35:** deleted

**CLAUSE 36:**

**Employment of technical staff and employee**Contractors Superintendence, Supervision, Technical Staff & Employees. The contractor shall provide all necessary superintendence during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations under the contract The contractor shall immediately after receiving letter of acceptance of the tender and before commencement of the work, intimate in writing to the Engineer-In-Charge, the names, qualifications, experience, age, addresses and other particulars along with certificates of the principal technical representative to be in charge of the work and other technical representative who will be supervising the work. Minimum requirement of such technical representative and their qualifications and experience shall not be lower than specified in schedule F. The Engineer-In-Charge shall within 3 days of receipt of such communication intimate in writing his approval or otherwise of such a representative to the contractor. Any such approval may at any time be withdrawn and in case of such withdrawal, the contractor shall appoint another such representative according to the provisions of this clause. Decision of the tender accepting authority shall be final and binding on the contractor in this respect. Such a principal technical representative and other technical representative shall be appointed by the contractor soon after receipt of the approval from Engineer-In-Charge and shall be available at site before start of work.

All the provisions applicable to the principal technical representative under the clause will also be applicable to other technical representative. The principal technical works for supervision at all times when any construction activity is in progress and also present him/ themselves as required, to the Engineer-In-Charge and or his designated representative to take instruction. Instructions given to the principal the same force as if these have been given to the contractor. The principal technical representative and other technical representative shall be actually available at site fully during all stages of execution of work, during recording/ checking/ test checking of measurements of works and whenever so required by the Engineer-In-Charge and shall also note down instructions conveyed by the Engineer-In-Charge or his designated representatives in the site order book and shall affix his/their signature in token of noting down the instructions and in token of acceptance of measurements look after any other work. Substitutes, duly approved by Engineer-In-Charge of the work in similar manner as aforesaid shall be provided in event of absence of any of the representative by more than two days. If the Engineer-In-Charge, whose decision in this respect is final and binding on the contractor, is convinced that no such technical representative is effectively appointed or is effectively attending or fulfilling the provision of this clause, a recovery (non- refundable) shall be effected from the contractor as specified in Schedule 'F' and the decision of the Engineer-In-Charge as recorded in the site order book and measurement recorded checked/ test checked in measurement books shall be final and binding on the contractor. Further if the contractor fails to appoint suitable technical principal technical representative and or other technical representatives and if such without duly approved substitute or do not discharge their responsibilities satisfactorily, the Engineer-In-Charge shall have full powers to suspend the execution of the work until such date as suitable other technical representative is appointed and the contractor shall be held responsible for the delay so caused to the work. The contractor shall submit a certificate of employment of the technical representative along with every on account bill/ final bill and shall produce evidence if at any time so required by the Engineer-In-Charge. The contractor shall provide and employ on the site only such technical assistants as are skilled and experienced in their respective fields and such foremen and supervisory staff as are competent to give proper supervision to the work. The contractor shall provide and employ skilled, semiskilled and unskilled labour as is necessary for proper and timely execution of the work. The Engineer-In-Charge shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is

otherwise considered by the Engineer-In-Charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Engineer-In-Charge and the persons so removed shall be replaced as soon as possible by competent substitutes.

**CLAUSE 37: Levy/Taxes payable by Contractor.**

- i) Sales Tax service tax, VAT, Octroi , purchase tax or turnover tax or any other tax in respect of this contract shall be payable by the Contractor and Institute shall not entertain any claim whatsoever in this respect.
- ii) The contractor shall deposit royalty and obtain necessary permit for supply of the red bajri, stone, kankar, etc. from local authorities.
- iii) If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the Institute to the State Government, Local authorities in respect of any material used by the contractor in the works then in such a case, it shall be lawful to the Institute and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor.

**CLAUSE 38:**

**Conditions for reimbursement for levy/taxes if levied after receipt of tenders.**

- (i) All tendered rates shall be inclusive of all taxes and levies (except service tax) payable under respective statutes. However, if any further tax or levy or cess is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon necessarily and properly pays such taxes / levies/ cess the contractor shall be reimbursed the amounts so paid, provided such payments, if any, is not , in the opinion of the Registrar attributable to the delay in execution of work within the control of the contractor.
- (ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this conditions as may be necessary and shall allow inspection of the same by a duly authorized representative of the Government and/or the Engineer in charge may require from time to time.
- (iii) The contractor shall, give a written period of 30 days of the imposition of any such further tax or levy, or cess give a written notice thereof to the Engineer in charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

**CLAUSE 39: Termination of Contract on death of contractor**

Without prejudice to any of the rights or remedies under this contract if the contractor dies, the Director on behalf of the Board of Governors of the Institute shall have the option of terminating the contract without compensation to the contractor.

**CLAUSE 40 :If relative working in MNIT then the contractor not allowed to tender**

The contractor shall not be permitted to bid for works in the MNIT (responsible for award and execution of contracts), in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of Superintending 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 gazetted officer in the MNIT or in the Ministry of Human Recourses & Development. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of MNIT.

NOTE: By the term “near relatives” is meant wife, husband, parents and grandparents’ children and grand children, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.

**CLAUSE 41:**

**No Gazetted Engineer to work as contractor within one year of retirement**

No engineer of gazetted rank or other gazetted officer employed in engineering of administrative duties in an engineering department of the Government of India shall work as a contractor or employee of a contractor for a period of one year after his retirement from government service without the previous permission of Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of Government of India as aforesaid, before submission of the tender or engagement in the contractor’s service, as the case may be.

**CLAUSE 42: Deleted**

**CLAUSE 43**

**Compensation during warlike situations:** The work (whether fully constructed or not) and all materials, machines, tools and plants, scaffolding, temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to the Engineer-in-Charge and a certificate from him to that effect obtained. In the event of the work or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or warlike operation, the contractor shall when ordered (in writing) by the Engineer-in-Charge to remove any debris from the site, collect and properly stack or remove in store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of clearing the site of debris, stacking or removal of serviceable material and for reconstruction of all works ordered by the Engineer-in-Charge, such payments being in addition to compensation upto the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed but not already measured and paid for, the compensation shall be assessed by Engineer-in-Charge. The contractor shall be paid for the damages/ destruction suffered and for the restoring the material at the rate based on analysis of rates tendered for in accordance with the provision of the contract. The certificate of the Engineer-in-Charge regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on all parties to this contract.

Provided always that no compensation shall be payable for any loss in consequence of hostilities or warlike operations (a) unless the contractor had taken all such precautions against air raid as are deemed necessary by the A.R.P. Officers or the Engineer-in-Charge. (b) for any material etc. not on the site of the work or for any tools, plant, machinery scaffolding, temporary building and other things not intended for the work.

In the event of the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Director.

**CLAUSE 44:**

**Apprentices act provisions to be compiled with**

The contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be breach of the contractor and the Registrar may in his discretion, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said act.

**CLAUSE 45**

*Signature of Tenderer(s)*

**Release of Security deposit after labour clearance.** Security Deposit of the work shall not be refunded till the contractor produces a clearance certificate from the Labour Officer. As soon as the work is virtually complete the contractor shall apply for the clearance certificate to the Labour Officer under intimation to the Engineer-in-Charge. The Engineer in charge on receipt of the said communication shall write to the Labour Officer to intimate if any complaint is pending against the contractor in respect of the work. If no complaint is pending, or recorded till after 3 months after completion of the work and/ or no communication is received from the Labour Officer to this effect till six months after the date of completion, it will be deemed to have received the clearance certificate and the Security Deposit will be released if otherwise due.

#### **Safety Code**

1. Suitable scaffolds should be provided for workmen for all works that can not safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well as suitable footholds and hand-hold shall be provided on the ladder and the ladder shall be given an inclination not steeper than  $\frac{1}{4}$  to 1 (1/4 horizontal and 1 vertical)
2. Scaffolding of staging more than 3.6m (12 ft) above the ground or floor, swung or suspended from an overhead support or erected with stationery support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm (3ft) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends there of with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
3. Working platform, gangways and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6 (12ft) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (2) above.
4. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be 90cm (3ft).
5. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m (30ft) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. (11  $\frac{1}{2}$ "") for ladder upto and including 3m (10ft) in length. For longer ladders this width should be increased at least  $\frac{1}{4}$ " for each additional 30cm (1foot) of length. Uniform step spacing of not more than 30cm shall be kept. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites or work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defiance of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may, with the consent of the contractor, be paid to compensate any claim by any such person.
6. Excavation and Trenching - All trenches 1.2m (4ft) or more in depth, shall at all times be supplied with the least one ladder for each 30m (100ft) in length or fraction thereof Ladder shall extend from bottom of the trench to at least 90 cm (3ft) above the surface of the ground. The side of the trenches which are 1.5m (5ft) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5m (5ft) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.
7. Demolition – Before any demolition work is commenced and also during the progress of the work,
  - a. All roads and open areas adjacent to the work site shall either be closed or suitably protected.
  - b. No electric cable or apparatus which is liable to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.
  - c. All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.
8. All necessary personal safety equipment as considered adequate by the Engineer-in-Charge should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned. The following safety equipments shall invariably be provided :
  - i). Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
  - ii). Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes shall be provided with protective goggles.
  - iii). Those engaged in welding works shall be provided with welder's protective eye shields.
  - iv). Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
  - v). When workers are employed in sewers and manholes, which are in active use, the contractor shall ensure that the manholes are opened and ventilated at least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public. In addition, the contractor shall ensure that the following safety measure are adhered to :
    - a). Entry for workers into the line shall not be allowed except under supervision of the Engineer-in-charge or any other higher officer.
    - b). At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manhole for working inside.
    - c). Before entry presence of Toxic gases should be tested by inserting wet lead acetate paper which changes colour in the presence of such gases and gives indication of their presence.
    - d). Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with Oxygen kit.
    - e). Safety belt with rope should be provided to the workers. While working inside the manholes such rope should be handled by two men standing outside to enable him to be pulled out during emergency.
    - f). The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.
    - g). No smoking or open flames shall be allowed near the blocked manhole being cleaned.
    - h). The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
    - i). Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer-in-Charge may decide the time up to which a worker may be allowed to work continuously inside the manhole.

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- j). Gas masks with Oxygen Cylinder should be kept at site for use in emergency.
- k). Air-blowers should be used for flow of fresh air through the manholes. Whenever called for portable air blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at least 2 metres away for the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.
- l). The workers engaged for cleaning the manholes/ sewers should be properly trained before allowing to work in the manhole.
- m). The workers shall be provided with Gumboots or non sparking shoes bump helmets and gloves non sparking tools safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.
- n). Workmen descending a manhole shall try each ladder stop or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.
- o). If a man received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
- p). The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer-in-Charge regarding the steps to be taken in this regard in an individual case well be final.
- vi). The Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precaution should be taken :-
- a). No paint containing lead or lead products shall be used except in the form of paste or ready made paint.
- b). Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scraped.
- c). Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.
9. An additional clause (viii) (i) of Safety Code (iv) the Contractor shall not employ women and man below the age of 18 on the work of painting with product containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use :
- i). While lead, sulphate of lead or product containing these pigment, shall not be used in painting operation except in the form of pastes or paint ready for use.
- ii). Measures shall be taken, wherever required in order to prevent danger arising from the application of a paint in the form of spray.
- iii). Measures shall be taken, wherever practicable, to prevent danger arising out of from dust caused by dry rubbing down and scraping.
- iv). Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.
- v). Overall shall be worn by working painters during the whole of working period.
- vi). Suitable arrangement shall be made to prevent clothing put off during working hours being spoiled by painting materials.
- vii). Cases of lead poisoning and suspected lead poisoning shall be notified and shall be subsequently verified by medical man appointed by competent authority of Institute.
- viii). Institute may require, when necessary medical examination of workers.
- ix). Instruction with regard to special hygienic precautions to be taken in the painting trade shall be distributed to working painters.
10. When the work is done near any place where there is risk of drowning, all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision, should be made for prompt first aid treatment of all injuries likely to be obtained during the course of the work.
11. Use of hoisting machines and tackle including their attachment, anchorage and supports shall conform to the following standards or conditions :-
- i). a). These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept repaired and in good working order.
- b). Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
- ii). Every crane driver or hoisting appliance operator, shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding winch or give signals to operator.
- iii). In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
- iv). The contractors shall notify the safe working load of their machines to the Engineer-in-charge whenever he brings any machinery to site of work and get it verified by the Engineer-in-charge.
12. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations, which are already energised, insulating mats, wearing apparel, such as gloves, sleeves and boots and may be necessary should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.
13. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.
14. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place of work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.
15. To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the Labour Officer or Engineer-in-charge or their representatives.
16. Notwithstanding the above clauses from (1) to (15) there is nothing in these to exempt the contractor from the operations of any other Act or Rules in force in the Republic of India.

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### 13. PROFORMA OF SCHEDULES

#### SCHEDULE `A`

Schedule of quantities

- i. Electrical enclosed.

#### SCHEDULE `B`

Schedule of materials to be issued to the contractor

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

No material shall be issued to the Contractor by the Institute.

#### 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

No tools & plants shall be hired to the Contractor by the Institute.

#### SCHEDULE `D`

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

- Nil -

#### SCHEDULE `E`

Schedule of component of other materials, labour, POL, etc for price escalation.

**10CC : Not Applicable.**

**10C & 10CA : Not Applicable.**

## SCHEDULE 'F'

**Reference to General Conditions of contract.**General Conditions of contract for Central PWD Works 2014 as amended upto **DG/CON/300 dated 09.02.2018.**

**Name of work: SITC of cloud-based energy management solution.**

1. Estimated cost of work: **Rs. 997083.00**
2. Earnest Money : **Rs. 19942.00**
- iii. Performance Security : 5% (five percent) of accepted composite tendered amount.
- iv. Security deposit **5% of tendered value**

v. General Rules & Directions  
Officer inviting tender

Director, MNIT Jaipur

### Definitions

- 2(v) Engineer-in-Charge The Engineer of MNIT Jaipur who shall supervise and be In charge of the work.
- 2(viii) Accepting Authority **Director, MNIT Jaipur**
- 2(x) Percentage on cost of materials And labour to cover all overheads and profits 15%
- 2(xi) Standard Schedule of Rates (i). C.P.W.D. Delhi Schedule of Rates 2016 with upto date correction slips issued upto the date of receipt of tenders.  
  
(ii) Rajasthan PWD BSR 2013 for internal electrification and external electrification with upto date correctionslips issued upto the date of receipt oftender.
- 2(xii) Department MNIT Jaipur
- Clause 1** (i)Time allowed for submission of performance guarantee from date of issue of letter of acceptance. 15 Days
- (ii)Maximum allowable extension with late fees @0.1%per day of performance guarantee amount beyond the period as provided in (i) above. 7 Days

<b>Clause 2</b>	Authority for fixing compensation under clause 2.	Director, MNIT, Jaipur.
<b>Clause 2A</b>	Whether clause 2A applicable	No.
<b>Clause 5</b>	Number of days from date of issue of letter of acceptance for reckoning date of start.	<b>22 Days</b>
<b>(i)</b>		
<b>(ii)</b>	Mile Stone chart.	<b>As per attached below.</b>
<b>(iii)</b>	Time allowed for execution of work.	<b>41 Months</b>
<b>(iv)</b>	.Authority to give extension of time for completion of work	Director, MNIT Jaipur
<b>(v)</b>	Rescheduling of Mile stones.	Director, MNIT, Jaipur.

Name of work: **SITC of cloud-based energy management solution.**

<b>Clause 6A</b>	Clause 6/6A applicable.	<b>6A not applicable</b>
<b>Clause 7</b>	Gross work to be done together with net payment/ adjustment of advances for material of collected, if any, since the last such payment for being eligible to interim payment	<b>2.0 Lakh</b>
<b>Clause 10A</b>	List of testing equipment's to be provided by the contractor at site lab.	i)As required by Engineer-in-charge.
<b>Clause 10B</b>	<b>Clause 10CC</b>	Applicable or not
<b>Clause 10C</b>		Not Applicable
		Component of Labour expressed as percentage of value of work.
<b>Clause 10CA</b>		Not Applicable



**Clause 11** Specifications to be followed forexecution of work

i).CPWD Specifications for Electrical works part –III 2003, upto date correction slips for lifts and Escalators.  
 ii).CPWD Specifications 2005 for internal electrification and 1995 for external electrification with upto date correction slips.  
 iii).CPWD Specifications 2009 volume I & II with upto date correction slips for Civil works.

**Clause 12** Type of work. Project & Original work.

Deviation limit beyond which clause 12.2 & clause 12.3 shall apply for allitems including foundation & super structure.

**Not Applicable for Deviation.**  
 For All limits of deviations in all items the quoted rate shall only prevail, and nothing on account of deviation shall be entertained.  
**Applicable for extra & substitute item.**  
 Extra and substitute items shall be treated according to conditions of clause

**Clause 14** Carrying out part work at risk & cost of contractor Applicable

**Clause 16** Competent authority for deciding reduced rates. Director, MNIT, Jaipu

Requirement of technical representative and recovery rates.

**Clause36 (i)**

S.No.	Minimum Qualification of Technician Representatives	Discipline	Designation (Principal Technical/ Technical representative)	Minimum Experience	Number	Rate at which recovery shall be made from the contractor in the eventof not fulfilling provision of Clause 36 (i) per month	
1	Diploma/ Graduate Engineer	(Electrical)	Technical Representative	Nil for Graduate 5 years for Diploma	1	Rs. 10,000/-	Rs. Ten Thousand only

## **Technical Terms and Condition**

### **1. SCOPE OF SOLUTION:**

It is required to deploy a web based Energy Monitoring Solution so as to have the continuous monitoring of all energy distribution points including renewable energy generation. "The Online Energy Monitoring Solution" should be an automated on-line data acquisition support and reporting system which should gathers data from meters on MODBUS RTU and MODBUS TCP/IP protocol. The data should be available over web as well as Mobile App.

The system should be user friendly, flexible and easy to understand. The system should be capable to access the data simultaneously from networked chains of various meters, installed at different locations within the entity/building/commercial establishment. The meters supplied should be warranted for the period of 10 years from date of manufacturing.

The Online Energy Monitoring Solution should help to perform / measure / monitor following functions:

- a) Renewable energy generation measurement
- b) Import and export/forwarded energy to building/office/establishment
- c) Carbon emissions for Green Building audit requirements
- d) Energy Audit (Specific Energy consumption)
- e) Mobile App for instant monitoring from anywhere
- f) Dashboards (configurable)
- g) Reports over e-mail
- h) Instantaneous Alerts in case of exceptions
- i) Trend reports of energy utilization, demand, renewable energy generation, power supply reliability
- j) Distribution Management of the building /office/ establishment
- k) Data Logging of electrical parameters
- l) Reporting and analysis of different parameters
- m) Energy conservation

### **2. SYSTEM/SOLUTION TOPOLOGY:**

The meters should be connected through a multi-drop system using RS485 MODBUS Protocol or Modbus over TCP/IP direct, to a GPRS / Internet Wired Broadband Gateway. This gateway will poll the data to central server system over GPRS / Internet Wired Broadband connectivity. Application should have provision to select the different categories of Service packages (Differentiation of features and applications for different category of consumers). Gateway should have provision of SIM as well as wired broadband connectivity along with inbuilt memory to save the data in case of communication failure.

### **3. SYSTEM/SOLUTION FEATURES:**

- 3.1. The data which should be required to be viewed / logged can be configured by the USER(s) simultaneously, as per his need.
- 3.2. The ON-LINE data should be viewed from web and mobile app in Tabular & Graphical format.
- 3.3. The solution application should be supported over Android as well as IQS platform.

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- 3.4. EMS should have 24\*7 helpdesk to support the application
- 3.5. EMS should have capability of minimum meter data polling frequency of 1 minute. Typical single login can accommodate meters on 1000 load points.
- 3.6. EMS should have a facility to view the historical trend and current values of multiple parameters on single screen.
- 3.7. EMS should have provision to show Total harmonics parameters (THD) of voltage, current and power.
- 3.8. EMS software should have a Carbon Viewer module which is required for carbon emission check and carbon management and also to prepare carbon appraisal to provide comprehensive assessment, identify current major emission sources and opportunities for saving in future
- 3.9. EMS should have Virtual metering location support to calculate consolidated consumption for electric/non electric parameters. It should also have provision for virtual metering reports
- 3.10. EMS should have Configurable dashboard view to provide overall consolidated data to enable for energy conservation.
- 3.11. A set of pre-defined report formats should be available for the USER to choose from, while reporting so as to meet the function requirements of the various hierarchical levels of its management.
- 3.12. EMS should have provision for data reports of actual/ virtual meters on multiple e-mail.
- 3.13. It should be possible to see Main online parameters i.e. (Voltage, Current, Power factors Frequency) in graphical view with indicators and all main energies should be available in Text mode on single screen.
- 3.14. Separate indication for alerts; which should indicate when limits defined by user deviate. Also have provision for real time alerts over mobile app. Provision of showcasing critical (instantaneous and/or energy snapshot) parameters against the alert.

#### **4. ENERGY MONITORING SOLUTION IT COMPLIANCE**

- 4.1. Organization providing EMS has a security framework well defined. Details of security standards pertaining to cyber security is a must.
- 4.2. Compliance to PIMS framework under IS/BIS category.
- 4.3. The application and product development function is assessed at CMMi L3 or above and should be justified with credentials. Additionally, the coding methodology of EMS is aligned as per OWASP and/or CWE.
- 4.4. Organization providing EMS should have Data Leak Prevention (DLP) mechanism(s) and Security Incident Management Process (SIMP) on data protection.
- 4.5. Mitigation process has to be submitted at the time bidding to substantiate the Service level acceptance of EMS.
- 4.6. Has the Application/System undergone vulnerability checks prior to deployment? Sharing of the Application/System Vulnerability Assessment, Penetration tests is required.
- 4.7. There should be a breach notification process in place & the solution is compliant with HIPAA or GDPR.
- 4.8. 'Data at rest' and 'Data in transit' status is encrypted. The bidder should share the details of the encryption standard used for data at rest and data in transit.
- 4.9. In case of multitenant model, end user's environment shall be segregated from other client's environments sharing the same hosting infrastructure of cloud.
- 4.10 A detailed application workflow, describing the communication happening between all the

components including the protocol involved should be provided. Compatibility of the Data Concentration Unit (DCU) at device and server IP configuration should be confirmed by the bidder.

4.11 The bidder shall be an original equipment manufacturer of meter, DCU & EMS software and shall have designed, manufactured & tested experience for at least three years in same.