TATA INSTITUTE OF FUNDAMENTAL RESEARCH
(Autonomous Institution of the Department of Atomic Energy, Government of India)
Survey No.36/P, Gopanpally Village, Serilingampally Mandal,Ranga Reddy District,
Hyderabad-500046, Telangana

Telephone:+91-40-20203009	**Date: 19.04.2024**
Website :www.tifrh.res.in	**Email: krishnaae@tifrh.res.in**

PUBLIC TENDER

(TWO PART TENDER) **for the following Works:**

Supply, Installation, Testing and Commissioning of 80 KVA Stabilizer & 80 KVA Ultra Isolation Transformer for CNC Machine at SB-2, FReTB, TIFR, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad- 500046.	
Tender No.	**TIFR/PD/CA23-167/231911**
Type of Tender	**Two Part Tender (Part-I: Technical Bid and Part- II: Price Bid)**
Estimated Cost	**Rs.5,60,500 /-**
Cost of EMD	**Rs. 11,210/-(Demand Draft to be drawn in favour of "TIFR Center for Interdisciplinary Sciences", Payable at Hyderabad (To be enclosed with the Technical Bid Part – I).**
Pre bidding meeting Date & Time	**22.04.2024 at 11:00 Hrs**
Last Date for Submission of Tender	**29.04.2024 by 13:00 Hrs**
Date of Opening Bids(Only Part-I: Technical Bid)	**29.04.2024 at 15:00 Hrs**
Tender Fee	**Rs. 500/-(Demand Draft to be drawn in favour of "TIFR Centre for Interdisciplinary Sciences "Payable at Hyderabad (To be enclosed with the Technical Bid Part –I).**

- In case the Part "I" and Part "II" bids are not sealed in separate envelopes the tender will be rejected.
- The technical bid should not contain any indication of the price.
- The Technical Bid received without payment of tender fees and EMD shall be summarily rejected.
- Contacts: Mr. Krishna, Tel: 040- 20203009 for any technical or commercial terms clarifications mentioned in the tender.

Sealed tenders are invited for the aforesaid works from contractors having similar work experience in reputed Research Institutions, Universities, Central Government/Public Sector Undertaking, Private Laboratories, Multinational Companies, etc. Interested contractors who are satisfying prequalification criteria stipulated by TIFR-Hyderabad shall only submit their bids. For further details and any clarification on the tender you may please contact Head-Technical Services, Survey No.36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy District, Hyderabad-500046.

Last date for submission of the tender is 29.04.2024 by 13:00 Hrs.

(Rajasekhar. R)

Head-Technical Services

TENDER DOCUMENT

Supply, Installation, Testing & Commissioning of 80 KVA Stabilizer & 80 KVA Ultra Isolation Transformer for CNC Machine at SB-2, FReTB, TIFR, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad- 500046

NAME OF THE TENDERER:.....

Address: .....

.....

.....

.....

Last date of submission of the tender: On or before 29.04.2024 by 13:00 Hrs.

TECHNICAL BID

PART-I

Supply, Installation, Testing & Commissioning of 80 KVA Stabilizer & 80 KVA Ultra Isolation Transformer for CNC Machine at SB-2, FReTB, TIFR, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad- 500046

Tender Notice	:	**TIFR/PD/CA23-167/231911**
Name of Work	:	**Supply, Installation, Testing & Commissioning of 80 KVA Stabilizer & 80 KVA Ultra Isolation Transformer for CNC Machine at SB-2, FReTB, TIFR, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad-500046**
Location	:	**Tata Institute of Fundamental Research Survey No. 36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy District, Hyderabad – 500046.**
Estimated Cost	:	**Rs.5,60,500/-**
EMD	:	**Rs.11,210/- (Demand Draft to be drawn in favour of "TIFR Centre for Interdisciplinary Sciences", Payable at Hyderabad (To be enclosed with the Technical Bid Part – I).**
Delivery Period	:	**45 Days (Completion Period)**
Validity	:	**75 (Seventy Five) days after opening of Part-I, Technical Bid**

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SECTION-I	IMPORTANT INFORMATION

INTRODUCTION

The Tata Institute of Fundamental Research is a National Centre of the Government of India, under the umbrella of the Department of Atomic Energy, as well as a deemed University awarding degrees for master's and doctoral programs. Tata Institute of Fundamental Research Centre for Interdisciplinary Sciences, Hyderabad invites bids for the following work:

Supply, Installation, Testing & Commissioning of 80 KVA Stabilizer & 80 KVA Ultra Isolation Transformer for CNC Machine at SB-2, FReTB, TIFR, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad- 500046

1. PARTICULARS

a)	Location	TIFR, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad-500046.
b)	Pre-Bid Meeting Date & Time	**22.04.2024 at 11:00 Hrs**
c)	Closing date & time of receipt of bids	**29.04.2024 by 13:00 Hrs**
d)	Date & time of opening of Sealed Cover-I containing Technical Bid	**29.04.2024 at 15:00 Hrs**
e)	Date of opening of Sealed cover-II containing Financial Bid of eligible bidders	To be intimated to eligible bidders within 7 days from the date of tender open.

2. GENERAL INSTRUCTIONS

2.1. TIFR shall award the contract for the project through the two Bid systems.

2.2. The Contractor is advised to visit and examine the site of work and its surroundings and obtain any information that may be necessary, in addition to those provided in this document. The Contractor shall be deemed to have fully acquainted himself about the site condition, whether he inspects it or not.

2.3. The Contractor should adhere to the building bye-laws applicable for the area.

2.4. All clarifications shall be sought before the date of pre-bid meeting. The bidders may make suggestions which shall be considered during the Pre Bid Meeting. No further clarifications shall be issued after the issue of noteworthy replies to the pre-bid queries.

2.5. The submission of the bid by Contractor would imply that they have carefully read and agreed to the terms and conditions contained in this bid document.

2.6. The bid for the work shall remain open for acceptance for a period of **75 (Seventy Five**) days from the date of submission of the bids, which period may be extended by mutual agreement and the Contractor shall not cancel or withdraw the offer during this period.

2.7. This bid document shall form a part of the contract agreement.

3. SUBMISSION OF BIDS

Bids shall be submitted to Head- Technical Services***, TIFR,*** **Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist, Hyderabad-500046** in a sealed Master envelope super scribed "Bid for **Supply, Installation, Testing & Commissioning of 80 KVA Stabilizer & 80 KVA Ultra Isolation Transformer for CNC Machine at SB-2, FReTB, TIFR, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad- 500046** with our enquiry no. and due date, containing two separate sealed covers clearly super scribed as **"Technical Bid"** and **" Financial Bid"** before the closing date and time of submission in the following manner:

a) **"Technical Bid":** This will contain Technical part, Eligibility Documents along with testimonials. Earnest Money Deposit (EMD).

b) **"Financial Bid":** This will contain the complete bidding document with duly filled in Schedule of Financial Quote of Financial Bid & Tender Drawings.

The Bids without signature of the authorized person of bidder and seal, without EMD, with conditions or conditional rebates shall be summarily rejected.

4. EVALUATION OF BID

4.1. **EVALUATION OF TECHNICAL BID:** The bids received will first be first opened and will be examined for EMD/ Declaration Letter, Eligibility Criteria, Conditions, etc. Conditional Tenders and Tenders without EMD shall be summarily rejected.

4.2. **EVALUATION OF FINANCIAL BID:** The Financial Bid should contain the complete bid document with duly filled in Schedule of Financial Quote of Financial Bid and signed Tender drawings. Financial Bids of Technically qualified Bidders will only be opened. Work will be awarded to lowest bidder (L1) based on their quotes after making necessary arithmetical checks.

5. SCOPE & OBJECTIVE

The Objective of the tender is to **Supply, Installation, Testing & Commissioning of 80 KVA Stabilizer & 80 KVA Ultra Isolation Transformer for CNC Machine at SB-2, FReTB, TIFR, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad-500046** as per the specifications and Bill of quantities mentioned in the Financial Bid.

Period of Completion of Work: 45 days from the date of issue of work order

Defect Liability Period: 12 months from the date of handing over of completed system as per tender.

6. PAYMENT SCHEDULE:

The contractor shall submit the bills for payments along with a detailed statement showing the actual works carried out under different heads of items in the format specified by the TIFR. Minimum value of the work for interim payment (Two Running Bills) shall be **35% on Work order value**. All interim (Maximum Two Running Bills) and final bills will be settled based on the joint measurements of each item of work and certified by TIFR Engineer. The bills for nonperishable materials on site may also be submitted and the payment by TIFR against the same shall be to the maximum extent of 60% of the value of these materials on production of sufficient documentary evidence ie. Original invoice, Inventory, etc. All interim bills will be paid within **15** days from the date of submission and Final Bill along with all relevant documents will be settled within **30** days from the date of submission with certification of TIFR Engineer.

SECTION-II ELIGIBILITY CRITERIA FOR TENDER QUALIFICATION

Supply, Installation, Testing & Commissioning of 80 KVA Stabilizer & 80 KVA Ultra Isolation Transformer for CNC Machine at SB-2, FReTB, TIFR Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad- 500046

- **Eligibility criteria:**

1. IT Returns for the last three consecutive financial years ended on March 31, 2023.
2. The Agencies/Contractors should have an average annual turnover of Rs.2.24 lakhs during three previous financial years ending March 31, 2023 audited by CA.
3. The Agencies/Contractors shall be in profit for the last three financial years and should have valid PAN from Income Tax Authority, GST registration No. etc. and any other registration applicable/mandatory for contract.
4. Quoted Stabilizer & Ultra Isolation Transformer model shall meet all the technical specifications and compliance with the attached technical data sheet in Section V (quoted Stabilizer & Ultra Isolation Transformer model catalog to be attached)
5. The Agencies/Contractors should have executed similar works successfully at least
   - 5.1. One similar work costing Rs.4.48 Lakhs or
   - 5.2. Two similar works costing Rs.3.36 Lakhs or
   - 5.3. Three similar works costing Rs. 2.24 Lakhs during the last 7 financial years ended on the end date of receiving tender for Research Institutes, Universities, Private Laboratories, R & D institutes, etc. in any Government /PSU/Private organizations of repute.

The Agencies/Contractors should furnish copies of work orders and completion certificates from the clients in support of the above.

Note:

- ❖ Agencies/Contractors should have a full-fledged in-house project management team to undertake the jobs.
- ❖ The Agencies/Contractors shall **strictly furnish** aforesaid information in the formats/schedules given. **Non adherence to furnishing of information in the given format/schedules given will lead to disqualification of tender.**
- ❖ Instructions to Agencies/Contractors for furnishing the information is given as under:
- ➢ Each page of the application shall be signed by a person having necessary authority to do so.
- ➢ If the space in the proforma is insufficient for furnishing full details, such information may be given in separate sheets.
- ➢ Applicants are required to furnish information against each item of the application. In case a certain item is not applicable, please write NA. Application containing incorrect and or inadequate information is liable to be rejected.

SCHEDULE – A
BASIC INFORMATION

1.	Name of the firm	:
2.	a) Address	:
	b) Telephone / Fax No.	:
	c) Mobile No. Contact Person	:
	d) PAN No.	:
	e) GST Registration No.	:
	f) Labour License Details	:
	g) Electrical A grade License Details	:
	h) Branch Office if any in Hyderabad	:
3.	Type of Organization (Proprietorships / Partnership) Ltd. Co. / Co-Operative) (Copy of relevant document to be enclosed)	:
4.	Date of Incorporation	:
5.	Nature of Business	:
6.	Experience as prime Agencies/ Contractors (in Yrs.)	:
7.	Name and address of Bankers	:
8.	Organization chart of the Company including names and positions of directors / key personnel	:

Signature of the Applicant (s)

SCHEDULE – B

Major SITC of Stabilizers & Transformers (Copies of the completion certificate to be enclosed)

A. Similar work of costing Rs.4.48 lakhs or two similar works of costing Rs.3.36 lakhs or 3 similar works of costing Rs.2.24 Lakhs during last 7 financial year ending March 31st 2023 for Research Institutes, Universities, Private Laboratories, R & D institutes, etc

Sr.No	Name of the project & Address	Description of work in brief	Name of the Engineer	Name of the client also indicate whether Govt or semi Govt or Pvt body with full postal address	Contract Amount in Rs.	Year of commence ment	Date of Completion		Whether work was left /uncompleted or the contract was terminated from either side? Give Details.	Any other relevant information relevant information
							Stipulated	Actual		
1.										
2.										

B. List of works in progress above Rs.2.24 lakhs.

Sr No.	Name of the project & Address	Description of work in brief	Name of the Engineer with full postal address.	Name of the Client. Also indicate whether Govt. or semi Govt. or Pvt. Body with full postal address	Contract Amount in (Rs.)	Date of Completion	Present stage of work with reasons if the work is getting delayed	Any other relevant information
1.								
2.								

Signature of the Applicant (s)

SCHEDULE – C

TECHNICAL PERSONNEL & SPECIAL EXPERIENCE

List of technical personnel in your establishment giving details about their technical qualification and experience

Sr No.	Name	Age	Qualifications	Project Experience	Nature of works handled	Name of the project Handled	Date from which employed in your organization	Indicate special experience in Internal Electrification Installation & Testing projects in which were employed
1								
2								

2. Indicate other points if any to show your technical and managerial competency to indicate any important point in your favour.

Signature of the Applicant (s)

SCHEDULE – D

FINANCIAL POSITION AND WORKING RESULTS

				2020-21	2021-22	2022-23
1	Annual turnover	:	Rs.			
2.	Net Profit	:	Rs.			
3.	Credit Facilities from the Bank	:	Rs.			
a)	Cash Credit	:	Rs.			
b)	Overdraft Limit	:	Rs.			
c)	Guarantee	:	Rs.			
d)	Others	:	Rs.			
4.	Certificate from the Bankers regarding financial soundness of the applicant	:	Enclosed (Yes / No)			
5.	Solvency Certificate from the Bankers	:	Enclosed (Yes / No)			

Signature of the Application (s)

SCHEDULE – E
MISCELLANEOUS INFORMATION

1	Whether it would be possible to process Bank Guarantee for various advances during execution of the work.	:
2	Details of Civil Suits / Litigations arised during execution of the contracts in the last 5 years.	:
3	Latest Income Tax Clearance Certificate	:
4	Name of the two senior official of Organizations preferably Govt./Semi Govt/ Autonomous/ Public Sector Organization for whom you have executed important and major Electrical works, who may be directly contracted by TIFR to gather information about your ability, competence and capacity of your work/organization/etc.	:
5	Number of Supplementary sheets attached.	:

Signature of the Applicant (s)

SECTION-III	NOTICE & INSTRUCTIONS

1. Sealed item rate tenders in the prescribed form are invited from Head-Technical Services, Tata Institute of Fundamental Research, Centre for Interdisciplinary Services, Hyderabad, for the following:

Tender Notice No.	**TIFR/PD/CA23-167/231911**
Name of Work	**Supply, Installation, Testing & Commissioning of 80 KVA Stabilizer & 80 KVA Ultra Isolation Transformer for CNC Machine at SB-2, FReTB, TIFR, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad- 500046**
Estimated Cost	**Rs.5,60,500/-**
Time Limit	**45 days (Completion Period)**
Earnest Money Deposit	**Rs.11,210/- (Demand Draft to be drawn in favour of "TIFR Center for Interdisciplinary Sciences", Payable at Hyderabad (To be enclosed with the Technical Bid Part – I)**
Tender Fee	**Rs.500/- (Rupees Five Hundred only)**
Last Date & Time of Submission of Tender	**29.04.2024 by 13:00 Hrs**
Date & Time of Opening of Technical Bid	**29.04.2024 at 15:00 Hrs**

2. Submission of Tender & Opening:

Tenders shall be submitted in a sealed envelope super scribed with Tender enquiry No., Due Date and with heading as "**Supply, Installation, Testing & Commissioning of 80 KVA Stabilizer & 80 KVA Ultra Isolation Transformer for CNC Machine at SB-2, FReTB, TIFR, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad- 500046"** containing two separate sealed covers clearly super scribed as "TECHNICAL BID" and "FINANCIAL BID" on or before the closing date and time of submission in the following manner:

"TECHNICAL BID": This will contain the following:

a) Proof of Tender Cost paid already

b) Earnest Money Deposit as stipulated

c) Schedules giving information on Eligibility Criteria with supporting documents specified for tender qualification.

"FINANCIAL BID": Signed copy of the Financial Bid quoting amount in the stipulated format and signed copies of the tender drawings.

5. Acceptance of Tender: The competent authority, on behalf of TIFR, Hyderabad does not bind itself to accept the lowest or any other tender, and reserves to himself the authority to reject any or all the tenders received, without assignment of any reason. All tenders, in which any of the prescribed conditions is not fulfilled or any condition, including that of conditional rebates, is put forth by the tenderer, shall be summarily rejected.

The Competent Authority, on behalf of TIFR, Hyderabad reserves to itself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rates quoted. 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 tender or any other tender.

6. Validity of Tender: The tender for the work shall remain open for acceptance for a period of 75 days from the last date of submission of tenders. If any tenderer withdraws his tender before the said period, or before issue of Letter of Intent, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the Department, then TIFR, Hyderabad shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money absolutely. Further the tenderer shall not be allowed to participate in the retendering process of the work.

7. Levy / Taxes payable by contractor:

i. GST or any other tax on materials and services in respect of this contract shall be payable by the contractor and TIFR shall not entertain any claim whatsoever in this respect.

ii. The contractor shall deposit royalty and obtain necessary permits as required for supply of the sand, aggregate, stone etc. from local authorities.

8. Deduction of Income Tax : As per Section 194-C of Income tax Act 1961, as amended by letter No. 275/9/72/9-TJ (Circular No. 86) dated 19.5.72 and No. 275/14/91-IT (B) (Circular No. 593) dated 5.2.91, received from Ministry of Finance, Department of Revenue, Central Board of Direct Taxes, New Delhi, the Income tax @ 2% and Surcharge thereon @12% (or any other amended rate by Ministry of Finance from time to time), of the gross value of the work done will be recovered from the bills. A certificate for the amount so recovered will be issued by the Department.

9. Site visit by the tenderer before tendering: Tenderers are advised to inspect and examine the site and its surroundings during working hours and satisfy themselves before submitting their tenders as to the nature of the ground and subsoil (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 charges consequent on any misunderstanding or otherwise shall be allowed.

10. Signing of Tender and receipts for payments: In the event of the 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. Receipts for payments 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.

11. Tenderer's responsibilities: The tenderer shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, 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 they have read this notice & all other contract documents, and has made himself aware of the scope & specifications of the work to be done and local conditions and factors having a bearing on the execution of the work.

12. Signing of contract: The Notice Inviting Tender shall form a part of the contract document. 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 including all conditions, specifications and drawings, if any, forms the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.

13. Canvassing, either directly or indirectly, in connection with the tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection and may be barred from future participation in TIFR works.

Head-Technical Services

For and on behalf of ***TIFR, Hyderabad***

SECTION-IV **GENERAL CONDITIONS OF CONTRACT**

1. Definition of Terms:

1.1. In constructing these general conditions and the specifications the following works shall have the meanings herein assigned to them unless there is something in the subject or context inconsistent with such construction.

1.2. The `Purchaser' shall mean Tata Institute of Fundamental Research- -Hyderabad, Tata Institute of Fundamental Research, 36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy District, Hyderabad 500046 and shall include the Purchaser's heirs, successors and assigns.

1.3. The term 'Engineer In-Charge' and `Engineer' shall mean Engineer In-Charge, TIFR- Hyderabad or some other person for the time being or from time to time duly appointed in writing by the Purchaser to act as Engineer In-Charge for the purpose of the Contract or in default of such appointment the Purchaser.

1.4. The term `Contractor'/`Supplier'/`Bidder'/`Vender' shall mean the Bidder whose tender has been accepted by the Owner and shall include the Bidder's heirs, successors and assigns approved by the Purchaser:

1.5. The term `Sub-Contractor' shall mean the firm or persons named in the contract for any art of the work or any person to whom any part of the work has been sublet with the consent in writing of the Engineer In-Charge and shall include his heirs, successors and assigns approved by the Purchaser.

1.6. The Term `Inspector' shall mean any person appointed by or on behalf of the Purchaser to inspect supplies, stores or work under the contract or any person deputed by the Inspector for the purpose.

1.7. The term `Particulars' shall mean, the following :

1.7.1. Specifications

1.7.2. Drawing (ANNEXURE-IV)

1.7.3. Sealed Pattern denoting a pattern sealed and signed by the Inspector.

1.7.4. Proprietary make denoting the product of an individual firm.

1.7.5. Any other details governing the construction, manufacture and/or supply as existing for the contract.

1.8. The term `Specification' shall mean the specifications annexed to or issued with these Conditions of Contract.

1.9. The term `Site' shall mean the place or places at which the Equipment is to be delivered or work done by the Contractor; and shall include, where applicable, the lands and buildings upon or in which the works are to be executed and shall also include the place or places at which fabrication and other work is being carried out by the Contractor.

1.10. `Electrical Equipment', `Stores', `Work' or `Works' shall mean and include equipment and materials to be provided and work to be done by the Contractor under the Contract.

1.11. The `Contract' shall mean acceptance of the work order placed on contractor/supplier under section (2) of these conditions and shall include these conditions of Contract, Specifications, Schedule, Drawing, Letter of Intent of the Purchaser and any subsequent amendments mutually agreed upon.

1.12. 'Tests on Completion' shall mean such tests which are prescribed by the specifications or have been mutually agreed to between the Contractor/Supplier and the Purchaser to be made before the equipment is taken over by the Purchaser.

1.13. Writing' shall include any manuscript, typewritten or printed statement under or over signature or seal as the case may be. Words importing `person' shall include firms, companies, corporations and association of individuals whether incorporated or not.

1.14. Words importing singular shall also include plural and vice versa where context requires.

1.15. Bidders are advised to visit and inspect the work-site to make themselves fully conversant with the site conditions and nature of work. Any claim by them after the opening of bids on account of themselves being unaware of any site condition shall not be entertained.

2. Contract

Contractor/Supplier/Manufacturer should send their acceptance letter on receipt of `Letter of Intent' or 'Work Order' or 'Purchase Order' within the stipulated period. On expiry of said period or exorbitant delay in commencing or executing the work, the Purchaser shall not be liable to any claim from the Contractor/ Supplier for work entrusted to and may revoke the contract.

3. Work at Site

3.1. Access to the works shall be allowed only to the Contractor/Supplier, Sub-Contractors or his duly appointed representatives. The Contractor/ Supplier shall not object to the execution of other works by other contractors or tradesmen and shall afford them every facility for execution of their several works simultaneously with his own.

3.2. Work at the Purchaser's premises shall be carried out at such time as the Purchaser may approve but the Purchaser shall give the Contractor/ Supplier all reasonable facilities for the same. The Contractor/Supplier shall provide sufficient fencing, notice boards etc. to guard the works and warn the public.

3.3. The Contractor shall obey Central, Local and State regulations and enactments pertaining to workmen and labour and the Engineer In-Charge shall have the right to enquire into and decide all complaints on such matters. The Contractor should comply with the Minimum Wages Act and should also ensure that safe practices are followed by his people at site.

4. Delays

The Contractor/Supplier shall not be entitled to any compensation for any loss suffered by him on account of delays in commencing or executing the work, whatever the cause for such delays may be, including delays in procuring Government controlled or other materials and delay in obtaining instructions and decisions from the Engineer In-Charge.

5. Taking Over

The equipment when erected at site shall be deemed to have been taken over by the Purchaser when the Engineer In-Charge will have certified in writing that the equipment has fulfilled the contract conditions.

6. Extension of Time

If the Contractor/Supplier is delayed in the progress of work by changes ordered in the work, or by any cause, which the Engineer In-Charge shall decide to justify the delay, then the time of completion shall be extended by a reasonable time. In this regard, Contractor shall maintain proper hindrance register and record all such events with due signature of E-I-C on occurrence of such instants for seeking extension of time. However, no such extension shall be allowed unless requested for extension is made in writing by the Contractor/Supplier to the Engineer In-Charge within 15 days from the date of occurrence of the delay.

7. Liquidated Damages

7.1. For all delays, which do not merit any extension of time, the Contractor/ Supplier shall attract 1% penalty per week for the first 4 weeks of delay and 2% penalty per week for the next 4 weeks of the total contract value. The amount of liquidated damages shall be recoverable from the payment due to the Contractor/Supplier up to maximum of 10% of value of contract.

7.2. The deduction of liquidated damages shall not, however, absolve the Contractor/Supplier of his responsibility and obligations under the contract to complete the work in its entirety and shall also be without prejudice to action by the Purchaser under clause:

`Termination of Contract by the Purchaser'. After that the same shall be completed by the Purchaser at the Contractor's/Supplier's risk and cost.

8. Other Damages:

8.1. The Contractor/Supplier/Manufacturer shall be responsible for all injury to persons, animals or things and for all damage to the works, structure of, and decorative work in the property which may arise from operation or neglect of himself or any of his Subcontractor or of his or Sub-Contractor's employees, whether such injury or damage may arise from carelessness, accident or any other cause whatever in any way connected with the carrying out of this contract. This clause shall be held to include any damage to buildings, whether immediately adjacent or otherwise, any damage to roads, streets, foot paths, as well as all damage caused to the works forming the subject of this contract by frost or other inclemency of weather. The Contractor/Supplier shall indemnify the Purchaser and hold him harmless in respect of all and any expenses on property as aforesaid and also in respect of any claim made in respect of injury or damage under any acts of Government or otherwise and also in respect of any award of compensation or damages consequent upon such claim. Contractor shall furnish necessary insurance documents (Contractor All Risk Policy) taken for the site before commencement of work.

8.2. The Contractor/Supplier/Manufacturer shall reinstate all damage of every sort mentioned in this clause, so as to deliver up the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of the Owner/third parties.

8.3. The Contractor/Supplier/Manufacturer shall indemnify the Purchaser against all claims which may be made against the Purchaser, by any member of the public or other party, in respect of anything which may arise in respect of the works or in consequence thereof and shall, at his own expense, effect and maintain, until the work has been 'Taken Over' under clause 5.

8.4. The Contractor/Supplier/Manufacturer shall also indemnify the Purchaser against all claims which may be made upon the Purchaser whether under the Workmen's Compensation Act or any other statute in force during the currency of this contract or at common law in respect of any employee of the Contractor/Supplier or of any of his sub-contractor and shall at his own expense effect and maintain until the work has been `Taken Over', with an approved office. Contractor shall furnish a copy of the labour license before commencement of work. If the aforesaid are not applicable contractor should furnish declaration to this effect and shall indemnify TIFR-Hyderabad, Hyderabad for violation of any such compliances.

8.5. The Purchaser, with the concurrence of the Engineer In-Charge, shall be at liberty and is hereby empowered to deduct the amount of any damages compensation costs, charges and expenses arising or accruing from or in respect of any such claims or damages from any sums due to or become due to the Contractor/Supplier.

9. Earnest Money Deposit and Performance Guarantee/Security Deposit:

9.1. **Earnest Money Deposit (EMD):** EMD shall be submitted in the form of Demand Draft to be drawn in favour of "TIFR Centre for Interdisciplinary Sciences", Payable at Hyderabad (To be enclosed with the Technical Bid Part-I))

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9.2. **Performance guarantee:** The tenderer, whose tender is accepted, will be required to furnish a performance guarantee/security deposit of **2.5% of the tendered amount within 7 (seven) working days from the date of intimation** ie (including adjustment of EMD amount submitted). This guarantee shall be in the form Demand Draft / Pay Order / Banker's cheque / Deposit or Government Securities / Fixed Deposit Receipt (FDR) or Guarantee Bonds (BG) of any Scheduled Bank in accordance with the form as Annexure – II hereto. In case a fixed deposit receipt of any Bank is furnished by the contractor to TIFR 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 TIFR to make good the deficit.

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

9.4. The Engineer-in-charge shall make a claim under the Performance guarantee/Security Deposit for amounts to whichTIFR entitled under the contract (notwithstanding and / or without prejudice to any other provisions in the contract agreement) in the event of:

9.4.1. Failure to attend and rectify the problems in the guarantee period, in which event the Engineer-in-charge may claim the full amount of the Performance guarantee/Security Deposit.

9.4.2. Failure by the contractor to pay TIFR, Hyderabad 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.

9.5. In the event of the contract being determined under provisions of any of the relevant clauses of the agreement, the performance guarantee/security deposit shall stand forfeited in full and shall be absolutely at the disposal of TIFR, Hyderabad.

1. Security Deposit:

The tenderer, 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. Earnest Money deposited at the time of tenders will be treated as part of the
Security Deposit.

or

The successful tenderer shall permit TIFR, Hyderabad 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 of **5%** of the tendered value of the work. Such deductions will be made and held by TIFR by way of Security Deposit unless he has / they have deposited the amount of Security at the rate mentioned above in cash or in the form of Fixed Deposit Receipts.

In case a fixed deposit receipt of any bank is furnished by the contractor to TIFR, Hyderabad 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 TIFR, Hyderabad to make good the deficit.

All compensation 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 there from, or from any sums which may be due to or may become due to the contractor by TIFR or 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 banks (if deposited for more than 12 months) endorsed in favour of the TIFR,HYDERABAD, any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof.

Security Deposit shall be initially valid up to one year from the date of completion of work. In case the time for completion of work gets enlarged, the contractor shall get the validity of Security Deposit extended to cover such enlarged time for completion of work. The Security Deposit shall be returned to the contractor, without any interest, after completion of defect liability period.

Security Deposit as deducted above can be released against Bank Guarantee issued by a Scheduled Bank on its accumulation to a minimum of Rs.5 Lakhs subject to the condition that amount of such Bank Guarantee, except last one, shall not be less than Rs.5 Lakhs.Bank Guarantee should be submitted which will be valid up to the expiry of defect liability period.

10. Guarantee and Defects Liability Period:

10.1. The Contractor/Supplier/Manufacturer shall guarantee that all equipment shall be free from any defect due to the defective materials and bad workmanship and that the equipment shall operate satisfactorily and that the performance and efficiencies of the equipment shall be not less than the guaranteed values. The guarantee shall be valid for a period of 12 months after the date of commissioning as certified by the Engineer In-Charge. Any parts found defective shall be replaced free of all costs by the Contractor/Supplier. The services of the Contractor's/Supplier's personnel if requisitioned during this period for such work shall be made available free of any cost to the Purchaser.

10.2. If the defects be not remedied within a reasonable time, the Purchaser may proceed to do so at the Contractor's/Supplier's risk and expense without prejudice to any other rights.

11. Terms of Payment

The contractor will be paid only Two Running Account (RA) Bills and Final Bill considering the progress of works based on measurement of works completed. The contractor shall submit the bills for payments along with a detailed statement showing the actual works carried out under different heads of items in the format specified by TIFR-, Hyderabad. Minimum value of the work for interim payment shall be **35% on Work order value.**

BILL FORMAT

Tender Item	Description of Item (At least 2 lines)	Unit	Tender Qty	Executed Qty	Rate	% work done	Amount

NOTE: All quantities in the bill should be cumulative.

All measurements should be in the order of tender sequence and should be recorded in the measurement book. The Measurement should be strictly in the below mentioned format only.

MEASUREMENT FORMAT

Tender Item	Description of Item & Location against each Measurement take	Nos.	Length	Breadth /width	Height	Qty.	Remarks

The works which have been certified for running bills will also be verified along with the final bill and any defects found need to be replaced / rectified by the contractor at his cost. Till the time, the site is handed over in full, it is the contractor's liability to safeguard the works done and completed at site. The Progress of work should not be affected in any way quoting the reason of non-availability of funds / materials / releasing of Running bill. The liability of the contractor is to complete all works in his scope in the scheduled time as per the terms of contract and will not relieve the contractors from his obligations once the Running bill is paid / kept pending.

Final Payment

Payments of Final bill shall be made after deduction of Performance guarantee as specified. The Security Deposit / Performance guarantee, shall be refunded on expiry of the Defects Liability Period after rectifying all defects to the satisfaction of the TIFR-Hyderabad/E.I.C. The acceptance of payment of the final bill by the Contractor would indicate that he would have no further claim in respect of the work executed.

12. Special conditions of Contract governing supplies of the Equipment of this Tender:

12.1. **Scope:**

12.1.1. This specification covers the supply of material as per the enclosed details and quantities and supervision of erection/installation, testing and commissioning of the material.

12.1.2. The Contractor/Manufacturer/Supplier shall quote for all the materials along with accessories as mentioned in the enquiry.

12.1.3. All the supply shall be in accordance with relevant I.S. Specifications and recognized standards.

12.2. **Inspection & Testing of Material:**

12.2.1. Contractor/Manufacturer/Supplier shall submit the lists of Type Tests and Routine Tests to be conducted on the material in the Technical Data Sheet.

12.2.2. All the materials shall be tested at factory as per IS Specifications of material by Purchaser's Engineer In-Charge/Engineers before dispatch at the cost of Contractor/Manufacturer/Supplier.

12.2.3. Contractor/Manufacturer/Supplier shall inform the concerned Engineer In-Charge for inspection and testing in accordance and fix up a suitable date for the same.

12.3. **Test Certificates:**
Contractor/Manufacturer/Supplier shall submit the Test Certificates of all materials.

12.4. **Delivery of Material:**

12.4.1. The Contractor/Manufacturer/Supplier shall arrange for safe transit and shall be held responsible for loading of all equipment and for the stores being sufficiently and properly packed for transport by rail, road, sea or air so as to ensure their being free from any loss or damage on arrival at destination. The packing and marking of packages shall be done by and at the expenses of Manufacturer/Supplier. Each package shall contain a packing note quoting purchase order number and detail of the contents.

12.4.2. All the materials must be delivered at site i.e. Hyderabad - TIFR at 36/P, Gopanpally Village, Serilingampally Mandal, Ranga Reddy District, Hyderabad-500046. The unloading and positioning of all equipment at the designated locations specified by the Engineer In-Charge shall be in the scope of the Supplier. The Supplier shall arrange for handling equipment, labour for rigging, etc. as required.

12.4.3. Material must be delivered at site in all respects as mentioned in the Purchase Order.

12.4.4. Contractor shall arrange necessary storerooms and security at site to store materials. TIFR shall not be responsible for any missing/theft of materials at site.

12.5. **Guarantee:**
If during the period of guarantee any fault or defect arises, the material shall be replaced/repaired immediately free of cost, as well as any replacement of accessories required shall be done free of cost.

12.6. **Mistake in Drawing:** The Contractor/Supplier shall be responsible for and shall pay for any alterations in works due to any discrepancies, errors or omissions the drawings or other particulars supplied by him whether such drawings or particulars have been approved by the Purchaser or not.

12.7. **Responsibility for Completeness:**
Any fittings or accessories which may not be specifically mentioned in the specifications but which are usual or necessary are to be provided by the Contractor/Supplier without extra charge and the equipment must be complete in all details.

12.8. **Extra/Deviation items & Variations in quantity**
TIFR-Hyderabad has the right to omit/delete any of the items and also increase/decrease the quantities mentioned in the tender. No claim or any compensation in this regard will be accepted or paid to the contractor. However, if any new /additional items/deviated items are to be executed, the contractor is bound to execute such items with prior approval from TIFR-Hyderabad after furnishing the proper rate analysis for such extra/deviated items

12.9. **Rejection of Defective Equipment:**

12.9.1. If the equipment after the acceptance thereof is discovered to be defective, notwithstanding that such defects could have been discovered at the time of inspection or found to have failed to fulfill the requirements of the contract or developed defects after the erection within a period of 12 months from the date of erection, even if such erection is done by the Purchaser, he shall be entitled to give a notice on the Contractor/Supplier setting forth details of such defects or failure and the Contractor/Supplier shall, provided such notice is given within a period of 14 months from the date of such erection or acceptance, forthwith make the defective equipment good or alter the same to make it comply with the requirements of the contract at his own cost and further if in the opinion of the Purchaser, the defects are of such a nature that the defects cannot be made good or required without impairing the efficiency or workability of the equipment or if in the opinion of the Purchaser the Equipment cannot be repaired or altered to make it comply with the requirements of the Contract, the Contractor/Supplier shall, provided a notice given by the Purchaser in this behalf within a period of 14 months from the date of erection or acceptance thereof, remove and replace the same with the equipment conforming to the stipulated particulars, in all respects at the Contractor's/Supplier's own cost. Should he fail to do so within a reasonable time, the Purchaser may reject and replace, at the cost of the Contractor/Supplier, with equipment of the same particulars or if equipment conforming to the stipulated particulars are not in the opinion of the Purchaser readily procurable, such opinion being final, then with the nearest substitutes.

12.9.2. In the event of such rejection the Purchaser shall be entitled to use the Equipment in a reasonable and proper manner for a time reasonably sufficient to enable him to obtain replacement equipment as herein before provided.

12.10. **Inspection and Final Tests:**

All tests necessary to ensure that the Equipment complies with the particulars and guarantee shall be carried out at such place or places as may be determined by the Inspector. Should, however, it be necessary for the final test as to performance or guarantee to be held over until the Equipment is erected at site they shall be carried out within one month of completion of erection.

12.11. **Intimation about Delivery:**

If the Purchaser shall have notified the Contractor/Supplier in writing that the former is not ready to take delivery, no equipment or materials shall be forwarded until an intimation in writing shall have been given to the Contractor/Supplier by the Purchaser that he is ready to take delivery.

12.12. **Delay in erection:**

Wherever erection of an equipment or machinery is the responsibility of the Contractor/Supplier as a term of the contract and in case the Contractor fails to carry out the erection as and when called upon as to do within the period specified by the Purchaser, the Purchaser shall have right to get the

erection done through any source of his choice. In such an event, the Contractor/Supplier shall be liable to bear any additional expenditure that the Purchaser may incur towards erection. The Contractor/Supplier shall, however not be entitled to any gain due to such an action by the Purchaser.

12.13. **Definition of Equipment:**

The work `Equipment' wherever, it appears in these `Special Conditions of Contract' governing supplier of Equipment in this Tender shall mean all switchgears, panels, etc. or parts thereof or what the Contractor/Supplier agrees to supply under Contract as specified in the work order.

12.14. **Force Majeure:**

Normally Force Majeure shall cover only acts of God, fire, wars, strike, riots and civil commotion, floods, epidemic, quarantine related strikes, freight embargoes, etc. The contractor shall not be liable for any liquidated damages for delay or any failure to perform the contract arising out of Force Majeure conditions, provided that the contractor shall within ten days from the beginning of such delay notify the department in writing the cause of delay along with convincing supporting evidence. The department once convinced and accepted the reason may extend the supply completion period by a suitable / reasonable margin.

12.15. **Termination of Contract by the Purchaser:**

12.15.1. If the Contractor/Supplier commits any `Act of Insolvency' or shall be adjudged an Insolvent or shall have an order for compulsory winding up made against him or pass effective resolution for winding up voluntarily, or if the Contractor/Supplier shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the Contractor/ Supplier, or shall assign the Contract without the prior consent in writing of the Engineer In-Charge, or shall charge or encumber this Contract or any payments due or which may become due to the Contractor/Supplier there under, or if the Engineer In-Charge shall certify in writing to the Purchaser that the Contractor/Supplier –

12.15.1.1. has abandoned the Contract, or

12.15.1.2. has failed to commence the works, or has without any lawful excuse these conditions suspended the progress of the works for seven days after receiving from the Engineer In-Charge written notice to proceed, or

12.15.1.3. has failed to proceed with the work with such due diligence and failed to make such due progress as would enable the works to be completed in accordance with the approved programme of work,, or

12.15.1.4. has failed to remove materials from the site or to pull down and replace work for seven days after receiving from the Engineer In-Charge written notice that the said materials or work were condemned and rejected by the Engineer In-Charge under these conditions, or

12.15.1.5. has neglected or failed persistently to observe and perform all or any of the acts matters or things by this contract to be observed and performed by the Contractor for seven days after written notice shall have been given to the Contractor/ Supplier requiring the Contractor/Supplier to observe or perform the same, or

12.15.1.6. has to the detriment of good workmanship or in defiance of the Engineer In-Charge's instructions to the contrary sub-let any part of the contract, then and in any of the above said causes, the Purchaser with the written consent of the Engineer In-Charge may, notwithstanding any previous waiver, after giving seven days' notice in writing under the provisions of this clause to the Contractor/Supplier, determine the contract but without prejudice to the powers of the Engineer In-Charge or the obligations and liabilities of the Contract, the whole of which shall continue to be in force as if the contract has not been so determined and as if the work subsequently executed has been executed by and on behalf of the Contractor/ Supplier.

12.15.2. After the issue of such notice, the Contractor/Supplier shall not be at liberty to remove from site any equipment, tools and materials belonging to him which shall have been placed thereon for the purpose of the works and the Purchaser shall have lien upon such equipment, tools or materials to subsist from the date of such notice and until the notice shall have been complied with.

12.15.3. If the Contractor/Supplier shall fail to comply with the requirements of said notice for seven days after such notice has been given, the Purchaser shall have the power to enter upon and take possession of the works and site and all equipment, tools and materials thereon, and to engage any other person, firm or agency to complete the works, utilizing the equipment, tools and materials to the extent possible. The Purchaser shall not in any way be responsible for damage or loss of the tools, equipment and materials and the Contractor/Supplier shall not have any compensation therefore.

12.15.4. Upon completion of the works, the Engineer In-Charge shall certify the amount of expenditure properly incurred consequent on and incidental to the default of the Contractor/Supplier as aforesaid and such amount shall be deducted from the payments due to the Contractor/Supplier, including the Security Deposit. If the said amount exceeds the payment due to the Contractor/Supplier, the Purchaser shall be at liberty to dispose off any of the Contractor's/Supplier's materials, tools or equipment and apply the proceeds for the payments due from the Contractor/Supplier and recover the balance by process of law.

12.15.5. After the works have been completed after the amounts due to the Contractor/Supplier, the Engineer In- Charge shall give notice in writing to the Contractor/Supplier to remove the surplus equipment and material from site. If such equipment and materials are not removed within a period of 14 days after such notice, the Purchaser shall have the power to remove and sell the same holding the proceeds less the cost of removal and sale, to the credit of the Contractor/Supplier. The Purchaser shall not be responsible for any loss sustained by the Contractor/Supplier from the sale of the equipment and material.

13. Contractor's Representative:

13.1. The Contractor/Supplier shall employ at least one qualified representative (ie. Electrical supervisory License with minimum 3 years of experience of similar works as stipulated by TIFR- Hyderabad in the work order) whose name shall have previously been communicated in writing to the Engineer In-Charge and approved by him to supervise the erection. Any written order or instructions given to the representative shall be deemed to have been given to the Contractor/Supplier. The Engineer In-Charge shall be at liberty to object to any particular representative/or any persons employed by the Contractor/Supplier on the work and the Contractor/Supplier shall remove the person objected to, on the receipt of the Engineer In-Charge, in writing, a request requiring him to do so and shall provide in his place another competent representative acceptable to the Engineer In-Charge.

13.2. The Contractor's/Supplier's representative shall be a qualified electrical/ mechanical engineer possessing adequate site experience in similar nature of works.

14. Completion Time:

Unless otherwise agreed in writing between the Purchaser and the Contractor/Supplier, the work contract shall be completed within the stipulated period mentioned elsewhere in this tender document from the date of Work/Purchase Order issued to Contractor/Supplier by the Purchaser.

15. Measurements:

All joint measurements of quantities shall be done by the Contractor at his own cost in the presence of the Engineer In-Charge or any authorized person deputed by him who will certify the routes, length and quantities etc. for the purpose of determination of the amount payable.

16. Spare Parts & Manuals:

Manufacturer/Contractor/Supplier should submit operation, maintenance and spare part list and manuals for all equipment.

17. Training:

Manufacturer/Contractor/Supplier should provide training for operation and maintenance free of cost for equipment supplied.

18. Special Instruction for bidding process

This tender is a two part tender. The Part-I: Technical Bid and Part-II: Financial Bid. Bidders shall seal each bid separately with a clear label on the envelope about its content. Both the bids should be submitted in a single drop two cover method. Any pricing details must not appear in the Part-I: Technical Bid.

19. Drawings and Documentation:

As-built drawings as specified in this technical specifications shall be submitted by the Contractor.

20. Permissions and Approvals:

All statutory permissions and approvals from Electricity authority as may be required for commissioning of the entire system shall be carried out by the contractor. All necessary documentation for obtaining such permissions and approvals shall be done by the contractor. Purchaser shall assist in providing required declarations. Statutory fees shall be paid by the purchaser.

21. Guarantee:

The equipment shall be guaranteed against all design and manufacturing defects, poor workmanship etc. for a period of 12 months from the date of commissioning or 18 months from the date of supply, whichever is earlier. Any defects discovered during this period shall be rectified by the vendor free of cost to the purchaser.

SECTION-V	TECHNICAL SPECIFICATIONS

1. Technical Data Sheet of 80 KVA Servo Voltage Stabilizer		
Description	**Specifications**	**Compliance Statement**
Rating:	80 kVA (3-Phase/4-wire system and housed in a single enclosure with each phase having individual and independent controllers)	
The Servo Stabilizer should operate on 3 Phase Unbalanced Load and should have the following built-in features:		
Input Voltage Range:	340V - 460 V, 3 Phase, 47Hz to 53 Hz	
Output Voltage	400 V, 3 Phase, 50 Hz +/- 1%	
Output Voltage Accuracy	± 1%	
Type	Unbalanced Supply and Unbalanced Load Conditions	
Response Time	10 ms	
Max. Efficiency	Higher than 97 %	
Insulation	Class F	
Rate of Correction	105 V / Sec	
Duty	100 % Continuous	
	110 % for 60 Sec	
	150 % for 10 Sec	
Waveform Distortion	Nil	
Effect of Load Power Factor	Nil	
Type of Cooling	Air Cooled	

Ambient temperature	0-45° C. max	
Relative Humidity	up to 90 %	
Mode of system	Fully automatic	
Environment	Designed for indoor tropical use	
Suitability	all power factor loads	
Standards:	1. ISO 9001-2008, ISO 14001-2004. 2. CE Conformity EN 61558-1:2005 +A1:2009 3. IS 9815	
Standard Features:		
Output Voltage Protection	Adjustable Output Under and Over Volt, Alarm time Delay Circuit, Trip and Bypass Facility	
Controls	Auto - Manual Switch, Lower - Raise switch	
Servo Motor Protection	Voltage Cut-off for Servo Motor at Input under and over Voltage	
Optional Features:		
MCB / MCCB / ACB	For Overload and Short Circuit Protection	
Input Voltage Protection	Input Under and Over Voltage indication and Cut off	
Single Phase Preventer	Single Phasing indication with Cut off (Phase Loss)	
Neutral Loss	Output cut-off if Neutral is missing at Input	
GFM	Ground Fault Monitoring with Trip and Indication (Leakage Current)	
Output Overload	Electronic Overload Protection	
SS	Surge Suppressor	

SPD (Class C)	Surge Protective Device 8/20 micro sec. as per IEC 61000-4-4 / 61000-4-5	
Change Over / Bypass Switch	Stabilizer Bypass Switch	
Winding | Wiring Material	Copper EC grade (99.9% Pure)	
Input / Output Termination	On Copper Bus Bar	
MCCBs | Switchgears	Suitable switches should be provided	
Fittings	a) Two Nos. Earthing terminals at input and output	
Mounting	Preferably on wheels	
Motor Control Design	Microcontroller (Digital Signal Processor) based system	
Voltage Sensing & Correction	True RMS Sensing | Correction	
Indications:	LED for input on (Yellow), LED for Output healthy (Green) LED for output Trip (Red)	
Alphanumeric LCD unit for displaying the following parameters in Scrolling form:	Input | Output voltage for all the phases, Current drawn (for all the phases in case of 3 phase, All faulty indications Input voltage low / high | Output voltage low / high, overload(etc)	
Protection:	MCB/ MCCB at Input / Output Contactor for High / Low voltage cutoff/Surge, spike, short circuit protection, single-phase prevention and phase reversal	
Alarms:	Low and high voltage alarms, Single phase alarm, Phase reversal alarm	
Cut-offs	Low and high voltage, Single phase prevention, Phase reversal	

Note: • **Factory Inspection : Required** • **100% Load test at Site: Required** • **Warranty: 5 years** • **Make: Servomax / Deltek / KRYKARD / Vertex / Equivalent Approved** • **Spares: One set of spare control cards, fuses, gear component sets of carbon brushes**	

2. Technical Data Sheet of 80 KVA Ultra Isolation Transformer		
Description	**Specifications**	**Compliance Statement**
Rating:	80 kVA	
Operating Voltage	400 V, 3 Phase, 50 Hz	
Connection:		
Primary	Delta	
Secondary	Star	
Ratio	1:1	
Neutral on Output	copper inter-winding shield terminal connected to earth terminal on Output strip with a separate Neutral (star point) terminal on output strip	
Regulation	Better than 3.5%	
Power Factor	0.75 Lead to 0.75 Lag	
Di-Electric Strength	2.5KV for 60Sec	
Insulation Resistance	Better than 1000 Mega Ohms	

Coupling Capacitance	0.01 PF for 100 Db	
Leakage Current	Less than 20 Micro Amps	
Common Mode Attenuation	100Db/120Db	
Construction Standards	As per IS 2026 Part I & II	
Operating Temperature	0 degree C to 45 degree C	
Type of Cooling	Air Cooled/	
Type of Execution	Closed Type	
Purpose:		
An ultra-isolation transformer is used for providing electrical isolation between Power Source and CNC machine, as explained	• It provides low inter winding capacitance and low leakage inductance. It also provides high attenuation for DC signals and offers low capacitance • With high insulation resistance and special shielding techniques, it will minimize the noise. • The magnetic core reduces leakage inductance and thus offers transfer of fundamental power frequency. All higher frequencies are blocked • The construction (Primary: Delta; Secondary: Star) will eliminate the flow of leakage currents from source neutral.	
Note: • **Factory Inspection : Required** • **100% Load test at Site: Required** • **Warranty : 5 years** • **Make: Servomax / Deltek / KRYKARD / Vertex / Equivalent Approved** • **Spares: Required, if Mandatory to maintain stock.**		

GENERAL & CODES

All the supply and work shall be in accordance with the relevant I.S. Specification and recognized standards and modern approved practice and shall meet the requirement of the latest issue of applicable codes, factory rates and regulations, supply codes and all standard accepted practice in locality where the installation is to be made.

All the materials and accessories provided by Contractor under terms of this contract shall conform to the relevant Indian Standard Specifications. Samples of all equipment, materials and accessories to be supplied by the Contractor shall be submitted for the approval of the Engineer before they are supplied and used.

Contractor shall provide all necessary labour, tools, and other requisite work like drilling, cutting, welding etc. at his own cost.

Good workmanship is the essence of this contract and shall be complied with at all time. The Contractor shall have the works supervised by qualified and experienced engineers. All the defects pointed out by the engineer shall be rectified immediately by the Contractor free of cost.

The installation shall generally be carried out strictly in conformity with the requirement of latest edition of the Indian Electricity Act, 1910 as amended and the Indian Electricity Rules, 1956 framed there under and all others statutory regulations that may be relevant to the installation

No alteration which may affect the structures and architecture of building shall be done without the prior approval of the engineer. All work shall be carried out in such a manner that it should not cause any inconvenience to other works which are under progress. The Contractor shall cooperate with other agencies in the area for the smooth execution of all works.

Accidental damage to any property shall be reported immediately to site engineers and letter confirmed in writing.

The equipment shall comply with the requirement of latest revision of following standard issued by BIS (Bureau of Indian Standards), unless otherwise specified.

EARTHING & LIGHTNING PROTECTION

IS : 3043 – 1987 Code of practice for earthing.
IS : 2309 – 1989 Code of practice for Protection of buildings and allied structures against lightning.

LOW VOLTAGE SWITCHGEAR & PANELS

IS : 8623 – 1993 Specification for low voltage switchgear and control gear assemblies
IS : 10118-1982 Code of practices for selection, installation and maintenance of switchgear and control gear.
IS : 12063-1987 Classification of degrees of protection provided by enclosures of electrical equipment.
IS :7752-1975 Guide for improvement of power factor in consumer installation
IS : 12360-1988 Voltage bands for electrical installations including preferred voltages and frequency.
IS : 2147 – 1962 Degrees of Protection provided by enclosures for low voltage switchgear and control gear.
IS : 3070-1993 Metal oxide surge arresters with gaps for AC system.
IS :13947-1993 L.V. Switchgears and control gears
IS:13032-1991 Miniature circuit breaker boards for voltage up to and including 1000 volts A.C.
IS:13925-1998 Shunt capacitors for ac power systems having a rated voltage above 1000V.
IS:12729-2004 Common specification for high voltage switchgear & controlgear standards.
IS:1293-2005 Plug & socket outlets for household & similar purposes.
IS:4160-2005 Interlocking switch socket outlets –specification
IS:60309-2002 Plug socket –outlets & couplers industrial purposes.

CABLE

IS:12943-1990 Brass glands for PVC cables.
IS:1255-1983 Code practice for installation and maintenance of power cables Up to and including 33kV rating.
IS:10418-1982 Drums for electric cables.
IS:7098-1988 Cross linked polyethylene insulated PVC sheathed cables.
IS:1554-1988 PVC insulated (heavy duty) electric cables.
IS:694-1990 PVC insulated (heavy duty) electric cables

INTERNAL (POINT WIRING, FAN, FIXTURES)

IS : 4648 – 1968 Guide for electrical layout in Residential buildings.
IS : 732 - 1989 Code of practice for electrical wiring installations.
IS:6665-1972 Code of practice for industrial lighting
IS : 2268 – 1994 Electrical appliances electrical call bells and buzzers for indoor use.
IS : 3646-1992 Code of Practice for interior illumination
IS :11037-1984 Electronic type fan regulators.

IS:9537-1980 Conduits for electrical installation
IS:14768-2000 Conduits fittings for electrical installations general requirements.
IS: 14927-2001 Cable trunking & ducting systems for electrical installations
IS : 1913 - 1978 General and safety requirement for luminaries
IS:3528-1966 Waterproof electric lighting fitting
IS:1944-1970 Code of practice for lighting of public thoroughfare

OTHER CODES
SP30-1985 National Electrical code (Fourth Reprint 1998)
NBC-2008 National Building Code First Reprint 2006
ECBC 2009 Energy Conservation Building Code

GENERAL
SP : 31-1986 Chart and treatment for electrical wiring installations.
IS : 2551 – 1982 Danger notice plates.
IS : 5216 - 1982 Guide for safety procedures and practices in Electrical work

Site/Climate Conditions:

The Equipment shall be suitable for installation and satisfactory continuous operation in a sub-station in a generally hot and humid atmosphere. The equipment shall be designed to operate continuous under site condition as specified below.

Location	: Hyderabad
Max. ambient air temperature,	: 50 ^{0}C
Min. ambient air temperature,	: 10 ^{0}C
Max. average daily ambient air temp.,	: 40 ^{0}C
Max. yearly weighed average ambient temp,	: 32 ^{0}C
Max. relative humidity, %	: 95%
Average Annual rainfall, mm	: 800 mm
Max. altitude above mean sea level (Meters)	: 540 m

Completeness of work:

Contractor shall include and provide all necessary materials and labour for completing the job in an approved manner following all applicable standards and code of practices.

. SECTION-VI **LIST OF MAKES**

LIST OF APPROVED MAKES

S.No	Item Description	Approved Makes
1	Stabilizer	Servomax / Deltek / KRYKARD / Vertex / Equivalent Approved
2	Ultra-Isolation Transformer	Servomax / Deltek / KRYKARD / Vertex / Equivalent Approved
3	PVC Glands	Peeco,/ Commet,/ Dowells's/ Equivalent Approved
4	Cu Lugs	Peeco/, Commet, /Dowells's/ Equivalent Approved
5	MCB	Legrand/Schneider/Hager/ Equivalent Approved
6	MCCB	Legrand/Schneider/Hager/Equivalent Approved
7	Cu strip	99% Electrolyte Copper
8	LED lights	Phillips/Havells/Wipro/ Equivalent Approved
9	All other items not covered above	AS PER SAMPLES APPROVED

SECTION-VII **ANNEXURES**

ANNEXURE-I

Form of Performance Security (Guarantee) Bank Guarantee Bond-Format - I 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 a 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 Engineer-in- Charge on behalf of the Government certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee. 5. We, ……. (indicate the name of the Bank) further agree with the 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 revoke 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 105 guarantee all our liabilities under this guarantee shall stand discharged. Dated the ……..day of ……for……..(indicate the name of the Bank).

ANNEXURE II

UNDERTAKING BY THE TENDERER

I / We have read and examined the Tender document including terms & conditions, specifications, Schedule of quantities, drawings and designs, general rules & directions, General Conditions of Contract, Special Conditions of Contract and all relevant other documents, publications and rules referred to in the Conditions of Contract and all other contents in the tender documents for the work.

I / We, hereby tender for execution of the work specified for the TIFR-Hyderabad, Hyderabad within the time specified and in accordance in all respects with the specifications, designs, drawings and instructions in writing.

We agree to keep the tender open for seventy five (75) days from the last date of its submission and not to make any modifications in its terms and conditions. A sum of Rs..... ……has been deposited in cash / receipt treasury challan / deposit at call receipt of scheduled bank / fixed deposit receipt of scheduled bank / demand draft of a scheduled bank / Bank Guarantee issued by a Scheduled Bank as earnest money. If I / we, fail to furnish the prescribed performance guarantee within prescribed period, I / we agree that the said TIFR-Hyderabad, Hyderabad or its authorized officer shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I / we fail to commence work as specified, I / we agree that the TIFR-Hyderabad, Hyderabad shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by TIFR-Hyderabad, Hyderabad towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein.

Further, I / We agree that in case of forfeiture of earnest money or both Earnest Money & Performance Guarantee as aforesaid, I / We shall be debarred for participation in the re-tendering process of the work.

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.

Seal & Signature of Contractor Postal Address

Dated

Witness

Address Occupation

ANNEXURE-III

CERTIFICATE OF LOCAL CONTENT

***We [name of manufacturer] hereby confirm in respect of quoted item(s) that local Content is equal to or more than 50% and come under 'Class-I Local Supplier' Category. As being 'Class-I Local Supplier', we are eligible for Purchase Preference under 'Make in India' Policy vide GoI Order No.P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020)**

OR

***We [name of manufacturer] hereby confirm in respect of quoted items(s) that Local Content is more than 20% but less than 50% and come under 'Class-II Local Supplier' Category.**

The details of the location (s) at which the local value addition made is / are under:

1. ……

2. ……

Date: **Seal & Signature of the Bidder**

NOTE:

Self-certification that the item offered meets the minimum local content (as above) giving details of the location(s) at which the local value addition is made in case the bidder wishes to avail the benefits under the make in India policy, if applicable.

In cases of procurement for a value in excess of Rs.10 crores, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content to avail the benefits under the make in India policy, if applicable.

SECTION-VIII	FINANCIAL BID

INVITATION OF BIDS FOR

Supply, Installation, Testing & Commissioning of 80 KVA Stabilizer & 80 KVA Ultra Isolation Transformer for CNC Machine at SB-2, FReTB, TIFR, Survey No. 36/P, Gopanpally (Village), Serilingampally (Mandal), Ranga Reddy Dist., Hyderabad- 500046

PART II

FINANCIAL BID

SCHEDULE OF QUANTITIES

Sl. No.	Item Description	Unit	Qty (A)	Unit Rate (B)	Total (C = A x B)
1	**Supply, Installation, Testing and Commissioning of 80 KVA Servo Voltage Stabilizer:** **Technical Specifications:** • Rating: 80 kVA (3-Phase/4-wire system and housed in a single enclosure with each phase having individual and independent controllers) • The Servo Stabilizer should operate on 3 Phase Unbalanced Load and should have the following built-in features: • Input Voltage Range: 340V - 460 V, 3 Phase, 47Hz to 53 Hz • Output Voltage: 400 V, 3 Phase, 50 Hz +/- 1% • Output Voltage Accuracy : ± 1% • Type : Unbalance Supply and Load Conditions • Response Time : 10 ms • Max. Efficiency : Higher than 97 % • Insulation : Class F • Rate of Correction : 105 V / Sec • Duty : 100 % Continuous : 110 % for 60 Sec. : 150 % for 10 Sec. • Waveform Distortion : Nil	NO	1		

	• Effect of Load Power Factor : Nil • Type of Cooling : Air Cooled • Ambient temperature: 0-50° C. max. • Relative Humidity : up to 90 % • Mode of system : Fully automatic • Environment : Designed for indoor tropical use • Type of Cooling : Air Cooled • Suitability: all power factor loads • Standards: 1. ISO 9001-2008, ISO 14001-2004. 2. CE Conformity EN 61558-1:2005 +A1:2009 3. IS 9815 **Standard Features:** • Output Voltage Protection : Adjustable Output Under and Over Volt, Alarm / time Delay Circuit, Trip and Bypass Facility • Controls : Auto - Manual Switch, Lower - Raise switch Servo Motor Protection : Voltage Cut-off for Servo Motor at Input under and over Voltage **Optional Features:** • MCB / MCCB / ACB : For Overload and Short Circuit Protection • Input Voltage Protection : Input Under and Over Voltage indication and Cut off • Single Phase Preventer : Single Phasing indication with Cut off (Phase Loss)				

	• Neutral Loss : Output cut-off if Neutral is missing at Input • GFM : Ground Fault Monitoring with Trip and Indication (Leakage Current) • Output Overload : Electronic Overload Protection • SS : Surge Suppressor • SPD (Class C) : Surge Protective Device 8/20 micro sec. as per IEC 61000-4-4 / 61000-4-5 • Change Over / Bypass Switch : Stabilizer Bypass Switch • Winding | Wiring Material: Copper EC grade (99.9% Pure) • Input / Output Termination: On Copper Bus Bar • MCCBs | Switchgears: Suitable switches should be provided. • Fittings :(a) Two Nos. Earthing terminals at input and output. • Mounting: Preferably on wheels • Motor Control Design: Microcontroller (Digital Signal Processor) based system • Voltage Sensing & Correction: True RMS Sensing | Correction **Indications:** • LED for input on (Yellow) • LED for Output healthy (Green) • LED for output Trip (Red) **Alphanumeric LCD unit for displaying the following parameters in Scrolling form:-**				

	• i. Input | Output voltage for all the phases • ii. Current drawn (for all the phases in case of 3 phase) • iii. All faulty indications Input voltage low / high | Output voltage low / high, overload(etc.) • **Protection** :MCB/ MCCB at Input / Output Contactor for High / Low voltage cutoff/Surge, spike, short circuit protection, single-phase prevention and phase reversal • **Alarms :** Low and high voltage alarms, Single phase alarm, Phase reversal alarm • **Cut-offs** : Low and high voltage, Single phase prevention, Phase reversal **Note:** • **Factory Inspection : Required** • **100% Load test at Site: Required** • **Warranty: 5 years** • **Make: Servomax / Deltek / KRYKARD / Vertex / Equivalent Approved** • **Spares: One set of spare control cards, fuses, gear components, 2 sets of carbon brushes**				

2	**Supply, Installation, Testing and Commissioning of 80 KVA Ultra-Isolation Transformer** **Technical Specifications:** • Rating : 80 KVA • Operating Voltage : 400 V, 3 Phase, 50 Hz **Connection** • Primary: Delta • Secondary: Star • Ratio: 1:1 • Construction With copper inter-winding shield terminal connected to earth terminal on Output strip with a separate Neutral (star point) terminal on output strip. • Regulation : Better than 3.5% • Power Factor :0.75 Lead to 0.75 Lag • Di-Electric Strength : 2.5KV for 60Sec • Insulation Resistance: Better than 1000 Mega Ohms • Coupling Capacitance: 0.01 PF for 100 Db • Leakage Current : Less than 20 Micro Amps • Common Mode Attenuation : 100Db/120Db • Construction Standards : As per IS 2026 Part I & II • Operating Temperature : 0 degree C to 45 degree C • Type of Cooling : Air Cooled • Type of Execution : Closed Type	NO	1		

	Purpose: An ultra-isolation transformer is used for providing electrical isolation between Power Source and CNC machine, as explained below: • It provides low inter winding capacitance and low leakage inductance. It also provides high attenuation for DC signals and offers low capacitance. • With high insulation resistance and special shielding techniques, it will minimize the noise. • The magnetic core reduces leakage inductance and thus offers transfer of fundamental power frequency. All higher frequencies are blocked. • The construction (Primary: Delta; Secondary: Star) will eliminate the flow of leakage currents from source neutral. **Note:** • **Factory Inspection : Required** • **100% Load test at Site: Required** • **Warranty : 5 years** • **Make: Servomax / Deltek / KRYKARD / Vertex / Equivalent Approved** • **Spares: Required, if Mandatory to maintain stock.**				

	Sub Total	
	GST @ 18%	
	Grand Total Supply & Installation in Rs.	
	Grand Total Amount in words **Rs……** **……only**	

Note:	
1	**Rates are all inclusive of profit, packing & forwarding, Transport, loading & unloading, labour and Taxes, Etc.**
2	**TIFR, Hyderabad has right to delete any of above items from scope of work or may increase/reduce quantities as per its requirement during execution of work. No claim or compensation for such deletion/increase/decrease will be accepted/paid to the contractor. Payment will be made as per actual quantities executed at tender rates**
3	**Manufacturer's warranty of respective supply items to be provided.**
4	**For any above item quantity exceeding more than 10% of projected qty, contractor shall take prior approval from TIFR Engineer In charge in writing.**
5	**For any deviating items, the contractor shall take prior approval from TIFR Engineer In charge with proper rate analysis.**