



NCRA • TIFR

राष्ट्रीय रेडियो खगोलभौतिकी केंद्र  
National Centre for Radio Astrophysics  
टाटा मूलभूत अनुसंधान संस्थान  
Tata Institute of Fundamental Research

गणेशखिंद डाकघर, सावित्रीबाई फुले पुणे विश्वविद्यालय परिसर, पुणे- 411007, महाराष्ट्र, दूरभाष : 020-2571-9000/9111  
Ganeshkhind PO, Savitribai Phule Pune University Campus, Pune -411007, Maharashtra, Phone: 020-2571-9000/9111

ई-मेल / E.mail : [purchase@ncra.tifr.res.in](mailto:purchase@ncra.tifr.res.in) वेबसाइट/Website: [www.ncra.tifr.res.in](http://www.ncra.tifr.res.in)

**ई-निविदा सूचना / E-TENDER NOTICE**

निविदा दस्तावेज / Tender Document

For

पेयजल प्रवाह नियंत्रण प्रणाली की आपूर्ति, स्थापना, परीक्षण और चालू करना (SITC) |

**Supply, Installation, Testing and Commissioning (SITC) of Drinking Water Flow Control System**

ई-निविदा संख्या: एनसीआरए:डब्ल्यूएफ011:सीपीपीपी:2026-27

**E-TENDER NO: NCRA:WF011:CPPP:2026-27**



टाटा मूलभूत अनुसंधान संस्थान (टीआईएफआर) का राष्ट्रीय रेडियो खगोलभौतिकी केंद्र (एनसीआरए), भारत सरकार के परमाणु ऊर्जा विभाग के प्रशासनिक नियंत्रण के अधीन संस्था है। यह पुणे के सावित्रीबाई फुले पुणे विश्वविद्यालय परिसर में स्थित है। इसकी संलग्नता रेडियो खगोलभौतिकी के क्षेत्र में अनुसंधान में है। एनसीआरए ने पुणे जिले के जुन्नर तालुका में नारायणगांव के निकट खोडद में बृहत् मीटरतरंग रेडियो दूरदर्शी (जीएमआरटी) का निर्माण किया है। जीएमआरटी में कार्यालय भवन, कैंटीन, वर्कशॉप, छात्रावास, गैस्ट हाऊस, गार्डन लॉन्स / सेंट्रल स्क्वेयर आदि हैं। जीएमआरटी में 30 एंटीना शैल्स हैं जो खोडद गांव में एवं निकटवर्ती क्षेत्रों में हैं। जीएमआरटी का नारायणगांव में आवासीय कॉलोनी परिसर है।

The National Centre for Radio Astrophysics (NCRA) of the Tata Institute of Fundamental Research (TIFR), an Institution under the administrative control of Department of Atomic Energy, Govt. of India, is located in the Savitribai Phule Pune University Campus, Pune and is engaged in research in the field of radio astrophysics. NCRA has built the Giant Metrewave Radio Telescope (GMRT) at Khodad near Narayangaon, Taluka Junnar, Dist. Pune. GMRT has an Office Building, Canteen, Workshop, Hostel, Guest House, Garden Lawns / Central Square etc. including 30 Antenna Shells, which are located in and around village Khodad and the housing colony premises in Narayangaon.

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Stamp and Signature of the Bidder

Online bids under the Two-bid System are invited on behalf of the Centre Director, NCRA-TIFR, Pune, for **Supply, Installation, Testing and Commissioning (SITC) of Drinking Water Flow Control System at NCRA-TIFR, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411 007, Maharashtra.** The details of the tender, including the scope of work etc are given in this tender document. All the prospective bidders are requested to go through the tender document before submitting their bids.

निविदा सं. / Tender No.	:	<b>NCRA:WF011:CPPP:2026-27</b>
कार्य / सेवा / आपूर्ति का नाम Name of Work / Service / Supply	:	<b>Supply, Installation, Testing and Commissioning (SITC) of Drinking Water Flow Control System at NCRA-TIFR, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411 007, Maharashtra</b>
कार्य / सेवा / आपूर्ति की अनुमानित लागत Estimated Cost of Work / Service / Supply	:	<b>Rs. 7,00,000/- (Rs. Seven Lacs Only). (including GST).</b>
आपूर्ति/कार्य/ सेवा का स्थान Location of supply/ work/ service	:	<b>NCRA-TIFR, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411 007, Maharashtra.</b>
निविदा दस्तावेजों का ऑनलाइन डाउनलोड Online download of Tender documents	:	From <b>22.05.2026 to 11.06.2026</b> upto 1500 hrs Tender documents can be downloaded from the NCRA website: <a href="http://www.ncra.tifr.res.in">www.ncra.tifr.res.in</a> under public Tenders or CPP portal <a href="https://eprocure.gov.in">https://eprocure.gov.in</a> .
जमानत राशि Earnest Money Deposit	:	EMD of <b>Rs. 14,000/-</b> .
सुरक्षा जमा राशि / Security Deposit	:	A sum of <b>2.5%</b> of the gross amount of the work order (including GST)
प्रदर्शन गारंटी / Performance Guarantee	:	<b>5%</b> of total order value, including all taxes, duties etc.
बोली के पहले बैठक / Pre-bid meeting	:	<b>On 02.06.2026 at 11.30 hrs.</b> <b>Place : NCRA-TIFR, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411007, Maharashtra.</b>
निविदा दस्तावेज में संशोधनों की अधिसूचना Notification of amendments to the tender document	:	If the technical specification requires any modification, suitable amendment to this tender document will be issued and the same will form part of the tender document. Prospective bidders are advised to regularly visit the NCRA-TIFR web site or the CPP portal. Corrigendum/amendments etc., if any, will be notified only on the NCRA-TIFR web site/CPP portal and no separate advertisement will be issued for this.

बोलियां प्रस्तुत करना Submission of Bids	:	The bids are required to be submitted online on the CPP portal i.e <a href="http://eprocure.gov.in">http://eprocure.gov.in</a> under the Two bid system. The Technical bid and Price bid are required to be uploaded separately on the portal.
ऑनलाइन बोली प्रस्तुत करने के लिए वेबसाइट Website for Online Bid Submission	:	<a href="https://eprocure.gov.in">https://eprocure.gov.in</a>
बोलियां ऑनलाइन जमा करने की अंतिम तिथि और समय Last date and time for online submission of bids	:	<b>11.06.2026</b> upto 15.00 hrs (BID DUE DATE)
निविदा खोलने की तिथि एवं समय Date and time of opening of tender	:	<b>12.06.2026</b> at 15.00 hrs (Technical Bid Only)
कार्य पूरा करने की अवधि Period for completion of work	:	Initial installation and work to be completed within <b>One Hundred Twenty days</b> from the date of issue of work order.

कृपया ध्यान दें कि इस निविदा के लिए केवल ऑनलाइन बोली ही स्वीकार की जाएगी। इसके साथ ही स्थगन के लिए कोई अनुरोध स्वीकार नहीं किया जाएगा। डाक/फैक्स/ईमेल के माध्यम से भेजी गई बोलियां तुरंत अस्वीकृत कर दी जाएंगी। एनसीआरए-टीआईएफआर, पुणे के केंद्र निदेशक को किसी भी या सभी निविदाओं को आंशिक रूप से या पूर्ण रूप से स्वीकार या अस्वीकार करने का अधिकार है, इसके लिए कोई कारण बताना आवश्यक नहीं होगा।

Kindly note that only online bids will be considered against this tender. Further, requests for postponement will not be entertained. Bids sent by post/Fax/email shall be rejected straightaway. The Centre Director, NCRA-TIFR, Pune reserves the right to accept/ reject any or all tenders either in part or in full without assigning any reasons thereof.

प्रशासनिक अधिकारी- सी (क्रय)  
एनसीआरए-टीआईएफआर, पुणे  
Administrative Officer-C (Purchase)  
NCRA-TIFR, Pune

**Note:**

- 1) In case of any clarification with regard to submission of bids please contact Purchase Department, NCRA-TIFR, Pune ; Tel: 020-25719266-9276-9206.

Also, for any technical clarifications, you may contact:  
**Shri T.M. Patil / Shri B.S. Patil.**

Tel. 020-25719000 / 9111  
Email [tmpatil@ncra.tifr.res.in](mailto:tmpatil@ncra.tifr.res.in) / [balaso@gmrt.ncra.tifr.res.in](mailto:balaso@gmrt.ncra.tifr.res.in)

- 2) The bidders are advised to read the “Guidelines to bidders on CPPP’s e-procurement module” available at the end of this tender document before submitting their bids.

**A) General Instructions:**

1. The Prospective bidder shall carefully examine and understand the specifications/conditions of the tender document and seek clarifications in writing, if required, to ensure that they have understood all specifications/conditions of tender. These clarifications should be sought before submission of bids. If no such clarifications are sought in writing, it will be taken that the Bidder has read, understood and accepted all the terms, conditions and specifications in the tender document.
2. The Bidder is required to upload a copy of this tender document, with all pages signed by the authorized person, to confirm that Bidder has read and understood the conditions of this tender document and that the proposal is submitted in full understanding and agreement of the requirements of NCRA-TIFR.
3. The Bidder shall bear all costs associated with the preparation and submission of the Bid, and NCRA-TIFR will in no case be responsible for those costs, regardless of the conduct or outcome of the bidding process.
4. NCRA-TIFR reserves its rights to amend any of the terms and conditions of the tender document. All such changes can be made up to one week before the last date of submission of bid. The notice of such amendment will be published on NCRA/CPPP website only. No separate advertisement will be issued in the newspapers for such changes / corrigendum's. All the prospective bidders are therefore requested to regularly visit NCRA/CPPP website for any such updates.
5. The complete bid shall be online as per the specified formats only. The bids should be without alteration or erasures, except those to accord with instructions issued by the NCRA-TIFR or as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the bid.
6. The bidder shall submit only one option, which is best suitable to meet NCRA-TIFR requirements. The bids submitted with more options shall be liable to be rejected.
7. The Bid prepared by the Bidder, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and NCRA-TIFR, shall be in English only.
8. Wherever a specific form is prescribed in the Bid document, the Bidder shall use the form to provide relevant information. If the form does not provide space for any required information, space at the end of the form or additional sheets shall be used to convey the said information. For all other cases, the Bidder shall design a form to hold the required information.
9. The Bidder shall explicitly indicate the non-compliance or deviation of the Solution offered in the Proposal to all the terms, clauses, conditions and specifications stipulated in this tender document. If non-compliance or deviation for any term, clause, condition or specification is not explicitly indicated, it will be construed as compliance and if successful in the bid, the bidder is obligated to comply with all the requirements (excluding those non-compliances explicitly accepted by NCRA-TIFR in writing) in toto.

10. Successful bidder shall perform all the obligations specified in accordance with the terms and conditions laid down in the tender document. All details provided by the Bidder should be specific to the requirements specified in this tender document. Detailed clarification may be provided by Bidder, if so desired by NCRA-TIFR. The Bidder shall specify the responsibilities of NCRA-TIFR, if any, separately for the successful implementation of the project.

11. Bidder shall ensure that all documents are uploaded with the Technical bid. The “**TECHNICAL BID**” should contain the following documents alongwith documents asked in the pre-qualification criteria.

- i) Registration / empanelment certificate with government organization / semi-govt organization / PSU / reputed private organization etc.
- ii) Scanned Copies of Demand Draft/ Pay Order for EMD.
- iii) Copy of PAN (Permanent Account Number) card.
- iv) List of similar works in hand & works carried out by them for last 5 years indicating
  - A) Agency for whom executed,
  - B) Value of work,
  - C) Completion time as stipulated and actual, or present position of the work
- v) Experience testimonials along with work orders and completion certificates.
- vi) Bank solvency certificate
- vii) Certificate of Registration for GST.
- viii) List of infrastructure facilities possessed by the bidder List of Technical staff possessed by the bidding agency.

**B) Earnest Money Deposit (EMD)**

The Earnest Money Deposit (EMD) will be accepted only in the form of Insurance Surety Bonds, Account Payee Demand Draft ( in Favour of TIFR payable at Pune ) , Fixed Deposit Receipt (any one) from any National Bank / Scheduled Bank or payment online in an acceptable form, safeguarding the purchaser’s interest in all respects for the following purpose (Drawn in favour of Centre Director, NCRA-TIFR, Pune).

	<b>Earnest Money Deposit (EMD) (to be enclosed with Technical Bid-Part I)</b>
<b>In Figure</b>	<b>Rs. 14,000/-</b>
<b>In Words</b>	<b>Rupees Fourteen Thousand Only.</b>

Tender submitted without requisite amount of Earnest Money Deposit (EMD) shall be rejected and their commercial bids shall not be opened. No interest is payable on EMD.

The EMD will be returned to the bidders (s) whose offer is not accepted by NCRA-TIFR within one month from the date of the placing of the final order(s) to the selected bidder(s).

**The Earnest Money Deposit will be forfeited: If a bidder withdraws the bid during the period of bid validity specified in the tender OR fails to furnish Performance Guarantee within the stipulated time period mentioned in the tender document.**

**Bank Details for online payment: -**

**Bank A/c Name** : TIFR  
**Name of Bank** : Bank of India  
**Branch** : Pashan Road, Pune  
**Bank A/c No** : 051620110000508  
**IFSC code** : BKID0000516

Bidder has to upload a scanned copy/proof of the DD/FDR/BC/BG towards EMD along with the bid and has to ensure delivery of a hard copy directly to the Buyer within 5 days of the Bid End date, failing which the bid may be treated as incomplete & may lead to rejection of the bid by buyer without making any reference to the seller.

Bidder to indicate bid number and name of bidding entity in the transaction details field at the time of on-line transfer. Bidder has to upload scanned copy / proof of the Online Payment Transfer along with technical bid – Part-I).

**C) Performance Guarantee**

Performance Guarantee to be furnished by the successful bidder for satisfactory performance of the contract. “Satisfactory performance of the contract here means satisfactory completion of work in respect of works / services.

a. Quantum of Performance Guarantee

**Performance Guarantee of 5%** of total order value including all taxes, duties etc

Successful bidder, shall deposit an amount equal to **5%** of the value of the work including taxes as Performance Guarantee within **21 days** of award of work, valid till completion of work plus Two months for proper fulfillment of the Contract.

In case Performance Guarantee is not submitted within **21 days interest @ 12% per annum** will be levied till the date you submit the Performance Guarantee.

If the successful bidder fails to submit the Performance Guarantee / Performance Guarantee with interest or refuses to submit the Performance Guarantee even after reminders, Centre reserves the right to cancel the order without notice and such bidder will be debarred from participating in any tender for a period of **one year and their EMD will be forfeited.**

b. Forms in which Performance Guarantee can be submitted

Performance Guarantee should be in the form of Demand Draft in favour of TIFR, Pune OR Fixed Deposit Receipt (FDR) pledged in favour of TIFR, Pune OR Bank Guarantee (BG) in favour of Centre Director, NCRA-TIFR, Pune as per the prescribed format. The Bank Guarantee should be from any one of the nationalized banks or Scheduled Bank and to be executed on non-judicial stamp paper of appropriate value. The Bank Guarantee should be valid upto at least 2 months beyond the contractual date for completion of the order.

c. Refund of Performance Guarantee

Performance Guarantee shall be released / returned to the contractor after the completion of the work/contract period + 2 months without any interest.

d. *Forfeiture of Performance Guarantee*

Performance Guarantee is taken for due performance of the Contract and can be forfeited in the event of a breach of contract.

Bank Guarantee / Fixed Deposit Receipt obtained towards Performance Guarantee will be invoked when there is a specific breach on the part of the Contractor.

**D) DEFECT LIABILITY PERIOD** :- One Year after completion of the entire work.

During the defect liability period, the representatives of Contractor and purchaser shall jointly inspect the site.

The Contractor shall repair any defect observed during the Defect Liability period, at no extra cost to the purchaser. Such repair has to be certified by purchaser inspector / Supervisor. Contractor must ensure that he submit copy of workmen compensation insurance policy before carrying out any work under this clause.

**E) Security Deposit:**

The tenderer, whose tender is accepted, will also be required to furnish by way of Security Deposit for fulfillment of his contract.

Security Deposit is obtained as a back-up surety for fulfilment of work obligation by the Contractor till satisfactory completion of the work.

A sum of **2.5%** of gross amount of the work order (including GST) value shall be deposited in the form of Fixed Deposit Receipt or Bank Guarantee or Demand Draft.

The Security Deposit shall be released after the defect liability period + 2 months reckoned from the date of completion as certified by Engineer-In-Charge.

**F) Acceptance of Tender:** The competent authority, on behalf of Centre Director, National Centre for Radio Astrophysics (NCRA), Tata Institute of Fundamental Research (TIFR), Pune, 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 assignment of any reason. All tenders, in which any of the prescribed condition 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 the National Centre for Radio Astrophysics (NCRA), Tata Institute of Fundamental Research (TIFR), Pune reserves to himself 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.

**G) Validity of Tender:** The tender for the services shall remain open for acceptance for a period of **150 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 Acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the Department, then National Centre for Radio Astrophysics (NCRA), Tata Institute of Fundamental Research (TIFR), Pune 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.

- H) Levy / Taxes payable by contractor:**  
GST @18% on materials and services in respect of this contract shall be payable by the contractor.
- I) 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.
- GST TDS will be deducted, as per Government Notification, if applicable.**
- J) 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 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 charges consequent on any misunderstanding or otherwise shall be allowed. **Site visit report to be submitted alongwith the tender, it is mandatory.**
- K) 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.
- L) 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 he has 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. Electricity shall be provided for the work by NCRA-TIFR free of charge.
- M) 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 the future participation in NCRA-TIFR works.

**Administrative Officer-C (Purchase)**  
*For and on behalf of National Centre for Radio Astrophysics (NCRA),*  
**Tata Institute of Fundamental Research (TIFR), Pune**

The procurement shall be carried out through submission of online tenders only. No offer in physical form will be accepted and any such offer if received by NCRA-TIFR will be outrightly rejected. Tender documents can be downloaded from website of CPPP [www.eprocure.gov.in](http://www.eprocure.gov.in).

The bids are to be uploaded/submitted in electronic form on website [www.eprocure.gov.in](http://www.eprocure.gov.in).

The steps noted below shall be the general methodology to be followed by the bidders for submission of his bid on the E-procurement module of CPPP: -

1. It is mandatory for tenderer to have a valid digital signature certificate issued by any of the valid Certifying Authority approved by Government of India for participation in tendering event at the time of submission of offer. The cost of digital signature will be borne by respective tenderer.
2. Offer against the NIT has to be submitted online on e\_procurement website mentioned in the NIT with valid digital signature certificate. The bidders shall be required to submit their offers in 2 separate parts\_ (a) 'Technical & 'Un-priced Commercial Bid' and (b) 'Financial Bid'.
3. Submission of online Bids / Offers electronically against E-tendering: All interested bidders are requested to register themselves on [www.eprocure.gov.in](http://www.eprocure.gov.in) with their digital signature certificate with the user ID for participation in the tender. Kindly refer bidders manual kit available on bidders' section on above mentioned website for details procedure for bid submission or Bidders can take help of Helpdesk Center (18002337315) for registration and bid submission procedures.
4. The Technical Bids and Price Bid have to be submitted online only. However, documents which necessarily have to be submitted in originals like EMD instrument if applicable have to be submitted offline.
5. The online offer, Pre-qualification details & Technical Bid, shall be opened as per the date and time mentioned in the NIT.
6. The Technical & Un-priced Commercial bids opened shall be scrutinized for technical commercial acceptability including the pre-qualification criteria. The offers not fulfilling these criteria as per the NIT shall be rejected outright.
7. The offer which meets the NIT requirements, technically (including pre-qualification criteria) and commercially, shall be eligible for further consideration.
8. Price bids of bidder shall be considered who fulfill the Eligibility criteria and techno-commercial requirement of NIT. Please read instructions given below before submission of Price Bid i.e. BOQ (spread sheet).

9. Bids should be submitted as per following instructions only:

(A) Technical Bid:

Packet 1: Scanned copy of “Technical Bid” along with the scanned copies of technical Details / Documents as per tender document

Packet 2: Scanned copy of DD / Pay Order (For EMD).

(B) FINANCIAL BID / PRICE BID

Financial Bid i.e. BOQ given with tender to be uploaded after filling all relevant information like rate. The Rate should be inclusive of all charges and no other charges shall be considered. The priced BOQ should be uploaded strictly as per the format available with the tender document failing which the offer is liable for rejection (renaming or changing format of BOQ sheet will not be accepted by system)

The Evaluated Cost shown in last column of BOQ sheet is the amount on which Lowest bidder will be decided subject to the bid being found technically qualified.

(C) Please read following instructions before filling & submission of BOQ sheet:

- a. Please note that e-procurement system accepts the uploaded BOQ sheet only, any modification in file format or changing name of file will results into non-acceptance of your offer by e-Procurement System.
- b. Kindly fill data in fields of ‘BOQ Sheet’ as per following Instruction only: Bidders Name: Kindly put complete name of bidding firm/company Rate: Kindly put the ‘Rate per unit (Inclusive of all charges)’ e.g. Rs. 500 per Item in white cell in front of each item you want to quote.
- c. Please save your BOQ sheet (Financial bid) without changing name and format and upload this completed BOQ sheet in Finance Envelope (Part-II).

All the documents pertaining to the eligibility conditions needs to uploaded along with the technical bid on the CPP Portal. The bids which are found to be not meeting with any or all the conditions shall be declared technically disqualified and will not be eligible for opening of their financial bids.

**PRE-QUALIFICATION CRITERIA** – to be filled as per the statement attached.

**PRE-QUALIFICATION CRITERIA**

Sr. No.	Description	Details to be furnished by the contractor, enclosing relevant documents in the technical bid.		
1	Bidder must visit the site to know exact scope of work, site conditions etc. and must be fully confident of carrying out the work mentioned in bid / tender and submit certificate of site visit at NCRA-TIFR, Pune.	As per the Annexure attached with the tender document.		
2	Bidder must have been in the business for a period of 5 years prior to this advertisement/tender/bid and must have experience in similar type of work of SITC of <b>Drinking Water Flow Control System and allied work</b> . Bidders to submit documentary proof by work orders, Work Completion Report (WCR), Performance reports about the similar type of works completed in the past.			
3	Bidders should have their service support office in Pune Jurisdiction to provide technical services in <b>2 to 3 hours after intimation from end user</b> .	Bidder should provide the valid proof.		
4	Bid must be valid for a minimum period of <b>150 (One Hundred Fifty Days)</b> from the due date for submission of bid.	Yes / No		
5	The Bidder's company should be a Proprietary Firm / Partnership Firm / LLP / Private Limited Company / Limited Company etc. registered with the appropriate authority.	Please provide proof of registration with the appropriate authority		
6	The average annual financial turnover of the bidder during the last three years ending on 31.03.2025 should be at <b>Rs. 2.10 Lacs (Two Lacs Ten Thousand Only)</b> as per the audited balance sheet and profit & loss account of the relevant period, duly authenticated by a Chartered Accountant/ Cost Accountant. The net worth of the bidder firm should not be negative as on 31.03.2025.	Turnover certificate as per the audited balance sheet and profit & loss account of the relevant period, duly authenticated by a Chartered Accountant/ Cost Accountant. As per the Annexure attached with the tender document.		
7	Bidder must have been providing <b>Drinking Water Flow Control System and allied work</b> for Larger Organizations / Govt. Institutions in and around Pune of value stated below during <b>last seven years i.e. before 31.03.2026</b> .			
	- One similar works completed value not less than <b>Rs. 5.60 Lacs OR</b>			
	- Two similar works completed value not less than <b>Rs. 3.50 Lacs OR</b>			
	- Three similar works completed each of value not less than <b>Rs. 2.80 Lacs</b>			
	a. The value of executed works shall be brought to current costing level by enhancing the actual value of work at the simple rate of <b>7% per annum</b> ; calculated from the date of completion to due date for submission of bid. b. Copies of work orders and completion certificates to be submitted evidencing the above without fail.			
8	The Bidders should not have been indicated for any criminal, fraudulent or corruption activity, Contract Terminated / blacklisted/debarred by any Central/State Govt./Semi Govt./ PSU/ Autonomous body. Bidder has to upload undertaking along with the bid.	As per the Form attached with the tender document.		
9	The Bidder should not be under liquidation, court receivership or similar proceedings and should not be bankrupt (upload a notarized undertaking on stamp paper of Rs. 500/- or higher value)	As per the Form attached with the tender document.		
10	Bidder must submit Solvency Certificate from nationalized / scheduled bank ( <b>not prior to 31.03.2026</b> ) for a minimum amount of <b>Rs. 2.80 Lacs</b> from their bank – To be submitted as per our Format (Form) enclosed.	As per the Form attached with the tender document.		
11	Bidder must submit Chartered Accountant's Certificate showing their turnover and Net worth for the last Five Financial Years prior to 31.03.2025 i.e. for 2020-21, 2021-22, 2022-23, 2023-24, 2024-25.			
	<b>Do not enclose copies of Profit and Loss and Balance Sheets statement and IT returns.</b>	<b>Period</b>	<b>Turnover</b>	<b>Net Worth</b>
		2020-21		
		2021-22		
		2022-23		
		2023-24		
2024-25				

Stamp and Signature of the Bidder

**PRE-QUALIFICATION CRITERIA**

<b>Sr. No.</b>	<b>Description</b>	<b>Details to be furnished by the contractor, enclosing relevant documents in the technical bid.</b>
12	The bidder should submit the Acceptance of the tender terms and conditions	As per the format specified in the tender document
13	Successful bidder must be able to submit: - <b>Performance Guarantee, Security Deposit, Indemnity Bond, and other documents mentioned at Forms / Chapters wherever applicable.</b>	Yes / No
14	Earnest Money Deposit (EMD) enclosed with details.	Yes / No

***NOTE: KINDLY FILL UP THE ABOVE DETAILS AND ENCLOSE RELEVANT DOCUMENTS ALONGWITH YOUR TECHNICAL BID – PART-I, OTHERWISE YOUR BID WILL BE REJECTED.***

Signature of the Bidder

Name & Designation

Company Seal

Date:

Stamp and Signature of the Bidder

**A. Definitions:**

- a) The ‘**Contract**’ means the documents forming the tender and acceptance thereof and the formal agreement executed between the Competent authority on behalf of the Centre Director, NCRA-TIFR 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 and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.
- b) 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.
- c) 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.
- d) The ‘**Contractor**’ shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personnel 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.
- e) The ‘**Engineer-in-Charge**’ means the Engineer / Officer, who shall supervise and be in charge of the work on behalf of NCRA-TIFR, Pune.
- f) ‘**Temporary Work**’ means all temporary works of every kind required in or about the execution, completion and maintenance of the works.
- g) ‘**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 15% to cover, all overheads and profits.
- h) ‘**NCRA-TIFR**’ means National Centre for Radio Astrophysics-Tata Institute of Fundamental Research, Pune.
- i) ‘**Tendered value**’ means the value of the entire work as stipulated in the letter of award / acceptance.
- j) **Time Limit:** The time allowed for carrying out the work reckoned from 10th day of the date of issue of work order OR from the date of handing over the site.

- B. Declaration by tenderer:** The tenderers shall sign a declaration under the Official Secret Act-1923 for maintaining secrecy of the tender documents, drawings or other records connected with the work given to them. The unsuccessful tenderers shall return all the drawings given to them, if any.

- C. Filling up of rates:** All rates shall be quoted on the tender form by the tenderers in figures and words. All rates shall be quoted on the prescribed tender form. The amount for each item should be worked out and requisite totals given.
- i. The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paise and considering more than fifty paise as rupee one.
  - ii. If a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall, unless otherwise proved, be taken as correct.
  - iii. If the amount of an item is not worked out by the tenderer, or it does not correspond with the rate written either in figures or in words, then the rates quoted by the tenderer in words shall be taken as correct.
  - iv. Where the rate quoted by the tenderer in figures and in words tally but the amount is not worked out correctly, the rate quoted by the tenderer will, unless otherwise proved, be taken as correct and not the amount.
- D. Quoted rates to includes all taxes:** As per the directives of the Government Authorities, the tax due at the rates notified by the Government from time to time, shall be deducted from the bills payable to the Contractors, for which TDS certificate shall be issued by the Department.
- E. Action in case of un realistic rates:** In the case of any tender where unit rate of any item (s) appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation, such a tender is liable to be disqualified and rejected.
- F. Contractor to depute his representative at site:** The successful tenderer for the work should have responsible and responsive representative with adequate powers to take speedy decisions during the entire period of execution at the Work place. On acceptance of the work order, 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 Engr-in-Charge.
- G. Sufficiency of Tender:** The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Bill of Quantities, at 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.

**1. TIME FOR COMPLETION OF WORK:**

Initial installation and work to be completed within **One Hundred Twenty days** from the date of issue of work order.

**The period may be extended, if the reasons furnished are acceptable to the Centre.**

**2. Compensation for delay / Liquidated Damages:**

For all delays, which do not merit any extension of time, the Contractor/ Supplier shall attract **0.5% penalty per week** or part thereof subject to a **maximum of 5% of the total contract value**. The amount liquidated damages shall be recoverable from the payment due to the Contractor/Supplier. 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 Institute at the Contractors/Suppliers risk and cost.

**3. Time Extension for delay:** The time allowed for execution of the works as stipulated in the contract 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 contract. If the Contractor commits default in commencing the execution of the work as aforesaid, NCRA-TIFR shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & performance guarantee absolutely.

As soon as possible after the Contract is signed, the Contractor shall submit a Time and Progress Chart for each mile stone and get it approved by the Department. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the 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 Engineer-in-Charge 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 programed has been agreed upon) to complete the work as per the mile stones given.

**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 Engineer-in-Charge in executing work not forming part of the Contract, or
- vi. Non-availability of stores, which are the responsibility of NCRA-TIFR to supply or

- vii. Non-availability or break down of tools and plant to be supplied or supplied by NCRA-TIFR or
- viii. Any other cause which, in the absolute discretion of the Engineer-in-Charge 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 Engineer-in-Charge 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 Engineer-in-Charge to proceed with the works.

Request for rescheduling of Mile stones and extension of time, to be eligible for consideration, shall be made by the Contractor in writing within 14 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. In any such case the **Engineer-in-Charge** may give a fair and reasonable extension of time and reschedule the mile stones for completion of work. Such extension shall be communicated to the Contractor by the Engineer-in- Charge 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 Engineer-in-Charge and this shall be binding on the contractor.

#### **4. Payment**

Payment will be made through Three Running Account (RA) bills and one final bill & will be based on actual measurements and after satisfactory completion of the work and your bill duly certified by our Engineer / Competent authority.

RA bill shall be made within **21** working days after receipt of R.A. bill by Engineer.

- i) All payments will be made after adjusting GST TDS, Income Tax, TDS and labour Cess deduction at prevailing rates. Appropriate certificates shall be issued to the contractor towards statutory deductions.
- ii) any other dues.
- iii) No escalation and advance payment will be made till the completion of the contract period.
- iv) will be based on actual measurements of work done.
- v) Bills will be settled only after satisfactory completion of the work and bill certified by our Engineer.
- vi) Contractor shall submit all bills to:  
**Shri T.M. Patil / Shri B.S. Patil**  
**National Centre for Radio Astrophysics (NCRA),**  
**Tata Institute of Fundamental Research (TIFR),**  
**Savitribai Phule Pune University Campus,**  
**Ganeshkhind,**  
**Pune 411007, Maharashtra.**
- vii) Payment will be made by NCRA-TIFR, Pune through NEFT/RTGS.

## 5. Indemniy Bond

**In case of order**, you should also indemnify us on a non-judicial Stamp Paper of **Rs. 500/-** that in the event of happenings of anything of such nature, it would neither affect the work nor us in any way in respect of all Actions, Acts, Suits, Claims and Demands brought or made against NCRA-TIFR by your workmen or any other person or persons whomsoever in connection with the works or in respect of any matter or thing done or committed to be done by you in the execution of or in connection with the works notwithstanding that all reasonable and proper precautions may have been taken by you against any loss or damage to the Owner in consequence of any action or suit being brought against NCRA-TIFR for anything done or committed to be done in connection with the execution of the work. The indemnity given by you as aforesaid shall extend to making good all claims and demands arising out of losses/damages to property of every description and kind, the infringement of any legal right as well as injury or accident to any person resulting in death or otherwise. Original Bond to be submitted directly to our Accounts section, NCRA-TIFR, Pune with copy of the same to be given to our Engineer, GMRT Khodad and Purchase Section, NCRA, Pune.

6. **SAFETY & SECURITY:** Contractor will be responsible for the safety and security of all their workmen and staff and will ensure to maintain necessary records for payment and other details as per the prevailing Procedures and Acts. Contractor will be fully responsible for any personal injury, accident, death of your personnel and shall take proper precautions against any such loss or damages by taking Workmen Compensation Insurance **at Contractor's own cost** valid for the full contract period for all the persons he deploys for this work (*if order is placed*).

Workmen Compensation Insurance policy must be taken keeping in consideration the following:

- i) Number of labourers and Supervisor deployed for this work.
- ii) Place of Work : National Centre for Radio Astrophysics (NCRA), Tata Institute of Fundamental Research (TIFR), Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411007.

Copy of the Insurance policy to be submitted directly to **Shri T.M. Patil / Shri B.S. Patil** before commencing the work.

The contractor should also promptly report in writing to us all cases of accidents and damage. However irrespective of the cause and place of occurring, during the execution of the work, you should make adequate arrangements to render all possible aid to the victims of such accidents and damages.

Contractor must also ensure to submit Workmen Compensation Policy before doing any work during the defect liability period as well.

## 7. Settlement of Disputes & Arbitration:

- 7.1 Centre and the contractor shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 7.2 If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either Centre or the contractor may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after completion Contract.
- 7.3 The dispute settlement mechanism/arbitration proceedings shall be concluded as under:
- (a) In case of Dispute or difference arising between Centre and contractor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996 as amended till date and the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to a sole arbitrator mutually acceptable to contractor and Centre. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order. Charges of the arbitrator will have to be shared equally by the Contractor and the Centre.
- 7.4 The venue of the arbitration shall be the place at Pune.
8. **Confidential Information:** The drawings, specifications, proto-type, samples and such other information furnished to the contractor relating to the supply / work, sub-systems / equipment etc. are to be treated as confidential which shall be held by the contractor in confidence and shall not be divulged to any third party without the prior written consent of the Department. The contractor, therefore, binds himself, his successors, heirs, executors, administrators, employees and the permitted assignees or such other persons or agents directly or indirectly concerned with the work / supply to the confidential nature of the drawings, specifications, proto-type samples etc. It is a further condition of the contract that the contractor shall not, without prior written permission from the Department, transmit, transfer, exchange, gift or communicate any such confidential information, and also the component, sub assembly, products, by-products etc. pursuant to the fabrication under taken by the contractor, to any third party.
9. **STORAGE OF TOOLS AND MATERIALS:** You shall make your own arrangement for storage/safety of tools, plants, machinery, materials & necessary arrangement for labour also.

10. **DEPLOYMENT OF LABOUR & MACHINERY:** You shall not employ any person who has not attained the age of 18 years. You shall deploy sufficient equipments and labour as may be necessary to maintain the progress of schedule. Night work which requires supervision shall not be permitted except when specially allowed by Engineer each time. On your request, you will be provided necessary lighting arrangements etc. for night work as directed by Engineer.
11. **MARKING:** All lines and levels in connection with the works shall be given by the Engineer. You shall supply all the necessary assistance, pegs, stakes, instruments etc. required in this connection free of charge. The marks or the points thus given by our Engineer shall be carefully preserved by you.
12. **ASSIGNING & SUBLETTING:** Assigning or subletting the contract shall not be done unless written permission is obtained from NCRA-TIFR. Written permission, if given, shall not relieve you from your obligations under the contract and you shall take full responsibility for all work done by sub-contractors. You may sub-contract parts of the order, if necessary only to sub-contractor approved by NCRA-TIFR. You shall be responsible for transmitting pertinent data/specification of all contract terms and conditions to sub-contractors. You shall furnish to us four (4) copies of all sub-orders (un-priced) showing promised delivery dates and places.
13. **RIGHT TO ASSURANCES & REPUDIATION:** Whenever we in good faith have reason to question your intent to perform, we may demand in writing that you should give a written assurance of your intent to perform. In the event that the demand is made and no assurance is given within a reasonable period of time, say not exceeding four weeks, we may treat failure as an anticipatory repudiation of the order.
14. **WORK AT NIGHT OR ON HOLIDAYS:** No work at night or on legal holidays will be carried without the written consent of the Engineer and if permitted such work to be done in the presence of the Engineer or his representative.
15. **PROTECTION OF PROPERTY:** You shall be responsible for making good to the damages to the existing property during construction by your men. During the execution of work, it is likely that you may come across telephone cables, electrical cables, water supply lines, electrical items, sanitary fittings, etc. It will, therefore, be your responsibility to protect them carefully. All such cases should be brought to the notice of the Engineer by you and also to the concerned department. Any damage what-so-ever done to these cables / other valuables be made good by you at your own cost.
16. **INSPECTION:**

Inspection during the course of work and after the job is ready will be done by NCRA-TIFR. This does not relieve you of your responsibility to inspect/supervise during all stages of work.

17. **PROVISION FOR CANCELLATION** : At any time after the acceptance of the order, we shall have the absolute right to cancel the entire order upon payment to you for all disbursements or expenses which you have incurred or become liable for, prior to the date of notice of cancellation, less the reasonable resale value of material and equipment which shall have been obtained or ordered to become an integral part of the work, plus a sum as profit, bearing the same ratio to the profit that you would have received upon completing the work as the work done bears to the entire amount of work to be done by you under this order, provided that the total payment so made shall not exceed the contract price.

18. **FORCE MAJEURE** : Neither party shall be held responsible for any losses, if the fulfillment of any terms or provisions of the order, are delayed or prevented by Acts of lawful Government revolutions or other disorders, wars, acts of enemies, strikes, fires, floods, acts of God or acts of states without limiting the foregoing. Any other cause not within the control of the party whose performance is interrelated with, and which by the exercise of reasonable deliquance is unable to prevent, whether of the class of causes hereinbefore enumerated or not.

19. **TERMINATION OF THE CONTRACT**: If you have become bankrupt or have abandoned the work without any serious reason or deliberately delayed the work or is not carrying out the works under the terms and conditions of this contract, the Engineer. Reserves the right to terminate the contract at any time by giving written notice to you and you shall not be eligible for any compensation for the same.

In this case, the department shall take over the charge of the work and other materials lying on the site of works. The work shall carry out by employing other persons. All such work shall be carried out at your own risk and cost. Any difference in the cost due to all such matters shall be deducted by the Institute from the security deposit or your payment against this or any other works.

**20. CANCELLATION OF CONTRACT.**

The Centre reserves the right to cancel the contract any time by giving one month's written notice. Similarly, if the Contractor wishes to withdraw his services he may do so by giving **one month's** notice in writing. Extension of the contract may be considered with mutual agreement depending on the need of the Centre and based on the past performance of the contractor.

21. **ELECTRICITY**: Electricity shall be provided by the department at free of cost from the existing nearby available source for the work. Bidder should make proper arrangement for extra length of cable/distribution board etc. to reach their work place with all electrical safety precautions. Also note that providing electricity is not binding to us.

22. **WATER**: If water is available with our existing source at site, then it will be allowed to use at free of cost. It is Contractors' own responsibility to make necessary arrangement to carry the same to work spot. Also note that providing water is not binding on us. **If water is not available with us, then contractor shall make his own arrangement at his own cost. +**

23. The contractor shall be responsible for compliance with all statutory rules, regulations and Acts in force from time to time as prescribed by the Government, such as the Factories Act, Workmen's Compensation Act, Minimum Wages Act, Provident Fund Act and the Contract Labour (Regulation and Abolition) Act, in respect of the employees engaged by him for the work. The contractor shall also be required to maintain all necessary records.

In the event that any amount becomes due and payable by the contractor to his employees or to the Government under the above-mentioned rules, regulations or Acts, NCRA-TIFR Pune reserves the right to recover the same from the contractor and pay it to the concerned employee or authority. The contractor is required to take Group Insurance in respect of all workmen engaged for this work for the stipulated period. Records as per the provisions of the various statutory Acts shall be maintained by the contractor and submitted to the NCRA-TIFR Pune as and when required.

**The scope of work under this contract includes the following items/systems recorded under BOQ for inviting bidders rates....**

- A) Overhead tank/s drinking water flow control system** comprising of Supply, Installation, testing & Commissioning in position the overhead tank Water Supply flow/overflow Controlling Systems based on and including electrically operated water level sensor, float switch based solenoid valve (BRASS/SS) with level sensing elements/electrodes for overhead drinking water tank inlet, including weather proof housing control panel (Weather Proof), MCB of required rating, 3 core 1.5 Sqmm copper conductor FPLS PVC insulated and sheathed flexible cables etc. *as per Srl No 1.01 of Item wise in Excel Sheet BOQ.*
- B) Water transfer/pump control system including-** Supply, Installation, Testing and Commissioning of Hydro-pneumatic Water Transfer System for existing 30 HP coupled motor pump set, including following items, to support to Hydropneumatics system for Building overhead drinking water tank. The total system shall be including Water Level sensors, power controlling wiring and necessary accessories like NRV, Check Valve, Butterfly Valve, Pressure Switch, Pressure Gauge, Pressure Sensors, Pressure vessel 200 or 300 Ltr/10 Bar, control Cable, Plumbing materials, delivery Valves etc *as per Srl No 1.02 to 1.12 of Item wise in Excel Sheet BOQ.*
- C) Motor control panel:** Supply, installation, testing and commissioning of fully automatic Indoor type electric control panel 30HP 1-W & 1 – standby Suitable for 22kw/30HP **as per Srl No 1.13 of Item wise in Excel Sheet BOQ and “Technical Specifications for LT indoor motor control Panel” on page no: 27 to 37.**

**Detailed scope of work is as follows...**

Supply, installation, testing & Commissioning of electrically controlled water level controller and monitoring the open type water pump coupled with motor- operation control system including control panel, FRLS flexible copper 3 core cables for over-head water Supply and flow Controlling solenoid with controller and float switch,with required GI and/or uPVC plumbing materials, accessories etc complete job with solenoid Valve /valves of appropriate ratings, including Hydro-pneumatic Water Transfer System suitable for existing submersible pump set of 30 HP to support to Hydro-pneumatic system for building overhead tank. The system should be including water level sensor, control wiring and necessary accessories like NRV, Check Valve, Butterfly Valve, Pressure Switch, Pressure Gauge, Pressure Sensors, Pressure vessel 200 or 300 Litre/10 Bar (as per design requirement), Cables, Plumbing materials upto Delivery of Valves.

A complete system, as per the BOQ, working to the required specifications, including all accessories for complete and satisfactory installation and operation of the system.

Sr. No.	Description of work	Qty & UOM
A	<b>Overhead tank/s drinking water flow control system</b>	
1	<p><b>Overhead tank/s drinking water flow control system comprising of the following...</b></p> <p>Supply, Installation, testing &amp; Commissioning in position the overhead tank Water Supply Overflow Controlling Systems based on and including electrically operated water level sensor, float switch based solenoid valve (BRASS/SS) with level sensing elements/electrodes for overhead drinking water tank inlet, including weather proof housing control panel (Weather Proof), MCB of required rating, 3 core 1.5 Sqmm copper conductor FPLS PVC insulated and sheathed flexible cables as per ISS (Polycab/Finolex/RR Kabel/Reputed make) of required length (approx. 7 to 10 mtr at each location) with panel (Weather Proof),required (GI/uPVC) plumbing materials, accessories etc complete job /set. AC power supply will be provided at incomer of control panel of solenoid valve. Solenoid Valve should operate at 12/24 V. Flow rate = 10 - 80 LPM. Item including supply and use of all required accessories to complete the installation satisfactorily. Make - Hunter (USA). <b>Please refer to the attached line diagram of the overhead water tank and water line for drinking water.</b></p> <p>Solenoid valves: 1½"Ø (40 MM) ASTM- 5 Nos</p> <p>Solenoid valves - 2" Ø (50 MM) GI- 8 nos</p> <p>Solenoid valves - 1½"Ø (40 MM) GI- 7 Nos</p> <p>Solenoid valves – 1"Ø (25 MM) ASTM- 2 Nos</p> <p>Plumbing materials as per site requirement including uPVC pipes of required size (1.5 to 2" dia) with clamping and 1/2/3 mtr length (or as per site requirement) including the required bypass line and valves for solenoid replacement/repairs - LS</p>	22 sets
B	<b>Water transfer/pump control system</b>	
2	<p><b>Water transfer/pump control system</b></p> <p>Supply, Installation, Testing and Commissioning of Hydro-pneumatic Water Transfer System for existing 30 HP coupled motor pump set, including following items, to support to Hydropneumatics system for Building overhead drinking water tank. The total system shall be including Water Level sensors, power controlling wiring and necessary accessories like NRV, Check Valve, Butterfly Valve, Pressure Switch, Pressure Gauge, Pressure Sensors, Pressure vessel 200 or 300 Ltr/10 Bar, control Cable,Plumbing materials upto Delivery of Valves as detailed below... comprising of the following items.....</p>	1 set
2.1	NRV – GI 50mm - 2" Ø L&T Audco, reputed--- 1 no	
2.2	Check valve- reputed make like ---1 no	
2.3	Pressure sensors- reputed make—2 nos	
3	C.I. wafer type Butterfly Valve model IVGK – L with MOC PN 10 3" Ø Make: Intervalve	3 nos

Sr. No.	Description of work	Qty & UOM
4	C.I. wafer type Check Valve model IVGK – L with MOC PN 10-3" Ø Make: Intervalve	3 Nos
5	Brass Ball valve 1¼" Ø	6 nos
6	G.I.Piipe B Class-1¼" Ø	6 mtr
7	G.I.Pipe Header B Class- 3" Ø-as per site requirement	2 sets
8	C.I.Flanges with Nutbolt ,Washer & rubber gaskit etc complete set 3" Ø	6 sets
9	Pressure gauge- 10 Bar with Pipe with Tap and supporting accessories for 100mm (4") Ø	3 sets
10	HydroPneu MS Pressure Tank Vertical colour Blue/ Grey PN 10 Pressure vessel 200 to 300 ltr/10Bar	1
11	Butter fly valve	1
12	Pressure switch Danfos	2 sets
C	<b>Motor control panel</b>	
13	<b>Motor control panel:</b> Fully automatic Indoor type electric control panel 30HP 1-W & 1 - Standby Suitable for 22kw/30HP as a part "C". <b>The panel should be as per the "Technical specifications for LT indoor motor control Panel " mentioned on page no: 27 to 37</b>	1 set

**D) Working of the proposed system:** Information to bidders about proposed water management and control system and is expected to work as mentioned below.

1) Motor pump control system.

- a) NCRA Main campus has 2\*30HP coupled motor pump sets with common delivery line for pumping drinking water into the building overhead water tanks.
- b) To control the operational frequency of the open type coupled motor pump sets there will be a pressure-operated switch PS-1 to "Switch ON and Switch OFF" to the water pump.
- c) There will be pressure-operated switch PS-2 (pressure setting higher than PS-1) to switch off the pump/s.
- d) The pump starter will have an overload relay to operate it in case both PS-1 and PS-2 fail.
- e) There will be hydro-pneumatic water surge **arrester/hammer tank of 200 to 300 liters capacity (as per design requirement—bidder to finalize and inform design)** in the delivery line to absorb the water pressure and regulate it during the delivery valve closing.
- f) Any one of the two water pumps will always be in Automatic mode and it will be operated based on the water pressure in the delivery line. Second pump will be in manual/off mode. Both the pumps will be operated alternately.

2) System at overhead water tank on buildings.

- a) There will be water level controller for each overhead water tank on buildings including float-based water pressure valve /solenoid on each building to maintain the sufficient water level in the tank. This valve will open if water goes below the desired level and will get closed when water is filled up to the required height.

- b) When water tanks on all the buildings are full – individual building valves will be closed and the open type motor pump set will be switched off automatically through pressure switch (First level protection switch:PS1, second level protection switch PS2). Whenever any other valve placed in the delivery line/sub delivery line is opened for water usage, there will be a pressure drop in the delivery line which will switch ON the pump automatically.

**“C” Technical Specifications for LT indoor motor control Panel (Srl No 1.13 of Item wise in Excel Sheet BOQ)**

1. **Scope:** The scope shall cover design, engineering, manufacture/fabrication, inspection/testing at supplier’s works and supply of **indoor type, Compartmentalized motor power control panel suitable for independently operating 2 nos of 30HP induction motor coupled water pump/s through star delta starters** as described in this specification and BOQ.
2. Panel shall be supplied with the following:
  - a) Indoor LT panel with base frame with necessary hardware and mounting frame.
  - b) All relevant drawings, technical data and instruction manuals, catalogues of the components used in the panel.
3. General specifications: Panel shall be metal clad, totally enclosed, rigid, suitable for mounting on cable trench or frame on ground etc, air insulated, with two separate isolated compartments in the same cubicle suitable for operation of two separate induction motors through star delta starting system with required time delay relay, overload relay, contactors (main, star, delta etc) three phase 415 V, 50 Hz 4 wire AC supply, 160Amps bus bar and required sized power wiring IP42 protection class construction. The painting of all the metal parts shall be as per the painting specification as stated.

Panel shall be designed to withstand heaviest condition at site, with maximum expected ambient temperature of 45°C, 95% humidity, dusty weather.
4. Standards and codes: The Panel shall comply with the latest edition of relevant Indian Standards and Indian Electricity Rules and Regulations. The following Indian standards shall be complied with:

ISS: 8623 (Part-1) 1993 with latest amendment for LV switchgear and control gear assembly.  
ISS/IEC: 60947-1 2004 & IEC 60947-2 for LV switchgear and control gear.

IS13947 -1993 is the Specification for Low voltage switchgear and control gear (Part I to Part V).

Part I General rules (superseded IS 4237)

Part II Low voltage Switchgear (Superseded IS 2516)

Part III Switches, disconnectors, switch fuse combination (Superseded IS 4064)

Part IV Contactor and motor starters (Supersede IS 2959 & IS 8544)

Part V Control circuit devices and switching elements (Superseded IS 6875)

IS 8623 1993 Specification for low voltage switch gear and control gear assemblies.

\*IS 4237 1982 General requirement for switch gear and control gear for voltage not exceeding 1000 volts. (superseded)

IS 2147-1962 Degree of protection provided by enclosures for low voltage switchgear and control gears.

IS 8828 1978 Miniature air circuit breakers.

5. Design criteria: Indoor Medium voltage power distribution double enclosure canopy top type panel shall be installed to operate water pumps from the panel and proposed to install in NCRA, Pune University Campus, Pune.

For continuous duty operation at specified ratings, the temperature rise of various components shall be limited to the permissible values stipulated in relevant standards and this specification.

All components thereof shall be capable of withstanding the mechanical forces and thermal stresses of the short circuit current conditions without any damage or deterioration of the materials.

6. Construction: This involves the following.

- 6.1) Structure: The Panel shall be metal clad enclosed and be fabricated out of high quality CRCA sheet, suitable for outdoor and floor / cable trench mounting type as specified in BOQ. It shall be totally enclosed, completely dust and vermin proof, double door type conforming to degree of protection IP-55. Front and back side doors of the panel shall be suitably hinged and lockable, openable to facilitate for cable termination work.

**The Panel shall be compact and be designed to facilitate for easy inspection, maintenance and repair &** it shall be sufficiently rigid to support the equipment without distortion under normal and short circuit condition. It shall be suitably braced for short circuit duty.

- 6.2) All CRCA sheet steel used in the panel frame work construction shall be 2 mm. thick and for doors and covers of 1.6mm thick and it shall be folded and braced as necessary to provide a rigid support for all components. Panels should have base channel frame with necessary hardware for mounting. Panel and mounting frame joints of any kind in sheet steel shall be seam welded, all welding slag grounded off and welding pits wiped smooth with plumber metal.
- 6.3) Gaskets between all adjacent units and beneath all covers shall be provided to render the joints dust proof. All doors and covers shall be fully gasketed with neoprene rubber and shall be lockable.
- 6.4) All the inside and outside covers of the panel shall be properly fitted and secured with the frame and holes in the panel be correctly positioned. Fixing screws shall enter into holes, taped into an adequate thickness of metal or provided with bolts and nuts. Self-threading screws shall not be used in the construction of Panel.
- 6.5) Adequate ventilation shall be provided by means of louvers to allow natural circulation of air. Panel shall be designed so as to limit the temperature rise to 35deg.C and in such a way that the internal space is sufficient for hot air movement and the electrical component does not attain temperature more than 35°C. All the electrical component shall be de-rated for 50°C. Ventilation louvers shall be suitably screened to prevent the entry of insects and foreign bodies. Screen material shall be made of strong enough stainless steel.
- 6.6) **Circuit compartments:** Panel will have separate incomer compartment for incoming microprocessor based 4 pole MCCB with suitably rated Aluminium bus bars with support insulators and spreaders compartment suitable to terminate 2\*35SQMM/95 sqmm AL A2XFY cable/s at incoming side and flexible copper cables outgoing to motors. Separate compartment with microprocessor based 4 pole MCCB compartment with suitably rated Aluminium bus bars with support insulators and spreaders suitable to terminate 2\*4

SQMM copper cables at outgoing side and flexible copper cables at incoming side. Sheet steel hinged lockable door shall be duly interlocked with the incomer MCCB in 'ON' position.

Sheet steel barriers shall be provided between the compartments in a vertical and horizontal section as required. Live open sections around the bus bars / MCCB etc shall be closed with Bakelite or acrylic / insulating sheets as required.

**There should be empty space (of say 200mm height) all along the width of the panel above the gland plate for easy cable termination.**

**Minimum 300mm gap shall be maintained between the gland plate and the incomer bus bars and 200mm gap between the gland plate and the lowermost bus bar of the lower feeder as applicable, to facilitate for the easy cable entry and termination.**

6.7) Bus bars: The bus-bar shall be air insulated and made of high quality, high conductivity, high strength **Aluminium**. The bus-bar shall be of 3 phases and neutral system with separate neutral and earth bar. The bus bar and interconnection between bus bars and various components shall be of high conductivity copper. The bus-bar shall be of rectangular cross-section designed to withstand **200Amperes full load current** for phase bus bars and half rated current for neutral bus bars and shall have uniform cross-section throughout the length.

The bus bars and interconnections shall be insulated with heat shrinkable PVC sleeve and be colour coded in red, yellow, blue and black to identify the 3 phases and neutral of the system. The busbar shall be supported on unbreakable, non-hygroscopic, antitracking, flame retardant, high dielectric strength SMC insulated supports at sufficiently close intervals to prevent bus bars sag and shall effectively withstand high dynamic / electromagnetic stresses arising in the event of full system **fault current / level of 25KA**. Busbars shall be of rectangular section hard drawn high conductivity aluminium conforming to

to BS 1432/13601 as per BOQ, adequately rated for designed value and fault level of load as per BOQ and supported by non tracking moulded insulators spaced at suitable intervals. The size, specifications and the spacing between support insulators, its terminals size etc should be in conformance with the respective standards like BS 2782, ASTM D495, D792, D570, D638, D790, D695, D265, D149, IEC112 as applicable.

The bus bar support insulators shall be of reputed make and be suitable for a fulling force / tensile strength >725kgf/sqcm, torque applied on bolts>6kg/sqcm, force along X axis>275 to 375kg/sqcm, torque applied along Y axis>500-600kg/sqcm, breakdown voltage > 11kv /mm, suitable for M8 bolts, height > 30 to 40mm.

The complete assembly shall be capable of withstanding the maximum mechanical stresses to which it may be subjected to under fault conditions.

The bus bar shall be housed in a separate compartment & be isolated with 3 mm thick Bakelite sheet to avoid any accidental contact. The bus bar shall be arranged such that minimum clearance between them shall not be less than the values mentioned below:

Between phases	:	25 mm. minimum
Between phases and neutral	:	25mm.
Between phases and earth	:	25 mm.
Between neutral and earth	:	25 mm. Minimum

All bus bar connections shall be done by drilling holes in bus bars and connecting by chromium plated or tinned plated brass bolts and nuts. Additional cross-section of bus bar shall be provided in the panel to cover up the holes drilled in the bus bar. Spring and flat washers shall be used for tightening all the bolts / nuts etc.

All connections between bus bars and MCCB's and cable terminals shall be through insulated aluminium strips OR XLPE/PVC insulated copper conductor flexible wires of proper size to carry full load rated current and fault current till it is cleared by protective devices, as mentioned in annexure A.

6.8: Painting: The fabricated panel should undergo a pre-treatment process like degreasing, pickling in acid, cold rinsing, phosphating, passivating through 7 tank process and then applying with high corrosion resistant primer and finally with two coats of Light grey RAL 7035 powder coating under vacuum and backing. The thickness of paint shall not be less than 80 microns.

## 7. ELECTRICAL: POWER AND CONTROL WIRING CONNECTIONS:

- i.** Terminals for both incoming and outgoing cable connections shall be suitable for 1100 V grade, aluminium conductor, PVC insulated and sheathed, armored cable and shall be suitable for connections of solderless sockets for the suitable cable size as indicated on the relevant drawings/BOQ of the Panels.
- ii.** Power connections for incoming feeders of the main Panels shall be suitable for 1100 V grade aluminium conductor LT XLPE cables.
- iii.** Both control and power wiring shall be brought out in cable alley for ease of external connections, operation and maintenance.
- iv.** Both control and power terminals shall be properly shrouded.
- v.** Wiring inside the panel for control and power shall be done using 660 / 1100 V grade, PVC insulated copper conductor cables conforming to IS : 694 and IS : 8130. All conductors shall be crimped with solderless sockets at the ends before connections are made to the terminals.
- vi.** Appropriately rated MCB's shall be provided in the control, indicating lamps circuit.
- vii.** Particular care shall be taken to ensure that the layout of wiring is neat and in order. Identification ferrules shall be fitted to all the wire termination for ease of identification and to facilitate checking and testing.
- viii.** Plain & spring type washers shall be used for all the control and power connections.
- ix.** Final wiring diagram of the Panel power and control circuit with ferrule numbers shall be submitted along with the Panel as one of the documents against the contract.

### 7.1) TERMINALS:

The outgoing terminals and neutral link shall be brought out on a terminal block into the cable alley suitably located and accessible from the panel front. No direct connection of incoming or outgoing cables / wires to internal components of the distribution panel is permitted; only one conductor may be connected in one terminal.

### 7.2) WIREWAYS:

Horizontal PVC wire way with screwed covers shall be provided at the bottom/top to take interconnecting control wiring between different vertical sections.

**7.3) CABLE COMPARTMENTS:** The incoming and outgoing terminals shall be brought with bus bars in the cable compartment. Cable compartments of adequate size shall be provided in the Panel for easy termination of all incoming and outgoing cables entering from bottom.

Adequate supports shall be provided in the cable compartments to support cables wherever required. The accessible width of the cable alley after opening the door shall not be less than 300mm.

The Panel shall be provided with two separate removable 3mm thick sheet steel gland plates of adequate size with knock out holes of appropriate size shall be provided at incoming and outgoing sides of the panel for incoming and outgoing cables as said above.

#### 8. EARTHING:

- i. An Earth bus of minimum 25mm × 3mm or higher size shall be provided in the Panel for the entire length of the panel. This earth bus may be shaped suitably and terminated internally on both sides of the panel with hot dipped M10 GI bolts with 2 plain and one spring washer for terminating it to external earth conductor coming from the earth pit. The framework of the Panels shall be connected to this earth bus. Door earthing shall be provided for all the compartments and the wires used for connections shall be flexible.
- ii. The earth continuity conductor of each incoming and outgoing feeder shall be connected to this earth bus.
- iii. All non-current carrying metallic components shall be permanently connected to earth.

#### 9. Labels and markings:

Engraved metal labels shall be provided on incoming and all outgoing feeders.

##### NAME PLATE:

- i. A name plate mentioning the Panel's designation as, “ **Water Pump-Motor Control Panel**” in bold letters shall be fixed at top of the central panel. A separate name plate giving feeder number shall be provided for each feeder module door and terminal blocks inside the panel cable alley.
- ii. Inside the feeder compartments the electrical components, equipment, accessories like switchgear, control gear, lamps etc. shall suitably be identified by providing stickers.
- iii. Name plate shall be fastened by counter sunk screws and not by adhesives.

#### 10. DANGER NOTICE PLATES:

- i. The danger notice plate shall be affixed in a permanent manner on operating side of the Panel.
- ii. The danger notice plate shall indicate danger notice both in Hindi and English and with a sign of skull and bones.
- iii. The danger notice plate, in general, shall meet the requirements of local inspecting authorities and should be of ISI certification mark.
- iv. Overall dimensions of the danger notice plate may be 200 mm. wide x 150 mm. high or of appropriate size to suit the panel door. Location of fixing holes for the plate shall be decided to suit design of the Panels.
- v. The letters, the figures, the conventional skull and bones etc. shall be positioned on plate as per recommendation of IS: 2551-1982 & shall be painted in signal red colour as per IS: 5-1978.

## 11. INTERNAL COMPONENTS:

**i.** The Panel shall be with MCCB & MCB complete with all types of required number of, indicating lamps, bus bars, cable chambers, cable glands etc. and all the necessary internal connections / wiring as required as per SLD.

Components necessary for the proper and complete functioning of the Panel but not indicated on the drawings shall be supplied and installed on the Panel.

**ii.** All current carrying parts of the Panel including the components, connections, joints and instruments if any shall be capable of carrying their specified rated current continuously, without temperature rise exceeding the acceptable values of the relevant specifications as the part of the Panel.

**iii.** All units of the same rating and specifications shall be fully interchangeable.

12. Other components: The type, size and rating of the components shall be as mentioned in the specifications.

### i. **MINIATURE CIRCUIT BREAKERS:**

Miniature Circuit breakers shall be current limiting type conformed with British standard BS: 3871 (Part I) 1965 and IS: 8825. The housing of MCBs shall be heat resistant and having high impact strength. The fault current of MCBs shall not be less than 10 KA at 240 V. The MCBs shall be flush mounted and shall be provided with trip free manual operating mechanism with mechanical 'ON' and 'OFF' indications.

The circuit breaker dollies shall be of the trip free pattern to prevent closing the breaker on a faulty circuit.

### ii. **MOULDED CASE CIRCUIT BREAKER:**

The moulded case circuit breaker (MCCB) shall be air break type and having quick make – quick break with trip free operating mechanism. Housing of the MCCB shall be of heat resistant and flame retardant insulating material. Operating handle of the MCCB shall be in front and clearly indicate ON/OFF/TRIP positions. The electrical contact of the circuit breaker shall be of high conducting non deteriorating silver alloy contacts. The MCCB shall be provided with microprocessor based, thermal magnetic overload release and electromagnetic short circuit protection device as stated in BOQ. All the releases shall operate on common trip bus-bar so that in case of operation of any one of the releases in any of the three phases, it will cut off all the three phases and thereby single phasing of the system is avoided.

### iii. **INDICATING LAMPS:**

Indicating lamps shall be LED type and shall be supplied complete with translucent covers to diffuse the lamplight. Colour shade for the indicating lamps shall be as below – the LED shall be 22.5 mm and self-coloured:

- a) ON indicating lamp : Red,      b) OFF indicating lamp : Green  
c) PHASE indicating lamp : Red, Yellow, and Blue

Indicating lamps should be provided for mains input for 3 phases and for each motor feeder for motor ON & OFF indications.

13. **DRAWINGS:** Along with the quotations the bidders should submit the shop / vendor drawing consisting of G.A. drawing, sectional elevation, single line diagram, bill of material etc. and rating of all the electrical components used, bus-bar size, internal wiring size, Panel dimension, colour, mounting details etc. The contractor shall submit manufacturer's catalogues of the electrical components installed in the panel along with the material.

#### 14. INSPECTION:

At all reasonable times during production and prior to transport of the Panel to site, the supplier / contractor shall arrange and provide all the facilities at their plant for inspection.

#### 15. TEST CERTIFICATES:

Testing of panel shall be carried out at factory and at site as specified in Indian standards in the presence of Purchaser's representative / electrical engineer. Any changes and modifications suggested if any by our representative during inspection of the panel shall be incorporated in the panel without any extra charges. The test results shall be recorded on a prescribed form and the test certificate for the tests carried out at factory and at site shall be submitted in duplicate.

#### 16. APPROVED MAKES OF MATERIALS

<i>Sl.No.</i>	<i>Equipments</i>	<i>Makes</i>
1	MCCBs	Schneider / Legrand / Siemens
2	MCB	ABB / Schneider / Siemens / Havell's /HPL / Legrand
3	Lables for panel	Standard suitable for screw fitting.
4	Voltmeter, Ammeter, Control Switches, rotary switches	L&T/ Kaycee / Salzer / Siemens / or equivalent
5	FRLS Wires/cables	Finolex / L & T / Havells / HPL/RR Kabel
6	Sheet thickness	14/16SWG
7	Terminal block	Elmex/Connect well/ Technoplast
8	Indicating lamp, LED type,	Siemens/Teknic/Control/ telemechanic
9	MCCB & MCB spreader links	Legrand / Schneider/ Siemens
10	Neutral links	Reputed make
11	Hinges, Knob type locks	Standard/reputed make
12	Cable glands	Dowel / Comet /Reputed
13	Cable luggs	Dowel / Comet /Reputed
14	Bus bar support insulator- SMC type	Kaycee / Reputed
15	Contactors	L&T/Schneider/Siemens
16	Timers/relays	L&T/Siemens/Schneider

**Item to be considered while quoting as part “C of BOQ”.**  
**(Supply and installation of indoor type star delta motor control power Panel)**

Sr. No.	Description of items	Qty.
A	<p>Supply, of cubicle type, <b>indoor LT Panel</b>, made out of 2mm thick CRCA sheet, totally enclosed, floor mounting free standing wall mounting of sheet metal , enclosed dead front with TPN Aluminium bus-bars, separate earth bus bars to be provided through out the length of the panel. Panel shall be weather/vermin-proof, conforming to degree of protection class IP42 and relevant IS Specifications, with separate compartments for each star delta starter circuit and incomer, suitable for operation on 3 phase and neutral, 415 V, 50Hz AC system, incoming and outgoing compartments, cable termination compartment, <b>Aluminium bus bars of <math>\geq 160</math>Amps rating/</b> of appropriate cross sectional area &amp; withstanding high dynamic / electromagnetic stresses arising in the event of full system fault current at the level of 25/35KA, detachable cable gland plates for cables as required including internal wiring with suitable size FRLS wires/cable, interconnection, duly powder coated painting etc. including supply &amp; installation of following switchgears, indicating lamps and accessories in the LT Panel.</p> <p>The incoming and outgoing feeder breakers, fuses, indicating lamps etc., shall be accommodated in a modular multi-tier arrangement. The painting shall be done as per relevant IS codes/as specified. The outgoing feeders inside the panel shall be connected through solid bus bars/or flexible multistrand copper conductor PVC insulated FRLS panel grade cables. Bus bars shall be provided with sleeves or heat resistant insulated paint. The panels shall be suitable for cable entry from top and bottom. The minimum fault rupturing of all incoming and outgoing shall be 35KA respectively as specified. The panels shall be fabricated after the approvals of fabrication drawings &amp; will be IP-42 enclosure. The panel should be complete with necessary incoming MCCB with CT, Ammeter, Voltmeter, indicating lamps etc. The outgoing feeder shall be with necessary MCCB's, fully automatic star delta starter with over load relay with SPP, ON/OFF &amp; TRIP, phase indication lamps, contactors, auto/manual selector switch etc for 2 nos of 30 HP coupled motor pump sets</p> <p>Panel will have separate compartment for incoming microprocessor based 4 pole MCCB with suitably rated Aluminium bus bars with support insulators and spreaders suitable to terminate 2*35SQMM AL A2XFY cables at incoming -one side and flexible copper cables at other side</p> <p>All as per the Technical specifications detailed below .</p>	01Nos

**ANNEXURE-A**

<b>Sr. No.</b>	<b>Description of items</b>	<b>Qty.</b>
A1	<b>Incoming compartment</b>	
	<p>Separate compartment with microprocessor based 4 pole MCCB of 125 Amp. 4 pole, 440V 50 Hz rating conforming with relevant IS specifications, with microprocessor based adjustable Overload and short circuit protection releases and having short circuit breaking capacity 25KA /35KA at 415 Volt,50Hz &amp; shall have suitable bus bar arrangement with support insulators for terminating 2*35SQMM 3 &amp; ½ core Al conductor armoured XLPE/PVC insulated incoming cables. Sheet steel hinged lockable door shall be duly interlocked with the incomer MCCB in 'ON' position.</p> <p>MCCB shall have Extended Rotary Handle, spreader links &amp; auxiliary contact block for ON/OFF indication, with door interlocking facility. Bus bars shall be of 25KA capacity and of appropriate cross section area.</p> <p>With voltmeter, selector switch and control MCB of 6 amps 6 KA 3nos, ammeter with selector switch and suitable rated CT's for all the 3 phases.</p>	01No
A2	<b>Outgoing star delta starter compartment suitable for 30HP motor pumps</b>	
	<p>Separate 100 Amp, 440V, 50 Hz, 4 Pole MCCB conforming to relevant IS specifications with over load &amp; short circuit thermal magnetic releases and having short ckt. breaking capacity 25KA/35KA at 440 Volt,50H. With PVC/XLPE insulated flexible copper panel wire links of higher than MCCB current rating for 3 phases and neutral provided from bus with provision for 4 core 16 SQMM AL Armor cable termination.</p> <p>The star delta starter circuit should have L&amp;T/schneider make 38amps contactors-2 nos, 32amps contactors 1 no, Overload relay of 30-38amps range, star to delta changeover timer relay</p>	02 No
A3	<p>Separate 63 Amp, 440V, 50 Hz, 4 Pole MCCB conforming to relevant IS specifications with over load &amp; short circuit thermal magnetic releases and having short ckt. breaking capacity 16KA/25KA at 440 Volt,50H. With PVC/XLPE insulated flexible copper panel wire links of higher than MCCB current rating for 3 phases and neutral provided from bus to and with provision of the terminal block in cable alley suitable for 4 core 16 SQMM AL Armor cable termination.</p>	01 No
	<b>Note: MCCB shall be of (standard breaking capacity) ICS = 100% ICU (ultimate breaking capacity) rating. At least 200mm gap must be kept between lowermost bus bar and the body, gland plate.</b>	
A4	<b>Bus Bars-</b> TPN Aluminium bus bars of suitable size of 160 A full load current rating with 25 KA fault level capacity, busbar shall be heat shrinkable PVC sleeves in RYB and black colour and properly staggered with non-hygroscopic, SMC insulator set.	1 set
A5	<b>On incoming side compartment to be provided--</b> Multifunction meter for indicating Voltage, current, KW, KVA, KVAH, RKVAH, with (2A, control MCB - 3 Nos). Indicating Lamps: For RYB - 1 set each, For Incomer MCCB- ON position - Red indication lamp and for MCCB OFF position -Green Indication lamp, Phase sequence meter with 4 pole control MCB of 6amps 6KA.	
A6	Two numbers of earthing terminals - one on each side of the panel with Al earth strip of 25*5mm thick size run inside the panel.	1 set
A7	MS angle fabricated and powder coated / painted with 2 coats of primer and 2 coats of black paint mounting frame of appropriate size and strength and of 300mm height.	1

**Bill of Quantities (BOQ) :**

Sr. No	Item Description
1	Supply, installation, testing & Commissioning of electrically controlled water level controller and monitoring, open type water pump coupled with motor- operation control system including control panel, FRLS flexible copper 3 core cables for over-head water Supply Overflow Controlling solenoid with controller and float switch,with required GI and/or uPVC plumbing materials, accessories etc complete job with solenoid Valve /valves of appropriate ratings, including Hydro-pneumatic Water Transfer System suitable for existing submersible pump set of 30 HP to support to Hydro-pneumatic system for building overhead tank. The system should be including water level sensor, control wiring and necessary accessories like NRV, Check Valve, Butterfly Valve, Pressure Switch, Pressure Gauge, Pressure Sensors, Pressure vessel 200 or 300 Ltr/10 Bar (as per design requirement), Cables, Plumbing materials upto Delivery of Valves. A complete system, as per the BOQ, working to the required specifications, including all accessories for complete and satisfactory installation and operation of the system.

Sr. No.	Description of work	Qty	Unit rate
<b>A</b>	<b>Overhead tank/s drinking water flow control system</b>		
1	Overhead tank/s drinking water flow control system comprising of Supply, Installation, testing & Commissioning in position the overhead tank Water Supply Overflow Controlling Systems based on and including electrically operated water level sensor, float switch based solenoid valve (BRASS/SS) with level sensing elements/electrodes for overhead drinking water tank inlet, including weather proof housing control panel (Weather Proof), MCB of required rating, 3 core 1.5 Sqmm copper conductor FPLS PVC insulated and sheathed flexible cables as per ISS (Polycab/Finolex/RR Kabel/Reputed make) of required length (approx. 7 to 10 mtr at each location) with panel (Weather Proof),required (GI/uPVC) plumbing materials, accessories etc complete job /set. AC power supply will be provided at in-comer of control panel of solenoid valve. Solenoid Valve should operate at 12/24 V. Flow rate = 10 - 80 LPM. Item including supply and use of all required accessories to complete the installation satisfactorily. Make - Hunter (USA) Please refer to the attached line diagram of the overhead water tanks and water lines for drinking water.	22 sets	
	Solenoid valves: 1½"Ø (40 MM) ASTM- 5 Nos		
	Solenoid valves - 2" Ø (50 MM) GI- 8 nos		
	Solenoid valves - 1½"Ø (40 MM) GI- 7 Nos		
	Solenoid valves – 1"Ø (25 MM) ASTM- 2 Nos		
	Plumbing materials as per site requirement including uPVC pipes of required size (1.5 to 2" dia) with clamping and 1/2/3 mtr length (or as per site requirement) including the required bypass line and valves for solenoid replacement/repairs - LS		
<b>B</b>	<b>Water transfer/pump control system</b>		
2	<b>Water transfer/pump control system comprising of following..</b> Supply, Installation, Testing and Commissioning of Hydro-pneumatic Water Transfer System for existing 30 HP coupled motor pump set, including following items, to support to Hydropneumatics system for Building overhead drinking water tank. The total system shall be including Water Level sensors, power controlling wiring and necessary accessories like NRV, Check Valve, Butterfly Valve, Pressure Switch, Pressure Gauge, Pressure Sensors, Pressure vessel 200 or 300 Ltr/10 Bar, control Cable,Plumbing materials upto Delivery of Valves as detailed below		
2.1	NRV – GI 50mm - 2" Ø L&T Audco, reputed	1	
2.2	Check valve- reputed make like	1	
2.3	Pressure sensors- reputed make	2	

Sr. No.	Description of work	Qty	
3	C.I. wafer type Butterfly Valve model IVGK – L with MOC PN 10 3" Ø Make: Intervalve	3 nos	
4	C.I. wafer type Check Valve model IVGK – L with MOC PN 10-3" Ø Make: Intervalve	3 Nos	
5	Brass Ball valve 1¼" Ø	6 nos	
6	G.I.Piipe B Class-1¼" Ø	6 mtr	
7	G.I.Piipe Header B Class- 3" Ø-as per site requirement	2 sets	
8	C.I.Flanges with Nutbolt ,Washer & rubber gaskit etc complete set 3" Ø	6 sets	
9	Pressure gauge- 10 Bar with Pipe with Tap and supporting accessories for 100mm (4") Ø	3 sets	
10	HydroPneu MS Pressure Tank Vertical colour Blue/ Grey PN 10 Pressure vessel 200 to 300 ltr/10Bar	1	
11	Butter fly valve	1	
12	Pressure switch Danfos	2 sets	
C	Motor control panel...		
13	Fully automatic Indoor type electric control panel 30HP 1-W & 1 - Standby Suitable for 22kw/30HP. The panel should be as per the “Technical specifications for LT indoor motor control Panel ” mentioned on page no: 26 to 35.	1 set	

**Conditions of the contract:**

- a) Supply of all required materials, tools, accessories including its transport and other necessary tools and such materials required for the above work will be in contractor’s scope.
- b) Contractor has to make his own arrangement for the transport of his workmen from and to the working site.
- c) Payment will be made on actual measured length /qty basis and in one running and one final bill.
- d) Quantity variation: ±10% Due to site conditions/requirements AND/OR changes at site the location, cable laying routes may vary while executing the work.
- e) After placement of the work order the contractor has to take the workmen compensation Insurance policy as per the order for his manpower and submit to this office as per Institutes procedure.
- f) Electricity required for the execution of works shall be supplied by NCRA.
- g) Bidders must visit actual site to see the work location, site requirement before submitting their quotations.
- h) NRV, butterfly valves etc should be of L&T Audco/KBL/Normex/Flowbiz/ or Any reputed make.
- i) Pressure sensors/transducers /switches etc shall be of Danfoss/Honeywell/ or any other Reputed make
- j) The scope of work includes required CI/MS/GI pipe cutting, welding, finishing, painting with primer and finish as per site requirement.
- k) Bidder should consider the rates for the item/s which are essential for satisfactory completion of the project work but not covered under above BOQ .

## ANNEXURE I

**APPLICATION FORM (TO BE USED FOR TECHNICAL BID)**

[On the letterhead of the applicant, including full postal address, email address and telephone no.]

Date: \_\_\_\_\_

To,  
The Centre Director,  
National Centre for Radio Astrophysics,  
Tata Institute of Fundamental Research,  
Savitribai Phule Pune University Campus,  
Ganeshkhind, Pune – 411007.

Sir/s,

1. Being duly authorized to represent and act on behalf of.....(hereinafter referred to as “the Applicant”) and having reviewed and fully understood all the pre-qualification information provided, the undersigned hereby applies to be pre-qualified by yourselves as a tenderer for award of work(s) for **Supply, Installation, Testing and Commissioning (SITC) of Drinking Water Flow Control System at NCRA-TIFR, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411 007, Maharashtra, as per Annexures and specifications attached.**
2. Attached to this letter are copies or original documents defining:
  - (a) the applicant’s legal status
  - (b) the principal place of business
  - (c) the place of incorporation (for applicants who are corporations) or the place of registration and the nationality of the owners (for applicants who are partnerships or individually owned firms)
  - (d) All Annexure.
3. Your agency and its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents and information submitted in connection with this application, and to seek clarification from our bankers and clients regarding any financial and technical aspects. This letter of application will also serve as authorization to any individual or authorized representative or any institution referred to in the supporting information, to provide such information deemed necessary and requested by you to verify statements and information provided in this application, or with regard to the resources, experience, and competence of the Applicant.
4. Your agency and its authorized representatives may contact the following persons for further information on general, personnel, technical and financial enquiries.  
Contact 1 : Name, email and  
Phone no.  
Contact 2: Name, email and  
phone no.

Stamp and Signature of the Bidder

5. This application is made with the full understanding that:
- (a) Bids submitted by applicants will be subject to verification of all information submitted at the time of bidding
  - (b) Your agency reserves the right to:
    - amend the scope and value of the contract / bid under this project; in such event, bids will only be called from pre-qualified bidders who meet the revised requirements; and
    - reject or accept any application, cancel the pre-qualification process, and reject all applications without assigning reasons or incurring any liability thereof; and
  - (c) Your agency shall not be liable for any such actions and shall be under no obligation to inform the applicant.
6. The undersigned declares that statements made and the information provided in the duly completed application are true and correct in every detail.

Signed and sealed, Name

.....

For and on behalf of .....

(To be printed on letterhead)

**Bidder's Details**

1	Name of the Firm/ Company		
2	Address of the Firm/ Communication Address:		
3	Name and Designation of Authorized Signatory		
4	Mobile No.:		
5	Telephone No.:		
6	E-Mail ID:		
7	Website:		
8	GST Registration Number:		
9	PAN Number:		
10	Firm's Bank Account details	Bank Account No.:	
		Name of the Bank:	
		IFSC Code No:	
		Name of Branch:	
11	Communication details of the concerned contact person to whom all references shall be made regarding this tender enquiry		
a)	Name of Person:		
b)	Designation:		
c)	Mobile No:		
d)	E-Mail ID:		

\_\_\_\_\_  
Authorized Signatory (signature in full):

Name:

Designation:

Seal of the Firm/Company:

Stamp and Signature of the Bidder

**CA Certificate**  
**(Financial Capabilities)**

(ON CA's Letter Head)

I. Bidders Name : \_\_\_\_\_

<b>Financial Year</b>	<b>Turnover</b>	<b>Net Worth</b>
2020-21		
2021-22		
2022-23		
2023-24		
2024-25		

For \_\_\_\_\_

Chartered Accountants / Cost Accountant:

Name & Signature :

Company Seal & Phone No. :

Date :

Stamp and Signature of the Bidder

**SOLVENCY CERTIFICATE**

**Bankers' Certificate from A Nationalized / Scheduled Bank**

This is to certify that to the best of our knowledge and information that M/s.....  
Sh..... having marginally noted address, a customer of  
our bank are/is respectable and can be treated as good for any engagement upto a limit of  
Rs.....  
(Rupees.....)

(Signature) For the Bank

NOTE :

- (1) Bankers certificates should be on letter head of the Bank, sealed in cover addressed to tendering authority.
- (2) In case of partnership firm, certificate should include names of all partners as recorded with the Bank.

Stamp and Signature of the Bidder

**ANNEXURE –V**

**EXPERIENCE OF COMPLETION OF PROJECTS OF SIMILAR NATURE & COMPLEXITY**

(During the last seven years i.e. prior to **31.03.2026**)

<b>Sl. No.</b>	<b>Name of work / project and location</b>	<b>Owner or sponsoring organization</b>	<b>Cost of work in Lakhs</b>	<b>Date of commencement as per contract</b>	<b>Stipulated date of completion</b>	<b>Actual date of completion</b>	<b>Name and address/ telephone number of officer to Whom reference may be made</b>	<b>Remarks</b>

NOTE : Please attach supporting documents (completion certificates along with work order copies) for the above information.

Stamp and Signature of the Bidder

**LITIGATION DETAILS**  
**(COURT CASES / ARBITRATION)**

<b>Year</b>	<b>Name of the work</b>	<b>Name of the Client, with Address</b>	<b>Title of the court Case/Arbitration</b>	<b>Detail of the Court/ Arbitrator</b>	<b>Status Pending/ Decided</b>	<b>Disputed Amount (Current Value, the equivalent) in case of Court Cases/arbitration</b>	<b>Actual Awarded Amount (Ks) in decided Court Cases/arbitration</b>

Signature and seal of Authorized Signatory of bidder

Stamp and Signature of the Bidder

**CERTIFICATE FOR SITE INSPECTION / VISIT**

**At NCRA-TIFR, Pune**

**Ref : E-TENDER NO: NCRA:WF011:CPPP:2026-27 for**

**Supply, Installation, Testing and Commissioning (SITC) of Drinking Water Flow Control System at NCRA-TIFR, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411 007, Maharashtra.**

Certified that we.....(Name of bidder) have visited the site on dated ..... and assessed the nature and amount of work involved before submitting our offer. We will be able to complete the works within the stipulated time and also certify that we will be able to supply the material/executing the work as per specification to suit the site conditions.

Name & Signature of Bidder :

Designation :

Company Seal & Phone No. :

Date :

Name & Signature of  
Centre's Representative:

Date :

Stamp and Signature of the Bidder

**DECLARATION REGARDING NON-BLACKLISTING / DEBARMENT**

(To be printed on letterhead)

Enquiry / Tender No.:

1. I/We \_\_\_\_\_ (Applicant) hereby declare that our firm/company namely M/s \_\_\_\_\_ has not been blacklisted or debarred in the past by the Central Govt. / State Govt. / Public Sector Undertaking/ Universities/ Research Institutions or any other Govt. organization from taking part in Government Tender.

**(OR)**

2. I/We \_\_\_\_\_ (Applicant) hereby declare that our firm/company namely M/s. \_\_\_\_\_ was blacklisted or debarred by the Central Govt. / State Govt. / Public Sector Undertaking/ Universities/ Research Institutions or any other Govt. organization from taking part in Government Tender for a period of \_\_\_ years w.e.f. \_\_\_\_\_ to \_\_\_\_\_.

The period is over on \_\_\_\_\_ and now the firm/company is entitled to take part in the Government Tender.

*\* Please strike off whichever is not applicable*

\_\_\_\_\_  
Authorised Signatory and Seal of the Firm/ Company

Name :

Designation :

Email Address:

Stamp and Signature of the Bidder

**SELF-CERTIFICATION FOR LOCAL CONTENT**  
(Certification under the preference to Make in India Order)  
(To be printed on letterhead)

Date:.....

To,  
The Centre Director  
National Centre for Radio Astrophysics (NCRA)  
Tata Institute of Fundamental Research (TIFR)  
Savitribai Phule Pune University Campus  
Ganeshkhind, Pune – 411007, Maharashtra, INDIA

Sub.: Self-Certification for Local Content -reg.

Sir,

In line with the Public Procurement (Preference to Make in India) Order No. P-45021/2/2017-PP (BE-II)-Part(4)Vol.II dated 19.07.2024 and its amendments issued by the Department for Promotion of Industry and Internal Trade, Government of India, we hereby certify that we, M/s. \_\_\_\_\_ are local supplier meeting the requirement of minimum local content i.e., \_\_\_\_\_% excluding transportation, insurance, installation, commissioning, training and after sales service support like AMC/CMC etc. as defined in above orders for the material against NCRA-TIFR, Pune Enquiry / Tender No. \_\_\_\_\_ dated \_\_\_\_\_.

Details of the location at which local value addition will be made are as follows:

\_\_\_\_\_  
\_\_\_\_\_

We also understand, false declarations will be in breach of the code of integrity under rule 175(1) (i) (h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Thanking you,

\_\_\_\_\_

Authorised Signatory and Seal of the Firm/ Company

Name :

Designation :

Email Address:

Stamp and Signature of the Bidder

**CERTIFICATE OF COMPLIANCE**

[On the letterhead of the applicant, including full postal address, email address and telephone no.]

Bid Ref. No.: \_\_\_\_\_

Date: \_\_\_\_\_

To,  
The Centre Director  
National Centre for Radio Astrophysics (NCRA)  
Tata Institute of Fundamental Research (TIFR)  
Savitribai Phule Pune University Campus  
Ganeshkhind, Pune – 411007, Maharashtra, INDIA

**Sub.: Restrictions on procurement from Bidders from a country or countries or a class of countries under Rule 144(xi) of the General Financial Rules 2017.**

Sir,

“We have read the clause regarding restrictions on procurement from a Bidder of a country which shares a land border with India; and solemnly certify that we are not from such a country or, if from such a country, we are registered with the Competent Authority (copy enclosed). We hereby certify that we fulfil all requirements in this regard and are eligible to be considered.”

Penalties for false or misleading declarations:

We hereby confirm that the particulars given above are factually correct and nothing is concealed and also undertake to advise of any future changes to the above details. We understood that any wrong or misleading self-declaration by us would be a violation of the Code of Integrity and would attract penalties as mentioned in this tender document, including debarment.

\_\_\_\_\_  
Authorized Signatory (signature in full):

Name:

Designation:

Seal of the Firm/Company:

Stamp and Signature of the Bidder

### Technical Manpower Detail

S. N.	Name of staff	Qualification	Designation	Years of Experience/ Specialization	Remarks
01					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					

\_\_\_\_\_

Authorized Signatory (signature in full):

Name:

Designation:

Seal of the Firm/Company:

Stamp and Signature of the Bidder

**FORM OF AGREEMENT**

(To be executed at the time of awarding the contract)

This Agreement made the \_\_\_\_\_ day of \_\_\_\_\_ 2026 \_\_\_\_\_ between National Centre for Radio Astrophysics (NCRA)- Tata Institute Of Fundamental Research (TIFR), Pune for the entering into work(s) for **Supply, Installation, Testing, Commissioning (SITC) of Drinking Water Flow Control System at NCRA-TIFR, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411 007, Maharashtra, as per Annexures and specifications attached.**

(hereinafter called "The Employer" ) who enters into this Agreement of the one part and M/s ..... (herein after called "The Contractor") of the other part.

Whereas the Employer is desirous that certain works should be executed by the Contractor, viz \_\_\_\_\_("the Works") and has accepted a Bid by the Contractor for the execution and completion of the works and the remedying of any defects therein.

Now this Agreement witnessed as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz :
  - (a) The Letter of Award;
  - (b) The said Bid;
  - (c) The General Conditions of Contract;
  - (d) Prequalification document
  - (e) Instructions to Tenderers and Specific Conditions of Contract;
  - (f) The Specification;
  - (g) The Drawings;
  - (h) The Price Bid
  - (i) Any other relevant documents referred to in this Agreement or in the aforementioned documents
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of this work.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein the Contract Price or only such other sums as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year first before written. Signed, Sealed, and Delivered by the Said

\_\_\_\_\_  
Signed, Sealed, and Delivered by the Said  
Binding Signature of Contractor

\_\_\_\_\_  
Binding Signature for and  
on behalf of NCRA-TIFR, Pune.

In the presence of:

Witness (1):

Witness (2):

Stamp and Signature of the Bidder

**PROFORMA FOR PERFORMANCE BANK GUARANTEE**

(To be executed by the successful bidder on a stamp paper of Rs. 500  
from any Nationalised Bank or Scheduled Bank)

In consideration of the NATIONAL CENTER FOR RADIO ASTROPHYSICS- TATA INSTITUTE OF FUNDAMENTAL RESEARCH (hereinafter called “The NCRA-TIFR”) having agreed under the terms and conditions of Work Order No..... dated.....made between NCRA-TIFR and M/s .....

(hereinafter called “ the said Contractor{s}“ ) .forthe work.....(hereinafter called “ the said Work Order”)

having agreed to production of a 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 Work Order, we .....(Indicate the name of the Bank)

(hereinafter referred to as “the Bank”) hereby undertake to pay to the NCRA-TIFR an amount not exceeding Rs. . (Rs .....only) on demand by the NCRA-TIFR.

2. We..... (indicate the name of Bank) do hereby undertake to pay the amounts due and

payable under this guarantee without any demur, merely on a demand from the NCRA-TIFR stating that the amount claimed is 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 to the NCRA-TIFR 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 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 Work Order and that it shall continue to be enforceable till all the dues of the NCRA-TIFR under or by virtue of the Work order have been fully paid and its claims satisfied or discharged or Purchase Officer on behalf of the NCRA-TIFR certifies that the terms and conditions of the said Work Order have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. We ..... (indicate the name of Bank) further agree with the NCRA-TIFR that the NCRA-TIFR shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Work Order 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 NCRA-TIFR against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Work Order 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 NCRA-TIFR or any indulgence by the NCRA-TIFR 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 Bank) lastly undertake not to revoke this guarantee except with the previous consent of the NCRA-TIFR in writing.

8. This guarantee shall be valid up to..... , unless extended on demand by NCRA-TIFR. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees only) 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 liability under this guarantee shall stand discharged.

*Signed and*  
*sealed Dated the ..... day of ..... for ..... (indicate the name of*  
*Bank)*

\*

\* \* (Note: The Letter of Intent shall form part of the Agreement)

**Format of Indemnity Bond**

(to be executed on **Rs. 500/-** Non-Judicial Stamp Paper by the successful bidder before commencement of work at site)

Work Order No. \_\_\_\_\_ Dt. \_\_\_\_\_

In consideration of National Centre for Radio Astrophysics, Tata Institute of Fundamental Research (NCRA/TIFR) having office at Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411 007, hereinafter referred to as "The Institute", which expression shall unless it be repugnant to the context or meaning thereof, include its successors and assignors having awarded to M/s.

\_\_\_\_\_ having registered office at \_\_\_\_\_, a firm carrying in such name and style the business of \_\_\_\_\_ (hereinafter referred to as "The Contractor" which expression shall unless it be repugnant to the context or meaning; thereof, include its partner(s) / proprietor(s) for the time being or its surviving partner(s) or its heirs and executors, administrators and assignees, its successors and assignors) the contract for \_\_\_\_\_ and in compliance with the terms and conditions of the said contract.

We M/s. \_\_\_\_\_ being the contractor shall save harmless and indemnify the Institute in respect of:

- a. Any expenses arising from any injury or accident or death of workers hired for this work or damage to property of any third party.
- b. Any claim made under any Act of Government or otherwise in respect of injury or damage as aforesaid.
- c. Any award of compensation or damages upon any claim as above.
- d. Any claim against the Institute by any member of the public or other third party in respect of anything, which may arise in respect of the works or in consequence thereof.
- e. Any claim which may be made upon the Institute whether under the Workman's Compensation Act or any other statute in force during the currency of this contract or of common law in respect of any worker of the contractor/or their family member(s) or of his sub-contractor(s).
- f. Any costs, charges or expenses arising out of any claim or proceeding and in respect of any award of compensation of damages arising therefrom.

We also hereby confirm that we have taken Workman's Compensation Policy No. \_\_\_\_\_ dtd. \_\_\_\_\_ valid till \_\_\_\_\_ for \_\_\_\_\_ persons deployed for work awarded to us against the above-cited order form M/s. \_\_\_\_\_ .

For and on behalf of M/s. \_\_\_\_\_

Date:  
S E A L  
Accepted By

for and behalf of NCRA (TIFR) Pune

Stamp and Signature of the Bidder

(To be printed on letterhead)  
**Acceptance of Terms & Conditions of Tender**

Dated: \_\_\_\_\_

To,  
The Centre Director  
National Centre for Radio Astrophysics (NCRA)  
Tata Institute of Fundamental Research (TIFR)  
Savitribai Phule Pune University Campus  
Ganeshkhind, Pune – 411007, Maharashtra, INDIA

**Subject:** Acceptance of Terms & Conditions of Tender

**Bid Ref. No.:**

Sir,

I/We hereby certify that I/we have read the entire technical specifications, bid-specific terms and conditions and buyer-added terms and conditions of the subject bid (including all documents like annexure(s), etc.), which form part of the contract agreement and I/we shall abide by the terms/conditions/clauses contained therein.

I/We hereby unconditionally accept the tender conditions of above-mentioned bid document(s) / corrigendum(s) in its totality/entirety.

I/We do hereby declare that our Firm has not been blacklisted/ debarred by any Government. Department/Public sector undertaking.

\_\_\_\_\_  
Authorized Signatory (signature in full):

Name:

Designation:

Seal of the Firm/Company:

Date:

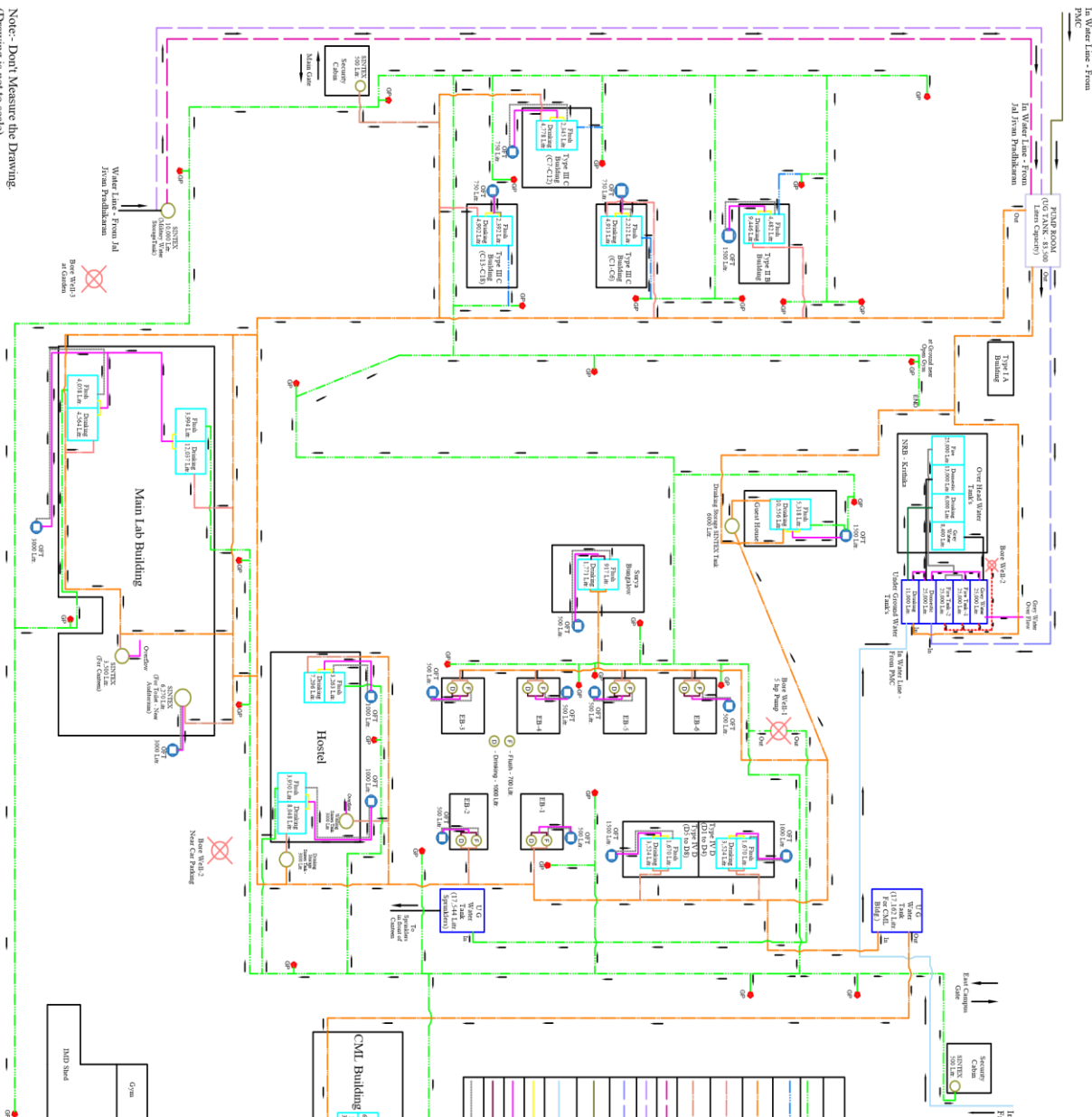
Place:

Stamp and Signature of the Bidder

# Schematic Diagram of Existing Water Supply System (Borewell & PMC) at NCRA Campus



NCRA-TTR



INDEX-1	
Borewell -1 Line (Garden & Flush) - 63.5 mm - uPVC	Tappped from Main Borewell-1 Line for Flush Tank - 55 mm - uPVC
Line from Pump Room Drinking Water - 100 mm - Cast Iron	Tappped line from Main Line to Drinking Water Tank - 50 mm - G.I
Tappped line from Main Line to Drinking Water Tank - 20 mm - G.I	Jal Jivan Pradhikaran Line -1- 63.5 mm - uPVC
Jal Jivan Pradhikaran Line -2- 50 mm - uPVC	Jal Jivan Pradhikaran Line - Pump room to NMB - 25 mm - uPVC
PMC water line incoming from west side to pump room - 100 mm - Cast Iron	PMC water line incoming from East Campus to NMB - 50 mm - uPVC
Overflow Line - 25 mm - uPVC	Overflow Line - 75 mm - uPVC
Overflow Line - 20 mm - uPVC (For Buildings)	Overflow Reverse Line - 32 mm - uPVC

INDEX-2	
	Underground RCC Tank
	Overhead RCC Tank
	Over Flow Tank
	Bore Well
	Garden Point Outlet
	Siltex Tank

Title:- Schematic Diagram showing water supply system at NCRA  
 Site:- NCRA-TTR Campus, Pune  
 Drawing No. - NCRA/gib/overflow/01  
 Drawn By :- LAKSHMINARASIMHAS (Technical Assistant-B/Civil/NCRA)

Note:- Don't Measure the Drawing.  
 (Drawing is not to scale)

01

PLAN

Stamp and Signature of the Bidder

**1. Procedure for Registration by the Bidder**

- 1.1. Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link "Click here to Enroll" on the CPP Portal.
- 1.2. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 1.3. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 1.4. Upon enrollment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
- 1.5. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.

Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

**2. Searching for Tender Documents**

- 2.1. There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.
- 2.2. Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 2.3. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

**3. Procedure for preparation and submission of bids**

- 3.1. The documents should be page numbered and contain the list of contents with page numbers. The deficiency in documentation may result in the rejection of the Bid.
- 3.2. Bidder should take into account any corrigendum published (if any) on the tender document before submitting their bids.

Stamp and Signature of the Bidder

3.3. Bidders are advised to go through the Tender advertisement and the Tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

3.4. 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 formats. Bid documents may be scanned with 100dpi.

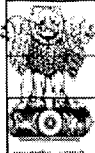
3.5. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders 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.

3.6. As part of the bid, bidder should provide all the documents as follows:-

- Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- The serve 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.
- All the documents being submitted by the bidders would be encrypted to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 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.
- The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings

#### 4. Assistance to Bidders:

Any queries relating to the NIT document and the terms and conditions contained therein should be addressed to the Purchase Officer, NCRA-TIFR, Pune. For, any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact numbers for the helpdesk is 0120-4200462 / 0120-4001002 / 0120-4001005 / 0120-6277787.



# Government eProcurement System

## eProcurement System Government of India

### Tender Details

Date : 22-May-2026 12:39 PM

Print

#### Basic Details

<b>Organisation Chain</b>	Department of Atomic Energy  Tata Institute of Fundamental Research-Colaba-Mumbai-Purchase Dept-TIFR-DAE  NCRA(Pune)-TIFR-DAE		
<b>Tender Reference Number</b>	NCRA WF011 CPPP 2026-27		
<b>Tender ID</b>	2026_DAE_909800_1	<b>Withdrawal Allowed</b>	Yes
<b>Tender Type</b>	Open Tender	<b>Form of contract</b>	Works
<b>Tender Category</b>	Works	<b>No. of Covers</b>	2
<b>General Technical Evaluation Allowed</b>	No	<b>ItemWise Technical Evaluation Allowed</b>	No
<b>Payment Mode</b>	Offline	<b>Is Multi Currency Allowed For BOQ</b>	No
<b>Is Multi Currency Allowed For Fee</b>	No	<b>Allow Two Stage Bidding</b>	No

#### Payment Instruments

Offline	S.No	Instrument Type
	1	Demand Draft
	2	R-T-G-S
	3	FDR
	4	NEFT
	5	Bank Guarantee

#### Cover Details, No. Of Covers - 2

Cover No	Cover	Document Type	Description
1	Fee/PreQual/Technical	.pdf	EMD and all the documents related to Eligibility criteria / PQC.
2	Finance	.xls	Price / Financial Bid.

#### Other Important Documents

S.No	Category	Sub Category	Sub Category Description	Format/File
1	Certificate Details	Permanent Account Number	Permanent Account Number Details	
2	Certificate Details	Income Tax Certificate	Income Tax Certificate Details	
3	Certificate Details	GST Registration Certificate	GST Registration Certificate	
4	Certificate Details	Bank Solvency Certificate	Bank Solvency Certificate	
5	Litigation Details	Litigation Details	Litigation Details	
6	Machinery Details	Machinery Details 1	Machinery Details	
7	Purchase Order Details	Purchase Orders - 1	Purchase Orders - 1	
8	Purchase Order Details	Purchase Orders - 2	Purchase Orders - 2	
9	Purchase Order Details	Purchase Orders - 3	Purchase Orders - 3	
10	Purchase Order Details	Purchase Orders - 4	Purchase Orders - 4	
11	Purchase Order Details	Purchase Orders - 5	Purchase Orders - 5	
12	Work Details	Work Completed Certificate Copies	Work Completed Certificate Copies	

#### Tender Fee Details, [Total Fee in ₹ \* - 0.00]

<b>Tender Fee in ₹</b>	0.00		
<b>Fee Payable To</b>	Nil	<b>Fee Payable At</b>	Nil
<b>Tender Fee Exemption Allowed</b>	No		

#### EMD Fee Details

<b>EMD Amount in ₹</b>	14,000	<b>EMD Exemption Allowed</b>	No
<b>EMD Fee Type</b>	fixed	<b>EMD Percentage</b>	NA
<b>EMD Payable To</b>	TIFR	<b>EMD Payable At</b>	PUNE

[Click to view modification history](#)

#### Work /Item(s)

<b>Title</b>	Supply, Installation, Testing and Commissioning of Drinking Water Flow Control System at NCRA-TIFR Pune
<b>Work Description</b>	Supply, Installation, Testing and Commissioning of Drinking Water Flow Control System at NCRA-TIFR, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411 007, Maharashtra
<b>Pre Qualification Details</b>	Please refer Tender documents.
<b>Independent External Monitor/Remarks</b>	NA

<b>Show Tender Value in Public Domain</b>	Yes				
<b>Tender Value in ₹</b>	7,00,000	<b>Product Category</b>	Miscellaneous Works	<b>Sub category</b>	NA
<b>Contract Type</b>	Tender	<b>Bid Validity(Days)</b>	150	<b>Period Of Work(Days)</b>	120
<b>Location</b>	NCRA-TIFR, PUNE.	<b>Pincode</b>	411007	<b>Pre Bid Meeting Place</b>	NCRA-TIFR, PUNE.
<b>Pre Bid Meeting Address</b>	NCRA TIFR, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411 007	<b>Pre Bid Meeting Date</b>	02-Jun-2026 11:30 AM ✓	<b>Bid Opening Place</b>	NCRA-TIFR, PUNE
<b>Should Allow NDA Tender</b>	No	<b>Allow Preferential Bidder</b>	No		

**Critical Dates**

<b>Publish Date</b>	22-May-2026 03:15 PM ✓	<b>Bid Opening Date</b>	12-Jun-2026 03:00 PM -
<b>Document Download / Sale Start Date</b>	22-May-2026 03:30 PM ✓	<b>Document Download / Sale End Date</b>	11-Jun-2026 03:00 PM
<b>Clarification Start Date</b>	NA	<b>Clarification End Date</b>	NA
<b>Bid Submission Start Date</b>	22-May-2026 03:45 PM ✓	<b>Bid Submission End Date</b>	11-Jun-2026 03:00 PM

**Tender Documents**

<b>NIT Document</b>	<b>S.No</b>	<b>Document Name</b>	<b>Description</b>	<b>Document Size (in KB)</b>
	1	Tendernotice_1.pdf	Supply, Installation, Testing and Commissioning SITC of Drinking Water Flow Control System at NCRA TIFR, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411 007, Maharashtra	1624.79

<b>Work Item Documents</b>	<b>S.No</b>	<b>Document Type</b>	<b>Document Name</b>	<b>Description</b>	<b>Document Size (in KB)</b>
	1	BOQ	BOQ_956211.xls	Supply, Installation, Testing and Commissioning of Drinking Water Flow Control System at NCRA TIFR, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411 007, Maharashtra	344.00

**Bid Openers List**

<b>S.No</b>	<b>Bid Opener Login Id</b>	<b>Bid Opener Name</b>	<b>Certificate Name</b>
1.	gajendran@ncra.tifr.res.in	G. Gajendran	GAJENDRAN GANESHAN
2.	smk@ncra.tifr.res.in	S.M. Kulkarni	SANDIP MADHUKAR KULKARNI
3.	patil@ncra.tifr.res.in	S.V. PATIL	SADASHIV VITTHAL PATIL

**Tender Properties**

<b>Auto Tendering Process allowed</b>	No	<b>Show Technical bid status</b>	Yes
<b>Show Finance bid status</b>	Yes	<b>Stage to disclose Bid Details in Public Domain</b>	Technical Bid Opening
<b>BoQ Comparative Chart model</b>	Normal	<b>BoQ Comparative chart decimal places</b>	2
<b>BoQ Comparative Chart Rank Type</b>	L	<b>Form Based BoQ</b>	No

**TIA Undertaking**

<b>S.No</b>	<b>Undertaking to Order</b>	<b>Tender complying with Order</b>	<b>Reason for non compliance of Order</b>
1	PPP-MII Order 2017	Agree	
2	MSEs Order 2012	Agree	

**Tender Inviting Authority**

<b>Name</b>	Centre Director
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<b>Address</b>	NCRA TIFR, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411 007
<b>Tender Creator Details</b>	
<b>Created By</b>	S.M. Kulkarni
<b>Designation</b>	AOB
<b>Created Date</b>	22-May-2026 11:52 AM

Tender Inviting Authority: < National Centre for Radio Astrophysics, Tata Institute of Fundamental Research, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411007, Maharashtra >

Name of Work: < Supply, Installation, Testing and Commissioning (SITC) of Drinking Water Flow Control System at NCRA-TIFR, Savitribai Phule Pune University Campus, Ganeshkhind, Pune 411 007, Maharashtra >

Contract No: < NCRA:WF011:CPPP:26-27 >

Name of the Bidder/ Bidding Firm / Company :									
<b>PRICE SCHEDULE</b> (DOMESTIC TENDERS - RATES ARE TO GIVEN IN RUPEES (INR) ONLY) (This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only )									
NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder in Rs. P	GST 18%Amount in INR Rs. P	TOTAL AMOUNT Without Taxes in Rs. P	TOTAL AMOUNT With Taxes in Rs. P	TOTAL AMOUNT in Words
1	2	3	4	5	6	7	8	9	10
1.01	Overhead tanks- drinking water flow control system comprising of the following; Supply, Installation, testing & Commissioning in position the overhead tank Water Supply Overflow Controlling Systems based on and including electrically operated water level sensor, float switch based solenoid valve (BRASS/SS) with level sensing elements/electrodes for overhead drinking water tank inlet, including weather proof housing control panel (Weather Proof), MCB of required rating, 3 core 1.5 Sqmm copper conductor PPLS PVC insulated and sheathed flexible cables as per ISS (Polycab/Finolex/RR Kabel/Reputed make) of required length (approx. 7 to 10 mtr at each location) with panel (Weather Proof),required (GI/uPVC) plumbing materials, accessories etc complete job /set. AC power supply will be provided at incoomer of control panel of solenoid valve. Solenoid Valve should operate at 12/24 V. Flow rate = 10 - 80 LPM. Item including supply and use of all required accessories to complete the installation satisfactorily. Make - Hunter (USA)  Kindly quote the rate for above description and consisting of the following items : -  Solenoid valves: 1½"Ø (40 MM) ASTM- 5 Nos Solenoid valves - 2" Ø (50 MM) GI- 8 nos Solenoid valves - 1½"Ø (40 MM) GI- 7 Nos Solenoid valves – 1"Ø (25 MM) ASTM- 2 Nos Plumbing materials as per site requirement including uPVC pipes of required size (1.5 to 2" dia) with clamping and 1 to 2 mtr length (or as per site requirement)- including the required bypass line and valves for solenoid replacement/repairs - LS	item1	22.00	Sets		0.00	0.00	0.00	INR Zero Only
1.02	Water transfer/pump control system Supply, Installation, Testing and Commissioning of Hydro-pneumatic Water Transfer System for existing 30 HP coupled motor pump set, including following items, to support to Hydropneumatics system for Building overhead drinking water tank. The total system shall be including Water Level sensors, power controlling wiring and necessary accessories like NRV, Check Valve, Butterfly Valve, Pressure Switch, Pressure Gauge, Pressure Sensors, Pressure vessel 200 or 300 Ltr/10 Bar, control Cable,Plumbing materials upto Delivery of Valves as detailed below, comprising of the following items  NRV – GI 50mm - 2" Ø L&T Audco, reputed -- 1 No.  Check valve- reputed make like L&T Audco / KSB Pump / Crompton -- 1 No.  Pressure Sensors - reputed make -- 2 Nos.	item2	1.00	Set		0.00	0.00	0.00	INR Zero Only
1.03	C.I. wafer type Butterfly Valve model IVGK – L with MOC PN 10 3" Ø Make: Intervalve ---- 3 Nos.	item3	3.00	No		0.00	0.00	0.00	INR Zero Only
1.04	C.I. wafer type Check Valve model IVGK – L with MOC PN 10-3" Ø Make: Intervalve	item4	3.00	No		0.00	0.00	0.00	INR Zero Only
1.05	Brass Ball valve 1½" Ø	item5	6.00	No		0.00	0.00	0.00	INR Zero Only
1.06	G.I.Pipe B Class-1½" Ø	item6	6.00	Mtr.		0.00	0.00	0.00	INR Zero Only
1.07	G.I.Pipe Header B Class- 3" Ø-as per site requirement (approx 8-10 mtrs).	item7	2.00	Sets		0.00	0.00	0.00	INR Zero Only
1.08	C.I.Flanges with Nutbolt ,Washer & rubber gasket etc complete set 3" Ø	item8	6.00	Sets		0.00	0.00	0.00	INR Zero Only
1.09	Pressure gauge- 10 Bar with Pipe with Tap and supporting accessories for 100mm (4") Ø	item9	3.00	Sets		0.00	0.00	0.00	INR Zero Only
1.10	HydroPneu MS Pressure Tank Vertical colour Blue/ Grey PN 10 Pressure vessel 200 to 300 ltr/10Bar	Item10	1.00	No		0.00	0.00	0.00	INR Zero Only
1.11	Butter fly valve 4"	item11	1.00	No		0.00	0.00	0.00	INR Zero Only
1.12	Pressure switch Danfos	Item12	2.00	Sets		0.00	0.00	0.00	INR Zero Only
1.13	Motor control panel : Fully automatic Indoor type electric control panel 30HP 1-W & 1 - Standby Suitable for 22kw/30HP. The panel should be as per the "Technical specifications for LT indoor motor control Panel " mentioned on page no: 27 to 37.	item13	1.00	Set		0.00	0.00	0.00	INR Zero Only
<b>Total in Figures</b>							<b>0.00</b>	<b>0.00</b>	INR Zero Only
<b>Quoted Rate in Words</b>							<b>INR Zero Only</b>		