### Advanced Centre For Treatment, Research And Education In Cancer. (ACTREC)

### Kharghar Node, Navi Mumbai – 410210

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

#### NAME OF WORK:

Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210

**E-TENDER NOTICE** 

No.: TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline\_Network/2021

NAME OF THE	
AGENCY	



Engineering services, Second Floor, Khanolkar Shodhika, Phone: 6873/2740 5011, 6873/2740 5067

E. Mail: pghadi@actrec.gov.in, hkelkar@actrec.gov.in

### dvanced Centre For Treatment, Research and Education In Cancer (ACTREC)

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

#### NAME OF WORK:

Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210

Tender No: TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline\_Network/2021

### **LIST OF DOCUMENTS**

NAME OF THE AGENCY		
Sr. No.	List of Documents	Page No.
<b>Technical</b>	Bid. (Hard copy also to be Submitted).	
I	E.M.D. for <b>Rs 1,30,261/-</b>	
1	Section I: Notice Inviting Tender	4
2	- General Instruction to Tenderer	6
3	Section – II : Formats	
	· Letter of Transmittal	11
	· Financial information – Form "A"	12
	· Networth certificate – Form "B-1"	13
	· Completed works – Form "C"	14
	· Works under execution – Form "D"	15
	· Performance report –From "E"	16
	<ul><li>Structure &amp; organization/Vendor DATA</li><li>-Form "F"</li></ul>	17
	· Technical & administrative personnel  -Form "G"	19
	· Construction plant & equipment – Form "H"	20
	· Vendor Details	22
	· NEFT Details	24
	· Checklist	25
	· Bid Declaration Form	27
	· SGF	28
	Acceptance form	34

	Section – III : Special Conditions of Contract	35	
	· Compliance Form 1	44	
	· Compliance Form 2	47	
	· List of Make	48	
	Section – IV : Book containing Conditions of Contract	80 pages	
VOL	UME II - Schedule of Quantities		
1	Hard copy of Technical Bid is to be submitted and endorsed at security main gate before last date of submission and must be signed with stamp/seal on all pages.		
2	It may please be noted that both hard copy and soft copy of technical bid are required i.e. uploaded version in TenderWizard and Hard copy submission. If agency is unable to do so will be disqualified.		
3	EMD in original is to be submitted in separate envelop before due date and time. If agency is unable to do so will be disqualified.		
4	Financial bid to be submitted ONLINE ONLY and h submitted. Bids of agencies submitting hard copy be summarily rejected (Agency will be disqualified	of filled up financial bid shall	

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### **TATA MEMORIAL CENTRE**

### **Advanced Centre For Treatment, Research and Education In Cancer (ACTREC)**

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

### **E-TENDER NOTICE.**

NAME OF THE		
AGENCY 1	NIT No.	TMC/ACTREC/ENGG/PG-83/ET-
-	11111101	17/Pipeline_Network/2021
2	Name of work	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210
3	Estimated cost put to tender	Rs - 65,13,030/-
	(Including GST)	
4	Earnest Money Deposit (EMD)	EMD of Rs. 1,30,261/- to be submitted in the form of Fixed Deposit Receipt/ DD issued by a Scheduled bank in favour of Accounts Officer, TMC-ACTREC, Payable at Navi Mumbai However the bidders may submit the EMD as follows: i) Rs.1,30,261/- in the form of FDR/DD as prescribed above. or ii) a)50% of EMD Amount i.e., Rs.65,131 /- in the form of Demand Draft/ Bankers Cheque or Fixed Deposit Receipt as prescribed above and b) Balance amount 50% of EMD Amount i.e,of Rs. 65,130/- in the form of Bank Guarantee (BG) issued by a Scheduled Bank drawn in favour of 'Accounts Officer, ACTREC Note: 1) Bank Guarantee should strictly in accordance with the prescribed format otherwise it shall not be accepted. 2) EMD in the form of cheque will not be accepted. 3) As per Rule 170 of General Financial Rules (GFRs) 2017, Micro and Small Enterprises (MSEs) and the firms registered with concerned Ministries/ Departments are exempted from submission of Bid Security. Further, in lieu of Bid Security, Bidders to sign "Bid Security Declaration" accepting that if they withdraw or modify their bids during period of validity etc., they will be suspended for the period ONE YEAR from opening of Financial bid.
5	Completion period	4 Months (including monsoon period if any)
6	i) Performance Guarantee	3% of Tender Value (The successful bidder is to submit the Performance guarantee within prescribed timeline and will be returned without interest on settlement of contractor's final bill and issuance of completion certificate)
	ii) Security Deposit.	2.50% of Tender Value (will be deducted from each running bill and will be returned without interest on successful completion of Defect liability period)
7	Tender Processing Fee	Rs xxx/- in the form of online payment.

8	Dates of availability of Tender Documents for view and download	From 03-06-2021 time 15:00 Hrs. to 18-06-2021 up to 17:00 Hrs on website www.tenderwizard.in/DAE.  Detailed NIT is also available on website www.actrec.gov.in for view only.
9	Site visit	Bidder should visit the site to ascertain scope of work before putting up the Bid in working hours with prior intimation. For any queries regarding the same Bidders can contact Engineering Dept, ACTREC. Agency can contact on 022 - 27405011/27405067 - Mr Pratik Ghadi, Engineer 'C'
10	Local (Mumbai/ Navi Mumbai Region ) Address of Bidder	
11	Pre Bid Meeting	A. Pre-Bid query: Till 09-06-2021 on pghadi@actrec.gov.in/hkelkar@actrec.gov.in.  B. Pre Bid Meeting will be held on 11-06-2021 (11:00 hrs to 13:00 Hrs). Pre Bid meeting will be held at engineering Dept ACTREC  C. Post pre-bid query : Till 15-06-2021 on pghadi@actrec.gov.in/hkelkar@actrec.gov.in. Navi Mumbai.
12	Dead Line for submission of Original DD etc. towards Tender EMD. And technical bid hard copy.	On or before <b>23-06-2021</b> (17:00 Hrs.) in the Office of OIC ES ,2nd floor, Khanolkar Shodhika, ACTREC, Navi Mumbai 410210
13	Last date and time of closing of online submission of tenders:	On or before 23-06-2021 (17:00 Hrs.)
14	Date and time of online opening of Technical Bid.	On 24-06-2021 (10:30 Hrs.)
15	Date of opening of Financial Bids of qualified bidders.	Will be notified at a later date.

Note: 1. Director-ACTREC reserves the right to accept or reject the tender(s) in full or in part, without assigning any reason thereof. Tenders with any condition including conditional rebate shall be rejected forthwith.



### Advanced Centre For Treatment, Research and Education In Cancer (ACTREC)

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

Tender No:	TMC/ACTREC/ENGG/PG-83/ET-1//Pipeline_Network/2021
	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for
	flushing system at ACTREC, Kharghar, Navi Mumbai - 410210

### **GENERAL INSTRUCTIONS TO TENDERER**

r	GENERAL INSTRUCTIONS TO TENDERER
NAME OF THE AGENCY	
Important	THE LOCATION OF WORK TO BE EXECUTED IS CANCER PATIENTS AREA. EXTRA CARE SHALL BE TAKEN WHILE EXECUTING THE WORK. IT IS REQUESTED TO VISIT THE PLACE OF WORK BEFORE SUBMITTING THE TENDER.
1	Tender Documents can be viewed on our web site www.actrec.gov.in
2	Conditions of Contract may be downloaded from our wesite www.actrec.gov.in (in case of difficulty please contact on 2740 5011 - Mr. Pratik Ghadi Engineer 'C' - Civil.
3	Registered contractors can only purchase /download & upload tenders documents.
4	Interested agencies may visit www.tenderwizard.in/DAE for registration.
5	Contact for assistance/ clarifications/registrationon 09969395522/ 022-25487363 (Shri. Rudresh), e-mail: rudresh.tenderwizard@gmail.com
6	Bidders who fulfill the following requirements shall ONLY be eligible to apply. (Joint ventures are not accepted in this tender).
7	For further information, please contact on (022) 68735011 during office hours. The existing "SECTION - 1: NOTICE INVITING TENDERS" OF "CONDITIONS AND CLAUSES OF CONTRACT - 2008" (P.5 & 6) in use for 2/3 bid TENDERING has been modified as per the requirement of e-Tendering. The modified VERSION OF THE SAME" is enclosed as CS-13 (Correction Slip - 13 to Conditions and Clauses of Contract -2008).
8	Proof of registration/associations with Government / Semi Government / Corporate Hospitals & having experience in execution of similar nature and magnitude of works.
9	Should have satisfactorily completed the works as mentioned below during the last seven years ending previous day of last date of submission of tender:
10	Three similar works each costing not less than Rs. 26,05,212 (40% of Estimated Cost) each, or
11	Two similar works each costing not less than Rs. 39,07,818 (60% of Estimated Cost) each, or
12	One similar work costing not less than Rs. 52,10,424 (80% of Estimated Cost)
13	Similar works shall mean Following:
13 (i)	Execution of all types of pipeline work.
14	BOQ for similar work as described in clause 13 (i) may also include (in addition to) electromechanical work, and allied civil works such as pumphouse, footings etc. necessary to complete the system.
15	The value of executed works shall be brought to the current costing level by enhancing the actual value of work at a simple rate of <b>7% per annum</b> ; calculated from the date of completion to the last date of receipt of tender.

16	Annual turnover as per ITCC or profit & loss statement for the last 5 years (Average annual turn over for the last 3 financial years should be at least Rs. 32,56,515/-, not having incurred any loss in more than 2 years during last 5 years ending 31.03.21 (last Financial year).
17	The bidding capacity shall be equal to or more than the above respective estimated cost. The bidding capacity shall be worked out by following formula
	Bidding capacity = ( A x N x 2) - B
	Where
	A- Maximum value of similar works executed in any one year during last 5 years taking into account as completed as well as works in progress.
	N- Completion of works in years.
	B- Value of existing commitments and ongoing works to be completed during the period of completion of work.
18	Should not have incurred any loss in more than two years during the last five years ending 31st March, 2021.
19	Networth certificate: Networth certificate of minimum 15% of the estimated cost put to tender isued by certified Chartered Accountants (on the format prescribed in form B-1)
20	List of similar works in hand & similar works carried out by them for last 7 years indicating i) Agency for whom executed, ii) Value of work, iii) Completion time as stipulated and actual, or present position of the work.

21	List of construction plant, machinery, equipment, accessories & infrastructure facilities possessed by the agency to complete the work in time.
22	List of Technical staff they possess.
23	CERTIFICATES: (Scanned copy of original certificates to be uploaded)
i)	Performance Certificates
ii)	GST registration certificate
iii)	PAN (Permanent Account Number) Registration
iv)	Company Registration certificate
24	UNDERTAKING as under:- (Scanned copy to be uploaded at the time of submission of bid).
	I/We undertake and confirm that the contracted works shall not be got executed through sub-contractor on back to back basis. Further that, if such a violation comes to the notice of Director-ACTREC, I/we shall be liable to be debarred & black listed as the case may be for bidding in future. Also if such violation comes to the notice of department before date of start of work, the Engineer in-charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.
25	The intending bidder must read the terms and conditions as per "SECTION - 1: NOTICE INVITING TENDERS" OF "CONDITIONS AND CLAUSES OF CONTRACT - 2008" carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required. Director-ACTREC reserves the right of Non-consideration of Tender documents of the agencies who are not fulfilling the NIT stipulations and / or having adverse report on the works carried out by them in the past.
26	Information and Instructions for tenderers posted on website shall form basis of of tender document.
27	Hard copies of Technical Bid shall be submitted in ACTREC before due date and time. Hard copies shall include all documents as uploaded online except financial bid document.
28	<b>OBTAINING OF STANDARD DOCUMENTS:</b> In addition to the above, the prospective bidders are required to possess all documents which form part of Tender Documents for this work. The required documents (Condition of Contract) can be downloaded from the ACTREC's website (tender section on www.actrec.gov.in). In case the agencies already possess these standard documents with them, the same need not be downloaded / purchased again. Printed books are available at the Engineering Services, TMC-ACTREC, Kharghar, Navi Mumbai- 400 210.
29	The bid can only be submitted after uploading the mandatory scanned documents such as Demand Draft or Pay order or Banker's Cheque or Fixed Deposit Receipts and Bank Guarantee of any Scheduled Bank towards cost of tender document and EMD in favor of "ACCOUNTS OFFICER, TMC-ACTREC" and Processing Fee in favor of "ITI LIMITED, NEW DELHI" and other documents as specified.
30	Those bidder who are not registered on the website mentioned above, are required to get registered. If needed, they can be imparted training for online bidding process as per details available on the website.
31	The intending bidder must have valid class-III digital signature to submit the bid.
32	On opening date, the bidder can login and see the bid opening process.
33	Certificate of Financial Turn Over: At the time of submission of bid, bidder may upload Undertaking / Certificate from CA mentioning Financial Turnover of last 3 years and including profit & loss statements and further details if required may be asked from the contractor after opening of technical bids. There is no need to upload entire voluminous balance sheet.

34	Bidder must ensure to quote rate of each item. The column meant for quoting rate in figures appears in YELLOW colour and the moment rate is entered, it turns SKY BLUE. In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO). in the schedule of quantities, if rates are not quoted for items or if a firm quotes "NIL/N.A./Not applicable// Leaving blank space etc." charges, the bid shall be treated as unresponsive and will not be considered. DO NOT use vague terms. Insert required information with clear meaning in technical bid & financial bid.
35	The Director-ACTREC reserves the right to accept / reject any prospective application without assigning any reason thereof.
36	Short listing of the bidders shall be subject to thorough verification of their credentials and inspection of works carried out by them, through a Technical Evaluation Committee of experts, constituted by ACTREC
37	<b>IF ANY INFORMATION FURNISHED</b> by the bidder is found to be incorrect at a later stage, they shall be liable to be debarred from tendering / taking up works in TMC.
38	PROSPECTIVE BIDDER SHALL SATISFY THEMSELVES OF FULFILLING ALL THE NIT CRITERIA BEFORE SUBMISSION OF TENDER. Director-ACTREC reserves the right of non consideration of tender of the bidder not fulfilling the stipulated criteria.
39	Any Additional work needs to be executed for completion of work, CPWD DSR 2018 rates will be considered and if the rates are not available then Engineer-incharge may refer the rates of work orders of other central govt. agencies or may obtain quotation from market whichever is lowest quote will be applicable and binding to the contractor.
40	TMC-ACTREC does not guarantee opening of the tender immediately after the closing date and time due to reasons beyond its control and hence tenders can be opened after the due date and time also. It will however will be ensured that no offers are submitted after tender closing date and time. Bidder cannot submit/modify any offer or attach any file to it after closing date and time as stipulated in the tender notice. System does not permit any alternation, modification, deletion of any entry or condition, offered by the tenderer in the e-tender, after closure of the virtual date and time.
41	ACTREC will not be responsible for any kind of technical problem at Bidder's end in case of difficulty in up loading of tender. Bidders are adviced to finish the uploading of tender well before time. No tender will be accepted by ACTREC at later stage that could not be uploaded because of unforeseen technical problems.
42	Bidders who have successfully up loaded the tender documents and forwarded physical (hard) copies of the Technical Bid before due date and time will only be considered. Please note that bidder will have to finish both the activities to proceed further. Otherwise bidders will be disqualified.
43	All papers submitted with the tender shoud bear the signature and stamp/seal of the bidder on every page.
44	All information in this tender shall be in English only.
45	Rate quoted should be in Indian currency only.
46	Tender containing clerical errors, typographical error/ arthrmetial mistake may be lible to be rejected.
47	All the rates quoted shall be inclusive of all taxes except GST which will be paid extra as applicable.
48	Only one rate shall be offered for the Item. Multiple rates against one items shall be rejected.

49	The bidder shall quote rates which shall remain valid for acceptance by ACTREC for a period of 180 days or stipulated time limit as mentioned in the tender documents.		
50	Only lowest offer may be considered for further proceedings.		
51	Performance Gaurantee: Performance Gaurantee will have to be submitted at the rate of 3% of the contract value valid for 2 Months after completion of work to be submitted within 15 days of issue of Letter of Intent. The time limit may be extended by 15 days on request by contract with late of 0.1% per day. Failure to submit performance guarantee after the time limit shall lead to forfieture of EMD and further action as per the tender norms.		
52	Security Deposit will be deducted @ 2.5% of work order value from the running bills and will be refunded after completion of defect liability period of one Year.		
53	Submission of more than one Tender by a particular Tenderer under different names is strictly prohibited. In case it is detected later that this condition has been violated all the tenders submitted by Tenderer would be rejected or cancelled and earnest money or security deposit will be forfeited in addition to such legal action as may be deemed fit and proper.		
54	Canvassing in connection with tender/quotation is strictly prohibited.		
55	Director-ACTREC reserves right to reject any or all the quotations or allot part of the work to different agencies without assigning any reason.		
56	Mode of measurement will be as per the guidelines laid in the Departmental conditions of contract & technical specification.		
57	Awarding work order will be strictly as per "L1 criteria"		

I have read the Above instructions carefully and understood in right perspecticve.

Date:	Seal an	d Signature	٤.
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#### ADVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

Tender No:	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021
	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai 410210
	LETTER OF TRANSMITTAL
NAME OF	
THE	

То

AGENCY

TI- - O(() -

The Officer Incharge,

ACTREC,

Kharghar, Navi Mumbai - 410210

Subject: Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210

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

- 1) I / We hereby certify that all the statements made and information supplied in the enclosed forms A to H and accompanying statement are true and correct.
- 2) I / We have furnished all information and details necessary for qualification and have no further pertinent information to supply.
- 3) I / We submit the requisite certified Networth certificate and authorize the officer Incharge ACTREC, to approach individuals, employers, firms and corporation to verify our competence and general reputation.
- 4) I / We proposing following works in support of our qualification for the subject works.

Sr. No.	Name of Work	Client Details	Date of Completion	Final cost of works

Date: Seal and Signature.

### DVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

Tender No:	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021
Name of Work	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210
	FORM A :- Financial Information
NAME OF THE AGENCY	

1) Financial Analysis - Details to be furnished duly supported by figures in balance sheet / profit & loss Account for the last five years duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax Department [Copies to be attached].

Particulars	Financial Year							
rarticulars	2016-17	2017-18	2018-19	2019-20	2020-21			
i) Gross Annual turnover on Construction work								
ii) Profit / Loss								

- 2) Financial arrangements for carrying out the proposed work.
- 3) The following certificates are enclosed:
- a) Profit & Loss account certificate by CA & as submitted to Income Tax Department
- b) Current Income Tax Clearance Certificate.
- c) Networth certificate Form "B-1

Date:	Seal and Signature
Date.	Seat and Signature

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### **TATA MEMORIAL CENTRE**

### ADVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

### FORM-B1

	L						
Tender No.	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021						
Name of work: Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kh Navi Mumbai - 410210							
Name of the Vendor							
	Form "B-1"						
	FORM FOR CERTIFICATE OF NET WORTH FROM CHARTERED ACCOUNTANT.						
Net Worth on liabilities. I	tify that as per the audited balance sheet and profit & Loss account during the financial year, the of M/s(Name & registered Address of individual/firm/company), as (the relavant date) is RS after considring all t is further certified that the Net Worth of the company has not eroded by more than 30 % in the last three g on (the relavant date)."						
	Signature of Chartered Accountant.						
	Name of Chartered Accountant.						
	Membership No. of ICAI						
	Date and Seal.						



#### DVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

Tender No:	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021
Name of Work	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210
	FORM C
NAME OF THE	

Details of similar class of works completed during the last seven years ending last day of the month March 2021

Form 'C'

Sr No.	Name of work/ Project & Location	Owner or sponsoring organization	Crores	Date of Commencement as per the contract	Stipulated date of completion	Actual date of completion	Litigation/ arbitration pending/ in progress with details	Name of address/ Telephone/Fax/ No. of officer to whome may be made	Remarks

 $<sup>\</sup>ensuremath{^{*}}$  Indicate gross amount claimed and amount awarded by the Arbitrator



### TATA MEMORIAL CENTRE ADVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

Tender No:	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021
Name of Work	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210
	FORM D
NAME OF THE	
AGENCY	

rojects under	Execution or Award	ed						Form 'D'
Sr No.	Name of work/ Project & Location	Owner or sponsoring organization	Date of Commencement as per the contract	Stipulated date of completion	Upto date percentage progress of work	Litigation/ arbitration pending/ in progress with details	Name of address/ Telephone/Fax/ No. of officer to whome may be made	Remarks

Certified that the above list is complete & no work has been left out and the information given is correct to my knowledge and belief

Signature of Applicant

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### **TATA MEMORIAL CENTRE**

### ADVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

Tender No:	Tender No: TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021						
Name of Work Strain Str							
	FORM E						
PERFORMANCE REPORT OF WORKS REFERRED TO IN FORM "C' & "D"							
NAME OF THE	NAME OF THE						
AGENCY	AGENCY						

1)	Name of work / Project & Location	
2)	Agreement No.	
3)	Estimated cost	
4)	Tendered cost	
5)	Date of start	
6)	Date of completion	
	a) Stipulated date of completion	
	b) Actual date of completion	
7)	Amount of compensation levied, for	
8)	Amount of reduced rate items, if any	
9)	Performance Report	
	a) Quality of work	Outstanding/Very Good /Good /Poor
	b) Financial Soundness	Outstanding/Very Good /Good /Poor
	c)Technical Proficiency	Outstanding/Very Good /Good /Poor
	d) Resourcefulness	Outstanding/Very Good /Good /Poor
	e) General behavior	Outstanding/Very Good /Good /Poor

Executive Engineer or Equivalent or Client

Dated:

Note: The Performance Certificate issued by Consultant(s) will not be considered.



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Tender No:	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021					
Name of Work	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210					
	FORM "F"					
	STRUCTURE & ORGANIZATION					
NAME OF THE						
AGENCY						

1)	Name & Address of the applicant	:	
2)	Telephone No. / Fax No./E-mail ID		
3)	Legal Status of the applicant [Attach copies of the original document defining the legal status]		
	a) An individual		
	b) An proprietary firm		
	c) A firm in partnership		
	d) A Limited Company or Corporation		
4)	Particulars of Registration with various Govt. Bodies		

	Organization / Place of Registration	Registration No.
	a)	
	b)	
	c)	
5)	Names and Titles of Directors & Officers with designation to be concerned with this work.	
6)	Designation of individuals authorized to act for the organization. :	
7)	was the applicant ever required to suspend construction for a period of more than six months continuously after you commenced the mastre-tipph-2. If the same of the construction is the same of the construction of the construct	
8)	partner in case of partnership firm, ever abandoned the awarded work before its completion? If so, give rass are approximately to any construction.	
9)	partner in case of partnership firm, ever been debarred/black listed for tendering in any organization at any	
10)	Has the applicant, or any constituent partner in case of partnership firm, ever been convicted by a court of law?. If so, give details.	
11)	In which field of Civil Engineering construction the applicant has specialization and interest?. :	
12)	Any other information considered necessary not included above :	



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FORM G				
NAME OF THE AGENCY				

FORM "G"

Details of Technical and Administrative Personnel to be employed for the work

Sr. No		Total number	Number available for this work	Name	Qualifications	Professional experience and details of work carried out	How these would be involved in this work	Remarks
1	2	3	4	5	6	7	8	9

Signature of Applicant



### ADVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

Tender No:	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021				
	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210				
	FORM H				
NAME OF THE					
AGENCY					

ORM "	F			ork	a out this w	carn (in)	o usad in	likalu ta b	Construction Plant and Equipment	otails of
Remar	Current	us	ership Stat	Owr	Condition	Age	Capacity	Nos.	Name of the equipment	Sr.
	Location	To be purchased	Leased	Presently Owned			of type			No.
										1
										2
										3
										4
										5

8						
9						
10						
10						
				Sian	ature of Ap	pplicant [s]



### Advanced Centre For Treatment, Research and Education In Cancer (ACTREC) A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

### **Vendor Details**

Tender No:	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021
Tender	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC,
Name:	Kharghar, Navi Mumbai - 410210

Sr No	List of Documents to be scanned & uploaded within	Details (to be given mandatorily)
31 110	the period of bid submission:	Details (to be given mandatorny)
1	Name / Title of the Bidder/ Type of Establishment	
	We have quoted for all the items in Financial bid in the	
2	procesiled format of the Tandar decuments (say Wes/Ne)	
2	prescribed format of the Tender documents (say 'Yes/No')	
	(Partial/Incomplete offers are liable for rejection)	
3	Full Address	
4	Name of the person authorized to deal/undertake business for	
	and on behalf of the Bidder	
5 6	Telephone & Mobile Number Fax. No.	
7	Email Address	
	Legal entity of Bidder whether	
8	Firm/Society/Company/SSI unit	
0		
9 10	Establishment Registration Number Authority with whom Registered	
11	Main Business of the Bidder	
12	Authorized area of Operation in India	
13	Name & Address of Bankers	
14	PAN No. / TAN No.	
15	GST Registration Number:	
	Networth certificate: Networth certificate of minimum 15% of	
16	the estimated cost put to tender isued by certified Chartered	
10	· · · · · · · · · · · · · · · · · · ·	
	Accountants (on the format prescribed in form B-1)	
17	No. of Man power employed by Bidder	
	a) Scientific	
	b) Technical c) Administrative	
	d) Financial	
	Experience of the Bidder in dealing with the tendered	
18	item/works	
19	Performance Certificates / Work Completion Certificates.	
20	QUALIFYING EXPERIENCE ANY ONE OF THE FOLLOWINGS.	
	Three similar works each costing not less than	
	Rs. 26,05,212 (40% of Estimated Cost) each, or	
	Two similar works each costing not less than	
	Rs. 39,07,818 (60% of Estimated Cost) each, or	
	One similar work costing not less than	
	Rs. 52,10,424 ( 80% of Estimated Cost)	
	Similar Works shall be as per the clause 13 of General	
	Similar Works shall be as per the clause 15 of deficial	
	instructions to tenderers.	
21	Turn over in the last 5 years	
	2016-17	
	2017-18	
	2018-19	
	2019-20	

	2020-21	
22	Average Turn Over for Last 3 Years, certified by CA.	
23	Details of work orders in the last 3 years, amount, Name of Authority, Completion Period etc (separate sheet)	
24	List of plant & machinery of bidder (attach separate sheet)	
25	Demand Draft/BG/FDR Number for EMD, Amount, Date, Bank, etc	
26	There are no deviations of specification/type etc in any of the items of Financial Bid. (Deviations, if any, shall be mentioned in Technical Bid. The agency has to quote separately for the those items and enclose with Financial Bid)	

Certified that the above information is correct & true to the best of my knowledge and belief. Nothing has been concealed and fabricated and in case any information is found incorrect. I, the under signatory will be personally responsible.

Date Signature

Name of authorized person for bidder with seal



### Advanced Centre For Treatment, Research and Education In Cancer (ACTREC)

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

### **NEFT FORM**

APPLICATION FORM FOR DEPOSITING PAYMENT AGAINST BILLS IN BANK ACCOUNT BY ELECTRONIC CLEARING

1	Name of the Bidder	
2	Bidder Address & Other Particulars	
3	PAN NO.	
4	GST NO.	
5	Mobile No.	
6	Email ID	
7	Account Holder's Name (Title of the Account)	
8	Bank Account No.	
9	Bank Name, Branch & Address	
10	9-Digit MICR code of the bank	
11	Account type (CURRENT)	
12	IFSC Code (attach xerox copy of cheque)	
Certified that t	he particulars furnished above are correct as per o	
Bank stamp : Date :		Signature of the authorised official from the bank.

Note: Xerox copy of cheque may be attached, without which the form will not be accepted.

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### TATA MEMORIAL CENTRE ADVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

### CHECK LIST FOR LIST OF DOCUMENTS SUBMITTED

NIT No.	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021						
NAME OF WORK:	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210						
	Name of Agency						
SN	PARTICULARS	REMARKS					
Į.	Name of the Bidder						
II	Postal address						
III	Contact with STD code						
IV	Fax with STD code						
٧	Name of Contact person						
VI	Mobile No.						
VII	e-mail ID						
	BELOW GIVEN DOCUMENTS TO BE SCANNED AND UPLOAD IN THE WEBSITE www.tenderwizard.com/DAE WITHIN THE PERIOD OF SUBMISSION	Details to be fill-up	Scan copy attached "YES" OR "NO"				
1	Financial Turn Over Certified by CA						
	2016-17						
	2017-18						
	2018-19						
	2019-20						
	2020-21						
2	Profit & Loss Statement Certified by CA						
	2016-17						
	2017-18						
	2018-19						
	2019-20						
	2020-21						
3	Networth certificate: Networth certificate of minimum 15% of the estimated cost put to tender isued by certified Chartered Accountants (on the format prescribed in form B-1)						

	BELOW GIVEN DOCUMENTS TO BE SCANNED AND UPLOAD IN THE WEBSITE www.tenderwizard.com/DAE WITHIN THE PERIOD OF SUBMISSION	Details to be fill-up	Scan copy attached "YES" OR "NO"
4	List of Similar Works carried out in last 7 years i) Agency for whom exceuted ii) Value of Work	ATTACH SCANNED COPY SEPARATELY	
5	List of similar works in Hand indicating: i)Agency ii) Value of Work iii) Stipulated time of completion/ present position	ATTACH SCANNED COPY SEPARATELY	
6	List of Construction Plants and Machinery:	ATTACH SCANNED COPY SEPARATELY	
7	List of Technical Staff	ATTACH SCANNED COPY SEPARATELY	
8	Certificates:		
	i) Registration Certificate if Any,	ATTACH SCANNED COPY SEPARATELY	
	ii) Certificates of Work Experience /Performance certificates	ATTACH SCANNED COPY SEPARATELY	
	iii) Certificates of Registration for GST.	ATTACH SCANNED COPY SEPARATELY	
	iv) PAN (Permanent Account Number) Registration	ATTACH SCANNED COPY SEPARATELY	
9	Undertaking that the eligible similar work(s) have not been executed through another contractor on back to back basis:	ATTACH SCANNED COPY SEPARATELY ON AGENCY'S LETTER HEAD	
10	NEFT towards Cost of Tender Processing Fee	ATTACH SCANNED COPY SEPARATELY	
11	Demand Draft of any scheduled Nationalised Bank towards EMD payable at Kharghar, Navi Mumbai.	ATTACH SCANNED COPY SEPARATELY	
12	Conditions of the Contract Book: To be down loaded from www.tenderwizzard.com/dae/help/docu ments/tatamemorialcentre/condtions of contract	SUBMITT SIGNED COPY ALONG WITH TECHNICAL BID	
13	I/WE certified that our TECHNICAL BID is compliant with tender document.		

Date Seal and Signature.



### TATA MEMORIAL CENTRE ADVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

Manager OF ATOMIC ENERGY	FORM-B
Tender No.	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021
Name of work:	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210
Name of the Vendor	
	BID DECLARATION
	DECLARATION
To OIC-ES ACTREC KH. ACTREC/TA Dear Sir,	ARGHAR MC/Department of Atomic Energy
I/We have	gone through the tendering conditions pertaining to the Tender and General Conditions of pecial Conditions of Contract and Additional Conditions of Contract, if any.
along with	by agree to execute the contract in accordance with the tender specifications incorporated of the tender document and also agree to abide by General Conditions of Contract, Special of Contract contained in the Tender document and Additional Conditions of Contract, if any.
I/We hereb	y agree to keep our above mentioned bid valid for the period mentioned in the NIT.
Prices appl	icable are indicated in the price bid format of the tender.
I/We are al	so uploading herewith all the leaflets/catalogue, etc. pertaining to the stores offered.
I/We fail to	hdraw or modify the bid during the period of validity or if I/We are awarded the contract and o submit a PSDBG before the deadline mentioned in the contract, I/We shall be suspended for one year from being eligible to submit bids for contracts of Department of Atomic C/ACTREC
Yours faith	fully
SIGN & STA	MP OF BIDDER

### VANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

 $\mbox{\tt 3RANT-IN-AID}$  INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

### Salient Governing Features of the Tender Proforma of Schedules

Tender No.	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021
	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210

Name of the			
Vendor			

SN	TITLE	PARTICULARS
1	NIT No.	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021
2	Notice Inviting Tender (NIT) d	tails i) NIT as uploaded onWeb Site
		ii) NIT as published in News Papers
3	Scope and location of the work:	As per NIT
4	Time Schedule for the As work:	per NIT
5	List of drawings	NA
6	List of changes in conditions of	ontract NA
7	List of changes in specifications	As shown below
	a. Civil work As	per NIT
	b. PH works NA	
	c. Electrical works NA	

8	Schedule of Quant	ities		Please refer Financial Bid
<b>SCHEDULE</b>	<b>'B'</b> :			
	Schedule	of materi	ials to be issued to th	ne contractor
S.	Description of	Quantit	Rates at which the Materials	
No	item	y	will be charged to the contractor	Place of issue
1	2	3	4	5
1	Cement in bags	NA		
2	Re-Bars for RCC	NA		
3	Electricity	As required	Contractor has to make his own arrangement for the electricity required for work by forming tri-party agreement with MSEDCL or by hiring own DG sets.	No extra payment shall be made including for diesel for DG.
4	Water Supply		Contractor has to make his own arrangement for water supply for all construction work and for labours	Water tankers may be procured at cost to contractor. No extra payment shall be made. All material, labour, machinery will be considered overhead for contractor.
SCHEDULE	<b>'C'</b> :		rmarked for temp. in the contractor	frastructures and Tools & plants to be
S.No	Description	n	Hire charges	Place of issue
1	2		3	4
1	Area for storage / si (SCC-11)	ite office	Rs. 1.00 per month	ACTREC Campus
2	Temporary Buildings (SCC-12)		Rs. 1.00 per month	ACTREC Campus
3	Labour hutments (SCC-12)		Agency to make hi hutment	s own arrangement for labour
COHEDINE	(D)			
SCHEDULE				
	for specific requirem rticularly for Secur e etc.			As per NIT / SOQ
,,	<del></del>			
	l	l	l .	l .

SCHEDULE 'E':	Reference to the Boo for this work	Clauses of Contract" to be followed		
water from S	e: Execution of Pip STP and WTP to m at ACTREC, Kl	HVAC	system and for	
Estimated cost of	of work:	Rs.65,13,	030	As per NIT
i) Earnest mone		Rs. 1,30,2		As per NIT
ii) Performance			idered value	As per NIT
iii) Security Dep			endered value	As per NIT
,		<u> </u>		For Foreign
SCHEDULE '	<b>'F':</b>			•
General Rules	& Directions :			
Tender inviting	authority:		Director , ACTRE	C
of work to be ex	entage for quantity of secuted beyond which inned in accordance w. 12.3.	rates	See Clause-12 belo	pw
<b>Definitions:</b>				
2(v)	Engineer-in-charge			As nominated by OIC-ES
2(viii)	Accepting Authority			Director, ACTREC
	Percentage on cost of	f materi	als and labour to	150/ (Fifthern managet)
2(x)	cover all overheads &	& profits	S	15% (Fifteen percent)
2(xii)	Department			ACTREC
9(ii)	Standard Contract Fo	orm of D	Deptt.	Item Rate Tender
Clause –1				
Performance Gu	for submission of narantee from the date acceptance / WO.	of	15 days	
the period (prov	lowable extension bey ided in —i) above with r day, of performand unt.	n <b>late</b>	15 days	
Clause – 2	Authority for fixing compensation under clause 2.			Director ACTREC
Clause – 5	Number of days from the date of issue of letter of acceptance / WO for reckoning date of start.			<del>Immediate/7</del> /15 days
Mile stone(s) as	per table given below	v:		
Table of Mile S	Stone(s)			
Sl. No.	Description of		Time Allowed in days(from date of	Amount to be with-held in case of non achievement of milestone
	Milestone (Physical)		start)	non acinevement of innestone
1				
2				

Clause				
applicable –	Clause 6 for Manu	ıal Rilling or	•	6A
	Clause o for Wiant	iai Dillilig Oi		UA
(6 or 6A):				
Clause – 7:	Gross work to be d payment / adjustme collected, if any, si being eligible to in	ent of advance the last s	Rs. 10.00 Lakh	
Clause – 10A:	List of testing equi	pments to be	e provided by the c	contractor at site lab
NA				
Clause – 10B	G(ii):NOT APPLICAI	 BLE		(Mobilisation Advance)
	e 10 B (ii) shall be a tion to be followed :		-	No
Clarge	Component - £1.1		d og porsont -f	
Clause –	Component of laborate	our expressed	a as percent of	25%
10C:	value of the work	1		
GI 106	X			
Clause – 10C	CA:NOT APPLICAB Materials Covered		aterials for which	
S. No		All India	ateriais for which	Basic Rate
	under this Clause  Cement	Grey Ceme	ant	NOT APPLICABLE
		Grey Cente	511 <b>t</b>	NOI APPLICABLE
,	Steel	Ctool (Dob	a.ma\	NOT A DRI ICA DI E
-	2 reinforcement	Steel (Reb	ars)	NOT APPLICABLE
	howa			
,	bars			
	bars  Structural steel			
*Important l	Structural steel  Note: Not applicat	ole since th	e period of exec	eution is less than 18 months
	Structural steel Note: Not applicat	ole since th	e period of exec	eution is less than 18 months
*Important I Clause – 10C Clause 10 CC of completion of	Note: Not applicate  CC::  to be applicable in coexceeding the period	ontracts with shown in ne	stipulated period ext column.	
*Important I Clause – 10C Clause 10 CC of completion of	Note: Not applicate  CC::  to be applicable in co	ontracts with shown in ne	stipulated period ext column.	
*Important I Clause – 10C Clause 10 CC (of completion of	Note: Not applicate  CC::  to be applicable in coexceeding the period	ontracts with shown in ne	stipulated period ext column.	
*Important I Clause – 10C Clause 10 CC to f completion of Escalation clause	Note: Not applicable in coexceeding the period use is not applicable in	ontracts with shown in ne	stipulated period ext column.	
*Important I Clause – 10C Clause 10 CC to f completion of Escalation clause	Note: Not applicable in coexceeding the period	ontracts with shown in ne	stipulated period ext column.	

Clause – 11:				
	be followed for exe	a) Civil Works b) Electrical Works c) Installation of pumps		
		1	1	etc.
Clause –12:				
12.2 & 12.3	Deviation Limit be & 12.3 shall apply	-		30%
12.5	Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for <b>foundation work</b>			100%
12.5	Deviation Limit be & 12.3 shall apply	eyond w	hich clauses 12.2 ntenance work	50%
Clause – 16:	Competent Authorit	ty for dec	iding reduced rates	Director, ACTREC
Clause – 18:	(to be incorporated	by the Ur	nits, based on merit o	of the particular work)
	ry machinery, tools deployed by the	Electrical Vibrators 01 Nos with 40 & 65mm needle		Concrete Mixer
Welding Machin		Barbending & Cutting		Hammer/ Drill/ Chisel

Clause	Clause – 36(1):		Requirement of Technical Representative(s) & recovery Rate		
S1.		Minimum Qualification of Technical Representative Designation (Principal Technical/ Technical representative)	Min.	No.	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36(i).
No.			Exp. In yrs.		
1	L	BE Civil Engineer	5	1	Rs.25,000/-per month
2		BE/ Diploma Civil Jr Engineer	2		Rs.15,000/-per month
	3	Supervisory/admini	strative s	taff – As required	

Note: i) Assistant Engineers / Scientific Officer- "C" & above, retired from Govt. services that are holding Diploma, will be treated at par with Graduate Engineers.

Clause –4	2:	
(i)	(a) Schedule/statement for determining theoretical quantity of cement on the basis of :	Civil works Specifications for TMC
(ii)	Variations permissible on theoretical quantities.	
A	Cement	
	i) for works with estimated cost put to tender not more than <i>Rs.5 Lakhs</i>	5% plus / minus
	ii) for works with estimated cost put to tender more than <i>Rs.5 Lakhs</i>	3% plus / minus
b	Bitumen for All works	2.5% plus only & nil on minus side
С	Steel reinforcement and structural steel sections	(+) 5% for wastage, over & above (+) 5%/(-) 4% being variation in wastage.
D	All other materials.	Nil
RECOVE	RY RATES	
S. No.	Description of Item	Rates in figures & words at which recovery shall be made from the Contractor
	Excess wastage beyond	Less use Beyond permissible Limit
	1 Cement	Rs. 560/- per bag
	2 Steel reinforcement	Rs. 96000/-/ Ton
	3 Structural Sections	



### DVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

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	A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA
Tender No:	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021
Name of Work	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210
	ACCEPTANCE FORM
NAME OF THE AGENCY	
	To, The Director, Advanced Centre for Treatment, Research & Education in Cancer (ACTREC), Tata Memorial Centre, Kharghar, Navi Mumbai- 410208.  Tender Ref:
	Name of Work: Execution of Pipeline network to supply water from STP and WTF to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai 410210
	I/We read the various conditions to tender including general conditions and hereby agree to abide by the said conditions. I/we also agree to keep this tender open for acceptance for a period of 150 (One hundred Fifty) days from the date fixed for opening the same and in default thereof. I/we will be liable for forfeiture of my/our "Security Deposit" to Tata Memorial Centre, ACTREC. I/We will execute the work as per the quoted rates and hereby bind myself/ourselves to execute the work in all respects during the period of contract from the date of issue of letter of acceptance of the tender. I/we also hereby agree to abide DAE general conditions of the contract as amended from time to time and to carry out the work according to the drawings, specifications and special conditions of the contract laid down by ACTREC.
	A sum of is hereby forwarded as Earnest Money in the form of D.D./ Bank's P.O. through receipt No dated for Rs The full value of Earnest Money shall stand forfeited without prejudice to any other rights to remedies if:-  A) I/we do not execute the contract documents immediately after getting information form ACTREC.
	B) I/we do not commence the work within 15 days after issue of the letter including work order to that effect. Until a formal agreement is prepared and executed, acceptance of this tender shall constitute a binding contract between us subject to modifications, as may be mutually agreed between us indicated in the letter of acceptance of my/our offer for this work.
Date:	Seal and Signature.



### TATA MEMORIAL CENTRE ADVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

Tender No:	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021
	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210

### **SPECIAL CONDITIONS OF CONTRACT**

NAME OF THE AGENCY	
1	ELIGIBILITY CRITERIA:
a)	It must be noted that the tenderer should not have been blacklisted by any Government Agency/Institutions of local self Government / Public Sector in India under any contractual relation with them or facing process of penal action as such on complaints of quality. Director, ACTREC reserves the right for insisting upon submission of Satisfactory Performance Certificate issued by any such agency.
b)	There shall be a screening/verification committee appointed by Director ACTREC to examine the list of documents and to verify credibility of the tenderer based on the performance certificate issued/site visit and desirable as per terms & conditions attached to the Tender and to report in details on the eligibility of tenderers for further examination to the competent authority. The Tenderers are required to produce the original documents for verification if required for the screening/verification committee.
c)	Tenderer who carried out similar nature works shall mean as given in clause 13 and 14 of General instruction to tenderer.
d)	Awarding work order will be strictly as per "L1 criteria" . Order for the scope of operations and CMC will be issued at later stage (Refer Financial bid).
e)	Bidders preferebly should have their office / technical support team in the vicinity of Navi Mumbai/Mumbai area.(MMRD)
f)	Competent Authority reserves right to accept or reject the offer in whole or in part and award the work in whole or in part, as per norms/policies accepted by the centre.
g)	Contractors having experience in CPVC/PVC pipeline laying works shall be preferred.

2	Scope of Work:
2.1	Execution of Pipeline network to supply water from STP and WTP to HVAC
2.1	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC  Transfer Pump System to be housed near to Horticulture Tank comprising of 02 Nos. (1W+1S) Vertical Multistage Pumps SS 304 Pump of 30 Cu.M/hr, 50 Meter Head 2 Pole IE3 Motor suitable for 415 V, 3 Phase 50 Hz A/c Supply fitted with Mechanical Seal , Impeller S 316 L, Casing SS 316 L, Shaft of SS 316 L, Efficiency More than 65% for each pump. All as Ebara /Grundfos/Kirloskar Make Complete in skid form , 01 No. Common Control Panel with all Pumps on VFD ( Variable Frequency Drive) Total 2 Nos of VFD Drive of 7.5 KW/10 HP , 380- 380V AC, Motor Speed 2900 RPM. If one VFD or pump fails other pump with VFD shall be selected automatically, and there shall also be provision to operate pumps in fixed speed mode without VFDs. Pump & Motor IP 66/NEMA 4X Back plate, RFI Class A2 ( C3) , No Brake Chopper. Both Pumps will have individual suction in Schedule 40 and removable suction pipe with foot valve & strainer for serviing. Discharge Manifold will be in SS 304 Schedule 40 size as per Pump House layout drawing with necessary OS & Y Type SS 304 Gate Valves with LOTO Provision & SS 304 Fittings, Flanges suitable for PN16 with all accessories complete in all respect GI Baseframe or MS Epoxy Powder coated painted frame to hold the complete skid with provision of grouting in RCC foundation , 01 No, 500 Ltrs 10 Bar Foot Mounted Pressure Tank, 01 No. 0-10 B. ar 21/2" Pressure Transmitter 01 Nos. Float with 20 Mtrs Submersible Cable
	for Dry Run Prevention. Each Pump will be provided with Normex Make 4 Inch Foot Valve with Built-in strainer. Pump Motor Panel will have NO/NC Potential free contact for pump status monitoring (Strainer and Suction pipe removal for strainer cleaning shall be possible, so Suctions shall be individual to pumps. Each Pump, will be provided with name SS 304 coloured attractive number plates of size 6 Inch X 12 Inch Self engraved giving their HP/KW//Head
2.3	Flushing Pump System to be housed near to STP Plant comprising of 02 Nos. (1W+1S) Vertical Multistage Pumps SS 304 Pump of 30 Cu.M/hr, 50 Meter Head 2 Pole IE3 Motor suitable for 415 V, 3 Phase 50 Hz A/c Supply fitted with Mechanical Seal , Impeller SS 304 L, Casing SS 304 Shaft of SS 304 , Efficiency More than 65% for each pump. All as Ebara/Kirloskar/Grundfos Make Complete in skid form , 01 No. Common Control Panel with all Pump Motors on VFD ( Variable Frequency Drive), Total 2 Nos of VFD Drive of 7.5 KW/10 HP , 380- 380V AC, Motor Speed 2900 RPM. If one VFD or pump fails other pump with VFD shall be selected automatically, and there shall also be provision to operate pumps in fixed speed mode without VFDs. IP 66/NEMA 4X Back plate, RFI Class A2 ( C3) , No Brake Chopper. Both Pumps will have Individual Suctions in Schedule 40 pipe and pipe shall be removable to service foot valve & strainer and discharge Manifold shall also be in SS 304 Schedule 40 pipe size as per Pump House layout drawing with necessary OS & Y Type SS 304 Gate Valves with LOTO Provision & SS 304 Fittings, Flanges suitable for PN16 with all accessories complete in all respect GI Baseframe or MS Epoxy Powder coated painted frame to hold the complete skid with provision of grouting in RCC foundation , 01 No, 500 Ltrs 10 Bar Foot Mounted Pressure Tank, 01 No. 0-10 Bar 21/2" Pressure Transmitter 01 Nos. Float with 20 Mtrs Submersible Cable for Dry Run Prevention. Each Pump will be provided with Normex Make 4 Inch Foot Valve with Built-in strainer. Pump Motor Panel will have NO/NC Potential free contact for pump status monitoring. Each Pump, will be provided with name SS 304 coloured attractive number plates of size 6 Inch X 12 Inch Self engraved giving their HP/KW//Head & Flow Rate Ratings, Discharge Pressure Gauge Glycerine filled SS 316 , 150mm diameter shall be provided with
2.4	SS 304 Nozzles & SS pipe Sleeves as required for 2 Nos Potable Tanks (1 +1) Including all Nozzles for Suction, Delivery, Flow Meter, SOV & Float, PRV, Overflow, Inlet, Outlet, Overflow, Tank Filling Connections, Tank vents with Insect Guards with puddle flanges as required complete in all respects, Make: Roopam Steel, Jindal, Swastik Lloyd, Metline
2.5	Underground CPVC Pipeline: Supplying, installing and testing & commissioning under ground CPVC Pipe, Schedule 40 of following sizes conforming to specifications along with all fittings like Elbow (45 degree), tee, reducer, flanges, MTA, FTA as necessary & with anticorrosive wrapping & coating as per IS 1standards 1/3rd overlap with 100mm wide and 4mm THICK wrapping coating tape and then laid in 300mm Hume pipe with proper packing of fine sand as required. Make Prince, Astral, Finolex, Surya, Paras, Wrapping Coating Tape: Pypekote, Tikidan, AR Industries. Sudhakar Pipe & Fittings: 100mm Schedule 40, OD of 4.5 mm, I Maximum Pressure Handling 220 PSI

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2.6	Underground CPVC Pipeline: Supplying, installing and testing & commissioning under ground CPVC Pipe, Schedule 40 of following sizes conforming to specifications along with all fittings like Elbow (45 degree), tee, reducer, flanges, MTA, FTA as necessary & with anticorrosive wrapping & coating as per IS 1standards 1/3rd overlap with 100mm wide and 4mm THICK wrapping coating tape and then laid in 300mm Hume pipe with proper packing of fine sand as required. Make Prince, Astral, Finolex, Surya, Paras, Wrapping Coating Tape: Pypekote, Tikidan, AR Industries. Sudhakar Pipe & Fittings: 80mm Schedule 40, OD of 4.5 mm, I Maximum Pressure Handling 220 PSI
2.7	Supplying, installing and testing & commissioning (SITC) above ground CPVC Pipeline of Schedule 40 Flushing line with glue, solvent material, along with all CPVC fittings as required at site & with distinctly painted Sea Green paint band as first paint band and second band as Canary Yellow every 10 meters as per IS- 5 Standard . The line will include all necessary fittings like Tee Branch, Tee Run, Elbow 45 & 90 degrees, Reducer, Coupling, Pipe Support GI Clamps with nuts for clamping on RCC Supports etc complete in all respect, with FLUSHNG LINE written at every 50 meter interval in black colour. Inside Building CPVC Pipe will be of 80 mm, Schedule 40 to fill up Flushing tank on Building terrace with all necessary fittings like elbows, tee, reducers, flanges, fixing clamps, fixing glue etc. Wherever Valves are CI/SS/DI valves requisite flanges, nuts & bolts, gaskets, MTA, FTA and threaded pipe connections will be provided by vendor in same price. All Pipe lines (SS & CPVC) will be 100% hydro tested for test pressure of 12 bar for 2 hour period, and test results will be verified by ACTREC Engineer, Make Prince, Astral, Finolex, Surya, Paras: 100mm dia. CPVC - Schedule 40, OD of 114 mm, Wall thickness minimum 6.0 mm Flushing Headers Maximum Pressure Handling 220 PSI
2.8	Supplying, installing and testing & commissioning (SITC) above ground CPVC Pipeline of Schedule 40 Flushing line with glue, solvent material, along with all CPVC fittings as required at site & with distinctly painted Sea Green paint band as first paint band and second band as Canary Yellow every 10 meters as per IS- 5 Standard . The line will include all necessary fittings like Tee Branch, Tee Run, Elbow 45 & 90 degrees, Reducer, Coupling, Pipe Support GI Clamps with nuts for clamping on RCC Supports etc complete in all respect, with FLUSHNG LINE written at every 50 meter interval in black colour. Inside Building CPVC Pipe will be of 80 mm , Schedule 40 to fill up Flushing tank on Building terrace with all necessary fittings like elbows, tee, reducers, flanges, fixing clamps, fixing glue etc. Wherever Valves are CI/SS/DI valves requisite flanges, nuts & bolts, gaskets, MTA, FTA and threaded pipe connections will be provided by vendor in same price. All Pipe lines (SS & CPVC) will be 100% hydro tested for test pressure of 12 bar for 2 hour period , and test results will be verified by ACTREC Engineer, Make Prince, Astral, Finolex, Surya, Paras: 80mm dia. CPVC - Schedule 40 , OD of 89 mm, Wall thickness Minimum 5.4 mm, Flushing Headers , Maximum Pressure Handling 260 PSI
2.9	SITC of GI Supports including angle, channel, beam, special fitting, plates & clamps required to support the pipe and pumps. Will be compensated as per installed quantity Make Hitech, Mupro, Erico, Hilti
2.1	SITC of Non Return Valves 80mm Cast Steel Valve, PN 16, 150 Class Make: L & T, Kirloskar, Newage, C & R, Azbil
2.11	SITC of Gate Valves Cast Iron 100mm , PN 16 , 150 Class with LOTO arrangement, Make: L & T, Kirloskar, Newage, C & R, Azbil, Hawa
2.12	Gate Valves Cast Iron 80mm Cast Steel Valve , PN 16 , 150 Class with LOTO arrangement, Make: L & T, Kirloskar, Newage, C air Automation, Hawa, Azbil
2.13	SS 304 Drain Valves 4 "Inlet and 1" outlet for maintenance and flushing of flushing line as per locations suggested by Siemens Make - Leader/Zolleto/Johnson Control/BER/Cair Euromatic
2.14	SS 304 Pot Strainer 100 dia. With Wire Mesh Screen of 0.5 mm and one of 4 mm Coarse Screen for Draining & Cleaning purpose Make Bombay Chemical Equipment, Hawa, Audco
2.15	Pressure Relief Valve to Prevent Pressure Exceeding in Yard headers above 10 bar Make: Claval, Frainger Lesser, Tyco
	pur mane . Clarat, France Lesser, Tycu

	25 mm Pressure Reducing Valve to adjust pressure from 2- 10 bar Make Vanaz,
2.16	Claval, Frainger Lesser
2.17	Excavation of Road crossing, Backfilling, Soling below PCC / Road, M-15 PCC below Hume pipe and RCC Slab, M-25 grade 150 mm thk. RCC Slab including shuttering and Reinforcement & Complete.for both SS 304 Pipe & Electrical /Instrumentation Cables as required, without disturbing any existing utility systems
2.18	Pump Foundations for Pumps. Pressure Tank & LT Pump Panel as per the instruction of Engineer incharge
2.19	mm and 100mm CPVC Pipe with all mounting accessories like GI 3mm thick plates on top of support, GI U clamps 8mm thick, GI bolts for CPVC Pipes, supporting beams, complete excavation, refilling, soling of 230mm, 100mm.
2.20.	SITC of NP3 class RCC Precast hume pipes with collar for suitable piping complete provided with Inspection Chamber to check water leakage, pipe lengths should be suitable for required individual road width, no pipe length should be left loose during burying of hume pipe underground, adequate support system and packing, should be able to take load bearing of the vehicular movements on the specific road, burial depth 1000mm minimum or as per ACTREC Civil standards with complete soling, PCC, RCC Work and road rebuilt as original, One collar should be supplied with each full length plain ended RCC pipe, cost including in rates below. One rubber ring should be supplied with each full length of socketed pipe, cost included in rates: 300 mm dia, thickness 75mm, 2.5m long length with provision for collar fixing as per IS458 latest edition
2.21	Design, Engineering, Installation of Pre coated GI Sheet Engineered Shed near Horticulture tank with Columns & Beams MS Epoxy Painted (2 Coats) and Grey Oil Paint (3 Coats) Columns & Beams ISMC 150 and Supporting Structure of RCC Foundations for columns, with shed covered from all sides and rolling shutter of size 3 x 4 X 4.2 Meters (L X W X H) to protect pump skid and MCC panel for Flushing water Pump House with Stability Certification from approved structural consultants of dimension 6 X 9 meter area and height of 4.5 meters. floor will be with PCC of at least 150mm, with drain and nani trap provided with drains leading to storm water drain with suction inletes to available tanks, place to accommodate Electrical Distribution Panel, Hydro Pneumatic Pumps for Transfer & Flushing System as required with drains, foundations for pumps and MCC Panel,
2.22	SITC of Power Distribution Board for Main Potable Water Pumps in 1W +1 S ( 10 HP Motor) with automatic changeover as well as override manual changeover as per SLD given mode type free standing type of MS 1.6mm CRCA thickness with 7 tank process of manufacture, colour powder coated to Siemens Grey with 100mm Base frame, minimum dimensions of 1200X 1200 X 400 ( HX W X D ) mm with gland plate MCCR/Breaker Load Manager SITC of UnArmoured Copper FRLS Cable 4C X 4 sqm FRLS Multistranded,
2.23	shielded in GI Conduit as per IS 1554& IS 694, Make Polycab/Havells/CCI/Metaplast
2.24	SITC of Armoured Copper FRLS Cable 4C X 10 sq.m FRLS Multistranded, shielded as per IS 1554& IS 694, Make Polycab/Havells/CCI/Metaplast
2.25	SITC of Armoured Copper FRLS Cable 4C X 2.5 sq.m FRLS Multistranded as per IS 1554& IS 694 Make Polycab/Havells/CCI/Metaplast
2.26	SITC of GI Perforated Cable trays for Power Distribution Board Incomer Cable Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 50 mm width X 25 mm height X 2.5 mm thickness, in length of 3 meters each Make: Elcon,
2.27	During the execution process damage on ACTREC property shall be repaired by the contractor without any additional cost.
2.28	The drawings provided by engineering section should be reviewed and shop drawings should be prepared.
2.29	Adequate safety precautions shall be taken by the agency as per the ACTREC/TMC guidelines and as instructed by engineer incharge. Barricading the area as per the instruction to be done. Safety liability of labour working at site shall be with contractor.

3	PRICE BID
a)	The tenderer should quote the price inclusive of all taxes and levies but exclusive of GSTof the each items on the Schedule of Quantity enclosed with the tender documents and signature & stamp thereon each page, in separate sealed cover, super scribing name of work indicating 'PRICE BID'.( Price bid submitted other than above form will be rejected).Partial/incomplete offers are liable for rejection as the entire work is considered as one work and L1 will be decided by adding rates/amounts quoted for entire items of Schedule of Quantity as a composite work. If the tenderer does not qualify himself in the technical bid, the price bid offered will not be entertained. In case of unsuccessful bidders in the technical bid, price bid will not be opened. Price Bid is only in the form of ON LINE version. GST will be automatically fomulated in price bid.
b)	In the schedule of quantities, if rates are not quoted for items or if a firm quotes "NIL/N.A./Not applicable// Leaving blank space etc." charges, the bid shall be treated as unresponsive and will not be considered.
c)	Validity of rates: 180 Days from the opening of the tender.
d)	Defect Liability Period: 1 Year comprehensive warranty after completion and handing over of project.
e)	Stipulated time for completion of work : 4 Months.
4	LIQUIDITED DAMAGE
a)	Successful tenderer will have to commence/execute the work as per the order placed by email/soft copy/LOI/Work order within the stipulated time period mentioned in the order. In failure to do so, the performance security submitted by the firm will be forfeited. In the event of the contractor fail to comply with conditions of this contract, he shall be liable to pay a compensation for non commitment of work as per order or for the delay an amount equal to 1.0% per month delay to be computed on per day basis, provided that the entire amount of compensation to be paid shall not exceed 10% of the estimated cost of the work. If the work is not completed within the stipulated time period as mentioned in the work order or inferior nature of work, the engineer in-charge has the right to terminate the whole work or part and get the work done from other agency at the risk and cost of tenderer and access money will be recovered from any dues. Liquidated damage can be recovered from EMD, Performance Security, Security Deposit or running bills of the Tenderer. Extension in delivery of work will not be given except in exceptional circumstances. The defaulting tenderer will be debarred from participant of any tender of ACTREC.

5	ARBITRATION			
a)	In the event of any dispute arising between ACTREC and the contractor in any matter covered by this contract or arising directly or indirectly there from or connected or concerned with the said contract in any manner of the implementation of any terms and conditions of the said contract, the matter shall be referred to the Director, ACTREC who may himself act as sole arbitrator or may name as sole arbitrator an officer of ACTREC/TMH notwithstanding the fact that such officer has been directly or indirectly associated with this contract and the provisions of the Indian Arbitration Conciliation Act, 1996 shall apply to such arbitration. The contractor expressly agrees that the arbitration proceedings shall be held at MUMBAI/NAVI MUMBAI.			
6	DIRECTOR-ACTREC/THE TENDER COMMITTEE / TENDERING AUTHORITY / UNDERSIGNED RESERVE THE RIGHT:			
a)	To reject any / or all the Tenders at any stage without assigning any reason there of and not accept the lowest Tenders.			
b)	To procure any item of the tender directly from State / Central govt. Undertaking at government rate even if a tender of other parties for the same item has been offered / accepted / approved.			
c)	To reject abnormally low price of an item quoted by the tenderer in the Tender with some malafide intention.			
d)	Officer authorised on behalf of the Director-ACTREC does not bind himself/herself to accept the lowest or any other offer & reserve the right to cancel, reduce or split the contract on more than one source without assigning any reason for such action.			
e)	DIRECTOR-ACTREC reserves right to accept the tender in full or part with out assigning any reason.			
7	RISK PURCHASE			
a)	In the event of failure to execute the contract to the satisfaction of the engineer in-charge he has the reserves the right:			
b)	To reject any part of the contract executed and withhold payment for such portion of the contract till such time the defects are rectified to the satisfaction of the Engineer In-charge.			
c)	To terminate the contract by giving 2 weeks notice in writing without assigning any reason and to get the contract executed by other agency at the risk and cost of the contractor.			

8	GENERAL LIEN
a)	Whenever under this contract any sum of money is recoverable from and payable by the contractor, ACTREC shall be entitled to recover such sum by appropriating in part or in whole the security deposit of the contractor, if a security is taken from the contractor. In the event of the security being insufficient or if no security has been taken from the contractor, the balance or the sum recoverable, as may be shall be deducted from any sum duo to the contractor or which at any time thereafter may become due to the contractor under this or any other contract with the ACTREC. Should this sum be not sufficient to cover the full amount recoverable, the contractor shall pay to the ACTREC on demand the remaining balance due.
9	RECTIFICATION OF WORK/REPLACEMENT OF DEFECTIVE SUPPLY
a)	In any supply item or any part of work is found defective or fails to meet the requirements of the contract before it is accepted, the ACTREC shall give the contractor a notice setting forth details of such defects or failures and the contractor shall forthwith arrange to set right the defective work or replace the defective supply by the good one to make it comply with the requirements of the contract. This in any case shall be completed within a period not exceeding one month from the date of the initial report pointing out the defects. The replacement or rectification shall be made at site by the contractor at free of cost. Should the contractor fail to do the needful within this stipulated time frame, ACTREC reserves the right to reject the work/equipment in full or in part and get it replaced at the cost of the contractor. The cost of any such replacement made by the ACTREC shall be deducted from the amount payable to the contractor against this work order.
10	TERMINATION FOR DEFAULT
a)	ACTREC, may without prejudice to any other remedy for breach of contract, by written notice of default, sent to the contractor, for termination of this contract in whole or in part;
b)	If the bidder fails to deliver any or all the work within the time period (s) specified in the contract, or any extension thereof granted by ACTREC.
c)	If the bidder fails to perform any other obligation(s) under the contract.
d)	If the bidder in either of the above circumstances, does not remedy his failure within a period of 15 days (or such longer period as ACTREC may authorize in writing) after receipt of the default notice from ACTREC on a notice period of 30 days.
e)	In the event of ACTREC terminate the contract in whole or in part pursuant to above para the ACTREC may execute the work upon such term and in such manner as it deems appropriate work similar to those undelivered and bidder shall be liable to ACTREC for any excess cost for such similar work. However, the bidder shall continue the performance of the contract to the extent not terminated.

11	ADDITIONAL OR EXTRA WORK			
a)	ACTREC reserve the right to place extra items other than schedule quantity for completion of given work order. In such cases the Engineer In-charge calculate the expenditure for supply and execution of such work by taking quotation from local agency and adding applicable levies, labor charges, incidental expenditure, profit etc. as per the normal procedure to arrive suitable rate. He may also obtain the expenditure of the extra item either from CPWD manual (DSR 2018) or from the work order executed for government organization for similar work in the recent past. If the quantity of work is exceeding more than 10%, Engineer-in-Charge should be informed the same and execution should be done only after prior approval.			
b)	ACTREC also has the reserve to modify the quantity of items in work order to add/reduce/cancel as per the site requirements. Such additional quantity will be settled at the same rate and terms & conditions of the order on completion of work after taking final joint measurement.			
c)	Bidder to inform in advance before executing additional/substitute quantity. Prior approval for the same should be obtained from ACTREC before execution.			
12	PAYMENT TERMS			
a)	100% payment on execution or on pro rata basis of each particular item as listed in financial bid.			
b)	Payment will be done as per actual measurement.			
c)	Payment term other than above mentioned will not be accepted.			
13	FAIR WAGES			
	The bidder shall pay the monthly wages to the labours employed by him as per the minimum wages enforced by Labor Enforcement Authority of India on time to time in front of an ACTREC official, together with ESIC, Provident Fund, and Bonus etc. as applicable. The contractor will forward his bills for the work executed by him by attaching copies of salary slip signed by the worker for the current/previous month for early settlement of his bills.			

	Other Special conditions (This conditions overrule other condition specified anywhere in contract as applicable)		
1	The work to be carried out as per the instruction of Engineer-incharge		
2	Material delivery challans to be submitted along with running and final bills		
3	Deployed workers must have company Identity cards and should follow all safety as per the labour laws.		
4	Material to be used of approved make with ISI mark as mentioned in schedule of rate and as per the instruction of Engineer-incharge.		
5	Space for storage of material during execution of work will be provided if available in the ACTREC Premises to the contractor. But risk of theft/damage is the contractor's risk and TMH/ACTREC is not responsible for any theft/damage/fire.		
6	During execution of works, contractor has to take adequate care of ongoing patients care services.		
7	No mobilisation or secured advance will be paid to contractor.		
8	The Contractor should depute Supervisor/Engineer at site during execution of works on each and every day and night as per the instructions given by Engineer - in charge.		
9	If the contractor fails to clear the debris from premises then fine of Rs 10,000/truck will be charged and recovered.		
10	Agency to bring his manpower to execute the works irrespective of quantity of work allotted.		
11	Engineer incharge may prioritise one type of work over the other and the contractor has to abide as per the requirements.		
12	Escalation is not applicable since the time period is less than 18 months for execution. Quoted/Negotiated Prices will remain firm for entire contractual period.		
13	Danger boards/signs and barricading the area shall be done by Contractor at no extra cost to ACTREC.		

I have read the Above instructions carefully and understood in right perspective and agreed.

Date:	Seal and Signature.
bate.	Jeat and Jighature.



### TATA MEMORIAL CENTRE

### ADVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

### Compliance form-1

Tender No.	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021	
	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at	
work:	ACTREC, Kharghar, Navi Mumbai - 410210	

	Name of the Vendor			
Item No.	Description	Offered List of Make	We have read all item specification (Yes/No)	we have quoted against each item.(Yes/No)
1	Transfer Pump System to be housed near to Horticulture Tank comprising of 02 Nos. (1W+1S) Vertical Multistage Pumps SS 304 Pump of 30 Cu.M/hr, 50 Meter Head 2 Pole IE3 Motor suitable for 415 V, 3 Phase 50 Hz A/c Supply fitted with Mechanical Seal , Impeller S 316 L, Casing SS 316 L, Shaft of SS 316 L, Efficiency More than 65% for each pump. All as Ebara /Grundfos/Kirloskar Make Complete in skid form , 01 No. Common Control Panel with all Pumps on VFD (Variable Frequency Drive) Total 2 Nos of VFD Drive of 7.5 KW/10 HP , 380- 380V AC, Motor Speed 2900 RPM. If one VFD or pump fails other pump with VFD shall be selected automatically, and there shall also be provision to operate pumps in fixed speed mode without VFDs. Pump & Motor IP 66/NEMA 4X Back plate, RFI Class A2 (C3), No Brake Chopper. Both Pumps will have individual suction in Schedule 40 and removable suction pipe with foot valve & strainer for serving. Discharge Manifold will be in SS 304 Schedule 40 size as per Pump House layout drawing with necessary OS & Y Type SS 304 Gate Valves with LOTO Provision & SS 304 Fittings, Flanges suitable for PN16 with all accessories complete in all respect GI Baseframe or MS Epoxy Powder coated painted frame to hold the complete skid with provision of grouting in RCC foundation , 01 No, 500 Ltrs 10 Bar Foot Mounted Pressure Tank, 01 No. 0-10 B. ar 21/2" Pressure Transmitter O1 Nos. Float with 20 Mtrs Submersible Cable for Dry Run Prevention. Each Pump will be provided with Normex Make 4 Inch Foot Valve with Built-in strainer. Pump Motor Panel will have NO/NC Potential free contact for pump status monitoring (Strainer and Suction pipe removal for strainer cleaning shall be possible, so Suctions shall be individual to pumps. Each Pump, will be provided with name SS 304 coloured attractive number plates of size 6 Inch X 12 Inch Self engraved giving their HP/KW//Head & Flow Rate Ratings, Discharge Pressure Gauge Glycerine filled SS 316 , 150mm diameter shall be provided with calibration certificate. Care shall be taken by ve			
2	Providing and fixing 10000 liter capacity sintex tank on terrace of Service block as per the instruction of Engineer incharge.			
3	Flushing Pump System to be housed near to STP Plant comprising of 02 Nos. (1W+1S) Vertical Multistage Pumps SS 304 Pump of 30 Cu.M/hr, 50 Meter Head 2 Pole IE3 Motor suitable for 415 V, 3 Phase 50 Hz A/c Supply fitted with Mechanical Seal, Impeller SS 304 L, Casing SS 304 Shaft of SS 304, Efficiency More than 65% for each pump. All as Ebara/Kirloskar/Grundfos Make Complete in skid form, 01 No. Common Control Panel with all Pump Motors on VFD (Variable Frequency Drive), Total 2 Nos of VFD Drive of 7.5 KW/10 HP, 380-380V AC, Motor Speed 2900 RPM. If one VFD or pump fails other pump with VFD shall be selected automatically, and there shall also be provision to operate pumps in fixed speed mode without VFDs. IP 66/NEMA 4X Back plate, RFI Class A2 (C3), No Brake Chopper. Both Pumps will have Individual Suctions in Schedule 40 pipe and pipe shall be removable to service foot valve & strainer and discharge Manifold shall also be in SS 304 Schedule 40 pipe size as per Pump House layout drawing with necessary OS & Y Type SS 304 Gate Valves with LOTO Provision & SS 304 Fittings, Flanges suitable for PN16 with all accessories complete in all respect GI Baseframe or MS Epoxy Powder coated painted frame to hold the complete skid with provision of grouting in RCC foundation, 01 No, 500 Ltrs 10 Bar Foot Mounted Pressure Tank, 01 No. 0-10 Bar 21/2" Pressure Transmitter 01 Nos. Float with 20 Mtrs Submersible Cable for Dry Run Prevention. Each Pump will be provided with Normex Make 4 Inch Foot Valve with Built-in strainer. Pump Motor Panel will have NO/NC Potential free contact for pump status monitoring. Each Pump, will be provided with name SS 304 coloured attractive number plates of size 6 Inch X 12 Inch Self engraved giving their HP/KW//Head & Flow Rate Ratings, Discharge Pressure Gauge Glycerine filled SS 316, 150mm diameter shall be provided with calibration certificate			
4	SS 304 Nozzles & SS pipe Sleeves as required for 2 Nos Potable Tanks (1+1) Including all Nozzles for Suction, Delivery, Flow Meter, SOV & Float, PRV, Overflow, Inlet, Outlet, Overflow, Tank Filling Connections, Tank vents with Insect Guards with puddle flanges as required complete in all respects, Make: Roopam Steel, Jindal, Swastik Lloyd, Metline			

Item No.	Description	Offered List of Make	We have read all item specification (Yes/No)	we have quoted against each item.(Yes/No)
5	Underground CPVC Pipeline: Supplying, installing and testing & commissioning under ground CPVC Pipe, Schedule 40 of following sizes conforming to specifications along with all fittings like Elbow (45 degree), tee, reducer, flanges, MTA, FTA as necessary & with anticorrosive wrapping & coating as per IS 1standards 1/3rd overlap with 100mm wide and 4mm THICK wrapping coating tape and then laid in 300mm Hume pipe with proper packing of fine sand as required. Make Prince, Astral, Finolex, Surya, Paras, Wrapping Coating Tape: Pypekote, Tikidan, AR Industries. Sudhakar Pipe & Fittings: 100mm Schedule 40, OD of 4.5 mm, I Maximum Pressure Handling 220 PSI			
6	Underground CPVC Pipeline: Supplying, installing and testing & commissioning under ground CPVC Pipe, Schedule 40 of following sizes conforming to specifications along with all fittings like Elbow (45 degree), tee, reducer, flanges, MTA, FTA as necessary & with anticorrosive wrapping & coating as per IS 1standards 1/3rd overlap with 100mm wide and 4mm THICK wrapping coating tape and then laid in 300mm Hume pipe with proper packing of fine sand as required. Make Prince, Astral, Finolex, Surya, Paras, Wrapping Coating Tape: Pypekote, Tikidan, AR Industries. Sudhakar Pipe & Fittings: <b>80mm</b> Schedule 40, OD of 4.5 mm, I Maximum Pressure Handling 220 PSI			
7	Supplying, installing and testing & commissioning (SITC) above ground CPVC Pipeline of Schedule 40 Flushing line with glue, solvent material, along with all CPVC fittings as required at site & with distinctly painted Sea Green paint band as first paint band and second band as Canary Yellow every 10 meters as per IS- 5 Standard . The line will include all necessary fittings like Tee Branch, Tee Run, Elbow 45 & 90 degrees, Reducer, Coupling, Pipe Support GI Clamps with nuts for clamping on RCC Supports etc complete in all respect, with FLUSHNG LINE written at every 50 meter interval in black colour. Inside Building CPVC Pipe will be of 80 mm, Schedule 40 to fill up Flushing tank on Building terrace with all necessary fittings like elbows, tee, reducers, flanges, fixing clamps, fixing glue etc. Wherever Valves are CI/SS/ DI valves requisite flanges, nuts & bolts, gaskets, MTA, FTA and threaded pipe connections will be provided by vendor in same price. All Pipe lines (SS & CPVC) will be 100% hydro tested for test pressure of 12 bar for 2 hour period, and test results will be verified by ACTREC Engineer, Make Prince, Astral, Finolex, Surya, Paras: 100mm dia. CPVC - Schedule 40, OD of 114 mm, Wall thickness minimum 6.0 mm Flushing Headers Maximum Pressure Handling 220 PSI			
8	Supplying, installing and testing & commissioning (SITC) above ground CPVC Pipeline of Schedule 40 Flushing line with glue, solvent material, along with all CPVC fittings as required at site & with distinctly painted Sea Green paint band as first paint band and second band as Canary Yellow every 10 meters as per IS- 5 Standard. The line will include all necessary fittings like Tee Branch, Tee Run, Elbow 45 & 90 degrees, Reducer, Coupling, Pipe Support GI Clamps with nuts for clamping on RCC Supports etc complete in all respect, with FLUSHNG LINE written at every 50 meter interval in black colour. Inside Building CPVC Pipe will be of 80 mm, Schedule 40 to fill up Flushing tank on Building terrace with all necessary fittings like elbows. tee.			
9	SITC of GI Supports including angle, channel, beam, special fitting, plates & clamps required to support the pipe and pumps. Will be compensated as per installed quantity Make Hitech, Mupro, Erico, Hilti			
10	SITC of Non Return Valves 80mm Cast Steel Valve , PN 16 , 150 Class Make: L & T, Kirloskar, Newage, C & R , Azbil			
11	SITC of Gate Valves Cast Iron 100mm , PN 16 , 150 Class with LOTO arrangement, Make: L & T, Kirloskar, Newage, C & R, Azbil, Hawa			
12	Gate Valves Cast Iron 80mm Cast Steel Valve, PN 16, 150 Class with LOTO arrangement, Make: L & T, Kirloskar, Newage, C air Automation, Hawa, Azbil			
13	SS 304 Drain Valves 4 " Inlet and 1" outlet for maintenance and flushing of flushing line as per locations suggested by Siemens Make - Leader/Zolleto/Johnson Control/BER/Cair Euromatic			
14	SS 304 Pot Strainer 100 dia. With Wire Mesh Screen of 0.5 mm and one of 4 mm Coarse Screen for Draining & Cleaning purpose Make Bombay Chemical Equipment, Hawa, Audco			
15	Pressure Relief Valve to Prevent Pressure Exceeding in Yard headers above 10 bar Make : Claval, Frainger Lesser, Tyco			
16	25 mm Pressure Reducing Valve to adjust pressure from 2- 10 bar Make Vanaz, Claval, Frainger Lesser			
17	Excavation of Road crossing, Backfilling, Soling below PCC / Road, M-15 PCC below Hume pipe and RCC Slab, M-25 grade 150 mm thk. RCC Slab including shuttering and Reinforcement & Complete.for both SS 304 Pipe & Electrical /Instrumentation Cables as required, without disturbing any existing utility systems			
18	Pump Foundations for Pumps. Pressure Tank & LT Pump Panel as per the instruction of Engineer incharge			
19	SITC For RCC Supports for Pipe upto 100 mm and also for combination of 80 mm and 100mm CPVC Pipe with all mounting accessories like GI 3mm thick plates on top of support, GI U clamps 8mm thick, GI bolts for CPVC Pipes, supporting beams, complete excavation, refilling, soling of 230mm, 100mm PCC, depth upto 750mm and final finishing in RCC on road/hard soil or enclosing with soft soil as required.			
20	SITC of NP3 class RCC Precast hume pipes with collar for suitable piping complete provided with Inspection Chamber to check water leakage, pipe lengths should be suitable for required individual road width, no pipe length should be left loose during burying of hume pipe underground, adequate support system and packing, should be able to take load bearing of the vehicular movements on the specific road, burial depth 1000mm minimum or as per ACTREC Civil standards with complete soling, PCC, RCC Work and road rebuilt as original, One collar should be supplied with each full length plain ended RCC pipe, cost including in rates below. One rubber ring should be supplied with each full length of socketed pipe, cost included in rates: 300 mm dia, thickness 75mm, 2.5m long length with provision for collar fixing as per IS458 latest edition			

Item No.	Description	Offered List of Make	We have read all item specification (Yes/No)	we have quoted against each item.(Yes/No)
21	Design, Engineering, Installation of Pre coated GI Sheet Engineered Shed near Horticulture tank with Columns & Beams MS Epoxy Painted (2 Coats) and Grey Oil Paint (3 Coats) Columns & Beams ISMC 150 and Supporting Structure of RCC Foundations for columns, with shed covered from all sides and rolling shutter of size 3 x 4 X 4.2 Meters (L X W X H) to protect pump skid and MCC panel for Flushing water Pump House with Stability Certification from approved structural consultants of dimension 6 X 9 meter area and height of 4.5 meters. floor will be with PCC of at least 150mm, with drain and nani trap provided with drains leading to storm water drain with suction inletes to available tanks, place to accommodate Electrical Distribution Panel, Hydro Pneumatic Pumps for Transfer & Flushing System as required with drains, foundations for pumps and MCC Panel,			
22	SITC of Power Distribution Board for Main Potable Water Pumps in 1W+1S (10 HP Motor) with automatic changeover as well as override manual changeover as per SLD given mode type free standing type of MS 1.6mm CRCA thickness with 7 tank process of manufacture, colour powder coated to Siemens Grey with 100mm Base frame, minimum dimensions of 1200X 1200 X 400 (HX W X D) mm with gland plate MCCB/Breaker, Load Manager, Overload relays, DOL Starter etc for individual loads as shown in distribution board drawing (for Controllers & Pumps of Main Electrical Pump, Lighting Load, with ATS of two incomers of main & standby power wired directly from two individual feeders, spare 3 phase 63 A Connection for connecting 3 phase loads as per enclosed drawing and in line with NBC, IS/IEC Standards. Panel board should have access below the panel of at least 1000mm and hence should be rested on required supports or RCC with access platform in RCC All Bus Bars shall be of Copper, Panel shall have space heater, LOTO arrangement to lock the panel. The Control Panel Manufacturer shall have CPRI, CE, ISO 9001 Approval. The Approved makes of panel shall be of the following Make Only. Siemens/ L & T/Schneider/Elecmech			
23	SITC of UnArmoured Copper FRLS Cable 4C X 4 sqm FRLS Multistranded, shielded in GI Conduit as per IS 1554& IS 694, Make Polycab/Havells/CCI/Metaplast			
24	SITC of Armoured Copper FRLS Cable 4C X 10 sq.m FRLS Multistranded, shielded as per IS 1554& IS 694, Make Polycab/Havells/CCI/Metaplast			
25	SITC of Armoured Copper FRLS Cable 4C X $2.5~sq.m$ FRLS Multistranded as per IS 1554& IS 694 Make Polycab/Havells/CCI/Metaplast			
26	SITC of GI Perforated Cable trays for Power Distribution Board Incomer Cable Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 50 mm width X 25 mm height X 2.5 mm thickness, in length of 3 meters each Make: Elcon,			

Date Signature



## TATA MEMORIAL CENTRE ADVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

### Compliance form - 2

Tender No.	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021
	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for flushing system at ACTREC, Kharghar, Navi Mumbai - 410210

Sr. No	Description	Complaince from agency
1	We have understood technical requirments and understood the same in right perspective.	
2	We have quoted for all the items in Financial Bid in the prescribed format of the tender documents.	
3	We have read the financial bid thoroughly before filling it and understood the same in right perspective	
4	We understood that partial/incomplete/vague offers are liable for rejection.	
5	We have understood the eligibility criteria as well as criteria for identifying lowest bidder.	
6	There are deviations from our(bidder) side.	
7	Deviations have been mentioned on separate page and attached with technical bid in detail. Deviation is supported with necessary documents, catalogues etc.	
8	We have noted that accepting or rejecting the deviation and consequently rights to qualify and disqualify the agency remains with competent authority of TMC- ACTREC.	
9	We have understood and accrected that accepting the tender & issuing order in full or in part will be decided by the TMC-ACTREC competent authority as per policy of the centre.	

Date Signature



# TATA MEMORIAL CENTRE ADVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER (ACTREC).

Tender No.	TMC/ACTREC/ENGG/PG-83/ET-17/Pipeline_Network/2021	
Name of	Execution of Pipeline network to supply water from STP and WTP to HVAC system and for	
work:	flushing system at ACTREC, Kharghar, Navi Mumbai - 410210	

### **List Of Makes**

List of makes are only applicable if brand name is not mentioned specifically in the list of items as given in financial bid and also The following manufacturers are acceptable provided their products meet or exceed the Specifications and the Contract drawing schedules, ACTREC Kharghar reserves the right to suggest the preferred makes among the approved vendors.

Make of the items which are not covered in this tender, shall got approved from Engineer

incharge before use.

	Name of the Vendor	
S.No	Details of equipment/ material	Make/Manufacturer
1	For Main, Standby & Jockey Pumps with VFD wherever specified, Motors, Air Tank and Panel	Ebara, Grundfos, Kirloskar
2	SS 304 Pipes & Fittings	Sumitomo/Jindal/Tata/Roopam Steel
3	U PVC and CPVC Pipes & Fittings	Supreme/Astral/Finolex/Prince
4	SS Clamps	Hitech, United or equivalent with ISI mark
5	SS 304 Valves & Actuators (Gate, Sluice, Ball, Globe, Butterfly, NRV, Air Relief):	L & T, Rapid Valves, Rotork, Kirloskar Valves, Hawa, , Claval, Normex, Audco, Gecomini, Cair Euromatic,
6	Pressure Switches	Danfoss/Indfoss/System Sensor( Honeywell)
7	Glycerin Filled Pressure Gauges	Warree, Baumer, Wika
8	Pot/Y Strainers	Armstrong, Bombay Chemical & Equipment Co., Acme, Wermer, Tecmara
9	Level, Pressure Transmitters	Siemens, Azbil, Honeywell, Wika
10	Water Dispensing RO System	Kent, Eureka Forbes
11	Aluminium Frame	Jindal, Hindalco
12	Glass	Modi, Saint Gobain, HNGIL
13	Stainless Steel	Jindal, SAIL, Indian Stainless Steel
14	SS Hardware	Godrej, Hettich, Dorma
15	Plumbing Fittings	Kohler, Jaguar, Grohe, Hindware
16	Ceramic, Vitrified Tiles	Kajaria, Somany, Johnson
17	SS Bolts Washers Nuts	Kundan Puja, Atul
18	Anchor Fastner/Dash Fastner/Pipe Support	Hilti / Fischer /Bosch/Mupro
19	Anti – Termite Treatment	It should be done by permanent members of IPCA as approved by Engineer-in-Charge/ As per CPWD/PWD specifications and ISI marked. Preapproval from EIC
20	Back up rod	Supreme Industry/Preapproval required for other brands

21	Batch Mix Concrete (BMC) / Ready Mix Concrete (RMC)	The RMC shall be procured from the source as approved by Engineer – in Charge. RMC Producing plants of the main Cement producers shall be preferred. L&T/ Lafarge/ ACC/ Birla/Ultratech
22	Drage Ston & Dib Cook	
22	Brass - Stop & Bib Cock	Zoloto / Sant / Jaquar
23	C I Pipes & Fittings	Electrosteel/ Kapilansh/ NECO/ RIF
24	CI Valves (Full way, Check and Globe Valves	Leader / Kirloskar/ Kartar
25	Cement	ACC / Ultra tech / JK Cement / Ambuja / Lafarge /Birla/RAMCO
26	Cement: White	Birla White / JK
27	Concrete Additive	Pidilite / Fosroc / Fairmate / MC Bauchemie/Sika/Cico
28	Cover /Spacer Block	Conbextra as manufactured by M/s Fosroc Chemicals India Ltd. / ASTRA
29	Epoxy Flooring	Fosroc/ Dr. Beck/ Flamaflor/ STP
30	Grout: Non-Shrink	Fosroc / Sikka or equivalant
31	Grouting Compound	Bal Endura/ Pidilite/ Laticrete/ Unitile
31	Grouting Compound	
32	Paver blocks / Tiles (All Types)	KK / Uni Stone Products (India) Pvt. Ltd/ Hindustan Tiles/ NITCO/ Tile Italia/ Basanth
33	Pre-coated Galvanised Steel Sheet	Tata BlueScope / Llyod Insulations India Ltd / S.R.Metals
34	Reinforcement Steel / Structural Steel	SAIL/ RINL/ TATA Steel Ltd./ Jindal Steel & Power Ltd./ JSW Steel Ltd./ESSAR
35	Sealant: Poly-sulphide	Pidilite / Fosroc / CICO / Sikka / Choskey
	Silicon sealants /Weather Sealant /	GE- Silicon / Pidilite / Forsoc / Cico /Dow Corning /
36	Structural Glazing Sealant	Sikka/ Wacker
37	Stone Adhesives	Fosroc / Sikka/Pidilite
01	Otorie Adriesives	CICO/ Roffes Construction Chemicals/ Pidilite /
38	Super plasticizer	Vam Organics
39	Water Proofing Materials (Bitumenistic)	BASF/ Fosroc / Sikka / CICO / Pidilite
40	Pipe coat material (pipe protection)	RPG Raychem/Pypkote/Makphalt/Lwl
41	Pipe Fittings: GI	R/Unik/Zoloto/K.S./Sun/Swastik
42	Pipe:- GI	Jindal / Tata / Prakash Surya/SAIL/ Swastik
43	Pipes: MS	Jindal / Prakash – Surya /TATA
44	Pipes: RCC	Indian Hume Pipe / Pragati Concrete Udyog Daya/ KK / JSP
45	Electrical Contactors, Switchgears MCB, MCCB,ELCB, RCCB, RCBO Load Manager	Siemens, L & T/ Legrand
46	Electrical power & Control Cables	Polycab, Lapp, Metaplast, Belden, finolex, CCI
47	LT Motors	Siemens, Ebara, Grundfos, Kirloskar, WEG
48	PC & Monitor	Dell/HP/Lenovo
49	UPS	
49	UFO	Emerson (Vertiv) Power, Siemens, APC
50	Electrical Instrumentation Panels & Cabinets	Rittal, Arrow Engineers, L & T, Schneider, Siemens, Elecmec Controls
51	Printer	HP. Epson, Canon
52	PLC & SCADA Devices	Siemens, Azbil
53	Flow Meter	Siemens, Azbil, Endress & Hauser
54	Filters ( Sediment, Membrane, Carbon )	Thermax, Ion Exchange
55	Cable Gland	Comet / Braco / Dowell / 3D
56	Cable lugs	Comet / Braco / Dowell / 3D
		Technik / L&T / IEC/ Seimens
57	Indicating lamps	TECHNIK / LOT / TEC/ Sellitens

58	Terminal blocks	Elmex / Wago/ Connectwell
59	Lighting Fixtures with electronic ballast	Wipro / Philips / Bajaj/ Cisca/ Crompton
60	Lighting distribution boards	Seimens / GE/ L&T
61	Annunciation	Minielec / Peacon /ICA
62	Power Capacitor	CG/L & T/ ABB/ Unister
63	Current / Potential Transformer	Kappa / Silkans / ABB / AE / Ashmore
64	Selector Switch	Kaycee / Hickson / L & T
65	Push Buttons	Tecknic /L&T/ Seimens
66	Timer	GEC, Siemens, L&T, Legrand
67	Cable Tray	Profab/Ercon/OBO Bettermann/Sadhna/Globe
68	Fire Alarm System	Honeywell/Notifier/Bosch
69	Exhaust Fan	Crompton/Almonrod/Bajaj