भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान, पुणे
INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH PUNE
(An Autonomous Institution, Ministry of Human Resource Development, Govt. of India)
IISER Pune Campus, Dr. Homi Bhaba Road, Pune-411 008.
Ph. No 020 2590 8001 Fax 020 2588 7499 / 2589 8022

No: 54(2) /IISER/Pune/20-21/ **Dated 05/ 03 / 2021**

NOTICE INVITING QUOTATION

Indian Institute of Science Education and Research, Pune Reinvites online quotations on behalf of Director IISER Pune for below mentioned work from agencies, found eligible as per the minimum requirements defined in clause 1 & 2 of NIQ for the work mentioned below:

Name of work &Location: Supply, Installation, Testing & Commissioning of Automatic 200 LPH RO Plant in Guest House at IISER Pune Campus.

Last date and Time for Submission: 11 March 2021, 15:00PM

Date and Time of Quotation Opening: 11 March 2021, 15:30PM

ELIGIBILITY CRITERIA (Technical Qualification)

Clause 1.

The bidders who fulfill the following requirements shall be eligible to apply.

The applicant should be registered **(ANY ONE)** with CPWD in western region, Maharashtra State PWD, MES, Railways in appropriate category for electrical /composite /(B & C) works.

OR

The applicant should be well establish and reputed contractor/specialized expert agency, OEM, authorized service provider in field of supply, installation, testing and commissioning, Maintenance of water treatment/ water processing plant. The authorization registration/Certificate should be valid till the last date of receipt of tender.

Applicant should submit attested or notarized copies of experience for work completed within last 3 years from client department with copy of work order along with quotation. Bidders not meeting minimum eligibility criteria shall summarily be rejected.

Clause 2.

2.1 The agency shall have valid GST/PAN/TAN/ESIC/PF numbers/certificates.

2.2 Authorization certificates of OEM/service provider.

Terms and Conditions:

1. The time allowed for carrying out the work will be **2 (Two) months** from the date of issue of work order.
2. The act of backing-out after quotation will debar such agencies for participating in future quotations of IISER PUNE. Bidder may e-mail queries on maintenance@iiserpune.ac.in or submit to IISER PUNE office in hard copy on all working days before a day of submission date of quotation. Rates quoted in words shall be treated as final for deciding L1 bidders.
3. Quotation can be obtained from IISER PUNE Engineering office at Main Building between **10 AM to 4 PM** on all working days before date of submission. Applicant may quote by downloading quotation document from IISER PUNE website www.iiserpune.ac.in
4. All agencies need to submit their quotation in hard copy in a sealed envelope containing two separate envelope, one envelope containing qualification documents mention in Clause 1 & 2 and second envelope containing sign, Stamp, NIQ documents with quoted rates to this office by suitable means on and before **11 /03/2021, 3:00PM.** Quotation received after the date & time specified above shall not be accepted. Any delays, postal delay etc. will not be entertained. Agency should quote for all the items in the BOQ. The bid shall be submitted in the original Bid document (as issued by the IISER, Pune) super scribing the name of work. Rates quoted in the words shall be treated as final for deciding L1 bidder. Quotations will be opened on the same day **(11/03/2021) at 3.30 PM** in the presence of agency or their authorized representatives, if any. Please mentioned – **Technical /Qualification bid** on envelope-1 and **Financial Bid** on envelope - 2.
5. Commercial bid/Financial bid envelop of technically qualified bidder shall be opened accordingly intimation to technically qualified bidder. The offer of the agency should be commercially clear including acceptance of all terms and conditions of this Quotation by the agency. IISER Pune reserves the right to accept or reject the quotation/s without assigning any reasons. Quotations submitted with any conditions shall be treated as 'Conditional Quotation' and shall be summarily be rejected by IISER PUNE.
6. Quoted rates should be inclusive of cost of all the materials, labour cost , GST , all taxes, octroi, duties, cost of sample and fees towards testing of materials in labs, royalties etc. complete. Nothing extra shall be paid separately.
7. All approved makes shall be as per list attached with this and as per CPWD and manufactures specifications. (OEM) Agency should put-up technical data and obtain prior approval on makes of various materials of IISER PUNE before taking-up work.
8. The successful agency shall make his own arrangement for all Tools & tackles for work etc complete in view of completion of work. Electricity shall be provided free of cost to agency at one source, agency should make own arrangement to safely tap of power from source to work location.
9. No advance payment shall be made by IISER Pune. Quoted rates should be including GST, TDS and other applicable taxes and cess will be deducted from the bills of the work as applicable.

भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान पुणे INDIAN INSTITUTE OF SCIENCE EDUCATION & RESEARCH IISER PUNE PUNE-08

10. No running account bill shall be paid for the work till the applicable labor licenses, registration with EPFO, ESIC and BCOW welfare board, whatever applicable is submitted by the contractor to the Engineer-in-charge. Payment shall be done after satisfactory completion of work in each quarter on quarterly basis only.

11. Specification for the work to be carried out as per BOQ, latest CPWD specification, IS specifications, manufactured specification & as per instruction of IISER PUNE whenever specification CPWD/ IS specification are not available.

12. The contractor shall ensure that minimum wages should be paid to the labours and employees in accordance with labour laws.

13. L1 Agency to submit actual measurements and abstract sheet to IISER PUNE within 30 days from completion of work.

14. **The Eligibility cum Technical bid shall be opened first at 3:30 pm on 11/03/2021.The Financial bid shall be opened of those bidders who qualify in the eligibility of Technical bid. The time and date of opening of financial bid of the eligible bidder shall be communicated at a later date. The institute shall not accept any loss or delay in transit as an excuse for late tendering.**

Executive Engineer,

IISER Pune

Encl: - 1. Schedule of Quantity

2. Technical Specification

Sign & stamp of Agency

Scheduled of Quantity (BOQ)

Name Of Work:- :- Supply, Installation, Testing & Commisioning of Automatic 200 LPH RO Plant in Guest House at IISER Pune Campus.

Sr.No	Description	Qty	Unit	Rates in words and figure (Quotaed rates are inclusve of all taxes, labouer etc.)	Amount
1	Supply, Installation, testing & commissioning of 200 LPH RO Plant (Automatic) Technical specification as per attached sheet. (Annexture -I) It includes all lead lifting of all material on (upto 20 m height) terrace of buildings etc. Quoted rate shall be including cost of lead , lift ,GST , material , labours etc complete. Nothing extra shall be paid separately. Fully commissioned RO plant output within defined output parameters shall be measured for payments. Quoted rate shall be including cost of uPVC piping work associated with RO plant upto treated water tank. Distribution after treated water tank shall be measured separately. Inlet parameters of water as per tender. RO plant shall bear warranty of 12 months from date of commissioning, bidder shall maintain RO plant during warranty period. Agency shall handover list and make of inventory to IISER Pune after commissioning of Plant. SCHEME : Raw Water Tank ---> Raw Water Pump (2 Nos.- 1W+1S) > Pre- Chlorination ---> DMF ---> ACF --->Antiscalant Dosing -- RO Block---pH Correction —>UV System --- > Post chlorination--Treated water Tank (Raw water tank/piping and treated water tank shall be measured separately) Note- Provision for Untreated water should not flow in treated tank after UV Lamp in case of UV failure.	1	Nos.		-
2	Supply and installation of water cooler with Cooling capacity of 40 Ltr & tank capacity of 80 Ltr with 2 nos taps, with automatic level sensor make Celfrost S. DLX, Voltas & Blustar.	4	Nos.		-

2	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit/Casing Caping as required.				-
2.1	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	40	Mtr		
3	Supplying and fixing suitable size GI/PVC box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required	2	Each		-
4	Supply of 3 C x 4 sqmm copper armoured cable with 1.1 KV grade, PVC insulated (Make Polycab, Finolex,RR)	60	Mtr		-
5	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of upto 35 sqmm size on wall surface as required., with required accessories like clamps, screws, labour, handling etc as complete.	60	Mtr		-
6	Supplying and making end termination with duble crompression gland and copper lugs for 3 c x 4 sqmm size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.	2	Each		-
7	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32 A 240 V "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	1	Each		-

8	Supply of **RO membrane Model 4040 element** as per attached technical specification.	6	Each		-
9	Supply & Installation of 0.5 HP single phase monoblock pump set as per attached technical specification.	1	Each		-
10	Supply of UV lamp system for RO plant as per attached technical specification	10	Each		-
11	Supply of **5 Micron cartridge filter size 2.5" x 20"** for Hostel -3 RO plant as per attached technical specification.	24	Each		-
12	Supply of **5 Micron cartridge filter size 4" x 20"** for RO plant as per attached technical specification.	24	Each		-
13	Supply of **cartridge filter PVC housing 2.5" x 20" long** for RO plant as per attached technical specification.	2	Each		-
14	Supply of **cartridge filter PVC housing 4" x 20" long** for RO plant as per attached technical specification.	2	Each		-
	Total **(Including all taxex, labor, material lead,lift etc. nothing extra shall be paid separtely)**				

SECTION – I

THE WATER TREATMENT PROJECT IS DESIGNED TO TREAT 200 LPH RO PLANT

FEED WATER LIMITS:

I) INLET WATER :

Parameter	Unit	Value
Total Hardness	mg/lt	Approx. 500
TDS	mg/lt	Approx. 500
TSS	mg/lt	
Turbidity		

II) TREATED WATER :

Parameter	Unit	Value
Total Hardness		Less than 5 ppm
TDS		Less than 20 ppm
TSS mg/lt.	mg/lt	Nil
Turbidity -		Nil

SECTION – II

1. RAW WATER PUMP

No. of units 2 Nos.	1 +1 No.
Capacity	0.5M3/Hr. @ 30 meter Head
Type	Centrifugal,Monoblock
HP	0.5 HP, -Single Phase
Material of Construction	CI
Make	Kirloskar/CRI/Compton

2. PERESSURE SAND FILTER

Type	Down Flow Graded sand type
Size	200 MM Dia x 1350MM Height
Max Flow	3.5 M3
Material of Construction	FRP Composite
Vessel Make	Pentair
Filter media	Graded Sand, Gravels, Pebbles
Valve	PP Multiport Valve - Automatic
Valve Make	Initiative/ UKL/Midas
Working flow	1.5M3/Hr.
Quantity	1 No.
MPV Size	25 NB

3. ACTIVATED CARBON FILTER

Type	Down Flow Graded sand type
Size	200 MM Dia x 1350MM Height
Max Flow	1.5 M3
Material of Construction	FRP Composite
Vessel Make	Pentair
Filter media	Graded Sand, Carbon – 900 IV
Valve	PP Multiport Valve - Automatic
Valve Make	Initiative/ UKL/Midas
Working flow	0.5 M3/Hr.
Quantity	1 No.
MPV Size	25 NB

4. MICRON FILTERATION

Quantity	2 Nos.
Capacity	500 LPH
Filter rating	5 Microns
Size of cartridge	4" x 20" long
MOC	PP

5. ANTISCALENT DOSING SYSTEM

Quantity	1 No.
Type	Electronic dosing type
Dosing pump MOC	PP
Capacity	0 to 6 LPH
Rate of dosing chemical	2 to 4 PPM
Make	E-dose/I –dose / Dorco
Solution tank	1 no.
Capacity	30 liter HDPE
Power	240 V, single phase
MOC	HDPE

6. HIGH PRESSURE PUMP

Quantity	1 No.
Capacity	500 LPH
Pump type	Multistage Centrifugal
Pump MOC	SS304
Pump Make	Kirloskar/CRI/Compton
HP	1 HP

7. RO MEMBRANE ELEMENTS

Model	4040 Elements
Module type	Spiral wound
Make of Membrane	TFC-polyamide/Eq.
Membrane make	Hydranautics, Dow, Hydramem [ionexchange]
Capacity	2,500 gallons per day
Quantity	1 Nos.

8. PRESSURE TUBE

MOC	FRP
type	Horizontal tube type
Size	4" x 40"
Max Pressure	400 psi
Working pressure	150 psi
Nos. offered	1 No.
Make	UKL/Alfa

9. ELECTRICAL PANEL

Quantity	1 No.
Make	Aster/Dorko/Proton Power Control

10. INSTRUMENTATION

A. Pressure Gauges

Quantity	2 Nos.
Type	Panel Mounted
Make	Boumer/Equivalent
Type	SS Bourbontype Glycerin filled
Range	0-12kg/CM2

B. Rotometer

Quantity	2 Nos.
Type	Panel Mounted
Make	Aster/ Gangnet/Equivalent
Type	Float
Range	0 to 1500 LPH

C. Conductivity Meter

Quantity	1 No.
Make	Initiative/Dorco
Type	Digital Type
Range	0-12kg/CM2

11. PIPING

No. of Quantity	1 Lot as per requirement.
Low pressure piping	1 Lot
Pressure Rating	20 Kg/cm2
MOC	White UPVC – Schedule 40
Make	Astral, prince,
High Pressure Piping	1 Lot
Pressure Rating	20 Kg/cm2
MOC	White UPVC – Schedule 40
Make	Astral, prince
Cleaning arrangement with Tank	1 set
Required Skid	SS-202 Grade
Float	2 Nos.
Location	In raw water & treated water tank

12. UV Lamp system

200 LPH UV System	1 No.
Make	Sukrut, Alfa
Flow rate @ 98% UVT EOL	250 LPH
UV Lamp wattage	48 watt
Reactor Chamber MOC	SS304L (Pickled, Passivated, and Electropolished
Maximum Operating pressure	75 psi
Operating Voltage	230V / 50-60 Hz (±10%)

RO PLANT SHALL HAVE FACILITY OF AUTOOFF-AUTOON BASED ON LEVEL OF TREATED WATER TANK.

RO PLANT SHALL HAVE FACILITY OF AUTOOFF-AUTOON BASED ON INLET RAW WATER LEVEL, IT SHALL HAVE DRY RUN PROTECTION SYSTEM.

IF TREATED TANK IS FULL , PLANT IS SHUT DOWN , THERE SHOULD NOT BE FLOW OF RAW WATER /DRAINING OF SYSTEM.

All Civil , Electrical , plumbing , water supply piping work , drain work etc shall be as per CPWD specifications.