



भारत सरकार/Government of India
अंतरिक्ष विभाग/Department of Space
द्रव नोदन प्रणाली केंद्र
LIQUID PROPULSION SYSTEMS CENTRE
एच ए एल II स्टेज, 80 फीट रोड
HAL II STAGE, 80 FEET ROAD,
बेंगलुरु/BANGALORE-560 008.
फोन सं./Phone No.080 25037171/140
ई-मेल/Email: purchase@lpscb.gov.in



दिनांक/Date: 05.05.2025

लोक निविदा सूचना सं. एल बी 2025000113-01 दिनांक 05.05.2025
PUBLIC TENDER NOTICE NO. LB2025000113-01 DATED 05.05.2025

आर ओ आधारित डी एम जल संयंत्र की आपूर्ति, संस्थापन एवं प्रवर्तन के लिए निविदा
Tender for Supply, Installation and Commissioning of RO based DM Water Plant

निविदा वर्गीकरण: लोक निविदा
Tender Classification: PUBLIC TENDER

निविदा की निर्धारित तिथियाँ/TENDER SCHEDULE

बोली प्रस्तुति की आरंभिक तिथि/Bid Submission Start Date	: 05.05.2025 17:00
बोली स्पष्टीकरण की नियत तिथि/Bid Clarification Due Date	: 13.05.2025 16:00
बोली प्रस्तुतीकरण की नियत तिथि/Bid Submission Due Date	: 27.05.2025 14:00
बोली खुलने की तिथि/Bid Opening Date	: 27.05.2025 14:30
मूल्य बोली खुलने की तिथि / Price Bid Opening Date	: 10.06.2025 14:00

निविदा दस्तावेज़ <https://www.isro.gov.in/> OR <https://eproc.vssc.gov.in> या इसरो ई-प्रापण पोर्टल से डाउनलोड किए जा सकते हैं।/Tender documents can be downloaded from <https://www.isro.gov.in/> OR <https://eproc.vssc.gov.in> or ISRO E-Procurement Portal.

हस्ताक्षरित/Signed
क्रय व भंडार अधिकारी/Purchase & Stores Officer

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
LIQUID PROPULSION SYSTEMS CENTRE (LPSC-B)
BANGALORE**

**Tender for Supply, installation and commissioning of RO Based DM
Water plant for PMSD,LPSCB**

Bids to be submitted online

**Tender No.: LPSC-B/Liquid Propulsion Systems Centre,
Bengaluru/LB202500011301 dated 05-05-2025**

A. Tender Details

Tender No :	LPSC-B/Liquid Propulsion Systems Centre, Bengaluru/LB202500011301
Tender Date :	05-05-2025
Tender Classification:	GOODS
Purchase Entity :	Liquid Propulsion Systems Centre, Bengaluru
Centre :	LIQUID PROPULSION SYSTEMS CENTRE (LPSC-B)

Supply, installation and commissioning of RO Based DM Water plant for PMSD,LPSCB

Supply, installation and commissioning of RO Based DM Water plant for PMSD,LPSCB

A.1 Tender Schedule

Bid Submission Start Date :	05-05-2025 17:00
Bid Clarification Due Date :	13-05-2025 16:00
Bid Submission Due Date :	27-05-2025 14:00
Bid Opening Date :	27-05-2025 14:30
Price Bid Opening Date :	10-06-2025 14:00

B. Tender Attachments

NA

Instructions To Vendors

1. GENERAL INSTRUCTION TO TENDERERS : SINGLE or TWO PART PUBLIC TENDER(PT)

1. Mode of delivery should be clearly specified with justification

2. ONLY CLASS I/CLASS II LOCAL SUPPLIERS ARE ELIGIBLE TO PARTICIPATE IN THE TENDER ENQUIRY.

Note: (a)CLASS I: Those suppliers/service providers whose goods/ works/ services offered for procurement meets Local content equal to or more than 50%.

(b)CLASS II : Those suppliers/service providers whose goods/ works/ services offered for procurement meets Local content more than 20%.

(c) The 'Class-I local supplier'/ 'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier/'Class-II local supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made along with the offer.

3. As far as implementation of public procurement policy (Preference to make in India) Order, 2017 is concerned, the Office Orders vide No. P-45021/2/2017-B.E-II dt. 15.06.2017, which is partially modified by Order No. P-45021/2/2017-PP(BE-II) dt. 28.05.2018, Order No.P-45021/2/2017-PP(BE-II)dt. 29.05.2019, Order No. P- 45021/2/2017-PP (BE-II) dt 04.06.2020 and Order No.P-45021/2/2017-PP (BE-II) dt 16.09.2020 and subsequent Amendments issued by the Department for Promotion of Industries and Internal Trade, Ministry of Commerce and Industry and Internal Trade, Ministry of Commerce and Industry regarding Class-I/Class-II local suppliers, Purchase preference, verification of local contents etc shall be applicable to this tender. Therefore, bidders may ensure compliance of the same while submitting tenders.

4. Based on the response to the e-Public tender Notice, LPSC(B) reserves the right to change any milestone date of the tendering activity.

5. Bidders are expected to comply with the technical & commercial and other terms and conditions given in vendor specified terms of this tender. In case of any deviation, the reasons thereof should be clearly specified in the vendor specified terms column.

6. Bids will not be entertained after the due date and time.

7. Delivery Terms:

In case of Indigenous items : FOR LPSC, ITPF, TUMAKURU CAMPUS

In case of Foreign orders: EX-WORKS / FOB /FCA

8. EARNEST MONEY DEPOSIT NOT APPLICABLE

9. Fax & Email offers are not accepted.

10. Head, Purchase and Stores, LPSC, Bangalore, reserves the right to accept or reject any/or all the tenders in part or full without assigning any reasons thereof.

11. If an agent submits bid on behalf of the Principal/OEM the same agent shall not submit a bid on behalf of another Principal/OEM in this tender for the same Item/Product.

12. In a tender, either the Indian Agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same Item/Product in this tender.

13. In case of any clarification to be sought to this tender you may please contact Purchase and Stores Officer (PSO) through Email: purchase@lpsc.gov.in and Ph No: 080 250 37 170/171/140

14. Instructions to Indian Agent:- Bidders are required to provide the following information in respect of their authorization from their Principal, if any, along with technical bid as the same is mandatory as it is required for consideration of the bid. Name, Address, Telephone no. , Fax no., email of the Indian Agent including the contact person to be provided.

15. LPSC(B) reserves the right to verify all claims made by the bidder.

16. Original Equipment Manufacturer (OEM) or their representative can submit bid to LPSC(B). Indian agents while quoting on behalf of their principals are requested to attach necessary authorization letter from their Principals in their bid.

17. Price Preference shall be extended to the MSEs under the Public Procurement Policy for MSEs. Such MSEs shall produce documentary proof of registration as per provisions of the Policy ie: registration with District Industries Centre (DIC) or Khadi and Village Industries Commission (KVIC) or Khadi and Industries Board (KVIB) or Coir Board or National Small Industries Commission (NSIC) or Directorate of Handicrafts and Handlooms or Udyog Aadhar Memorandum or any other body specified by Ministry of MSME.

18. Request for the extension of the due date will not be considered.

19. Tenderers can participate in the said tender opening for which, the representative of the firm shall be duly authorized by Competent Authority. Against proper e-authorization only such representatives shall be allowed to attend the tender opening.
20. TENDER FEE NOT APPLICABLE.
21. Tenders which are not prepared in terms of these instructions are liable to be rejected.
22. The exact date and time of opening of price bid of successful tenderers will be intimated later.
23. The offer should be valid for a minimum period of six (06) months from the due date of opening.
24. The parties are advised to download the tender and submit the bid on online at least two days prior to Tender Closing Date to avoid last minute network problem. The due date shall not be extended due to network or computer related problems.
25. The quoted price is fixed & firm. Once the offer is submitted in on line mode by the vendor and bid sealing is done by LPSC(B), vendor will not be able to provide revised offer.
26. The quote should indicate quantity wise unit rate separately which have to be filled online in Price Part-II. The Prices are to be mentioned both in figures as well as in words. The GST, Duties, etc., are to be calculated and indicated in the column provided in online forms explicitly.
27. The vendors have to compulsorily submit the compliance statement online otherwise their offer will not be considered for further evaluation. Before entering the compliance statement, vendors are advised to refer the detailed specification provided in the Technical Writeup/ Drawings document. The specification offered by the vendors may also be indicated in the compliance statement wherever necessary.
28. The vendors have to get themselves registered in above site to download the tender details. To register in above ISRO portal (<https://eprocure.isro.gov.in>) the vendors need to have Class - III Digital Certificate. The Digital Certificate can be obtained from any digital certifying authority. The following e-tokens with their current drivers are tested and working fine with our system. Aladdin, Vasco, Starkey, Moser baer, E-pass-2003, Safenet-2032, WD Proxkey Grey / SPC Token and Trustkey.

2. STANDARD TERMS AND CONDITIONS FOR PUBLIC TENDER(PT)

1. APPLICABLE LAW

The Contract shall be governed by Indian Law for the time being in force and jurisdiction shall lie in the

Courts of India.

2. As far as implementation of public procurement policy (Preference to make in India) Order, 2017 is concerned, the Office Orders vide No. P-45021/2/2017-B.E-II dt. 15.06.2017, which is partially modified by Order No. P-45021/2/2017-PP(BE-II) dt. 28.05.2018, Order No.P-45021/2/2017-PP(BE-II)dt. 29.05.2019, Order No. P- 45021/2/2017-PP (BE-II) dt 04.06.2020 and Order No.P-45021/2/2017-PP (BE-II) dt 16.09.2020 and subsequent Amendments issued by the Department for Promotion of Industries and Internal Trade, Ministry of Commerce and Industry and Internal Trade, Ministry of Commerce and Industry regarding Class-I/Class-II local suppliers, Purchase preference, verification of local contents etc shall be applicable to this tender. Therefore, bidders may ensure compliance of the same while submitting tenders.

3. Bank Details

You shall provide your bank details such as IFSC code, IBAN No. , SWIFT etc along with your offer which shall be not be changed till completion of supply/service.

4. Custom Duty Concession Certificate:

LPSC is providing concession certificate towards the of payment of Customs Duty vide As per the Customs Notification No. 50/2017, Sl. No. 539(b)-CUSTOMS Dated 30.06.2017 & Amendment No: 5/2018, Sl No.539(A) - CUSTOMS Dated: 25/01/2018.

5. FORCE MAJEURE

Neither LPSC, Bangalore nor Supplier/ Contractor, shall be considered in default of the performance of their obligations under this Purchase Order if such performance is prevented or delayed for any causes beyond the reasonable control of the parties to the Order getting affected, such as Acts of God, war, riots, civil, commotion, illegal strikes, legal lock-outs, epidemics, fire accidents, floods, earthquakes, proclamation or regulation or ordinance of any Government thereof, provided notice in writing of any such cause with necessary proof that the obligation under the Purchase Order is hereby affected or prevented or delayed is given within 14 days from the happening of the event. As soon as the cause of force majeure has ceased to exist, the party of the actual delay that has occurred due to such force majeure condition.

6. Instruction to Foreign Suppliers:-

a)Our normal payment term is SIGHT DRAFT, Please confirm acceptance in your offer, if you insist for L/C, and all bank charges shall be to your account. Confirm acceptance.

b)Confirm whether any Export clearance is required and for which End User Certificate is to be provided by us, in case of an Order on you. (Enclose format for EUC, if applicable)

c)Warranty/Guarantee applicable for the item shall be mentioned in your offer

d)Special Certification for packing Material: as per Plant Quarantine (Regulation of Import into India) Order 2003, Articles packed with packing material of plant origin viz., hay, straw, wood shavings, wood chips, saw dust, wood waste, wooden pallets, Dunn age Mats, wooden packages, coir pith, pear or sphagnum moss etc., will be allowed entry by Customs only with a Phytosanitary Certificate. In case if a Purchase Order, if you propose to us any of the above material for packing such a certificate issued by your local Plant Quarantine Authority shall be furnished.

e)The tenders received from Indian agents on behalf of their foreign Principals/OEMs (in cases where the Principals/OEMs also submit their tenders simultaneously for the same item/product in the same tender) the same will be not be considered.f) In case two or more tenders are received from an Indian agent on behalf of more than one foreign Principal/OEM, in the same tender for the same item/product will not be considered. (In either case an Indian agent cannot represent more than on principal against the same tender)

g)If an agent submits Bid on behalf of the Principal/OEM the same agent shall not submit a bid on behalf of another Principal/OEM in this tender for the same Item/Product. (In either case an Indian agent cannot represent more than on principal against the same tender)

h)In case the quote is on Indian Rupee (High Sea Sale), the price shall include GST and duties if any, Department will provide concessional certificates. If the item quote is of USA / France / Germany / Japan/Italy and etc. make, please quote for all-inclusive price since we prefer to get the item on FOR destination basis.

7. Instruction to Indigenous Suppliers:

a)Our Normal payment terms are 100% within 30 days after receipt and acceptance of the item at our site. Please confirm acceptance in your quotation.

b)Please specify GST percentage, if any, in your offer.

(i) GST @ 5% is applicable for following goods mentioned under Sl. No. 243B as per Department of Revenue Notification No. 25/2018 - Integrated Tax (Rate) dated 31/12/2018 (Amendment to Notification Nos. 07/2018 dated 25/01/2018 and 01/2017 dated 28/06/2017) and Department of Revenue Notification No. 24/2018 - Central Tax (Rate) dated 31/12/2018 (Amendment to Notification Nos. 06/2018 dated 25/01/2018 and 01/2017 dated 28/06/2017) and Government of Karnataka Notification No. 24/2018 dated 31/12/2018 (Amendment to Notification Nos. 06/2018 dated 25/01/2018 and 01/2017 dated 29/06/2017). "Scientific and technical instruments, apparatus, equipment, accessories, parts, components, spares, tools, mock ups and modules, raw material and consumables required for Launch Vehicles and Satellites and Payloads"

(ii) In case of service (i.e. Installation, commissioning & testing and AMC, etc.) GST @18% extra.

(iii) GST is not applicable for imported items.

8. JURISDICTION

The court of Bangalore only shall have jurisdiction to deal with and decide any legal matter or dispute whatsoever arising out of this in case PO/contract.

9. Liquidated Damages:

If you fail to deliver the ordered items satisfactorily within the time specified or any extension thereof, Liquidated Damage @ 0.5%(zero point five percent) of the order value or part thereof the un-delivered items for each calendar weeks of delay shall be recovered from your bill. However total Liquidated Damage shall not exceed 10% (ten percent) of the order value.

10. Offers received through fax or email or unsigned will not be considered.

11. Offer Validity

Your offer shall be valid for 120 days from the date due date of tender opening. In case you offer validity is less than 120 days, the said offer is liable for rejection which may please be noted.

12. Performance Bank Guarantee (PBG) :

You have to submit a PBG from a Nationalised / Scheduled Bank in Rs.200/- Stamp Paper for 3% of the order value towards the performance of the system at the time of supply valid till the completion of warranty period plus 60 days (as claim period) as per the format provided by the Department. OR 3% of the order value shall be with held till the completion of Warranty Period plus 60 days.

13. Price Preference shall be extended to the MSEs under the Public Procurement Policy for MSEs. Such MSEs shall produce documentary proof of registration as per provisions of the Policy ie: registration with District Industries Centre (DIC) or Khadi and Village Industries Commission (KVIC) or Khadi and Industries Board (KVIB) or Coir Board or National Small Industries Commission (NSIC) or Directorate of Handicrafts and Handlooms or Udyog Aadhar Memorandum or any other body specified by Ministry of MSME.

14. Purchase / Price preference to MSEs (Not applicable to foreign Suppliers/Vendors)

Purchase/Price preference will be applicable to the product reservation admissible to the Micro and Small Enterprises. Purchase/Price Preference shall be extended to the MSEs under the Public Procurement Policy for MSEs formulated under the Micro, Small and Medium Enterprises Development Act, 2006. The participating MSEs in a tender, quoting price within the band of L-1 plus 15% may also be allowed to supply a portion of the requirement by bringing down their price to the L-1 price, in a situation where L-1 price is from someone other than an MSE. Such MSEs may be allowed to supply upto 20% of the total tendered value. In case of more than one such eligible MSE, the supply will be shared equally.

15. Security Deposit (SD):

You have to furnish a Bank Guarantee from a Nationalised / Scheduled Bank in Rs.200/- Stamp Paper for 3% of the order value within 10 days of receipt of order towards the faithful execution of the order valid till the completion of the scope of work as per order plus sixty days (as claim period). (This will be returned to you immediately on execution of the order satisfactorily as per order terms. In case of non-performance / poor performance, the amount will be forfeited).

16. SD cum PBG:

Security Deposit cum Performance Bank Guarantee (SD cum PBG): In case, if parties are unable to provide two separate BGs i.e. one for SD and one for PBG, they can submit a combined BG for SD cum PBG from a Nationalised / Scheduled Bank in Rs. 200 Stamp Paper within 10 days of receipt of order for 3% of order value valid till the completion of total contractual obligation (i.e. supply period plus warranty period plus 60 days) as per the format provided by the Department.

17. Warranty:-

Warranty for the offered item shall be from the date of installation/acceptance of the item at our site for a minimum period of one year or as specified in the tender document.

C. Bid Templates

C.1 Technical Bid - Supply, installation and commissioning of RO Based DM Water plant for PMSD,LPSCB

1. DE IONISED WATER PLANT AND ITS SPARES

Supply, installation and commissioning of RO based DM Water processing plant as per the specn provided as annexure

Item specifications for DE IONISED WATER PLANT AND ITS SPARES

Supply, installation and commissioning of RO based DM Water processing plant as per the specn provided as annexure

Sl No	Specification	Value	Compliance	Offered Specification	Remark
1	Pre treatment system	Pre treatment system	Yes / No / Explain		
2	Advanced reverse Osmosis	Advanced RO to remove 95-99% ions and 99% of all dissolved organics	Yes / No / Explain		
3	Electro Deionization module	Electro Deionization module: to remove remaining ions by Electro Deionization module	Yes / No / Explain		
4	Ultraviolet lamp	Ultraviolet lamp 254 nm UV lamp to bring down the bacterial count down to 1CFU/ml	Yes / No / Explain		
5	Distribution loop	Distribution loop System should have inbuilt distribution capability to feed the water directly to instruments without any manual intervention, Flow and pressure must be maintained automatically.	Yes / No / Explain		
6	Water Softener	Water Softener Mandatory water softener with minimum flow rate of 500 Liter/Hour processing with same manufacturer made	Yes / No / Explain		

7	Pre filtration Unit	Pre filtration Unit Pre filtration unit with 20 in Housing which consist of 3 Micron and 1 Micron depth filters to remove suspended particulates. The unit consists of Booster pump, pressure gage which shows the feed water pressure	Yes / No / Explain		
8	Water Production volume	Water Production volume 70 -100 L/hr	Yes / No / Explain		
9	Multi-tank facility to meet 1500 Liter storage capacity with a combination of minimum 500 Liter capacity with vent filter.	Multi-tank facility to meet 1500 Liter storage capacity with a combination of minimum 500 Liter capacity with vent filter.	Yes / No / Explain		
10	Conductivity cell should be provided as per below I.Before and after RO cartridge to measure performance of RO. II.After EDI to measure final output water quality. III.In distribution (Recirculation) Loop	Conductivity cell should be provided as per below I.Before and after RO cartridge to measure performance of RO. II.After EDI to measure final output water quality. III.In distribution (Recirculation) Loop	Yes / No / Explain		
11	Permeate divert valve which will divert low quality water to the drain.	Permeate divert valve which will divert low quality water to the drain.	Yes / No / Explain		
12	Distribution pump to deliver product water at high flow rate (>6 LPM)	Distribution pump to deliver product water at high flow rate (>6 LPM)	Yes / No / Explain		
13	End process connection at the end of pump	½" NPT	Yes / No / Explain		

14	8.Auto-diagnostics and self maintenance functions like display of quality parameters (pH, conductivity), routine maintenance reminders, self maintenance functions like-automatic flush, automatic rinse, automatic cleaning cycle should be included.	8.Auto-diagnostics and self maintenance functions like display of quality parameters (pH, conductivity), routine maintenance reminders, self maintenance functions like-automatic flush, automatic rinse, automatic cleaning cycle should be included.	Yes / No / Explain		
15	Display both compensated and non-compensated temperature accurate within $\pm 0.1^{\circ}\text{C}$	Display both compensated and non-compensated temperature accurate within $\pm 0.1^{\circ}\text{C}$	Yes / No / Explain		
16	On site validation of the system with complete a.Inspection quality procedure b.Operational quality procedure c.Process quality procedure d.Maintenance procedure	On site validation of the system with complete a.Inspection quality procedure b.Operational quality procedure c.Process quality procedure d.Maintenance procedure	Yes / No / Explain		
17	List of essential spares for continuous fault free operation of the plant for a minimum 3 years shall be quoted separately.	List of essential spares for continuous fault free operation of the plant for a minimum 3 years shall be quoted separately.	Yes / No / Explain		
18	Flow schematic of water purification system should be available in company's global website	Flow schematic of water purification system should be available in company's global website	Yes / No / Explain		
19	System should be compact and movable on wheels for ease of use in laboratory and any movement required in future.	System should be compact and movable on wheels for ease of use in laboratory and any movement required in future.	Yes / No / Explain		

20	System should have display for alerts and alarms to enable the user to aware of right water quality and system performance and to take immediate necessary action.	System should have display for alerts and alarms to enable the user to aware of right water quality and system performance and to take immediate necessary action.	Yes / No / Explain		
21	System with mandatory built-in remote connection capability in order to support the user in maximizing uptime.	System with mandatory built-in remote connection capability in order to support the user in maximizing uptime.	Yes / No / Explain		
22	System should provide 24/7 real time monitoring remote control with mandatory advanced user interface touch screen for effortless operation.	System should provide 24/7 real time monitoring remote control with mandatory advanced user interface touch screen for effortless operation.	Yes / No / Explain		
23	Demonstration of water quality with third party NABL Accredited laboratory / Govt. Approved Laboratory.	Demonstration of water quality with third party NABL Accredited laboratory / Govt. Approved Laboratory.	Yes / No / Explain		
24	Essential accessories and spares for the working of the plant for 3 years. A separate quote to be provided.	Please specify	Yes / No / Explain		
25	15. Vendor shall also to provide a non comprehensive AMC for the DM Water plant for a period of 3 years after completion of warranty of one year. Separate quote has to be provided.	15. Vendor shall also to provide a non comprehensive AMC for the DM Water plant for a period of 3 years after completion of warranty of one year. Separate quote has to be provided.	Yes / No / Explain		
26	Training for daily operation and maintenance	Please specify	Yes / No / Explain		

Document : Indent annexure for supply and installation of RO Based DM Water plant

Common Specifications (Applicable for all items)

Sl No	Specification	Value	Compliance	Offered Specification	Remark
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1	Supply, installation and commissioning of reverse osmosis (RO) based De-mineralized (DM) water processing plant along with accessories/consumables as per the specification attached	As per the specification provided as annexure	Yes / No / Explain		
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Supporting Documents required from Vendor

1. Compliance as per the tender specification with supporting technical catalog of the offered system catalog

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	As per the specification	Yes / No / Explain	
2	This is a Two Part Tender. Do not mention price element in Techno Commercial Bid. If any Price element mentioned in technical bid, your offer will not be considered.	Yes / No / Explain	
3	Goods and Services Tax (GST): Kindly mention percentage of GST considered in your offer along with HSN Code.	Yes / No / Explain	
4	Delivery Terms: FOR LPSC, Bangalore or any other	Yes / No / Explain	
5	Delivery Period: The supply shall be completed within six months from the date of receipt of PO.	Yes / No / Explain	
6	Payment Terms: 100% payment shall be made within 30 days of receipt and acceptance of the items at our site.	Yes / No / Explain	
7	Liquidated Damages (LD): If the ordered items are not supplied within the delivery schedule, LD shall be levied from your bill @ 0.5% of the order value per week or 0.5% of the value of the stores for which the delivery is delayed for each week of delay subject to a maximum of 5% of the order value. However, in case of inordinate delay in completion period, LD @ 10% shall be recovered.	Yes / No / Explain	
8	Warranty: The items shall be warranted for a minimum period of 12 months from the date of supply or acceptance of items at our site which ever is later. Necessary warranty certificate shall be furnished along with the supply.	Yes / No / Explain	

9	Performance Bank Guarantee (PBG): You have to submit PBG towards fulfilment of warranty obligations and performance of the system for 3% of the Order Value from a Nationalized / Scheduled Bank on non-judicial stamp paper of appropriate value valid till the completion of warranty period plus 60 days as per the format provided by Department. (OR) 3% of the Order Value shall be withheld till the completion of Warranty period plus 60 days.	Yes / No / Explain	
10	Security Deposit (SD): You have to furnish a Bank Guarantee from a Nationalized / Scheduled Bank on non-judicial stamp paper of appropriate value for 3% of the order value within 10 days of receipt of order towards the faithful execution of the order valid till the completion of the scope of work as per order plus sixty days (as claim period). SD shall only be applicable for order value above INR 50.00 Lakhs. SD shall be returned to you immediately on execution of the order satisfactorily as per order terms. In case of non-performance / poor performance, the amount shall be withheld.	Yes / No / Explain	
11	SD cum PBG: In case, if parties are unable to provide two separate BGs, i.e. one for SD and one for PBG, they can submit a combined BG for SD & PBG within 10 days of receipt of order for 3% of order value valid till the completion of total contractual obligation (i.e. supply period plus warranty period plus 60 days) as per the format provided by the Department.	Yes / No / Explain	
12	Insurance: Being a Government of India Department, Insurance is not required at our cost. Please ensure the safe delivery of the ordered item with proper AIR / SEA / ROAD worthy packing.	Yes / No / Explain	
13	Address, contact details like Telephone Number, e-mail, etc. on which order to be placed.	Yes / No / Explain	
14	Details of Principal: Address, contact details like Telephone Number, e-mail, etc. (if applicable)	Yes / No / Explain	
15	Bank Details: Bank name, Branch address, Account No., IFSC Code, IBAN Number, SWIFT, etc.	Yes / No / Explain	

16	Local Content (%): Please mention the percentage of Local Content and the location where local value addition takes place (Kindly enclose self-certification document in the prescribed format)	Yes / No / Explain	
17	MSE Status: Kindly mention the classification under MSE and submit supporting documentation (if applicable)	Yes / No / Explain	
18	Validity of offer: 120 days from the date of opening of tender or as specified in the Tender Document.	Yes / No / Explain	

C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
1	DE IONISED WATER PLANT AND ITS SPARES Supply, installation and commissioning of RO based DM Water processing plant as per the specn provided as annexure	1.00 Sets		-		

Common charges (Applicable for all items)

P & F Charges	
Freight if any (Value)	
Installation & Configuration	
Other Costs, if any (Value)	
Taxes, if any (Percentage)	

Annexure I Specification for RO Based DM Water plant

I. Scope of Supply:

Supply, installation and commissioning of reverse osmosis (RO) based De- mineralized (DM) water processing plant along with accessories/consumables as per the specification given below:

II. Water Purification Plant – Requirements

II(a).The grade of water, which needs to be purified (Inlet feed water), is:

Sl. No.:	Nomenclature	Specification
1.	Quality	Potable Main (Tap) / Borewell water
2.	Conductivity	10 to 2000 μ s/cm @25° C
3.	pH	4-10
4.	Total Solids (mg/L)	2000
5.	Chloride ppm	3
6.	Total (oxidisable)organic carbon (TOC) mg/L	2.5
7.	Silica as SiO ₂ (mg/L)	15
8.	Total Bacterial count	<10 CFU/ml
9.	Total Hardness as CaCO ₃ mg/L	500 ppm

II(b). The specification for output water from DM Water plant:

Sl. No.:	Nomenclature	Specification
1	Conductivity	$\leq 0.2 \mu$ s/cm @25° C
2	Resistivity	>5 M Ω .cm @ 25 °C [Typically 10-15 M Ω .cm @ 25 °C]
3	pH	6.5 - 7.5
4	Total Solids (mg/L)	≤ 1
5	Chloride ppm	≤ 0.9
6	Total (oxidisable) organic carbon (TOC)	50 PPB maximum
6	Total Bacterial count	< 1 CFU/ml
7	Silica as SiO ₂ (mg/L)	0.1 PPM maximum

III. Description of the water purification System:

1. Pretreatment system shall remove

- a. Particles (0.5 µm filter)
- b. Free chlorine
- c. Colloids

And Pre-treatment system shall provide

- a. An anti scaling agent to protect RO membrane in hard water areas
- b. Bactericidal carbon shall prevent unwanted bacterial growth
- c. Pre-treatment cartridge with 3 micron and 1-micron depth filter

The party shall provide suitable pre-treatment packs for the feed water source.

2. Advanced Reverse Osmosis

To remove 95-99 % of ions and 99% of all dissolved Organics, micro-organisms and particles. System should have built in technology to optimize the RO water recovery automatically based on the feed water quality.

3. Electro deionization Module

To remove remaining ions by electro deionization.

- Ion-exchange resin should be continuously regenerated by the electric field within the module.
- Mandatory Carbon beads at cathode of the EDI module to prevent scaling of the module

4. Ultraviolet Lamp

The water shall be sanitized by a 254 nm UV lamp to bring down the bacterial count down to 1 CFU/ml.

5. Distribution loop

System should have inbuilt distribution capability to feed the water directly to instruments without any manual intervention, Flow and pressure must be maintained automatically. Shall contain the distribution pump, UV lamp, Mandatory Automatic Sanitation Module (ASM) on the storage reservoir, Total Organic Carbon (TOC) monitor, resistivity (Conductivity) monitoring in the distribution loop, loop drain valve and additional booster pump (If tap feed water pressure is not enough).

6. Water Softener

Mandatory water softener with minimum flow rate of 500 Liter/Hour processing with same manufacturer made. Local RO or indigenous water softener is not acceptable.

7. Pre filtration Unit

Pre filtration unit with 20 in Housing which consist of 3 Micron and 1 Micron depth filters to remove suspended particulates. The unit consists of Booster pump, pressure gage which shows the feed water pressure. The unit should be compact, manufactured by the same vendor [with complete pump and

accessories mounted on the assembly] which can be placed either on the floor or on the table. Local or indigenous pre-filtration unit is not acceptable.

IV. General Specification:

1. Compact laboratory water purification system designed to produce pure water at production volume of **70 -100 L/hr** .
2. Electrical requirement: 230 V/50 Hz.
3. Multi-tank facility to meet 1500 Liter storage capacity with a combination of minimum 500 Liter capacity with vent filter.
4. Conductivity cell should be provided as per below
 - I. Before and after RO cartridge to measure performance of RO.
 - II. After EDI to measure final output water quality.
 - III. In distribution (Recirculation) Loop
5. Permeate divert valve which will divert low quality water to the drain.
6. Distribution pump to deliver product water at high flow rate (>6 LPM).
7. The end process connection at the end of pump may be ½" NPT preferably.
8. Auto-diagnostics and self maintenance functions like display of quality parameters (pH, conductivity), routine maintenance reminders, self maintenance functions like-automatic flush, automatic rinse, automatic cleaning cycle should be included.
9. Display both compensated and non-compensated temperature accurate within $\pm 0.1^{\circ}\text{C}$

V. General Conditions:

1. On site validation of the system with complete
 - a. Inspection quality procedure
 - b. Operational quality procedure
 - c. Process quality procedure
 - d. Maintenance procedure
2. List of essential spares for continuous fault free operation of the plant for a minimum 3 years shall be quoted separately.
3. Flow schematic of water purification system should be available in company's global website.
4. System should be compact and movable on wheels for ease of use in laboratory and any movement required in future.
5. Validation of instruments used in the water plants
6. System should have display for alerts and alarms to enable the user to aware of right water quality and system performance and to take immediate necessary action.

7. System with mandatory built-in remote connection capability in order to support the user in maximizing uptime.
8. System should provide 24/7 real time monitoring remote control with mandatory advanced user interface touch screen for effortless operation.
9. Demonstration of water quality with third party NABL Accredited laboratory / Govt. Approved Laboratory.
10. System should have full monitoring capabilities and automatic recording of data which should be available for up to two years, ensuring traceability.
11. Training of LPSC employee's in the aspects
 - a. Operation
 - b. Maintenance
 - c. Replacement of accessories
12. **Warranty period:** The warranty period of 12 months shall commence from the date of installation, commissioning and acceptance of water purification plant at PMSD,LPSC, Bangalore.
13. **Delivery place:** The DM Water plant shall be supplied, installed and commissioned at PMSD,LPSC, Bangalore.
14. **Delivery period:** The delivery period for supply and installation of DM Water plant shall be six months from date of placement of P.O.
15. Vendor shall also to provide a non comprehensive AMC for the DM Water plant for a period of 3 years after completion of warranty of one year. Separate quote has to be provided.
16. The service should be taken care by the manufacturer own trained service engineer and not by any local franchises. There should be a dedicated toll-free number to register the service request.
17. For cost comparison, basic equipment cost, Spares cost and non comprehensive AMC cost (for 3 years) will be considered.
18. Vendor shall provide detailed technical specification with supporting catalog of the offered system indicating model, make etc. along with offer.