



Gujarat Cooperative Milk Marketing Federation Ltd, Anand Amulfed Dairy (Previously known as Mother Dairy)

Plot No. 35, Nr. Indira Bridge, Ahmedabad-Gandhinagar Highway Village: Bhat, Dist: Gandhinagar Gujarat, India-382428

Inquiry for Operation & Maintenance Contract of 700 KL/day water recycling plant (UF & RO) at Effluent Treatment plant (ETP) AmulFed dairy, Gandhinagar

AFD: PUR: ENQ: 2024: 782





We invite best competitive rates for Operation & Maintenance Contract of 700 KL/day water recycling plant (UF & RO) at Effluent Treatment plant (ETP) AmulFed dairy, Gandhinagar as per the attached Annexure-A, B.

AFD: PUR: ENQ: 2024:782
05.11.2024
15.11.2024 (11:00 hrs)
15.11.2024 (18:00 hrs)
17.11.2024 (18:00 hrs)

1. Procedure to participate in above inquiry:

- 1) All the interested bidders have to participate in the tender through our purchase portal by registering your firm as a new vendor (if your firm already have registration in our Purchase Portal, than you have to login to your account and request AFD to send RFQ).
- 2) Interested bidders have to register your firm in our Purchase portal.
 - a. Website for our portal is as >>>: http://afdpurchase.amul.in/
- 3) Offer through mail/hardcopy are not accepted and stand for rejection, your competitive bids should be submitted through our online portal only.
- 4) Interested bidders have to submit their technical specification/detail first, only after technical evaluation/approval, bidders will be invited for submission of commercial bid.
- 5) Submitted commercial bid were open on mentioned due date and time in online /presence of bidder's representative.

2. Submission & Opening of Bids

- This is a two stage bid.
- All the bidders shall submit the bids through online platform
 Phase-I Technical bid / eligibility documents : Should be submitted as per the
 described date and time. The technical bid shall contain all the details except for the
 price.
- Phase- II- Only technical qualified/Successful Bidders invited to submit their commercial bid through online portal.
- Deviation sheet needs to be submitted separately and with justification of offered item/feature.

3. Rights Reserved by AFD

 AmulFed Dairy, Gandhinagar at all its sole discretion and without assigning any reason thereof, reserves the right to accept and/or reject the whole or part of any or all the bids received.



4. Validity

• The offer should must be valid for 30 days from the last date of bid submission.

5. Delivery / Service Address:

AmulFed Dairy (A unit of GCMMFL) Plot no. 35, Near Indira bridge, Village – Bhat, Gandhinagar, Gujarat - 382428

- 6. Commercial offer through e-mail are not accepted and stand for rejection. Your competitive bid should be submitted in purchase portal only.
- 7. The price should be quoted on F.O.R basis inclusive of packing and forwarding, freight etc. However if it is separate, it should be clearly mentioned in the quotation. Taxes /GST will be extra at actual and should be mentioned clearly.
- 8. Bidder are abide by & bound to follow all the terms, conditions mentioned here in this Enquiry.
- 9. All pages of enquiry including rate form must be signed & sealed by bidder which are considered as your acceptance for all rates, terms & conditions mentioned in enquiry.
- 10. Management reserves the rights to accept or reject the any / all offers submitted by bidders, without assigning any reasons. Management decision in these regards would be considered as final and no complaints will be entertained. No telephonic/personal follow-up from your side will be entertained. Canvassing in any form may lead to disqualification.
- 11. Offer which are incomplete or not meeting the conditions or only for part items, are liable for rejections.
- 12. It is not binding on us to accept lowest offer.
- 13. The final supplier will be the combined decision of our technical team and management and no reason of final selection will be conveyed to any bidder.
- 14. Realistic earliest delivery period should be indicated.
- 15. We are ISO 9001:2000 and ISO 14001 certified unit. We follow eco-friendly processes in our factory and expect the same to be followed in your company.

Contact person- Bhargav Kanabar

Contact no: - 9376149034

Email Id: bhargav.kanabar@amul.coop / bharat.naik@amul.coop

Thanking you.

Encl: Annexure: A (Scope of work) & Annexure B (Rate Format)



Annexure A

<u>Details of Inquiry (AFD:PUR:ENQ:2024:782) for Operation & Maintenance Contract of 700 KL/day water recycling plant (UF & RO) at Effluent Treatment plant (ETP) AmulFed dairy, Gandhinagar.</u>

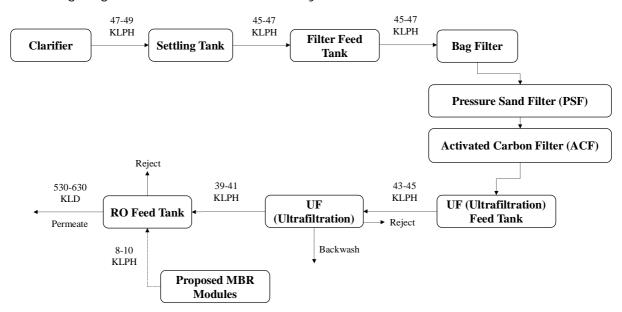
Preamble:

AmulFed Dairy, Gandhinagar (AFD) is manufacturing unit of Gujarat Cooperative Milk Marketing Federation Ltd (GCMMF) having peak milk handling capacity of 5000 KLD. Range of manufactured products include pouch milk, aseptic long life milk, curd, buttermilk, flavored milk, butter, ghee and ice cream. The plant is situated on the bank of Sabarmati River.

Water conservation has been the focus area in the plant. Several water recovery systems are installed for reuse of water within the plant. AFD has also installed 700 KLD permeate capacity RO system for recycling of treated waste water, including UF and RO system. The system was installed on BOOT basis with payment of asset created for water recycling after successful operation of plant for one year and monthly payment based on RO permeate water generated. It was installed and commissioned in July 2023 and has been running successfully till date. Currently, we are feeding average 700-800 KLD treated waste water to RO plant and effectively recycling 530-550 KLD treated waste water from this RO system.

We are also in the process of replacing two of the existing MBR modules and provide MBR outlet water to RO feed by March 2025.

Following diagram shows a schematic of the system.



We wish to award the O&M of UF and RO system for a further period of 3 years w.e.f. 1/December/2024.



Scope of Work:

During this period, all necessary manpower will be supplied by bidder. Also, supply and installation of UF and RO membranes will be in the scope of bidder. The scope of work also includes preventive maintenance of all equipment, so as to ensure reliable operation of the plant. All necessary chemicals, spares and consumables will be provided by AFD, except for UF and RO membranes and their connectors.

Detailed scope of work will be as under:

- Routine operation of 700 KLD water recycling plant, including preparation of chemicals for settling system, replacement of bag filters, periodical backwash of PSF and ACF, operation of PLC operated UF plant with necessary chemical enhanced backwash (CEB) & CIP, operation of manually operated RO plant including its dosing systems, necessary backwash and CIP of RO membranes, operation of RO permeate and reject pumps etc.
- 2. Preventive maintenance of equipment mainly maintaining the oil levels and lubrication of equipment.
- 3. Supply and replacement of sand and carbon media as and when required.
- 4. Maintaining the daily log book of the entire system for proper monitoring.
- 5. Periodic collection of inlet and outlet parameters for testing.
- 6. Disposal of waste filters, media etc. at a designated place within 30 meters of the plant.
- 7. Notification to client for required breakdown/major preventive maintenance of electro-mechanical equipment as and when required.
- 8. Supply of manpower as per requirement but minimum of
 - a. Plant In charge (General Shift) for overall monitoring of plant performance. Plant in charge must have sufficient knowledge and skill to operate such plant.
 - b. One operator per shift in all the three shifts and a reliever Total 4 operators (The operators must be conversant with operation of such UF and RO plant.
 - c. One helper per shift in all the three shifts and a reliever Total 4 helpers. All helpers must be at least semi-skilled category to ensure safe working without any incidence.
 - d. Overall monitoring of plant by a competent person of bidder and monthly visit to the plant.
 - e. Statutory requirement for maintaining PF/ESIC/Insurance of the deployed manpower will be in the scope of bidder. Need to submit supporting document for these along with bill of every month.



Scope of AFD:

- 1. Breakdown/major preventive maintenance of equipment except RO and UF systems.
- 2. Testing of required parameters for water as and when required.
- 3. Supply of chemicals, consumables (bag filters, micron cartridge filters) and spares for various pumps installed in the system.
- 4. Electrical maintenance of the system as and when required.
- 5. Calibration of instruments as and when required.

Inlet and Outlet Water Quality:

Following table shows major inlet and plant parameters. Input parameters are to be adhered by the client and plant parameters are to be maintained by the bidder.

Sr.	Particulars	Unit	Input Parameters Plant Parameters						
No.			Secondary	MBR	Settler	UF	UF	RO	RO
			Clarifier	Outlet	Output	Feed	Permeate	Feed	Permeate
			Outlet						
1	Flow	KLPH	47-49	8-10	45-47	43-45	39-41	47-51	33-35
2	рН		6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	7-7.5
3	Turbidity	NTU	<60	<1	<30	<20	Bidder to ma		<0.1
4	COD	ppm	<250	50-70	<100	<70	quality suitable to BDL		BDL
5	BOD	ppm	<100	20-25	<30	<30	RO feed		BDL
6	TSS	ppm	<250	<10	<100	<30			BDL
7	0&G	ppm	<5	<5	<5	<2			BDL
8	Temperature	Deg C	40-45	40-45	40-45	40-45	40-45	40-45	40-45
9	Total chloride	ppm	<500	<500	<500	<500	<500	<500	
10	Ammonical Nitrogen	ppm	<50	<50	<50	<50	<10	<10	
11	Sulphate	ppm	<1000	<1000	<1000	<1000	<1000	<1000	
12	Sodium Absorption Ratio		<26	<10	<26	<26	<10	<10	
13	Total hardness	ppm	<100	<100	<100	<100	<100	<100	
14	Ca+	ppm	<50	<50	<50	<50	<50	<50	
15	Fluoride	ppm	<2	<2	<2	<2	<2	<2	
16	TDS	ppm	<2100	<2100	<2100	<2100	<2100	<2100	<350
17	Mg+	ppm	<30	<30	<30	<30	<30	<30	
18	Total Alkanity as CaCO3	ppm	<1000	<1000	<1000	<1000	<1000	<1000	
19	SDI			<3	_		<3	<3	

Note: Bidder to understand that the above parameters are indicative and some variation is possible as the input water is coming from Effluent Treatment Plant vulnerable to variation in input quality.



Technical Details of UF and RO:

Sr. No.	Particulars	Specifications
Α	UF System	
1	Туре	Skid mounted, Hollow Fibre, Outside In
2	Permeate Capacity	800 KLD (40 KLPH)
3	MOC of Membranes	PTFE
4	Flux	=40 LMH</td
5	Membrane make	Sumitomo
6	No of Membranes	10
В	Proposed MBR System	
1	Type	Skid mounted, Hollow Fibre, Outside In
2	Permeate Capacity	7 KLPH
3	MOC of Membranes	PTFE
4	Flux	=15 LMH</th
5	Make of Membrane	Sumitomo
6	No of Membranes	2
С	RO	
1	Recovery	70%
2	No of membranes	55
3	Make of Membrane	Hydranautics
4	Membranes	Low fouling type, 8" dia, 40" long, TFC



(PREVIOUSLY KNOWN AS MOTHER DAIRY, GANDHINAGAR) Eligibility Criteria

Vendor should submit documents for following (as eligibility criteria):

- 1. Turnover of firm for last 3 years (2021-22, 2022-23, 2023-24) should be above Rs. 5.0 Crore (Sales + Services)
- 2. Minimum 20 manpower should be working under firm name (across different site)
- 3. Firm should have experience (minimum 1 year) of Operation & Maintenance of 250 KL/Day RO and UF plant (only ETP based experience will be considered). You may share STP experience, if any.
- 4. Statutory requirement for maintaining PF/ESIC/Insurance of the deployed manpower will be in the scope of bidder. Need to submit supporting document for these along with bill of every month.



Annexure B

Inquiry: AFD:PUR:ENQ:2024:782

Rate Format for Operation & Maintenance Contract of 700 KL/day water recycling plant (UF & RO) at Effluent Treatment plant (ETP) AmulFed dairy, Gandhinagar.

Consideration for Price Bid:

Following two options are to be considered for determination of Price:

Option 1:

- Minimum commitment of 530 KLD water recycling from client. AFD will pay for this quantity in the event of
 - Lower inlet water quantity
 - o Inlet water parameter not meeting the specifications
 - o Treated water requirement is less
 - o Electro-mechanical breakdown of system under control of AFD

The above commitment to be compensated on annual average basis starting from the first date of commencement of O&M period.

- 50% sharing of membrane cost by AFD and 50% sharing of membrane cost by bidder. Upfront cost of membranes to be quoted by bidder for UF and RO membranes, valid for period of 3 years.
- Bidder to bear 100% cost for supply and replacement of sand and carbon media.
- As and when require, replacement of RO & UF membrane should be completed within 3 working days, failing to which minimum volume commitment will be void. Further there will be penalty of Rs. 25,000/- per day will be applicable if time taken is more than 3 working days. AFD will have right to forfeit the outstanding payment and terminate the contract.
- Bidder to quote for rate in INR per KL of RO permeate water (Rs. /KL) considering above terms for 1st, 2nd and 3rd year. Separate rate need to submit for 530 KLD and for quantity above 530 KLD.



Option 1: Price sheet

Name of Bidder / firm :

Sr.no.	Particular	RO Permeate Water		
		Up to 530 KL/day	Above 530 KL/day	
		Rs./ KL	Rs./ KL	
1	Operation & Maintenance			
1.1	1st year			
1.2	2 nd year			
1.3	3 rd year			
2	Cost of Replacement of UF Membrane – 1 Each			
3	Cost of Replacement of RO Membrane - 1 Each			

(* GST extra)

Manpower mobilization time :			
Payment Terms: 30 days from monthly bill submission			
I have understood the terms and conditions pro	perly contain in Enquiry & Annexure A.		
Bidder's Sign	Company Seal & Name		
Date:			



Option 2:

- Minimum commitment of 630 KLD water recycling from client. AFD will pay for this quantity in the event of
 - Lower inlet water quantity
 - o Inlet water parameter not meeting the specifications
 - o Treated water requirement is less
 - o Electro-mechanical breakdown of system under control of AFD

The above commitment to be compensated on annual average basis starting from the first date of commencement of O&M period.

- 100% membrane cost to be bear by bidder.
- Bidder to bear 100% cost for supply and replacement of sand and carbon media.
- As and when require, replacement of RO & UF membrane should be completed within 3 working days, failing to which minimum volume commitment will be void. Further there will be penalty of Rs. 25,000/- per day will be applicable if time taken is more than 3 working days. AFD will have right to forfeit the outstanding payment and terminate the contract.
- Bidder to quote for rate in INR per KL of RO permeate water (Rs. /KL) considering above terms for 1st, 2nd and 3rd year. Separate rate need to submit for 630 KLD and for quantity above 630 KLD.



Option 2 : Price sheet

Name of Bidder / firm :

Sr.no.	Particular	RO Permeate Water		
		Up to 630 KL/day	Above 630 KL/day	
		Rs./ KL	Rs./ KL	
1	Operation & Maintenance			
1.1	1st year			
1.2	2 nd year			
1.3	3 rd year			

(* GST extra)

Manpower mobilization time :	
Payment Terms : 30 days from monthly bill su	bmission
I have understood the terms and conditions pro	operly contain in Enquiry & Annexure A.
Bidder's Sign	Company Seal & Name
Date:	