



Gujarat Cooperative Milk Marketing Federation Ltd, Anand

AmulFed Dairy (Previously known as AmulFed Dairy)

Plot No. 35, Nr. Indira Bridge,
Ahmedabad - Gandhinagar Highway

Village: Bhat, Dist: Gandhinagar

Gujarat, India-382428

Request for Bid (RFB) for “DRDO design Bio-digester for Sewage Treatment Plant “as per given scope of work.

AFD: PUR: ENQ: 2020: 100



Invitation for Bids (IFB)

AmulFed Dairy Gandhinagar

(A Unit of Gujarat Cooperative Milk Marketing Federation Ltd)

Near Indira Bridge, Ahmedabad-Gandhinagar Highway, Bhat,

Gandhinagar 382428

Phone 23969055-56 Fax 079-23969059

We invite sealed bids from eligible bidders for the following work:

DRDO design Bio-digester for Sewage Treatment Plant as per given scope of work.

Bid Reference	AFD: PUR: ENQ: 2020: 100
Bidding document	Starts from 30.06.2020 Stop on 28.07.2020
Submission	Up to 04.00 pm of 28.07.2020
Project Completion period	5 Weeks

Eligibility Criteria :

- 1) Bidder should be having minimum three successful installations in India of similar nature.
- 2) You must be licensed ToT holders of DRDO Bio-digester technology.

Technical Specification : As per the Annexure-1

Commercial Bid : As per the Annexure-2

Submission of Bid :

1.1 The bid shall be submitted through hardcopy before above due date is acceptable.

1.2 You have to deposit Rs. 2000/- for Tender fee by way of RTGS/NEFT in following mention bank accounts:

BANK NAME: HDFC BANK

ACCOUNT NAME: AMULFED DAIRY(A UNIT OF GCOMM LTD)

A/C NO: 00060310001593

BRANCH: NAVRANGPURA

IFSE CODE: HDFC0000006

Tender fee is non-refundable. You have submit RTGS Details of Payment done for tender fee with Tender copy. Tender will be not valid if tender fee will be not submitted.

1.3 The Price Break up sheet (in separate sealed Envelope and send through hardcopy) and technical document shall be submitted at the office address mentioned below.

- **AMULFED Dairy** (A Unit of G.C.M.M.F.Ltd.)
Plot No: 35, Near Indira Bridge,
Ahmedabad-Gandhinagar Highway,
At & Post: BHAT Village,
Dist.: Gandhinagar, Pin code: 382 428.

1.4 The price Break up sheet should be entitled with reference of Price Break Up for, Supply, and Installation and commissioning, testing of DRDO design Bio-digester for Sewage Treatment Plant.

1.5 Your tender rate should be valid for at least 120 Days.

1.6 You must submit copy of ToT license issued by DRDO for bio-digester.

Rights Reserved by AmulFed Dairy (A unit of GCMMF Ltd).

AmulFed Dairy (A unit of G.C.M.M.F.Ltd), at 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.

Validity : The offer should be valid for 3 Months from the date of Bid opening.

Contact details: For any techno-commercial query you may contact Umang Vanani (9106687886), ([E-mail- umang.vanani@amul.coop](mailto:umang.vanani@amul.coop)) of Purchase Department or Sh. P. K. Sarkar (9376977261), ([E-mail- pksarkar@amul.coop](mailto:pksarkar@amul.coop)) of Utility Department.

Note: Preference can be given to manufacturer having an international accreditations like ISO 9000, 14000, 22000 etc.

Payment Term of the tender

- We will prefer payment term 30 days credit after successful installation and commissioning.
- Advance Payment will be given against 100% bank guaranty of 1 year validity only.

ANNEXURE - 1

REQUEST FOR PROPOSAL (RFP) FOR DOMESTIC SEWAGE BIO-DIGESTER DRDO SYSTEM

FOR AMULFED DAIRY (A Unit of GCMMF Ltd)

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BROAD SCOPE OF WORK

Design, manufacturing, supply and complete installation, testing and commissioning of **DOMESTIC SEWAGE BIO-DIGESTER DRDO SYSTEM** broadly comprising of:

Sr. No.	Description	Qty	Unit
1.	Bio-digester Tank (BDT) Polyethylene round/ rectangular, factory assembled, ready for installation under the ground 7 KL	2	Set
2.	Anaerobic Microbial Inoculums AMI DRDO Bacteria as required for effective result suitable for 7 KL	2	Set
3.	Complete Installation & commissioning for all units	2	Job.

JOB IS TO BE CONSIDERED ON TURN-KEY BASIS WITHIN THE BATTERY LIMITS TO MEET THE REQUIREMENT OF ATTAINING THE DESIRED WATER OUTLET FROM BDT LESS THAN 200 COD WITHOUT ANY FOUL SMELL AND SUITABLE FOR WATERING PLANTS AND LAWNS.

ALL TECHNICAL CRITERIA ARE COMPULSORY TO MEET WITH END RESULTS OF OUTLET WATER. YOU HAVE TO MENTION WHAT MATERIAL WILL BE REQUIRED FROM OUR SIDE DURING INSTALLATION WITH COMPLETE LIST WITH TECHNICAL DETAILS.

TECHNICAL SPECIFICATIONS

BIO-DIGESTER TECHNOLOGY

- ✓ PSYCHROTROPHIC BACTERIA HAVE THE NATURAL CAPABILITY TO SURVIVE ON WASTE.
- ✓ ANAEROBIC BIO-DEGRADATION TECHNOLOGY USES THESE BACTERIA TO BREAKDOWN THE WASTE MATTER INTO USABLE WATER AND GAS THROUGH ANAEROBIC PROCESS.
- ✓ THE ZERO-WASTE PROCESS IS NOT LIMITED BY PLACE OR TEMPERATURE (5 TO 50 °C) AND DOES NOT NEED SEWERAGE NETWORKS OR SEWAGE TREATMENT PLANT.
- ✓ IT IS ON-SITE INDEPENDENT SYSTEM AND DOES NOT REQUIRE ANY MAJOR INFRASTRUCTURE.
- ✓ IT CONSISTS OF TWO PARTS:
 - ✚ AMI OR DRDO BACTERIA
 - ✚ BIODIGESTER TANK (BDT)
- ✓ BDT IS CONNECTED TO THE OUTLET OF THE TOILET AND CAN BE INSTALLED BELOW THE GROUND.
- ✓ THE SEWAGE MATTER FLOWS INTO BDT FROM THE TOILET AND THE AMI TREATS IT (DEGRADES IT) INTO AN EFFLUENT THAT IS SAFE TO DISCHARGE FOR WATER PLANTS AND ANIMALS.
- ✓ THE HUMAN WASTE IS BROKEN INTO WATER, CO₂ AND CH₄.
- ✓ IT REQUIRES ONLY ONE TIME ADDITION OF BACTERIA.
- ✓ NO CLOGGING OF BDT
- ✓ NO INFESTATION OF COCKROACHES AND FLIES
- ✓ HUMAN WASTE IN TANK MUST NOT BE VISIBLE
- ✓ EFFLUENT MUST BE FREE FROM ODOUR AND SOLID WASTE.

BIODIGESTER TANK (BDT)

- ROUND/ RECTANGULAR, FACTORY ASSEMBLED, READY FOR INSTALLATION
- MOC POLYETHYLENE
- TANK WALL THICKNESS 7 MM MINIMUM
- HEAVY DUTY POLY-GRASS MATTING TO ENSURE GOOD FORMATION OF BACTERIAL COLONIES
- 3 COMPARTMENTS DESIGN FOR COMPLETE DIGESTION OF FAECAL MATTER
- LIFTING HOOKS FOR EASE OF HANDLING

- IN-BUILT VENT PIPE
- TANK CAPACITY 7 KL 4 NUMBERS.
- WASTE DEGRADATION ANAEROBIC
- WASTE DECOMPOSTION 99%
- MAINTENANCE-FREE
- NO SLUDGE REMOVAL REQUIRED
- ODOURLESS, COLOURLESS AND HAZARD-FREE WASTE (WATER ONLY)
- BACTERIA CONDITION TO REMAIN UNAFFECTED BY CLEANING AGENTS
- DISCHARGE WATER PH 7.0-7.2
- TURBIDITY (NTU) 70-90
- TSS PPM 90-120
- TDS PPM 350-450
- VS MG/100 ML 20-30
- COD PPM 200 MAXIMUM
- BOD 5 PPM 70 MAXIMUM
- COLIFORM MPN/ML 300 MAXIMUM

ANAEROBIC MICROBIAL INOCULUM (AMI OR DRDO BACTERIA)

- AMI CONSORTIUM DEVELOPED BY DRDO
- MIXTURE OF DIFFERENT TYPE BACTERIA RESPONSIBLE FOR THE BREAKDOWN OF COMPLEX POLYMERS INTO SIMPLE SUGARS, FURTHER BROKEN INTO LOW CHAIN FATTY ACIDS AND FINALLY INTO BIOGAS
- AMI MICROBIAL CONSORTIUM IS DEVELOPED BY SELECTING DESIRED GROUP OF BACTERIA FROM A MIXTURE OF MICROBES THROUGH A PROCESS OF NATURAL SELECTION.
- SEVERAL SPECIES OF BACTERIA, SOURCED AND ISOLATED FROM COLD REGIONS LIKE ANTARTICA AND SIACHEN GLACIERS, ARE ADDED TO THE AMI GROUPING ALONG WITH VOLATILE FATTY ACIDS DEGRADRES TO ENHANCE EFFICIENCY.
- THE AMI MICROBIAL CONSORTIUM CAN ADAPT AND GROW IN EXTREME TEMPERATURE.
- IT EFFICIENTLY DEGRADES WASTE AT TEMPERATURE FROM 5 TO 50 c
- PH 6.5-8
- BIOGAS > 50% OF TOTAL VOLUME OF FLASK AFTER 48 HOURS
- BIOGAS GENERATED IS INFLAMMABLE BUT NOT THE AMI

- METHANE > 40% AFTER 48 HOURS
- MPN FOR METHANOGENS > 1000/ML
- TOTAL SOLIDS 3 - 4%

BATTERY LIMITS AND EXCLUSIONS

The battery limits for the plant are as follows:

Item	Purchaser's Scope	Supplier's Scope Includes
Civil works	All masonry / RCC works such as foundations / grouting of equipment like compressors, housing for the equipment, breaking and making good of walls, floors, slabs, construction of trenches for cables, any excavation works and construction of lockable space, etc.	Supply of necessary foundation bolts along with the template
Laboratory Equipment's	Any laboratory equipment's required for the testing of the raw material / product shall be provided	----- Nil -----
Power & Water for commissioning	Power and Water shall be supplied at free of cost for Construction and the Product trials	----- Nil -----

EXCLUSIONS

1. Any foundation, pedestal for machine and separators etc. Generally such pedestals are made in civil with proper finishing tiles.
2. Supply of consumables, cleaning chemicals, laboratory facilities & quality control equipment.
3. Plant illumination, lightning arrestor etc.
4. Permanent water and power supply at the time of commissioning of the plant.
5. Any kind of spares.
6. Fire extinguishing equipment's for building and electrical & control panel rooms
7. Lockable temporary store and office space during the execution/erection of the project.
8. Earthing pits for all equipment's along with Interconnection with Main Grid.
9. Any statutory approvals related to utilities such as IBR, electrical etc.
10. Flow measurement instruments for all utility headers
11. Any item(s) and service(s) not explicitly mentioned in your scope of supplies/work.

MAKES OF BOUGHTOUT ITEMS

Description	Makes
BDT	OEM
AMI OR DRDO BACTERIA	DRDO LICENSED

GENERAL TECHNICAL SPECIFICATIONS:

1. Good Manufacturing Practices (GMP) is must

ANNEXURE - 2

Enquiry No.: AFD: PUR: ENQ: 2020 : 100

Date :

**To,
General Manager,
AmulFed Dairy, Bhat.**

* We have gone through the terms & conditions of enquiry and understood them.

Sr. No.	Item Name	Qty	UoM	Rate (Rs./Unit)	GST %	HSN/SAC Code
1	BDT 7 KL	2	set			
2	AMI or DRDO Bacteria	2	Lot			
3	Complete Installation and commissioning	2	Job			
	Total					

*We have read all the terms of tender and accepting it for complete order according to all technical terms of tender as per annexure - 1.

Payment Term :

:

Delivery Term :

:

Name of Company :

:

Address :

:

Contact Person :

:

Contact No. :

: