

**TENDER DOCUMENT**  
For ARC of 2026-27  
**Supply and Testing of**

**5kl Bulk Milk Chillers**

**IFB Ref: NDS/MPO /04/BMC 5KL**

**Issued by**

**NDDB Dairy Services**

**On behalf Milk Producers Organizations**

**POINTS BIDDERS SHOULD BEAR IN MIND**

- 1) BIDS CONTAINING DEVIATIONS FROM BIDDING DOCUMENT TERMS AND OTHER REQUIREMENTS MAY BE REJECTED.
- 2) BIDS UPLOADED WITHOUT SUBMISSION OF EARNEST MONEY DEPOSIT **(if applicable)** SHALL BE SUMMARILY REJECTED.
- 3) BIDDERS SHOULD FURNISH THEIR COMPLETE ADDRESS FOR THE PURPOSE OF FURTHER CORRESPONDENCE PERTAINING TO BIDDING DOCUMENT.
- 4) NEGLIGENCE OF THE BIDDER IN PREPARING TENDER BID CONFERS NO RIGHT TO WITHDRAW THE BID AFTER IT WAS OPENED.
- 5) THE BID, ALONGWITH ENCLOSURES SHOULD BE IN ENGLISH ONLY.
- 6) THE BIDDING DOCUMENTS SHALL BE GOVERNED AND INTERPRETED ACCORDING TO THE LAWS OF THE UNION OF INDIA.
- 7) NDDDB Dairy Services RESERVES THE RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS WITHOUT ANY EXPLANATION TO BIDDERS.

## Index

TENDER DOCUMENT .....	1
Section 1 Invitation of Bids .....	5
Section 2 Instructions to Bidder .....	8
Section 3 General Terms & Conditions of the Contract .....	21
Section 4 Technical Requirement of the Contract .....	35
Section 5 Delivery Schedule, Issuance of PO & Allocation of Qty .....	60
Section 6 PRICE SCHEDULE .....	61
Section 7 Form of Bid .....	65
Section 8 DEVIATION STATEMENT FORMS.....	67
Section 9 BIDDING TERMS DEVIATION STATEMENT .....	68
Section 10 Form of Bank Guarantee for Performance Security .....	69
Section 11 Pre-Bid Undertaking – Service Commitment, Security Deposit .....	72

**CHECK LIST**

- |           |  |        |
|-----------|--|--------|
| <b>1.</b> | Have you submitted the original EMD to NCDFI on or before the date & time mentioned in the bid document?                       | Yes/No |
| <b>2.</b> | Have you quoted Bid prices in terms of clause 14.1 Section-III?  | Yes/No |
| <b>3.</b> | Have you uploaded the Form of Bid?   | Yes/No |
| <b>4.</b> | Have you uploaded the duly digitally signed/signed documents completed in all respect?   | Yes/No |
| <b>5.</b> | Have you noted the Service Period mentioned in the bid (Section-I)?  | Yes/No |
| <b>6.</b> | Have you kept your offer valid for 120 days?   | Yes/No |
| <b>7.</b> | Have you furnished copies of your PAN, GST Reg. No., PF Registration No. etc. (as per statutory requirement of above services) | Yes/No |
| <b>8.</b> | Have you uploaded the Statements of Deviations (Preferably Nil) (Section VII Part A&B)?  | Yes/No |

**Signature & Seal of the Bidder**

**(PLEASE FILL UP THE ABOVE AND UPLOAD THE SAME WITH THE TECHNICAL BID)**

## Section 1 Invitation of Bids

### NDDB Dairy Services

**Address:**

**NDDB House, Safdarjung Enclave, New Delhi, Southwest Delhi, Delhi, 110029**

**011-4988300/49883088/Mob7092922421**

**Web: <https://www.nddbdairyserives.com/>**

Tender Reference **NDS/MPO /04/BMC 5KL**

NDDB Dairy Services (NDS) provides technical support to Milk Producer organizations in implementation of various Dairy Value Chain Projects across the country. NDS intends to help the Milk Producer Companies in procurement of goods and services and inviting from reputed eligible bidders for the following work :-

Bid Ref:	<b>NDS/MPO /04/BMC 5KL</b>
Description	Supply and Testing of <b>Bulk Milk Chillers 5kl</b> ARC period 1 July 2026 to 30 JUNE 2027 at various locations of India in different Milk Producer Companies.
Estimated Cost	<b>As per requirement</b>
EMD	<b>Rs. 2 Lakh.</b> <b>(Through NEFT/RTGS in the account of NCDFI)</b>  <b>Bidders are requested to deposit the Earnest Money Deposit (EMD) directly into their respective Escrow accounts.</b>  <b>After the successful completion of the contract, NCDFI will deduct TC (Transaction charges) at 0.4 % (+ 18% GST) and TDS under section 194 (O) at 0.1 % of the Trade Value from the EMD/SD.</b>
Sale of bid (Start date)	<b>20 May 2026</b>
Pre-bid meeting	<b>A pre-bid meeting will be held at 11:00 AM on 27 May, 2026. (Bidders should send their request to attend the pre-bid meeting before 15.00 HRS of prior date through an email to, <a href="mailto:prasad.pawar@nddbdairyserives.com">prasad.pawar@nddbdairyserives.com</a>, 96585 21206)</b> <b>Venue: By Virtual Mode</b>
Sale of bid End Date	<b>10 June 2026</b>

Last Date & Time of Submission of bid	<b>03:00 PM on 10 June 2026</b>
Technical Bid Opening	<b>03:30 PM on 10 June 2026</b>
Delivery Period	Within 45 days from the purchase order.
PO to be issued by	POs shall be issued by MPOs across India.
Delivery Location	All over India
Delivery Schedule	The rates should be valid for period of 1 year
Evaluation of offer	<p><b>Bid will be evaluated on an overall basis.</b></p> <ul style="list-style-type: none"> <li>• <b>Quantity Allocation Structure</b></li> <li><input type="checkbox"/> <b>50% Firm Allotment to L1:</b> <ul style="list-style-type: none"> <li>A. The bidder who is technically qualified and has the lowest evaluated price (L1) is guaranteed at least <b>50%</b> of the total tendered quantity.</li> </ul> </li> <li><input type="checkbox"/> <b>Balance 50% – Conditional Allotment:</b> <ul style="list-style-type: none"> <li>• The remaining <b>50%</b> <i>may</i> be offered to the next lowest bidders (L2 and L3) if they: <ul style="list-style-type: none"> <li>○ Are technically qualified,</li> <li>○ Accept the L1 rate,</li> <li>○ And in case both accept, L3 cannot get more than L2.</li> </ul> </li> </ul> </li> <li><input type="checkbox"/> <b>If L2/L3 Declines:</b> <ul style="list-style-type: none"> <li>• If L2 or L3 declines the offer, the chance can be given to the next bidder in ranking (only up to L4,etc.), but still at the L1 rate.</li> </ul> </li> <li><input type="checkbox"/> <b>Procuring Agency’s Discretion:</b> <ul style="list-style-type: none"> <li>• The Procuring Agency: <ul style="list-style-type: none"> <li>○ Has the final say in whether to actually share this 50% with other bidders.</li> <li>○ May decide to give the entire 100% to the L1 bidder if it believes this is better for operations.</li> </ul> </li> </ul> </li> </ul>

- **Role of Milk Producer Organisations (MPOs)**

The total quantity indicated in the tender is intended for procurement by **multiple Milk Producer Organisations (MPOs)**.

Accordingly, **Purchase Orders (POs) shall be issued by the respective MPOs** based on their **individual requirements**, as detailed in **Annexure-1 of Section 5 (Delivery Schedule)**.

- **MPOs/Procure Agencies Discretion in Quantity Distribution**

NDS, in consultation with the MPOs, shall determine the allocation of the awarded quantity of the successful bidder(s) to the respective MPOs, in accordance with the Quantity Allocation Structure. Bidders shall not have any discretion regarding the selection of the purchaser (MPO) or their designated location.

**Non-Challenge Clause**

By participating in this tender, the bidder acknowledges and agrees that the allocation of quantity, issuance of POs, and exercise of discretion by the Procuring Agency or MPOs shall be final and binding. These shall not be subject to challenge, claim, or dispute in any forum, including courts of law or arbitration proceedings.

## **Section 2 Instructions to Bidder**

### **2.1 The bidders must meet the following minimum qualifying criteria:**

- a) The Bidder, in the same name and style, should be in business at least for last **five years** at time of bid opening. In case of change of name of bidder by merger / acquisition / change in status, the bidder may be eligible based on the documentary evidence.
- b) The Bidder should have valid registration under various Acts that may be applicable for the contract proposed. This shall include but not limited to Income Tax, Companies Act, Goods and Service Tax (GST), the building & other construction workers' welfare cess act, Employee State Insurance, Contract Labour, Provident fund, professional tax etc.
- c) The bidder must meet technical specifications mentioned at Section 4 In the absence of documentary proof of these documents, the technical offer will be considered as non-responsive:
- d) The Bidder must have achieved a financial turnover in the same name and style (i.e., the bidding entity) in each of the last **three financial years** ending on 31st March (22-23,23-24, 24-25) that is not less than 60% of the estimated cost.
- e) The bidder should have positive net worth in **last two** financial years
- f) The bidder should have cash profit in **any two financial years** out of the last five financial years.
- g) The Bidder in the same name and style shall have successfully executed / completed contracts of **\*\*\*similar nature** costing not less than 80% of the estimated cost during the last 3 years ending last day of the month previous to the month in which bid is opened.

*\*\*\*similar nature means: Supply and Testing of 5KL BMCs*

- h) In addition to the above, the following information/documents should also be **uploaded** along with the online bid by the bidder for evaluation/determination of their eligibility:
  - i. Copy of the Income Tax Returns for three previous years for income tax purpose.
  - ii. Audited financials including cash flow statement for last 3 financial years.
  - iii. Undertaking to be provided as asked in Section 11 of tender document.
- a) Even though the bidder's meet the specified criteria, it may be disqualified if it has:
  - i. Made untrue or false declaration in the forms, statements and attachments submitted in proof of their qualification
  - ii. **Poor documented record based on the feedback from other milk producer organizations from their own experience in the delivery, installation, performance, service and also in abandoning the works, not properly completing the contract, inordinate delays, or financial failure etc.**
  - iii. If the bidder is overbooked beyond his capacity to execute the work as per required schedules.  
The bidder must not have refused or denied the supply of BMCs to NDS or any of its associated Milk Producer Organizations (MPOs) during the last one year from the

date of bid opening, where such refusal or denial is attributable to the bidder. In this regard, the bidder shall submit a list of Purchase Orders (POs) executed with MPOs/NDS during the said period along with No Objection Certificates (NOCs) from the respective MPOs confirming satisfactory execution of the Purchase Orders. In case the bidder fails to disclose any such executed POs, and it is subsequently found during evaluation

- i. that the bidder had denied supply against any such PO, the bid

## **2.2 Eligible Bidders**

This invitation for Bids is open to all suppliers who have downloaded this bidding document in their name and meet the minimum eligibility criteria, if any, specified in this bidding document.

## **2.3 Bidding Document**

The fee/cost for bidding document is NIL.

The Bidder shall bear all costs associated with the preparation and submission of its bid, and the NDDDB Dairy Services hereinafter referred to as "Procuring Agency", will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process. Interested eligible bidders may obtain further information from Manager (Procuring Agency) Sh. Samar Rehman, Address **NDDDB House, Safdarjung Enclave, New Delhi, Southwest Delhi, Delhi, 110029**  
**011-4988300/49883088/**

### **i. Downloading the Document**

- i. The bid documents will be available in the website at <https://www.ncdfiemarket.com/> and can be downloaded and used as tender documents for uploading the offer.
- ii. It is hereby brought to the notice of all bidders that if any change/additions/deletions/alterations are found to be made by them in the tender and the same is subsequently noticed at any stage, even after award of the contract, the bidders are liable for all consequences thereof and NDDDB Dairy Services (NDS) shall be free to take suitable action as deemed necessary.

## **2.4 Content of Bidding Documents**

- i. The services required, bidding procedures and contract terms are prescribed in the Bidding Documents. In addition to the Invitation for Bids, the Bidding Documents include:
  - (a) Instructions to Bidder;
  - (b) General Terms & Conditions
  - (c) Technical Requirement and Tech Specs
  - (d) Delivery Location and Schedule
  - (e) Price Schedule;
  - (f) Form of Bid;
  - (g) Deviation statement
  - (h) Format of Bank Guarantee for performance security

(i) Format of Undertaking

- ii. The Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Documents. Failure to furnish all information required by the Bidding Documents or submission of a bid not substantially responsive to the Bidding Documents in every respect will be at the Bidder's risk and may result in the rejection of its bid.

**2.5 Clarification of Bidding Documents**

A prospective Bidder requiring any clarification of the Bidding Documents may notify the NDS in writing/fax/telex/email at the NDSs mailing address indicated in the Invitation for Bids. The Procuring Agency will respond in writing to any request for clarification of the Bidding Documents, which it receives not later than 7 days prior to the deadline for the submission of bids prescribed by the Procuring Agency. If required, written copies of the Procuring Agency's response (including an explanation of the query but without identifying the source of inquiry) will be uploaded in the websites mentioned.

**2.6 Amendment of Bidding Documents**

At any time prior to the deadline for the submission of bids, the NDS may for any reason whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding document by the issuance of amendment.

The amendment will be uploaded on NDS/NCDFI website. Before submission of the bid, the bidder should check the NDS/NCDFI website for any Corrigendum/additional information on the bidding document, if any.

The amendment will be also uploaded on NCDFI's website. Before submission of the bid, the bidder should check the NCDFI's website for any Corrigendum/additional information on the bidding document, if any

However, non-information in changes/amendments put on website as Corrigendum to the prospective bidders shall not bind the NDS to extend the deadline for the submission of the bids and non-compliance to such Corrigendum by the bidder shall result to non-responsiveness of the bid leading to rejection.

**2.7 Preparation of Bid.**

The Bid prepared by the Bidder and all correspondence and documents relating to the bid exchanged by the Bidder and the Procuring Agency, shall be written in the English language

**2.8 Documents comprising the bid**

The Bid prepared by the Bidder shall comprise the following documents:

- a. A complete description of Services the Bidder to provide and a price schedule completed in accordance with clause Nos 2.10 and
- b. Earnest Money Deposit in accordance with section 2.14
- c. Documentary evidence establishing bidder's eligibility and qualifications in accordance with Clause No. 2.1 and

- d. Documentary evidence establishing eligibility and conformity of services in accordance with Clause No. 2.1
- e. A price schedule completed in all respect.
- f. Even though the applicants meet the above criteria, they are subject to be disqualified if they have:
  - i. Made untrue or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and or,
  - ii. Poor documented record based on the feedback from other milk producer organizations from their own experience in the delivery, installation, performance, service and also in abandoning the works, not properly completing the contract, inordinate delays, or financial failure etc.
  - iii. Notwithstanding anything stated above, the Procuring Agency reserves the right to assess the Bidders capabilities and capacity to execute the contract satisfactorily before deciding on award.

Any exceptions the Bidder wishes to take in any aspect of the bidding document or payment schedule including a justification for the exception in the format furnished in Section 9

## **2.9 Bid Form**

- a. The Bidder shall complete the Bid Form furnished in the Bidding Documents and upload the same on the e-portal submit the same along with technical bid.
- b. All the required document duly signed/digitally signed should be uploaded on or before the specified date and time at NCDFI website.

## **2.10 Bid Submission:**

- a) The original bid, both technical and Financial Bids shall contain no interlineations or overwriting, except as necessary to correct errors made by the Consultants themselves. The person who signed the proposal must initial such corrections. Submission letters for both Technical and Financial bid should respectively be in the format of price schedule given at Section-
- b) An Authorized representative of the bidder shall initial all pages of the original Technical and Financial bid. The authorization shall be in the form of a **written power of attorney** accompanying the Proposal or in any other form demonstrating that the representative has been dully authorized to sign.
  - a. The Bidder shall fill up the Technical and Price Bid at NCDFI Portal mentioning the final prices of the services under the Contract. Bidders must submit a bid for the full quantity specified under Scope of work, failing which, such bids will not be considered for evaluation and comparison and will not be considered for award.
  - b. The Bidder shall quote their prices (part B in the Price Schedule) as per the format given in Section V of the bidding document. The bidders are requested to quote their price considering following aspects: -

- c. The quoted price shall be as per the description specified in the part B of price schedule.

### **2.11 Bid Currencies**

For a service covered in this Bidding Document, prices shall be quoted in Indian Rupees only.

### **2.12 Documents Establishing Bidders' Eligibility and Qualifications**

- a. Bidder shall furnish, as part of its bid, documents establishing the Bidder's eligibility to bid and its qualifications to perform the Contract if its bid is accepted.
- b. The documentary evidence of the Bidder's eligibility to bid shall establish to the Procuring Agency's satisfaction that the Bidder, at the time of submission of its bid is eligible to bid as defined under Section 2.
- c. The documentary evidence of the Bidder's qualifications to perform the Contract if its bid is accepted, shall establish to the Procuring Agency's satisfaction:
- d. That the Bidder has the financial and technical capability necessary to perform the Contract and meet the minimum qualifying criteria specified at Section 2. To this end, all bids submitted shall include the following information:
- e. Copies of original documents defining the constitution or legal status, place of registration and principal place of business of the company or firm or partnership etc.
- f. Details of experience and past performance of the bidder on the contract's similar nature within the last 5 years and details of current contracts in hand and other commitments.
- g. Bidders shall invariably furnish documentary evidence (Client's certificate) in support of the satisfactory completion of the services provided.
- h. Qualification and experience of key personnel for successful execution of the contract;
- i. Reports on financial standing of the Bidder such as profit and loss statements, balance sheets and auditor's report of the past three years etc.;
- j. Information regarding any current litigation in which the Bidder is involved.

Bidders who meet the criteria given above are subject to be disqualified, if they have made untrue or false representation in the forms, statements and attachments submitted in proof of the qualification requirements or have record of poor performance such as abandoning the work, not properly completing the contract etc.

### **2.13 Documents Establishing Eligibility and Conformity to Bidding documents**

- a. Bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the Bidding Documents for all services, which the Bidder proposes to provide under the Contract.
- b. The documentary evidence of the services conformity to the Bidding Documents may be in the form of literature, drawing and data, and shall furnish:

- c. A statement of deviations and exceptions to the scope of work in the format furnished in the bidding document (Section VII (A)- Technical Deviation Statement Form and commercial Deviation Statement Form).

## 2.14 Earnest Money Deposit (EMD)

The payment should be made on or before **12:00 PM** on the date of submission of bids. Tenderer must submit an EMD of Rs.5 Lakh. (Rupees Five Lakh only) in the format of e-payment irrespective of the items quoted i.e. schedule wise EMD amount as mentioned in the document will not be considered. Without EMD, the tender will be summarily rejected.

- a) Online E-Payment shall be made through RTGS as per the details given below. However, online payment details i.e. UTR no and proof of current money transaction details are to be enclosed with our technical bid/tender:

1. Beneficiary Name	NCDFI SETTLEMENT ESCROW A/C
2. Beneficiary Bank & Branch	ICICI Bank Limited Branch - CMS HUB, Mumbai
3. Account Number to be credited	NCDFIMAKH1307877
4. IFSC Code	ICIC0000104

- ii) Payment of Earnest Money by cheque, T.D.R and F.D.R. will not be accepted.

### iii) Transaction Fees and TDS:

- a) As the bidding is processed through the NCDFI Portal, the awardee vendor must pay:
- Transaction Fee - 0.40%** of the contract value (+ applicable GST).
  - TDS u/s 194/O - 0.10%** of the contract value.
- b) Payment must be made within two working days of contract award.
- c) Any adjustments in transaction fees and TDS based on the final contract value must be paid promptly or will be adjusted against the EMD amount deposited.

For EMD payment made (RTGS/NEFT), the bidder is requested to send the communication by 12.30 PM on the date of submission of bids in following format through e-mail to [etenders@ncdfiemarket.com](mailto:etenders@ncdfiemarket.com). The bidder is also required to submit/upload the successful transaction details along with technical bid.

## 2.15 The EMD may be forfeited:

- a) If a bidder withdraws or modifies its bid during the period of bid validity
- OR**
- b) In the case of the successful bidder, if the bidder fails to sign the Contract (i.e., return the signed copy of duplicate Purchase Order, and furnish Performance Security, if asked for)

Unsuccessful bidder's bid security will be discharged / returned as promptly as possible but not later than 30 days after the expiration of the period of the bid validity of 120 days from the date of bid opening. The successful Bidder's EMD will be discharged upon the Bidders executing the Contract i.e., return the signed copy of duplicate Purchase Order, and furnish the Performance Security, if asked for.

- c) Pursuant to Clause No.2.9 the Bidder shall furnish, as part of its bid, EMD as specified in the Schedule of Requirements.
- d) The EMD security is required to protect the Procuring Agency against the risk of Bidder's conduct, which would warrant the security's forfeiture.
- e) The EMD shall be denominated in Indian Rupees only, and shall be in one of the following forms:
  - f) A Demand Draft in favor of NCDPI, payable at as given above from any Nationalized Bank / Scheduled Bank / Foreign Banks having branches in India.
  - g) Any bid not accompanied with EMD will be rejected by the Procuring Agency as non-responsive.
  - h) Unsuccessful Bidder's EMD will be discharged/returned as promptly as possible but not later than 30 days after the expiration of the period of bid validity prescribed by the Procuring Agency, pursuant to Clause 2.16.
  - i) The successful Bidder's EMD will be discharged upon the Bidders executing the Contract and furnishing the performance security.
  - j) The EMD may be forfeited: If a Bidder withdraws or modifies its bid during the period of bid validity specified by the Bidder on the Bid Form; or
  - k) In the case of these successful Bidder, if the Bidder fails:
    - a. To sign the undertaking and contract in accordance with Clause 2.31;
    - And
    - b. To furnish performance security in accordance with Clause 2.36.

#### **2.16 Period of Validity of Bids**

- a. Bids shall remain valid for 120 days after the date of bid opening prescribed by the Procuring Agency. A bid valid for a shorter period shall be rejected by the Procuring Agency as non-responsive.
- b. In exceptional circumstance, the Procuring Agency may prior to the expiry of initial validity period solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (or by cable or telex or fax). The EMD provided under Clause 15 shall also be suitably extended. A Bidder may refuse the request without forfeiting its EMD. A Bidder granting the request will not be required nor permitted to modify its bid.

#### **2.17 Format and Signing of Bid**

- a. The uploaded bid shall be digitally signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. The latter authorization shall be indicated by written power-of-attorney accompanying the Bid.
- b. Any correction made in the uploaded bid document should be signed by authorized signatory.

#### **2.18 Submission of bid**

- a. The bidders, who downloaded the bidding documents, are eligible for submission of bids in their names only. **The complete bidding document downloaded has to be uploaded along with the bid** without any modifications/alternations, as a token of their acceptance towards enclosed scope of work, terms and conditions unconditionally.
- b. The technical Bid (Part I) has to be uploaded online and the commercial bid / price bid (Part II) has to be filled online at NCDFI e-tender portal.

### **2.19 Deadline for Submission of Bids**

- a. Bids must be submitted NCDFI Portal-not later than the time specified for receipt of the bids in the Invitation for Bids (Section I). The **EMD (in original) should be delivered to communication address as stated** below, on or before the last date and time of receipt of bids.
- b. The Procuring Agency may, at its discretion, extend this deadline for the submission of bids by amending the Bidding Documents, in which case all rights and obligations of the Procuring Agency and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

### **2.20 Late receipt of EMD**

Any EMD received by the Procuring Agency after the deadline for submission of bid prescribed by the Procuring Agency, the bid shall be rejected.

### **2.21 Modification and Withdrawal of Bids**

- a. The Bidder cannot modify or withdraw its bid after the bid's submission.
- b. No bid can be modified subsequent to the deadline for submission of bids.
- c. No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form. Withdrawal of a bid during this interval may result in the forfeiture of Bidder's EMD.

### **2.22 Bid Opening and Evaluation**

The NDS will open the Technical bids (of those bidders whose **Original EMD, in acceptable form**, have reached the office of NCDFI on the time and date stated in the IFB. Bidders can witness Virtual bid opening of bid.

Commercial bids will be opened electronically of only those bidders whose Technical Bid (Part-I) is found to be acceptable by NDS. Such bidders will be intimated regarding date of opening of Part II- Commercial Bid separately.

The NDS will examine the bids to determine whether they are complete, whether the requisite EMD have been furnished, whether the documents have been properly uploaded, and whether the bids are generally in order.

### **2.23 Preliminary Evaluation**

The Procuring Agency will examine the technical bids to determine whether they are complete, whether required supporting documents have been furnished, and whether the bids are generally in order.

The Procuring Agency will also examine whether the bid is complete. If the prices of certain items are found as "0" ("ZERO") it will be presumed that the bidder has included the cost of these items against some other items of the price bid. The bidder shall furnish/upload the details of such inclusions separately.

If the Procuring Agency considers that with these omissions, the offered services is not functional, then the bid will be treated as incomplete and non-responsive.

Arithmetical errors – Not Applicable

Prior to the detailed evaluation, the Procuring Agency will determine the substantial responsive to the bidding documents. For purposes of these clauses, a substantially responsive bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviations. A material deviation is one which affects in any substantial way the functionality, scope, quality or performance of the deliveries or which limits in any substantial way inconsistent with the bidding documents, the Procuring Agency's rights or the bidder's obligations under the contract and the rectifications of which deviations would affect unfairly the competitive position of other bidders presenting substantially responsive bids. The Procuring Agency's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

A bid determined as not substantially responsive will be rejected by the Procuring Agency and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

The Procuring Agency may waive any minor informality or non-conformity or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of the Bidder.

## **2.24 Evaluation and Comparison of Bids**

- a. The Procuring Agency will evaluate and compare the bids previously determined to be substantially responsive, pursuant to Clause 2.23. No bid will be considered if the complete requirement covered under the scope of work is not included in the bid. The unit price quoted should be after considering the discount, if any.
- b. The evaluation and comparison of bids will be done on the basis of quoted prices inclusive of applicable taxes and duties as mentioned in price schedule.

## **2.25 Bid Prices**

- a. The Bidder shall indicate on the Price Bid at NCDPI e-Portal the final unit prices (after considering discount, if any) of the goods it proposes to supply under the Contract. Bidders must submit a bid for the full quantity specified under technical specifications, failing which, such bids will not be considered for evaluation and comparison and will not be considered for award. The item wise quoted price should be inclusive of applicable GST.
- b. The item wise price of goods/services to be entered in the NCDPI e-portal shall be on FOR site basis inclusive of applicable GST, but including the charges for packing and forwarding,

transportation, transit insurance and all other local costs incidental to delivery of goods/ services to their final destination, storage cum erection insurance and safe custody at site.

- c. Please note that it is recommended for the supplier to indicate a single applicable GST rate, as in many cases items may be procured on a composite basis, and a uniform GST rate would apply.

It should also be noted that the price evaluation of each item will be based on the total price inclusive of GST, irrespective of the GST rate quoted by the supplier. No price increase will be entertained after bid submission, and if the bidder refuses to honor their quoted price after the price bid is opened, their EMD may be forfeited.

For example, if a supplier quotes a unit price of ₹100 with an applicable GST of 18%, the total price including GST would be ₹118. However, if the actual applicable GST as per the HSN code is 28%, the purchaser will reverse-calculate the base price from ₹118. In this case, the basic price would be ₹92.1875, and 28% GST on that amount (₹25.8125) would again result in ₹118.

Hence, the price including GST (₹118 in this example) will be considered for evaluation purposes. Bidders are advised to quote accordingly.

### **2.26 Prices indicated on the Price Bid shall be entered in the following manner:**

- a. The item wise price of goods to be supplied/installed and commissioned shall be on FOR site basis inclusive of applicable GST. The item wise price shall also include the charges for packing and forwarding, transportation, transit insurance and all other local costs incidental to delivery of the goods to their final destination, storage cum Erection insurance and safe custody at site.
- b. The Bidder's separation of price components in accordance with above will be solely for the purpose of facilitating the comparison of bids by the Procuring Agency and will not in any way limit the Procuring Agency's right to contract on any of the terms offered.

### **2.27 Fixed Price**

Basic Price quoted by the Bidder shall be fixed during the bidder's performance of the Contract and not subject to variation on any account. A bid submitted with an adjustable price quotation for such goods and services will be treated as non-responsive and rejected.

### **2.28 Price Break-up**

Bidders shall furnish the price for the supply and for installation/ commissioning along with detailed cost break-up (item wise), which will be applicable for progressive payments. Items and works for which no break-up price is furnished by the bidder will not be paid for by the Procuring Agency when supplied/executed and shall be deemed covered by the other break-up prices.

However, for evaluation purpose, prices quoted as indicated in Para 2.25 above only will be considered.

Notwithstanding anything stated elsewhere in the bidding documents, irrespective of mode of the contracting with the successful bidder, the successful bidder will be liable for the payment of Indian Income Tax, surcharge on Income Tax and any other Corporate Tax, turnover tax etc. if attracted under the provisions of the law. The Procuring Agency shall not bear any tax liability whatsoever irrespective of the mode of contracting

## **2.29 Contacting the Procuring Agency**

- a. Subject to Clause 2.23, no Bidder shall contact the Procuring Agency on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded.
- b. Any effort by a Bidder to influence the Procuring Agency in the Procuring Agency's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidder's bid. On the severity of the action bidder may be blacklisted for a period of one year.

## **2.30 Post Qualification**

- a. In the absence of pre-qualification, the Procuring Agency will determine to its satisfaction whether the Bidder selected as having submitted the lowest evaluated responsive bid is qualified to satisfactorily perform the Contract.
- b. The determination will consider the Bidder's financial, technical and servicing capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to Clause 2.13, as well as such other information as the Procuring Agency deems necessary and appropriate including details of experience and records of past performance.
- c. An affirmative determination will be a prerequisite for award of the Contract to the Bidder. A negative determination will result in rejection of the Bidder's bid, in which event; the Procuring Agency will proceed to the next lowest evaluated bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.

## **2.31 Award of Contract**

Purchaser will award the contract to the successful bidder whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid provided further the bidder is determined to be qualified to perform the contract satisfactorily as per clause 28.

## **2.32 Purchasers Right to Vary Quantities at the Time of Award.**

The Purchaser reserves the right to vary the quantities at the time of award of the contract, if the need arises in consultation with the successful bidder.

## **2.33 Purchaser's Right to Accept Any Bid and to Reject Any or All Bids**

NDS. does not bind itself to accept the lowest bid. NDS reserves the right to award the job either in part or full. NDS at its sole discretion and without assigning any reason thereof, also reserves the right to accept any/or reject any or all bids.

NDS also reserves the right to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the group NDS for the Purchaser's action.

## **2.34 Notification of Award**

- a. The evaluation and rate discovery to be done by Procuring Agency, but the issuance of PO/Notification of Award will be issued by Purchaser (respective milk producer Organisation).
- b. Prior to expiration of the period of bid validity, the Purchaser (respective milk producer Organisation as per details given at Section VI) will notify the successful Bidder in writing by registered letter/courier/by cable/telex/fax/e-mail, to be confirmed in writing by registered letter/courier, that its bid has been accepted.
- c. The notification of award will constitute the formation of the Contract.
- d. Upon the successful Bidder's furnishing of performance security, the Procuring Agency will discharge the EMD of unsuccessful bidders.

### **2.35 Signing of Contract**

- a. As the Procuring Agency notifies the successful Bidder that its bid has been accepted, the bidder is requested to submit the "Undertaking" as provided in the Bidding Document, incorporating all agreements between the parties.
- b. The "Undertaking" and "Acceptance copy of the contract" shall be returned within 15 days from the date of contract.

### **2.36 Performance Security**

- a. Within 30 days of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the **performance BG (10% of total contract amount including GST)** in accordance with the Conditions of Contract, in the Performance Security Form/DD provided in the Bidding Documents or another form acceptable to the Purchaser. Bank guarantee issued only by Nationalized/Scheduled commercial Banks/Foreign banks having branches in India will be accepted.
- b. Failure of the successful Bidder to comply with the requirement of Clause 2.31 or Clause 2.32 shall constitute sufficient reason for Purchase for the annulment of the award and forfeiture of the EMD, in which event the Purchaser may make the award to the next lowest evaluated bidder or call for new bids.
- c. If the bid of the successful bidder is seriously unbalanced in relation to the Purchaser estimate of the real cost of the work to be performed under the contract, the Purchaser may require additional performance security to protect the Purchaser against financial loss in the event of subsequent default of the successful bidder under the contract. The value of the additional performance security shall be decided by the Purchaser based on mutual discussions with the successful bidder. The additional performance security shall be valid until the completion of contract or the Purchaser may decide as.

### **2.37 Address for Communication:**

**NDDB House,  
Safdarjung Enclave,  
New Delhi, Southwest Delhi, Delhi, 110029  
011-4988300/49883088/Mob 7092922421  
Contact No. 88534 91248 (Sh. Samar)**

**2.38 Bid Form**

- a. The Bidder shall complete the Bid Form (Format given as Section 8) furnished in the Bidding Documents and provided the same along with technical bid.
- b. All the required document duly sealed & signed should be submitted before the specified date and time at NCDFI Portal.

**2.39 Place of Opening of bid : NCDFI website Portal (by Virtual Mode).**

### **Section 3 General Terms & Conditions of the Contract**

### **Section 4 General Terms & Conditions of the Contract**

#### **4.1 Definitions**

- a. The Contract" means the agreement entered into between the Purchaser and the Supplier, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein;
- b. The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations;
- c. The Goods" means all of the equipment, machinery, and/or other materials, which the Supplier is required to supply to the Purchaser under the Contract;
- d. Services" means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other such obligations of the Supplier covered under the Contract;
- e. The Purchaser" means the Organisation purchasing the Goods and services.
- f. The Supplier" means the individual or firm supplying the Goods and services under this Contract; and
- g. Procuring agency means the agency which is deriving the rates by following this tendering process.

#### **4.2 Country of Origin**

For purpose of this Clause "origin" means the place where the Goods were mined, grown or produced, or from which the Services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembling of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components. The origin of Goods and Services is distinct from the nationality of the Supplier.

#### **4.3 Standard:**

The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.

#### **4.4 Patent Rights**

The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.

#### **4.5 Inspection and Tests**

- a. The Purchaser or its representative shall have the right to inspect and/or test the Goods to confirm their conformity to the Contract. The Special Conditions of Contract and/or the Technical Specifications shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing of the identity of any representatives, if retained for these purposes.
- b. The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery and/or at the Good's final destination. Where conducted on the premises of the Supplier or its sub-contractor(s), all reasonable facilities and assistance including access to drawings and production data shall be furnished to the inspectors at no charge to the Purchaser. In case of any defects or deficiency notified by the Purchaser's inspection authority, the Supplier will rectify and make good the same without delay and not proceed with further processing of such item(s) of Goods without obtaining approval from the inspection authority.
- c. Should any inspected or tested Goods fail to conform to the Specifications, the Purchaser may reject them and the Supplier shall either replace the rejected Goods or make all alterations necessary to meet specification requirements free of cost to the Purchaser.
- d. The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at the destination shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment from the country of origin.
- e. The Supplier shall give to the Purchaser 07 days' notice of the date after which he will be ready to make the tests of completion (the Test). Unless otherwise agreed, the Tests shall take place within 07 days after the said date on such day or days, as the Purchaser shall notify the Supplier.
- f. If the Tests are being unreasonably delayed by the Supplier the Purchaser may give notice requiring the Supplier to make the tests within 07 days after the receipt of such notice. The supplier shall make the Tests on such days within that period as the Supplier may fix and of which he shall give notice to the Purchaser.
- g. If the Supplier fails to make the Tests within 07 days the Purchaser may himself proceed with the Tests. All tests so made by the Purchaser shall be at the risk and cost of the Supplier and the cost thereof shall be deducted from the Supplier's price. The test shall then be deemed to have been made in the presence of the Supplier and results of the tests shall be accepted as accurate.
- h. If the Goods/services or any section fails to pass the Tests, the Supplier may require such tests to be repeated on the same terms and conditions. All costs to which the Purchaser may be put to by the repetition of the tests shall be deducted from the Contract Price.
- i. If the Goods/Services or any Section fails to pass the Tests on the repetition the Purchaser after due consultation with the Supplier, shall be entitled to:
  - i. Order one further repetition of the Tests  
or
  - ii. Reject the Goods or a section thereof in which event the Purchaser shall have the same remedies against the Supplier.
- j. In considering the results of tests carried out and the Purchaser shall make allowances for the effect of any use of the Goods by him on the performance or other characteristics of the Goods.
- k. As soon as the Goods/Services or any section thereof has passed the tests, the Purchaser shall issue a certificate to the Supplier to that effect.

1. The Goods and Services shall be accepted by the Purchaser when they have been completed in accordance with the contract, except in minor respects that do not affect the use of the Goods for their intended purposes and having passed the tests on completion and a taking over certificate has been issued or deemed to have been issued.
- m. The Supplier may apply by notice to the Purchaser for a taking over certificate not earlier than 14 days before the goods will in the Supplier's opinion be complete and ready for taking over.
- n. The Purchaser shall within 28 days after the receipt of the Supplier's application either:
  - Issue the taking over certificate to the Supplier stating the date on which the works were complete and ready for taking over, or
  - Reject the application giving his reasons and specifying the work required to be done by the Supplier to enable the taking over certificate to be issued.
  - If the Purchaser fails either to issue the taking over certificate or to reject the Supplier's application within the period of 28 days he shall be deemed to have issued the taking over certificate on the last day of that period.
  - If the services are divided by the Contract into sections the Supplier shall be entitled to apply for separate taking over certificate for each such section.
  - The Purchaser shall not use any part of the Goods (deemed necessary by the purchaser) unless taking over certificate has been issued in respect thereof. If nevertheless the Purchaser uses any part of the Goods that part which is used shall be deemed to have been taken over at the date of such use. The Purchaser shall on request of the Supplier issue a taking over certificate accordingly. If the Purchaser uses any part of the Goods before taking over, the Supplier shall be given the earliest opportunity of taking such steps as may be necessary to carry out the tests on completion.
  - If the Supplier fails to remedy a defect or damage pointed out by the Purchaser within a reasonable time, the Purchaser may fix a final time for remedying the defect or damage.

If the Supplier fails to do so, the Purchaser may:

Carry out the work himself or by others at the Supplier's risk and cost, provided that he does so in a reasonable manner. The costs properly incurred by the Purchaser in remedying the defect or damage shall be deducted from the Contract Price, but the Supplier shall have no responsibility for such work, or

Require the Supplier to grant the Purchaser a reasonable reduction in the Contract Price to be agreed or fixed by arbitration or

If the defect or damage is such that the Purchaser has been deprived of substantially the whole of the benefits of the Goods or a part thereof, he may terminate the Contract, in respect of such parts of the Goods as cannot be put to the intended use. The Purchaser shall, to the exclusion of any remedy be entitled to recover all sums paid in respect of such parts of the Goods together with the cost of dismantling the same, clearing the site and returning plant to the Supplier or otherwise disposing of it in accordance with the Supplier's instructions.

If the defect or damage is such that repairs cannot be expeditiously carried out on the site, the Supplier may with the consent of the Purchaser remove from the site for the purpose of repair any part of the works which is defective or damaged, after furnishing a suitable guarantee as may be prescribed by the Purchaser.

If the replacement or renewals are such that they may affect the performance of the services, the Purchaser may request that the tests on completion be repeated to the extent necessary. The request shall be made by notice within 28 days after the replacement or renewal. The tests shall be carried out in accordance with above mentioned clauses .

Until the final certificate of commissioning has been issued, the Supplier shall have the right of access to all parts of the Goods and to the records of the working and performance of the Goods and Services.

Such right of access shall be during the Purchaser's normal working hours at the Supplier's risk and cost. Access shall also be granted to any duly authorized representative of the Supplier whose name has been communicated in writing to the Supplier.

Subject to the Purchaser's approval, the Supplier may also at his own risk and cost Make any tests, which he considers desirable.

The Supplier shall not be liable for any defect resulting from designs furnished or specified by the Purchaser.

Nothing in the clause 3.5 shall in any way relieve the Supplier from any warranty or other obligations under this Contract.

#### **4.6 Packing and Marking**

The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to temperature, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

The packing, marking and documents within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract and any subsequent instructions given by the Purchaser

#### **4.7 Insurance**

The Goods supplied under the Contract shall be fully insured in Indian Rupees or a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage at site, delivery and upto to handing over of the plant and equipment in the manner specified in the Special Conditions of Contract.

Where delivery of the Goods is required by the Purchaser on a CIF basis, the Supplier shall arrange and pay for marine insurance naming the Purchaser as the beneficiary. The Supplier shall provide a copy of the insurance policy along with invoice to the purchaser who will decide to extend the validity of the policy, if necessary.

Should any loss or damage occur, the Supplier should -

- a. Initiate and pursue claim till settlement, and

b. Promptly decide for repair and/or replacement of any damaged item/s irrespective of settlement of claim by the underwriters.

#### **4.8 Transportation**

Where the Supplier is required under the Contract to deliver the Goods FOR DESTINATION, as specified in the schedule of requirements. Transportation shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.

Where the Supplier is required to effect delivery under any other terms, for example, by post or to another address in the source country, the Supplier shall be required to meet all transport and storage expenses until delivery.

In all the cases, transportation of the Goods up to the project site shall be the responsibility of the Bidder and the cost thereof shall be included/indicated in the contract price.

Where the Supplier is required under the Contract to deliver the Goods CIF, no further restriction shall be placed on the choice of the ocean carrier.

#### **4.9 Incidental Services**

As specified in the Special Conditions of Contract, the Supplier may be required to provide any or all of the following services:

- a. Performance or supervision of on-site assembly and/or start-up of the supplied Goods;
- b. Furnishing of tools required for assembly and/or maintenance of the supplied goods;
- b. Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods; and manuals covering the operation and maintenance of automation software and control systems.
- c. Performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- d. Conduct of training of the Purchaser's personnel, at the Supplier's plant and/or on-site, in assembly, start-up operation, maintenance and/or repair of the supplied Goods.
- e. Prices charged by the Supplier for the preceding incidental services, if not included in the price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged from other parties by the Supplier for similar services.

#### **4.10 Subcontracts**

The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in his bid. Such notification, in his original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract.

#### **4.11 Bank Guarantee:**

Within 30 days of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the performance BG (10% of total contract amount) in accordance with the Conditions of Contract, in the Performance Security Form provided in the Bidding Documents or another form acceptable to the Purchaser. Bank guarantee issued only by Nationalized/Scheduled commercial Banks/Foreign banks having branches in India will be accepted.

- a. A bank guarantee issued by a Nationalized Indian Bank or a foreign bank having branches in India valid for 3 months (claim period) beyond the defect liability period/warranty period.

OR.

- b. Demand Draft issued by Nationalized Bank/ Scheduled Bank/ Foreign Bank having branches in India in favor of Purchaser payable at his location will be informed later on (awardee bidder)
- c. The Bank Guarantee will be discharged by the Purchaser and returned to the Supplier not later than 30 days after defect liability period/ warranty period.

#### **4.12 Date of Delivery:**

Date of delivery prescribed shall be deemed to be the essence of the purchase order/contract. Each unit of an item shall be delivered to destination not later than the delivery date specified in the order.

#### **4.13 Liquidated Damages:**

If the bidder fails to deliver any or all the goods or perform the services within the time period(s) specified in the purchase order/contract, purchaser shall, without prejudice to its other remedies under the purchase order/contract, deduct from the purchase order/contract price, as liquidated damages, a sum equivalent to:

—0.5% of full contract value for each completed week of delay

OR

0.5% of the value of the delayed items/services only, for each completed week of delay

The total amount so deducted shall not exceed 10% of the Contract value. Once the maximum is reached, the Purchaser may consider termination of the contract.

Week comprising of 7 days including holidays and any incomplete week shall be ignored for the calculation of liquidated damages.

Purchaser may without prejudice to any other method of recovery, deduct the amount of such damages from any payment in its capacity, due or which may become due to the

Contractor. The payment or deduction of such damages shall not relieve the Contractor from his obligation to complete the Works, or from any other of his obligations and liabilities under the Contract.

The total amount so deducted shall not exceed 10% of the purchase order/ contract value. Once the maximum is reached, purchaser may consider cancellation/ termination of purchase order/ contract, and forfeiture of performance security and/or Retention amount.

#### **4.14 Termination of contract:**

- a. During the term of this contract, either party, reserves its right to terminate this contract by giving 30 (Thirty) days' notice without assigning any reason thereof.
- b. Purchaser reserves the exclusive right to suspend, cancel, and terminate this contract at any time if it has sufficient reasons to believe that the Contractor has failed to perform or observe or fulfil any of the terms and conditions herein before contained and/or liable and responsible for any loss or damage suffered by the Purchaser (office).
- c. The Purchaser shall have the right to ask of the removal of any person, if one is not considered to be competent and orderly in the discharge of his duties.

#### **4.15 Termination for Convenience**

(a) The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

(b) The Goods that are complete and ready for shipment within twenty-eight (28) days after the date of issuance of the termination notice, shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

to have any portion completed and delivered at the Contract terms and prices; and/or to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

#### **4.16 Termination in Consequence of Force Majeure**

If circumstances of Force Majeure have occurred and shall continue for a period of 182 days then, notwithstanding that the Supplier may by reason thereof have been granted an extension of Time for Completion of the Works, either party shall be entitled to serve upon the other 28 days' notice to terminate the Contract. If at the expiry of the period of 28 days Force Majeure shall still continue the Contract shall terminate.

If the Contract shall be terminated as aforesaid the Supplier shall be paid by the Purchaser (in so far as such amounts or items shall not have already been covered by payments on account made to the Supplier) for all work executed prior to the date of termination at the rates and prices provided in the Contract and in addition:

- a. The amounts payable in respect of any preliminary items, so far as the work or service comprised therein has been carried out or performed, and a proper proportion as certified by the Purchaser of any such items the work or service comprised in which has been partially carried out or performed.
- b. The cost of materials or goods reasonably ordered for the Works or for use in connection with the Works which shall have been delivered to the Supplier or of which the Supplier is legally liable to accept delivery (such materials or goods becoming the property of the Purchaser upon such payment being made by him).
- c. A sum, to be certified by the Purchaser, being the amount of any expenditure, which in the circumstances was reasonably incurred by the Supplier in the expectation of completing the whole of the Works, in so far as such expenditure shall not have been covered by the payments in this Sub-Clause before mentioned.
- d. The reasonable cost of removal under Sub-Clause 2 of this Clause and (if enquired by the Supplier) return thereof to the Supplier's works in his country or to any other destination at no greater cost.
- e. The reasonable cost of repatriation of all the Supplier's staff and workmen employed on or in connection with the Works at the time of such termination.

Provided always that, against any payments due from the Purchaser under this Sub-Clause, the Purchaser shall be entitled to be credited with any outstanding balances due from the Supplier for advances in respect of Plant and materials, and any sum previously paid by the Purchaser to the Supplier in respect of the execution of the Works.

#### **4.17 Termination for Insolvency**

The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, without compensation to the Supplier, if:

- a. The Supplier becomes bankrupt or otherwise insolvent,
- b. The Supplier being a Company is wound up voluntarily by the order of a Court receiver, liquidator or Manager appointed on behalf of the debenture holders or circumstances shall have arisen which entitle the court or debenture holders to appoint a receiver, liquidator or a Manager, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

#### **4.18 Resolution of Disputes**

The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

If, after thirty (30) days from the commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified in the Special Conditions of Contract. These mechanisms may include, but are not restricted to, conciliation mediated by a third party, adjudication in an agreed national or international forum, and/or international arbitration. The mechanism shall be specified in the Special Conditions of Contract.

#### **4.19 Applicable Law**

The Contract shall be interpreted in accordance with the laws of the Union of India.

#### **4.20 Right to use defective Goods**

If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the Goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such Goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchasers' operation.

#### **4.21 Penalty:**

In the event of the Contractor's failure to execute the work entrusted to him under this contract satisfactorily, Purchaser shall make alternative arrangement to do it and the difference of cost incurred by MPO'S, thereby shall be recovered from the Contractor's unpaid bills and Security Deposit.

If the service provided by the agency is found to be unsatisfactory, the same shall be brought to their notice in writing and if no improvement is found in a stipulated time, then a penalty up to 10% of the monthly payment value will be imposed and same shall be recovered from the monthly bill.

#### **4.22 Force Majeure**

The terms and conditions mutually agreed upon shall be subject to Force Majeure Clause. Neither party shall be considered in default in performance of their obligations here under if such performance is prevented or delayed because of war, hostilities, revolution, civil commotion, strike, epidemic, accident, fire, wind, flood, earthquake or because of law and order proclamation, regulation or ordinance of any Government or of any act of GOD or any other clause whether of similar or dissimilar nature, beyond the reasonable control of the party affected. Should one or both the parties be prevented from fulfilling their obligations by a state of Force Majeure lasting continuously for a period of six months, the two parties should consult each other regarding the future implementation of the contract.

#### **4.23 Taxes, duties and levies**

All taxes, duties, levies etc. imposed by the Central / state Government in connection with this contract in force at the time of submission of BIDs shall be borne by the Contractor during currency of contract. The taxes deemed to have included in the price bid, however service tax shall be payable as applicable.

#### **4.24 Completion of contract**

Unless otherwise terminated under the provisions of any other relevant clause, this contract shall be deemed to have been completed at the expiration of the duration of contract.

#### **4.25 Payment Term.**

80% payment shall be made within 30 days after Completion of supply & testing and against the submission of BG of 10% amount of contract value including D. Balance 20% shall be made after installation and commission of equipment at site or 3 months from the date of supply whichever earlier.

All the bank guarantee/s should be in the pro-forma prescribed by purchaser and from a Nationalized Bank or a foreign bank having branches in India. The performance/retention bank guarantees should be valid up to 90 days beyond the warranty period.

#### **4.26 Insurance:**

In case where the purchase order is placed on "free delivery at site" including unloading basis, no insurance premium will be paid by purchaser. In such a case, all required insurance policies (Transit risk insurance policy, storage insurance policy, All risk policy, Workmen Compensation policy, Third Party insurance etc.) may be obtained by the supplier/ contractor to safeguard their own interests and to protect the material against transit hazards, storage (at Site) for damage/ loss.

#### **4.27 Rejection:**

Purchaser reserves the right to reject the goods either in full or in part, if at the time of delivery, it is noticed that the goods supplied do not conform to the specifications/ description given in the purchase order. The rejections, if any, will be intimated to the supplier in writing within a reasonable time. The supplier will be liable and responsible to repair/ replace the rejected goods within the original delivery period. No extra payment shall be made for such replacement to the supplier/ contractor for freight, unloading and insurance etc. Till the repair/ replacement is made, the rejected goods shall be lying at supplier's risk, cost and responsibility. If the supplier does not arrange to repair/ replace the rejected goods within the original delivery period, purchaser may dispose off such goods at supplier's risk and in the manner purchaser thinks fit. Purchaser shall be at liberty to purchase the quantity of items rejected from other parties without giving any notice and at supplier's risk & cost and recover the additional expenditure, if any, from any of the outstanding dues of the supplier/ contractor. Purchaser shall be entitled to recover the expenses made by Purchaser on storage and handling of such rejected goods till the goods are removed from Purchaser's premises/ stores.

#### **4.28 Warranty:**

The supplier/ contractor must provide a warranty for a minimum period of as mentioned in the technical specification from the date of commissioning of equipment for the satisfactory performance of the supplied equipment according to the designed/ rated/ installed capacity or any other norms fixed by Purchaser. If the equipment remains out of order during this period, the warranty will be accordingly extended by period the equipment was out of order due to non-repair by the supplier/ contractor.

#### **4.29 Drawings, Specifications & Manuals:**

Wherever applicable, prior to commencement of fabrication, the supplier/ contractor shall have to submit for Purchaser's -- approval three sets of drawings of all the items ordered for supply, showing overall dimensions with typical sections, details of service connections and their equipment, details of drive units etc. for each equipment. Soft copy of the final (As built) drawings shall be submitted. In case of items for which drawing are provided by Purchaser, the supplier/ contractor shall fabricate/ manufacture the items strictly in accordance with these drawings and any other instruction given by Purchaser. For such items, there is no need for the supplier/ contractor to submit the drawings to Purchaser for approval prior to commencement of fabrication/ manufacture. Where documents and drawings are supplied to the supplier/ contractor by Purchaser, the same must be treated as confidential, must not be copied, reproduced, transmitted or disclosed otherwise in whole or part, nor duplicated, modified, divulged or discussed with any third party nor used in any other way without the consent of Purchaser in writing. All such documents and drawings, shall be the property of Purchaser and they must be returned to Purchaser after execution of the order. Wherever applicable, 3 sets of equipment manual should be provided along with the consignment.

#### **4.30 Variation:**

The Purchaser can make any variation of the form, quality or quantity of the Works or any part thereof that may, in his opinion, be necessary and for that purpose, or if for any other reason it shall, in his opinion be desirable, he shall have power to order the Supplier to do and the Supplier shall do any of the following:

- a.** Increase or decrease the quantity of any work included in the contract,
- b.** Omit any such work,
- c.** Change the character or quality or kind of any such work,
- d.** Change the levels, lines, position and dimensions of any part of the works, and
- e.** Execute additional work of any kind necessary for the completion of the works and no such variation shall in any way vitiate or invalidate the contract, but the value, if any, of all such variations shall be taken into account in ascertaining the amount of the Contract price.

All extra or additional work done or work omitted by order of the Purchaser shall be valued at the rates and prices set out in the contract if in the opinion of the Purchaser, the same shall be applicable. If the contract does not contain any rates or prices applicable to the extra or additional work, then suitable rates or prices shall be agreed upon between the Purchaser and the Supplier, with consideration of Overhead & Profit limiting to 15%. In the event of

disagreement, the Purchaser shall fix such rates or prices as shall, in his opinion, be reasonable and proper.

#### **4.31 Sub-Contract:**

In the event of awarding sub-contract to any party/parties by the supplier/ contractor for the manufacture/supply/erection of any parts/spares/components that will be used in ordered equipment, the supplier/ contractor must furnish the details about their sub-contract also. The responsibility regarding quality, quantity, guarantee/warranty of the materials supplied by the sub-contractors' rests on the supplier/ contractor.

#### **4.32 Spares :**

If asked for, the supplier shall provide a list of spare parts, which will be required for the plants and equipment supplied for at least two years of normal operation with the names and the addresses of the manufacturers from whom these can be procured. The list should contain the code numbers of the parts, which are required to be procured, in addition to the machine number, models etc.

#### **4.33 Inspection:**

On placement of order, the equipment under the purview of supply should be inspected by the supplier's own technical experts at the supplier's works and such inspection report should be forwarded to Purchaser in triplicate. However, Purchaser reserves its right to inspect at any stage of fabrication/manufacture of the equipment/material. The supplier should intimate the Purchaser without fail, when the equipment is ready for inspection including the stage wise inspection. The supplier should not proceed with further manufacture and/or despatch of equipment, without obtaining a clearance certificate from Purchaser. The supplier should forward to Purchaser the Test Certificates, wherever applicable, obtained from concerned authorities/ principal manufacturers either regarding quality or any other details of the items utilised in the process of manufacture/fabrication

#### **4.34 Dispatch Instructions:**

The materials are to be despatched to the destination by the mode of transport specified in order under intimation to Purchaser . Depending on the type of material, the supplier shall have to carry out proper packing/ crating to avoid breakages in transit. Other details of despatch such as consignee's particulars etc. are mentioned in the purchase order. For using any mode of transport other than the specified one, prior concurrence from Purchaser in writing should be obtained. All consignments should be despatched on freight paid basis irrespective of price basis. In the event of freight payable extra by Purchaser , the supplier shall have to obtain Purchaser 's-- prior approval and produce necessary documentary evidence in support of claims. Unless otherwise stated, the original RR/LR should be sent directly to the consignee along with three copies of invoice and two copies of Delivery Challan/e-way bills and Packing List.

#### **4.35 Demurrage:**

The supplier shall bear and reimburse to Purchaser the full demurrage, if any, paid by reason of delay on their part in forwarding the original despatch documents to the destination mentioned in the purchase order.

#### **4.36 Submission of Bills:**

Bills in triplicate stating therein the purchase order reference along with necessary copies of despatch documents are to be submitted as per instructions given in the purchase order. Unless otherwise stated, the payment shall be made by Crossed Account Payee cheque according to the terms of payment mentioned in the purchase order.

#### **4.37 Electricity:**

Electricity required for execution of works at site will be provided free of cost. However, necessary arrangements for tapping/connection etc. will have to be made by the contractor at his own cost.

#### **4.38 Force Majeure:**

The terms and conditions mutually agreed upon shall be subject to Force Majeure Clause. Neither the supplier/ contractor nor Purchaser shall be considered in default in performance of his/their obligations hereunder if such performance is prevented or delayed because of war, hostilities, revolution, civil commotion, strike, epidemic, accident, fire, wind, flood, earthquake or because of any law, order, proclamation, regulation or ordinance of any Government or of any act of God or any other cause whether of similar or dissimilar nature, beyond the reasonable control of the party affected. Should one or both the parties be prevented from fulfilling his/their contractual obligations by a state at Force Majeure lasting continuously for a period of six months, the two parties should consult each other regarding the future implementation of the contract/purchase order.

#### **4.39 Arbitration**

- a. Except as otherwise provided elsewhere in the contract, if any dispute, difference, question or disagreement or matter whatsoever, shall, before and after completion or abandonment of work or during extended period, hereafter arises between the parties, as to the meaning, operation or effect of the contract or out or relating to the contract or breach thereof, shall be referred to Sole Arbitrator to be appointed by Purchaser at the time of dispute.
- b. It is a term of the contract that the party invoking arbitration shall specify all disputes to be referred to arbitration at the time of invocation of arbitration under the clause.
- c. It is a term of the contract that the cost of arbitration will be borne by both the parties.
- d. The venue of the arbitration shall be Delhi.
- e. Settlement of any disputes arising out of this agreement will be subject to Delhi Jurisdiction only. The resolution of dispute, if any, shall be settled initially, by way of mutual consultation and if it is not settled the same shall be referred to arbitrator.

The sole arbitrator will be appointed by NDDB Dairy Services or an officer designated Purchaser under his discretion and the arbitration proceedings shall be governed by the provisions of the Indian Arbitration and Conciliation Act 1996 and thereafter amendments issued from time to time. The award of such sole arbitrator shall be final, conclusive and binding on the parties to this contract.

#### **4.40 Jurisdiction**

The contract shall be governed by and constructed according to the law in force in India. The venue of the arbitration shall be at Delhi only.

#### **4.41 Negligence or default of contractor:**

- a. NDS may without prejudice to its other rights or remedy against the contractor in respect of inferior workmanship or any other provision of this contract or otherwise may issue a Notice in writing to absolutely determine the contract for the following cases:
- b. If the contractor neglects to carry out his obligation under the contract and / or commits defaults in complying with any of the terms and conditions and does not remedy even after written notice.
- c. When the contractor has been made liable for action under the aforesaid cases, NDS shall have powers:-
  - i. To determine or rescind the contract. Upon such rescission, the full security deposit recoverable under the contract shall be liable to be forfeited and shall be absolutely at the disposal of NDS.
  - ii. After giving notice to the contractor to measure up the work done by him in order to get the balance work done by another contractor.

## **Section 5 Technical Requirement of the Contract**

### **5.1.1.1.1 Demonstration During Technical Evaluation:**

During the technical evaluation stage, the bidder may be **required** to conduct a successful demonstration of the items, in accordance with the Technical Specifications outlined in the tender document, as requested by the Procuring agency. The specific items to be demonstrated shall be communicated by the Procuring agency.

The **place and time** of the demonstration shall be determined solely by the Procuring agency. However, the **exact date** of the demonstration may be mutually agreed upon between the Purchaser and the bidder. Notwithstanding this, the demonstration must be completed **within seven (7) days** from the date of opening of the technical bids.

### **5.1.1.1.2 Demonstration Report:**

A formal Demonstration Report, duly signed and certified by the Technical Evaluation Committee of the procuring agency, may be submitted by the bidder as part of the technical evaluation process.

### **5.1.1.1.3 Binding Nature of Demonstration Outcome:**

The procuring agency reserves the **sole and absolute right** to technically disqualify any bidder based on the findings, observations, or performance results recorded in the Demonstration Report. No claims, objections, or representations in this regard shall be entertained from the bidder.

No Right to Challenge:

Participation in the demonstration shall be deemed as unconditional acceptance of the above conditions. The bidder shall have no right to challenge, contest, or seek recourse against any decision made by the Procuring agency based on the outcome of the demonstration.

## **General Description and Scope of Work**

**5.1.2** The project involves the design, supply, installation, and commissioning of a Bulk Milk Cooler (BMC) system including all accessories and optional components. This work is to be executed on a turnkey basis, with the equipment operating under challenging village conditions such as hot, humid, dusty environments with voltage fluctuations ranging from 300 V to 600 V for 3-phase supply, design for 48°C ambient temperature.

**5.1.3** The BMC shall be a complete integrated unit comprising:

- Refrigeration system
- Agitator
- Lockable inlet and outlet valves with union
- Stainless steel piping and food-grade milk hoses
- Milk transfer pump
- Electrical and control panels, oil-cooled servo voltage stabilizer, APFC Panel etc.
- Earth pits and earthing chambers
- Interconnecting cables, conduits, pipe supports, floor plates, and

clamps The indicative distance between:

- BMC outlet to milk pump inlet minimum: 6 metres mains power point to Stabiliser and to DG set: up to 60 metres

**5.1.4** Exact measurements will depend on site conditions. The supplier must provide complete piping and cabling as required for the full installation.

**5.1.5** All bought-out components must be of reputed make and must receive approval from the Purchaser prior to contract finalization.

---

## **1. Bulk Milk Cooler**

### **1.1 General Description**

- Tank inner shell, outer shell, intermediate dimple jacket and openable top cover shall be fabricated from Stainless Steel AISI 304.
- Piping, fittings, filter body, lockable covers, agitator shaft, blade, adjustable ball feet, inlet/outlet valves and blank flanges must also be AISI 304.
- Gaskets to be of food-grade nitrile or neoprene rubber.
- The supporting skid shall be galvanized steel.
- Milk contact surfaces will be passivated for corrosion resistance.

**1.2 Standard applicable and cooling time required at 48°C ambient conditions:**

- As per ISO 5708 Type 2 II (latest version) for 2 milk collections.
- **Cooling requirements at 48°C:**
  - First collection (50% of rated capacity) from 35°C to 4°C: within 3 hours 15 minutes
  - Second collection (remaining 50%) from 10°C to 4°C: within 1 hour 40 minutes

**1.3 Capacity:**

- **Rated Capacity:** 5 KL (5000 litres) for 2 milk collections.
- The actual capacities (100%) shall be determined with the tank filled to a level that the sprayers and sprinklers for CIP provision shall not come in contact with the milk and milk should not drained outside via the washing spray system for example, rotary sprayer and sprinklers/spray jet with forks and deflector plate.
- **Gross Capacity (Litres): +10% of Rated Capacity (sprayers/spray balls must be above the rated capacity)**

**1.4 Material of Construction:** AISI 304

**1.5 TYPE / Capacity :** Closed Type / 5000 L

**1.6 Tank Evaporator:**

- The tank evaporator plate should have adequate surface area ensuring that the Milk (Rated Quantity) is cooled in the ambient conditions of **48 Deg. C** and in the time periods as specified above.
- Laser welded with Operating pressure of 30 bars and crash test pressure of 60 bars. In case of rectangular/circular type bulk milk cooler, the evaporator shall be fixed at the bottom plate of the inner tank.
- For 5000 litre tanks the total evaporative area shall be divided and separated into two sections. Each section shall have separate suction & discharge ports connecting to each compressor.

- Suction and Discharge line of Evaporator plate SS (lines) to copper lines joints **should be flaring type. It should not be in Brazing/welded type.**
- If the evaporator plates are placed horizontally, each quadrant of the evaporator should be connected to a separate compressor. This setup ensures redundancy, so if one compressor fails, the other compressor can continue to operate, keeping the milk in contact with a functioning evaporator and maintaining the cooling process.
- Note: When the milk volume is only 10% of the BMC capacity, the system can still chill the milk using the remaining compressor, even if one fails.
- All evaporator suction and discharge connections should be routed to the outside. If both evaporators need to connect to a single compressor, all suction and discharge branch or tee connections must be external, not internal.
- This ensures proper gas flow, facilitates maintenance, and minimizes the risk of leaks or issues within the system.

#### **1.7 Tank Shape and Orientation:**

- Closed cylindrical or elliptical tank with 450 mm manhole (minimum), lockable cover and gasket.
- International sanitary design standards to be followed.

#### **1.8 Evaporator Plate and Shell Thickness:**

- Bottom plate: 2 mm, Top plate: 0.8 mm
- Inner shell: 2 mm, Outer shell: 1.6 mm

#### **1.9 Agitators:**

- For 5KL – minimum 1No as per Standard/ ISO 5708 Type 2 II (latest version & Separate contactor, Overload relay with **MPCB Provision**) compliance ensuring even distribution of the milk fat when milk is agitated. The agitator motor RPM should be 1440 and minimum 180Watt.
- Preferred gear box and induction motor should be inline type arrangement. Agitator blade shaft should be made of AISI 304 SS and gap between agitator blade and shell bottom is 30 mm. Cup type Nitrile Gasket to be provide for protection against Oil/Grease in Agitator Blade shaft. In Gear box, the grease should be used of Food grade type. Final agitation running RPM should be 23RPM to 28RPM.

- Require high-quality, reliable, and energy-efficient agitator motors that meet stringent standards for performance and durability, ensuring long-term operational efficiency and minimal maintenance.

#### **1.10 Adjustable Ball Feet:**

- AISI 304, tamper-proof, lockable, with 50 mm height adjustment.

#### **1.11 Fittings and Accessories:**

- The tank shall be provided with bottom filling with NRV, no-foam inlet, outlet valve & blank union with locking arrangement, inspection window/ manhole with locking arrangement, agitator and top cover with locking arrangement & Air vent in SS construction with vermin proof design.
- All SS fittings shall be of SMS standard. Top cover lifting handle for manhole shall be an in-built feature of the unit.
- Also provision of top feeding in the same system to be there.

#### **1.12 Type of Insulation & Positioning of Puff Injection Holes:**

- Injected, CFC Free PUF 40 kg / Cu. m
- All puff injection holes must be located at **the bottom of the tank with minimum holes only.**
- **Injection from the sides or any other part of the tank is strictly prohibited. This specification is essential to maintain the structural integrity and prevent potential water ingress.**

#### **1.13 Thickness of insulation**

- 40 kg/Cu. m density, 50 mm (min.) in the walls & 90 mm below the evaporator to allow 1 Deg. C temperature rise at given ambient conditions in 4 hours after milk is brought to 4 Deg. C. and when the BMC is not operating

#### **1.14 Insulation Efficiency: 0.019 W-m/k**

#### **1.15 Milk Volume Measurement:**

- 1 No of Dip Stick **preferably V-Shaped** of AISI 304 3mm thick on wall of tank. Calibration Accuracy- 0.5%. Laminated Calibration chart with soft copy.

**1.16 Surface Finish:**

- Product contact: 2B finish
- Welds: 150 grit minimum, with 25 mm radius curvature

**1.17 Cleaning Accessories:**

- 1No Tank cleaning brush and 1No long pipe cleaning brush (1500 mm).
- 6 No. SS pipe hooks (Wall mounted) for Holding Milk loading hose, water hose, and cleaning brushes.

**1.18 CIP Facility:**

- For Close type tank CIP spray balls and SS Piping from balance tank/dump tank through milk pump to BMC and back to balance tank

**5.1.6/dump tank and other necessary accessories required for circulation**

**1.19 Tank Level Indicator:**

- A bubble type level shall be fitted on the top surface of the bulk milk cooler tank so that at any point of time the tank can be checked for its proper levelling.

**1.20 Make of Dimple Jacket-Evaporation Plate:**

- **Omega**

**1.21 Warranty on Dimple Jacket-Evaporation Plate:**

- Warranty for Dimple Jacket -Evaporation Plate should be 60 months from the date of commissioning or 66 months from the date of supply, whichever is earlier.

**2. BMC Milk Tank Control Panel**

- The refrigeration unit shall be provided with a control panel made out of Stainless Steel (AISI304) suitable for wall mounting near the unit.
- The panel shall be provided with motor starters, ON/OFF buttons & necessary MCBs, control wiring, line voltage controller to guard the compressor against the supply voltage fluctuations.
- For more than one compressor is provided in the refrigeration system, the control panel shall be provided with a sequence controller & timer to start one compressor at a time to avoid surge on power supply.
- The panel shall also have facility to operate refrigeration unit on auto/ manual mode. In the auto mode, as soon as the milk temperature reaches to pre-set value, the compressor should be switched off to avoid freezing of milk.
- **Pump-Down before Compressor Shutdown:** The system must ensure that refrigerant gas is pumped down from the evaporator before the compressor

switches off. This helps protect the compressor from damage caused by liquid refrigerant.

- **Automatic pump-down system:** The cooling unit must include an automatic pump-down feature that activates every time the compressor is turned off. Manual systems that need operator control will not be accepted.

**2.1 Panel Mounting:** Wall-mounted

**2.2 Material of Construction Panel, thickness & Size of opening doors**

- AISI 304, 1.6mm
- If the control panel door requires more than 2 feet of clearance to open fully, it must be designed as a split door with two openings to allow easier access and operation.

**2.3 Temperature Display:**

- 2 Nos LCD temperature display in red colour with one decimal accuracy with clear visible from 20 feet distance one in panel and another one temperature display at milk reception area with wall mounted SS box (distance between control panel to milk reception area approximate 15-20M.)

**2.4 Cooling & agitation controls:**

**5.1.7** Required – controls for management of cooling and agitation, provision for cut-off/ restart, intermittent operation of agitator, auto and manual facility to be there.

**2.5 Battery Backup:** Required

**2.6 RS 232 port for temperature sensor**

- RS232 connectivity or equivalent compatible facility for temperature data transfer shall be provided.

**2.7 Rating of Contactors**

- **Standard to meet functional requirements of the Refrigeration Control Panel (Min. 32 ampere contactor required)**

**2.8 UV (Under Voltage) /OV (Over voltage) trip facility:** Required with LED indication.

**2.9 Neutral Protection unit:** Required with LED indication.

**2.10 Timer On-Delay:**

- Required (Required on delay timers for each compressor to avoid start at a time all compressors to minimize starting current)

**2.11 Auto/manual Mode (Selector Switch):** Required

**2.12 Single phase preventer:** Required

**2.13 MCB to On/Off refrigeration control panel**

- MCCB for the main input supply, **and separate MPCBs for each compressor and each agitator.**
- Note: -1) If a problem is detected in a compressor or agitator, only that particular equipment will be switched off.
- 2)The main power connection should be made at the main MCCB.

**2.14 Cooling Fan for Panel:** Required

**2.15 Earth Points:** 2 Points Required

**2.16 HP/LP Trip indication in LED:**

- Required in Panel for all compressors. (it should be in red for HP & Blue for LP)

**2.17 Supply indication in LED**

- R, Y, B Incoming supply Multi colour LED indication is required

**2.18 Compressor and Agitator Trip/Off Indication in LED:** Required

**2.19 Panel on-mode Indication:** required and should be in green colour

### **3. Refrigeration Unit**

- The refrigeration system shall be designed to comply with ISO/R1662 and to meet the requirements of milk tank (ISO 5708 Type 2 II standard

**5.1.8-** Latest Version).

- The refrigeration system shall be of direct expansion type, with R404A or CFC free environmentally friendly refrigerant to cool the raw milk from reception temperature to 4 Deg. C.
- The evaporator(s) of the refrigeration system shall form a part of the milk tank body as dimpled jacket in the bottom plate at least up to 1/3rd height of the elliptical (closed) tank.

**3.1 Standard for 48°C Ambient Conditions**

- ARI Standard 520-2004 applicable for refrigeration units operating at higher ambient temperature conditions. To facilitate for milk collection of BMCs operating as per ISO 5708 Type 2 II standard.

- **Note: in case of chances for liquid Refrigerant entering to the compressor suction in lower ambient, the supplier should make arrangements to prevent it.**

### **3.2 Design Parameters**

- 0 Deg. C evaporation and applicable discharge temperature at minimum 60 Deg. C condensing temperature

### **3.3 Type**

- Direct Expansion

### **3.4 Type of Refrigerant**

- R404A or equivalent CFC-free refrigerant

### **3.5 Cooling Capacity of Each Compressor**

- Adequate capacity to ensure milk cooling time periods specified and ambient conditions of **48 Deg. C** mentioned above.
- Compressor selected should be compatible for multiple refrigerants. **In case of lower ambient temperature, BMC operation will get advantage of early cooling.**

### **3.6 Number of Compressors**

- For 5KL unit: Two compressors

### **3.7 Make, Model and Type of Compressor**

- **Danfoss, MLZ058 compressor and hermetically sealed, scroll, energy efficient (NRV required in the discharge line to be added).**

### **3.8 Type of Condenser**

- **Air Cooled-Fin and tube type.** The condensing temperature should not be less than 60°C

### **3.9 Condenser Surface Area**

- Design and provide a substantially adequate condensing area to meet the functional requirements of the refrigeration unit in very hot conditions specified **above as 48°C as ambient.**

### **3.10 Receiver Volume**

- **A minimum of 9 litres** with a rotolock valve is required in each Condensing Unit (CU) for the 5KL BMC. However, the capacity may be reduced to 8 litres, provided the supplier ensures that the receiver volume is adequate for the refrigerant charge and sufficient for pump-down operations. The provision of a rotolock valve remains mandatory.

### **3.11 Condenser Fan**

- Three-phase
- With an internal thermal protection device, Enclosure shall be of metal (plastic fan is not permitted).

### **3.12 Pump-Down System**

- Required

### **3.13 Protective Grill**

- To preferably provide removable wire mesh screen in front of **condenser fins**.

### **3.14 Expansion Valve**

- Thermostatic expansion valve with MOP (minimum operating pressure)

### **3.15 Essential Components**

- **Required:**

- Drier
  - Solenoid valve with coil
  - Sight glass
  - Fan
  - Receiver
- Required for safe and efficient operation of the unit.
  - All components must be of **flaring type** (brazed or welded joints are not acceptable) except solenoid valve

### **3.16 Accessories**

- Isolation valves shall be provided at the suction, discharge, and service valves on the HRU side of the compressors. All pipes, valves, fittings, and controls must comply with the latest applicable national or international standards and codes.

- Copper piping between the BMC and the condensing unit shall be properly supported and routed using cable trays with appropriate tray supports to ensure durability, safety, and ease of maintenance.
- The condensing unit shall be installed on a platform made of a galvanized iron (GI) stand to ensure stability, durability, and corrosion resistance.

### **3.17 Rotolock Valves**

- Required for both compressor suction and discharge

### **3.18 Thickness of Copper Pipes**

- Soft Copper Pipe: SWG 18 (1.219 mm)
- Hard Copper Pipe: SWG 16 (1.626 mm)
- *Manufacturer's test certificate required*

### **3.19 Insulation Foam Tube for Copper Pipes**

- For 1 1/8" copper pipe: **Minimum foam thickness 19 mm**
- For 1 3/8" copper pipe: **Minimum foam thickness 25 mm**

## **4. Control Panel for Capacitors**

**5.1.9** The capacitor control system shall be designed to maintain power factor and monitor electrical parameters efficiently. It includes the following components and features:

### **4.1 Automatic Power Factor Correction (APFC) Controller**

- Microprocessor or PLC-based controller capable of automatically adjusting capacitor banks, starting from a power factor of 0.75, to maintain a target of 0.99 lag.
- Real-time display for monitoring electrical parameters such as power factor, voltage, and current.
- Target power factor to be maintained at 0.99 lag to ensure optimal energy efficiency.
- Automatic disconnection of individual capacitor steps if the power factor leads, to prevent overcompensation.
- Built-in alarm system for conditions such as capacitor failure, leading power factor, overcurrent, or overvoltage.

- APFC panel to consider also other loads eg. Lighting, lab equipment. It should be with 3 CT sensing and capacitor bank to have provision for add on.

#### **4.2 Metering and Monitoring**

- Digital multi-function meter (MFM) to monitor voltage, current, power factor, active power (kW), apparent power (kVA), reactive power (kVAR), and frequency.

#### **4.3 Capacitor Banks**

- Capacitor Steps: The combination of capacitor steps should be suitable to handle load variations starting from 1 kVAR to maintain a power factor of 0.99 lag. Local power quality should be assessed by the vendor before finalizing the configuration.
- Type: Heavy-duty, low-loss, self-healing type power capacitors for enhanced durability and performance.
- Installation: The capacitor panel shall be **installed before the servo voltage stabilizer, i.e., immediately after the fuse carrier.**

### **5. Servo Voltage Stabilizer**

- This panel should be suitable to tap the incoming Grid supply and feed the refrigeration unit, agitator motor and milk unloading pump (from balance tank) and dispatch pump, lighting, lab equipment etc.
- The DG set should be hooked up with this panel through a 'change-over-switch' in order to operate the DG set in place of Grid supply as and when required.
- It should be provided with necessary phase indication lamps (LED type), contactors, MPCBs, Multi-function Meter/display with amps, voltage, KWH, KVA, frequency, push button, DG set running hour meter for DG and EB Supply separately, isosceles transformer of 2 KVA for AMCU, Voltage stabilizer and single-phase preventer, wherever applicable, of suitable ratings should be supplied.

#### **5.1 Voltage Range and Rating**

- Voltage Range: 300 to 600 V for 3-phase (**Oil Cooled**)
- Rating: 45 kVA-3 Phase

#### **5.2 MOC, Thickness & Structure Type**

- MS Powder coated, 1.6 mm. and pipe structure, with uni-direction wheels and braking arrangement.

### **5.3 Accessories for 3-Phase Stabilizer**

- One MCCB for incoming,
- One change-over and bypass switch,
- Servo controlled correction transformer,
- Digital V, A, F indicator for input & output,
- 63A terminal blocks,
- OV/UV trip with delay time,
- Single phase preventer,
- Digital energy meter,
- Metal glands at cable entries.

### **5.4 Operating Features**

- Cable entry from Bottom (preferably)
- Response time-5 milliseconds, should withstand 150% load on surge duty,
- Capacity of terminals should be 150% of rated current,
- Dimmer with CRGO core,
- Separate Auto/manual facility,
- Plug in type control card for each phase,
- Correction speed-105v/s, Efficiency-99.5%

### **5.5 LED Indications**

- R.Y.B. (Red, Yellow, Blue)
- Output On
- Trip
- Phase OK
- Phase Reverse
- DG On

### **5.6 MCB / MCCB Requirements**

- 1nos MCCB for Main incoming (RYBN)

- 1nos MCCB BMC supply (RYBN),
- 2 nos MCB for Milk pump (RYB),
- 1nos MCB for dairy lighting (RYBN),
- 1nos MCB for can scrubber (RYBN.)
- 1nos MCB for Isolation transformer supply (PN)
- Each MCB/MCCB should have its corresponding equipment name indicated on a metal plate, **not on sticker.**

#### 5.7 Placement of MCB/MCCB/MPCB

- Install the rotary operation knobs on the door stabilizer to control the MCBs inside. For easy operation without opening the door.
- Note: Channel for MCB/MCCB/MPCB should **not be fixed on the door.**

#### 5.8 Earthing Points

- Required on both sides

#### 5.9 Placement of Oil Level Indicator

- The oil level indication glass should also be positioned on the front side of the stabilizer for easy visibility

#### 5.10 Digital Energy Meter with VAF: Required

### 6. Domestic Power Distribution Board –

#### 5.1.10 Type: Single phase Distribution

Board. **Material:** CRCA steel, powder-coated. **Rating:** 63A–125A, 240V, 50Hz.

**Ingress Protection:** IP43–IP54 (depending on model).

**5.1.11 Safety:** Provided with neutral & earth bars.

**5.1.12 Aesthetics:** Slim door, lockable latch, concealed hinges.

### 7. Earthing

**7.1** As per IS: 3043 - 1987 (reaffirmed 2018) - "Code of practice for earthing". GI Plate type earthing with funnel at top and GI Plate Size: 600mm x 600mm x 6mm thick. A total of 5 earth pits are required:

- 2 for Diesel Generator (DG) body
- 1 for DG neutral
- 1 for Stabilizer body, Earthing busbar & equipment.
- 1 for Stabilizer isolation transformer neutral.

**7.2** The distance between each pit to be as per local statutory requirement. Suitable GI Strip (minimum 25x3 mm) to be used for connecting earth pit with nearest equipment earthing point.

**7.3** **Connections:** From this point earthing to other points can be looped by suitable GI Strip or PVC insulated copper conductor cable of green colour (size minimum 1x 4 Sq. mm).

**7.4** The scope of work includes excavation for the earth pit, filling with necessary materials e.g., charcoal and salt, construction of suitable chamber.

**7.5** Supplier will test and demonstrate the resistance as per local EB. Requirement and furnish record as required.

## **8. Milk Pump & Feeding System Accessories**

- Milk pumps shall be supplied for pumping of milk from balance tank/dump tank to BMC and unloading of milk from BMC to milk tanker.
- Pump impeller & casing shall be made out of SS AISI 304 material. All milk contact surface shall be finished to minimum 150 grit.
- The pump should be of sanitary design. Inlet and outlet of the pump shall end with SMS union. The pump shall be provided with approved make motor having E/F class insulation and IP 55 protection.
- The flanged end motor shall have stainless steel shaft having hygienic mechanical sealing arrangement to prevent leakage from pump casing to rotor side of the motor. Pump shall be covered with SS shroud having air ventilation grill.
- The pump shall have SS adjustable ball feet.

### **8.1 Dump Tank & Weigh Bowl**

- **User may provide dump tank.**
- However, AISI 304 220 Liters balance tank with strainer to be provided by vendor.

- The tank and strainer to be fabricated out of 1.6 mm SS304 sheet  
General arrangement Drawings shall be approved.

#### **Tank accessories**

- Outlet with 51 mm butterfly valve with expandable union and adjustable ball feet (Min. 50mm vertical),
- SS removable cover with handles,
- SS strainer made from 1.6 mm thick SS plate with perforated plate having 2 mm dia. holes (removable type),
- Outlet to end in cup type for easy draining of milk and CIP solution.
- **SS piping, fittings etc. from Dump tank/balance tank outlet (51mm) is in the scope of BMC Supplier.**

#### **8.2 SS 304 Milk Pump (suction 51x Discharge 38)**

- 2 Nos with Centrifugal in SS construction with cap 15 KLPH SS Pipes, Fittings and Supports

#### **8.3 SS Pipes, Fittings & Supports**

- 51mm SS 304 Pipes with necessary fittings and supports

#### **8.4 Head in MWC**

- 10 meters

#### **8.5 Pump Inlet/Outlet**

- 51 mm x 38 mm with SMS union

#### **8.6 Pump Accessories**

- Adjustable ball feet (min. 50 mm),
- Motor having 'E'/'F class insulation and having IP 55 protection.
- Pump shall have SS shroud.
- DOL starter 2 Nos. and Remote push button (on-off) to be installed at Milk reception area for convenient operation.

#### **8.7 Food grade tanker loading/unloading hosepipe**

- 10 meters length and Size 51 mm with both side male and female SS unions.

#### **8.8 Inline Strainer**

- SS 304 inline strainer preferably cone filter with both side union shall be supplied 51mmX51mm.

#### **8.9 Gaskets**

- 20 sets for 51mm plug valve
- 5 nos for 51mm butterfly valve(silicon)
- 50 nos for 51mm Union
- 10 nos for 38 mm union
- 10 nos for 25 mm union

### **9. Water Handling System for BMC**

#### **9.1 Overhead Water Tank System (2000 Litre Capacity):**

- Closed-type overhead tank of 2000-litre capacity with double-walled construction for enhanced durability and insulation.
- Provided with a manhole and lockable cover for easy access during maintenance.
- Material of Construction (MOC): High-Density Polyethylene (HDPE), suitable for potable water storage.
- Supplied with all necessary fittings and fixtures, including inlet/outlet connections, overflow and drain provisions.
- Equipped with a **single-phase submersible pump** with foot valve or Monoblock pump as per site condition.
- **Arrangement to be provided to ensure automatic filling of the tank based on water level.**

#### **9.2 Pump Capacity**

- **Power:** 1 HP
- **Head:** 10 MWC

#### **9.3 Waterline Schematic – Valves & Fittings**

- The OH tank to supply water to BMC for cleaning and washing. Necessary CPVC piping supply and installation is in the scope of work of supplier.

#### **9.4 System Interconnecting Piping**

- Piping for water should be of **2-inch CPVC ISI marked**. Piping is required between
- Ground/ Sump to overhead water tank,
- Overhead water tank to HRU,
- Can scrubber,
- RMRD area.
- Piping for hot water from
  - HRU to Can scrubber,
  - Dump tank/Balance tank,
  - RMRD area
- The above mentioned CPVC piping supply and installation is in the scope of supplier.

## **10. Heat Recovery Unit (HRU)**

- The system shall be designed to heat water by recovering thermal energy from the discharge gases of a single compressor.
- It shall consist of evaporator type heat recovery unit.
- Suitable capacity SS 316 tank (water contact area), 2 mm thick with suitable insulation and outlets.
- Suitable SS ladder or stool with floor grouting with anchor bolts for cleaning and supervision to be provided.
- For 5KL BMC – 1 No with accessories
- It shall be connected with one compressor.

**10.1 Capacity: 200L**

**10.2 Evaporator Plate – OMEGA MAKE:**

- Laser welded evaporator plate ensure perfect distribution of refrigerant, higher heat transfer short time & long life of equipment.

**10.3 Diameter: Inner Shell: 700mm**

**10.4 MoC :**

- **Inner Shell: AISI 316- water contact area.**
- Outer Shell: AISI 304

**10.5 Insulation**

- High thermal efficient polyurethane (PUFF) (40 kg/m<sup>3</sup> density)

#### **10.6 Outlet for hot water and Drain**

- Two outlets with valves.
- 38 mm outlet with valve for drainpipe.
- 25 mm with valve with hot water outlet.
- Both these outlets shall be provided dish end of the heat recovery unit.

#### **10.7 Mounting Stand (AISI 304) : S.S. stand with 4 ft Height**

#### **10.8 Estimated length of piping: 10 Mtr**

#### **10.9 Inlet, outlet & overflow connections:**

- All connections should be provided with threading including overflow pipe instead of plain connections to ensure secure and proper fittings.

#### **10.10 Temperature Display for HRU**

- For monitoring real-time temperature of hot water

### **11. Diesel Generator (DG) Set**

#### **11.1 General Operating and Design Conditions**

- The DG set shall be of capacity:
- **45 kVA three-phase Water cooled**
- The DG set should be heavy duty design, industrial type, rated for continuous operation for the refrigeration system, milk tank agitator & milk dispatch pump, AMCU, Lightings, Ceiling fan etc.
- The diesel engine and alternator should be mounted on specially designed combination base plate and MS structure of extremely rigid fabrication. The base frame should be suitable for mounting the set on **AVM pads** over the foundation.
- **Diesel Tank Capacity should be minimum 250 litres.**

#### **11.2 Confirmation to regulatory norms for environment and Approval from Local authorities**

- DG set should carry a valid approval certificate issued as per CPCB norms complying with the provision of the Environment (Protection)

**5.1.13** second Amendment Rules 2002, vide notification no G. S. R. 371 (E), dated 17th May 2002 and amended by GSR 448 (E) dt.12/07/2004.

- Compliant with the latest CPCB norms applicable as per government guidelines.
- The exhaust pipe with exhaust muffler with insertion loss of minimum 25 dB (A) is connected to the exhaust manifold preferably with flexible bellows.
- In case the DG Set is located within the BMC building, the exhaust pipe with insulation & cladding of adequate length to be provided extending the original pipe over the roof of the building to avoid pollution in and around the location.
- Supplier to obtain the approval of Local authorities in case it is required by the rules.

### **11.3 Diesel Engine**

- The diesel engine should be suitable for power generation application air cooled/ water cooled and capable of developing required BHP when running at 1500 rpm under NTP conditions.
- The engine should be built to IS 10000/ISO 3046/BS 5514/649 and rated for continuous running of 24 hours with an overload capacity of 10 % for a period not exceeding 1 hour in any 12 hours running.
- Engine ratings should be for operation at full load condition and should be suitable to take 100% block load.
- Self-starting arrangement with 12V suitable rated heavy-duty Lead Acid accumulator type battery with solid-state battery charging arrangement and cables. standard set of tools. First fill of Lubricating oil, first fill of coolant, lubricating oil pressure and temperature gauge.
- Standard set of tools. First fill of Lubricating oil, first fill of coolant, Lubricating oil pressure & temp. gauge.
- Control panel for engine with engine safety temperature, V-belt failure, low oil pressure, low water level in radiator auxiliary failure, air cleaner choke indicator. External battery charger to be supplied.
- As per latest Central Pollution Control Board compliant.

### **11.4 Engine Instrument Panel (Mechanical and/or electronic gauges)**

- Consist of Ignition key,
- Starting push button,

- Lubricating oil pressure gauge,
- Temperature gauge for cooling water,
- Temperature gauge for Lubricating oil,
- RPM meter (Analog type),
- Battery charging ammeter.
- Diesel quantity to be show in percentage.
- Engine safety unit (ESU)
- Two numbers of Diesel hose should be supplied as spare.

### **11.5 Alternator**

- The engine shall be closely or flexibly coupled to a suitable self-excited, self-regulated (via AVR) alternator, capable of developing the required kVA at 0.8 power factor, 3-phase, 415 Volts, 50 Hz AC power supply under Normal Temperature and Pressure (NTP) conditions while operating at 1500 RPM.
- The alternator shall meet the following criteria:
  - Brushless type, ensuring reduced maintenance and increased reliability.
  - Screen protected, with appropriate enclosures to prevent ingress of dust or foreign particles.
  - Fitted with end shields and ball/roller bearings to support smooth mechanical operation and long service life.
  - Insulation shall be of Class 'H', suitable for high thermal endurance and extended operational life.
  - The alternator shall conform to IS 13364 (Part II):1992 or IS 4722:1992 for **ratings 45 KVA.**

### **11.6 Control Panel**

- The diesel generating set to have suitable control panel duly pre-wired with the following instruments:
  - One ammeter with selector switch, Hour meter, one suitable capacity MCCB with overload and short circuit protection to

**5.1.14** disconnect power supply in case load of generating set increases beyond permitted limits.

- The rupturing capacity of the MCCB should not be less than 25 kA. One set of indicating lamps and control fuses.

### **11.7 Installation and Commissioning of DG Set**

- Unloading, lifting / shifting and final placement of DG set is in the scope of supplier, Installation of DG set in all respect including is in the scope of supplier.
- All electrical work including power and control cabling from DG SET to control panel is in the scope of supply. (Maximum distance between DG set & Control Panel is to consider 35 Meter), From output of MCCB purchaser shall connect power cable for further distribution.

### **11.8 Warranty / Guarantee**

- **Warranty should be minimum 24 months from the date of commissioning or 30 months from the date of the supply whichever is earlier.** Supplier shall supply filters/spares along with DG set for troubleshoot operation up to warranty period.

## **12. Installation, Commissioning, Trial Runs and Putting the BMC in Operation on Milk**

### **12.1 Installation of BMC and Supporting Accessories**

- The installation work should be carried in the best workman like manner in conformity to the relevant codes of practices of BIS standards applicable for mechanical & electrical installation.
- Please Supply all Cables, SS Pipes & fittings and CPVC/PVC Pipes as per the appropriate BMC building size Minimum 60feet x 40feet, & Compressor and condenser planned to be kept at outside of the building.
- Installation of all equipment & interconnecting piping, including minor civil works such as opening the wall for copper pipes, milk transfer pipes, all conduit pipes, water line pipes etc. and construction of earthing pit chambers.

- Providing stainless steel pipe supports, SS base plates, clamps, valves, unions etc. required to secure the equipment & piping to walls and floors is to be provided.
- Supply, laying, connecting, terminating all necessary electrical and control cables through the cable trays, GI pipes/conduits, cable gland sockets at ends, isolators, junction boxes etc. are included in the scope of the work.
- Cable trays and supporting steel members such as Galvanized angles /channel / flats shall be used and fixed/installed at appropriate places to ensure safe installation.
- The laying of cables on the floor or under the floor is not permitted. Install a 25mm heavy duty PVC pipe on both sides of the BMC tank bottom, along the tank's length, to route the milk pump cable.

## **12.2 Interconnecting Piping for the Entire Plant**

- SS 304 piping 51mm for 5KL 1.6 mm thick
- Provide and install extended pipe for connecting milk hose for milk tanker loading – unloading.
- **Milk should be feeding from the bottom of BMC Tank. Necessary NRV and Plug Valves shall be included in scope of supply.**

## **12.3 Cables & Electrical**

- 60mtr Copper Armoured Cable between D G Set, EB, main control panel and Refrigeration Control Panel shall be steel armoured (for 5kl: 4 C x 16 Sq mm (Min)copper. For all electrical cables, suitable water-tight cable SS glands and lugs should be used at ends. Specification for PVC insulated cables (for voltage up to 1100V): Part 1 with copper conductor (revised).
- Flexible electrical connections shall be made only to items normally movable in service. Such flexible cables shall be PVC insulated copper conductor not less than 24/0.20 mm in size (see IS 694 (Part1-1964\*)) and earth continuity conductors of PVC insulated copper conductor shall be provided.
- Note: Please consider minimum 120-meter wire required for milk pump connection

## **12.4 Toolbox with Required Tools & Spares:**

- A standard toolbox of GI sheet with necessary tools for normal maintenance.

- It should include Electric Tester, Screwdriver Set, Allen Key 3mm & 6mm, Pipe Wrench 12" Long, Screw Spanner 6", Fix spanner Set 6-27, Gasket for SS Unions/valves- 3 sets and extra mechanical seal for pump.

#### **12.5 Operation Manuals**

- 2 sets to be provided.

#### **12.6 Drawing for the Complete System Offered**

- Drawing must be provided.

#### **12.7 Commissioning**

- Supplier shall arrange commissioning & performance trial runs of the bulk milk cooling system ensuring that BMC meets all performance parameters. The supplier shall supply all the consumables except diesel for D G Set required during commissioning of the plant. Diesel for commissioning of D G Set shall be provided by purchaser.
- In case of unavailability of Milk, Supplier has to take trial on Water.

#### **12.8 Training**

- Supplier shall arrange for training of the operating team of BMC centers for efficient operation and maintenance of the complete system for 3 days in local language at our site

#### **12.9 Warranty**

- All equipment (including bought-out items) supplied & installed by the contractor shall have a **comprehensive warranty of 24 months** from the date of commissioning **or 30 months** from the date of the supply whichever is earlier.
- **Special warranty 60 months for dimple jacket from the date of commissioning or 66 months from the date of supply and for this supplier will give warranty in Company letter head.**
- **Consumables are not included, however refrigerant included during the warranty period.**
- During the warranty period, Breakdown calls to be resolved on or before next shift milking reception.

#### **12.10 Inspection & Trial**

- Client reserves the right to inspect all the components of the bulk milk cooling system during the fabrication/ manufacturing stage and

**5.1.15** finished stage before dispatch of the equipment. The milk cooling tank shall be checked with dye penetration test for welding defect, surface roughness check, water tightness test /hydraulic test.

**12.11 Fire Extinguisher**

- Supply and install A B C Stored Pressure type fire extinguisher of capacity 1 kg with each, **For 5 KL 2 Nos**

**12.12 Logo**

- Milk Producer Organization shall provide the soft copy of logo to supplier.
- **Supplier will fix logo of Milk Producer Organization in SS Plate with multicolour.**

• **12.13 Approved makes:**

- Milk Pump : IDMC/Alfa Laval
- Plug Valve : IDMC/Alfa Laval
- Line Stainer : IDMC/Alfa Laval
- Other SS 304 Fittings : IDMC/Alfa Laval

**Section 6 Delivery Schedule, Issuance of PO & Allocation of Qty**

Name of Purchaser	Line Item	Qty in total	Delivery Address
Respective MPO	5kl BMCs	To be decided by MPO	All over India

**Section 7 PRICE SCHEDULE**

Price Schedule for Supply and Testing of Aluminum Milk Can

Sr No	Details	Delivery Location	Qty*	Uom	Unit Rate excluding GST	Unit Rate including GST	Total Amount including GST
			<b>Q</b>		<b>A</b>	<b>B</b>	<b>B*Q</b>
1	1) BMCU OF 5KL with accessories (Tank evaporators, Agitators, Ball feet, Tank fittings and accessories, CIP facility, Dipstick, Cleaning Brushes, Milk Tank control panels, Temperature display with Battery Backup, Cooling and Agitation Controls, Refrigeration unit with 02 compressor Model MLZ058, Refrigeration Control Panel and accessories, Accessories for Earthing as per technical specification including 24 months warranty 2) DG set Cap. 45KVA and its accessories as per technical specification including 24 months warranty 3) Main Control Panel with Servo Voltage Stabilizer Cap. 45KVA as per technical specification including 24 months warranty 4) Automatic Power Factor Controller Panel as per technical specification including 24 months			Set	Rates to be filled in NCDFI Portal only (As per tech specs at Section 4 and delivery schedule given at		

Section 5)

<p>warranty</p> <p>5) SS Balance Tank with SS Strainer Cap. 200L as per technical specification including 24 months warranty</p> <p>6) Milk Pump Cap. 15KLPH @ 10MWC - 2Nos. as per technical specification including 24 months warranty</p> <p>7) SS Pipes and Fittings as per technical specification including 24 months warranty</p> <p>8) Heat Recovery Unit Cap. 200Ltrs as per technical specification including 24 months warranty</p> <p>9) Water handling system for BMC with Submersible Pump, HDPE Tank 2000 lit Capacity, Tank Mounting, Pipes and Fittings as per technical specification including 24 months warranty</p> <p>10) Installation, Commissioning, trial runs and putting BMCs in operations at each location as per technical specification including 24 months warranty</p>				
---	--	--	--	--

	<p><b>Total Amount including GST</b></p>				

- **Bid will be evaluated on over all basis.**

- **Quantity Allocation Structure**

- A. **50% Firm Allotment to L1:**

The bidder who is technically qualified and has the lowest evaluated price (L1) is guaranteed at least **50%** of the total tendered quantity.

- B. **Balance 50% – Conditional Allotment:**

- The remaining **50%** *may* be offered to the next lowest bidders (L2 and L3) if they:
  - Are technically qualified,
  - Accept the L1 rate,
  - And in case both accept, L3 cannot get more than L2.

- C. **If L2/L3 Declines:**

- If L2 or L3 declines the offer, the chance can be given to the next bidder in ranking (only up to L4,etc.), but still at the L1 rate.

- Procuring Agency’s Discretion:**

- The Procuring Agency:
  - Has the final say in whether to actually share this 50% with other bidders.
  - May decide to give the entire 100% to the L1 bidder if it believes this is better for operations.

- c. **Role of Milk Producer Companies (MPOs)**

The total quantity indicated in the tender is intended for procurement by **multiple Milk Producer Companies (MPOs)**.

Accordingly, **Purchase Orders (POs) shall be issued by the respective MPOs** based on their **individual requirements**, as detailed in **Annexure-1 of Section 5 (Delivery Schedule)**.

- d. **MPOs/Procure Agencies Discretion in Quantity Distribution**

		<p>The <b>issuance and distribution of quantity</b> remains entirely <b>at the discretion of procuring agency</b>. <b>Procure Agency</b> may choose to place POs with L1, L2, or L3 bidders (as applicable) or refrain from doing so, provided that <b>a minimum of 50% of the total quantity</b> across all MPOs shall be awarded to the <b>L1 bidder</b> in line with clause A, B and C.</p> <p>Please note that it is recommended for the supplier to indicate a single applicable GST rate, as in many cases items may be procured on a composite basis, and a uniform GST rate would apply.</p> <p>It should also be noted that the price evaluation of each item will be based on the total price <b>exclusive of GST</b>.,.No price increase will be entertained after bid submission, and if the bidder refuses to honour their quoted price after the price bid is opened, their EMD may be forfeited.</p>
--	--	---

## **Section 8 Form of Bid**

(Bidders are requested to submit the FORM OF BID as per the Format given in this Section, filling all the blank spaces.)

Date : \_\_\_\_\_

IFB Ref: NDS/MPO /04/BMC 5KL  
TO: NDDDB Dairy Services,  
**NDDDB House,**  
**Safdarjung Enclave,**  
**New Delhi, Southwest Delhi, Delhi, 110029**  
**011-4988300/49883088/Mob7092922421**  
**Contact No. 88534 91248**

Having examined the Conditions of Contract, Technical Specifications and the Drawings included (if any) in or referred to in the Bidding Documents including Addenda/Corrigendum Nos. (Insert Numbers), the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver Goods and Services including installation and commissioning as detailed in the price bid, in conformity with technical specifications and drawings (except to the extent of deviation statement furnished in our bid) and the Conditions of Contract as mentioned in or referred to in the said Bidding Document for the sum as may be ascertained in accordance with the Bid Prices and made part of this bid and the said conditions.

Our acceptance to all the conditions of the Bidding Document in this bid form shall persist over any other terms and conditions, if any, given in our bid.

We undertake, if our bid is accepted, to commence and complete delivery of all the goods and Services including installation and commissioning as specified in the Schedule of Requirements of the Bid Document, from the date of receipt of your Purchase Order / Notification of Award / Letter of Credit.

If our bid is accepted, we will obtain the bank guarantees as per the conditions of the Contract for the due performance of the Contract.

We agree to abide by this bid for the period of 120 days from the date fixed for bid opening as per the Instruction to Bidders and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your Purchase Order / notification of award, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_.

\_\_\_\_\_  
Signature  
\_\_\_\_\_

(In the Capacity of)

Duly Authorized to sign bid for and on behalf of

(Name & Address of Bidder) : \_\_\_\_\_

\_\_\_\_\_

Name of Witness : \_\_\_\_\_

Signature : \_\_\_\_\_ Address : \_\_\_\_\_

**Section 9 DEVIATION STATEMENT FORMS**

TECHNICAL DEVIATION STATEMENT

FORM PART-A

(1) The following are the particulars of deviations from the requirements of the tender specifications:

CLAUSE	DEVIATION	REMARKS (Including justification)
--------	-----------	--------------------------------------

The technical specifications furnished in the bidding document shall prevail over those of any other document forming a part of our bid, except only to the extent of deviations furnished in this statement.

Dated:

Signature and seal of the  
Manufacturer / Bidder

NOTE:

Where there is no deviation, the statement should be returned duly signed with an endorsement indication "**NO DEVIATIONS**"

**Section 10 BIDDING TERMS DEVIATION STATEMENT**  
**FORM PART-B**

(2) The following are the particulars of deviations from the requirements of the bidding conditions / terms:

CLAUSE	DEVIATION	REMARKS (Including justification)
--------	-----------	--------------------------------------

Dated:

Signature and seal of the  
Manufacturer / Bidder

NOTE:

Where there is no deviation, the statement should be returned duly signed with an endorsement indication "**NO DEVIATIONS**"

## **Section 11 Form of Bank Guarantee for Performance Security**

[On the Non-judicial stamp paper minimum Rs.100/ or as per the Stamp Act of Local State Government]

**Bank Guarantee No.**

**Date:**

This deed of performance guarantee made this \_\_\_\_\_ day of 20\_\_ (Two thousand \_\_\_\_\_) by (Name and address of the Bank) (herein referred to as the Bank) which expression shall unless repugnant to the context and meaning thereof includes its legal representatives, successors and assignees and the National Dairy Development Board Dairy Services (hereinafter referred to as the Purchaser which expression shall unless repugnant to the context and meaning thereof include its legal representative, successors and assignees.

Whereas, Purchaser / its clients has awarded a Contract and Purchase order bearing No \_\_\_\_\_ dated \_\_\_\_\_ on M/s. \_\_\_\_\_ (name and address of the party)(hereinafter referred to as the 'Supplier/ Contractor') for the construction/ supply/ supply and erection and commissioning of \_\_\_\_\_.

And whereas, the Supplier/ Contractor has agreed to submit a performance guarantee in the form of a Bank Guarantee to the Purchaser in terms and conditions of the Bidding Document and the Contract which will be kept valid upto \_\_\_\_\_ calendar months from the date of Bank Guarantee (the period should be till end of warranty/ defect liability period). And whereas, the Bank and its duly constituted agent and officer has already read and understood the contract made between the Purchaser and the Supplier/ Contractor.

In consideration of the Purchaser having agreed to award the contract/ purchase order on the Supplier/ Contractor, we \_\_\_\_\_ (name of the Bank), do hereby guarantee, undertake, promise and agree to with Purchaser, its legal representatives, successors and assignees that the within named (name of the Supplier/ Contractor) their legal representatives and assignees will faithfully perform and fulfill everything within the Bidding Document and the Contract/Purchase order on their part to be performed or fulfilled at the time (time being the essence of the contract)and in the manner therein provided, do all obligations thereunder and we further undertake and guarantee to make payment to the Purchaser of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) being the guaranteed amount, without any demur in case the Supplier/ Contractor, their legal representatives and assignees do not faithfully perform and fulfil everything within the Bidding Document and the Contract/ Purchase order on their part to be performed or fulfilled, at the time and in the manner therein provided and do not willfully and promptly do all obligations thereunder.

In case, the Supplier/ Contractor fails to perform or fulfil the Contract/ Purchase Order as per the terms and conditions agreed upon, the Purchaser is entitled to demand an amount equal to Rs. ----- from the Supplier/ Contractor and the demand made by the Purchaser by itself will be conclusive evidence and proof that the Supplier/ Contractor has failed to perform or fulfil his obligations and neither the Supplier/ Contractor nor the Bank will be entitled to raise any dispute regarding the reasons for the failure of performance or fulfilment, on any ground.

We, (name of the Bank), do hereby undertake to pay amount equal to Rs. -----, being the amount due and payable under this guarantee without any demur, merely on a demand from the Purchaser which has to be served on us before the expiry date of Bank Guarantee i.e. \_\_\_\_\_ stating that the amount claimed is due by way of non-performance of the contractual obligations as aforesaid by the Supplier/ Contractor or by reason of the Supplier/ Contractor's failure to perform the said contractual commitments/ Purchase Order, any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee.

However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. ----- (Rupees \_\_\_\_\_ only) being the full amount guaranteed.

We, (name of the Bank), further, agree that the performance guarantee herein contained shall remain in full force and effect for a period of \_\_\_ calendar months from the date of Bank guarantee (the period should be till end of warranty/ defect liability period) and till the Purchaser certifies that the terms and conditions of the said contract/ purchase order have been fully and properly carried out by the said Supplier/ Contractor and accordingly discharge the guarantee, unless a demand or claim under this guarantee is made on us in writing by the Purchaser on or before \_\_\_\_\_, we shall be discharged from all liabilities under this performance guarantee thereafter.

We, (name of the Bank), further agree with the Purchaser that the Purchaser shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Bidding Document and the Contract/Purchase order or to extend the time of performance by the said Supplier/ Contractor from time to time or postpone for any time or from time to time and any of the power exercisable by the Purchasers against the Supplier/ Contractor and to forebear or enforce any of the terms and conditions relating to the said Bidding Document and the Contract/Purchase Order and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Supplier/ Contractor, or for any forbearance, act or omission on the part of the Purchaser to the said Supplier/ Contractor by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

This guarantee shall be in addition to and without prejudice to any other securities or remedies which the Purchaser may have or hereafter possess in respect of the works executed or intended to be executed/ goods supplied or intended to be supplied and the Purchaser shall be under no obligation to marshal in favor of the Bank any such securities or asset that the Purchaser may be entitled to receiving or have a claim upon and the Purchaser at its absolute discretion may vary, exchange, renew, modify or refuse to complete to enforce or assign any security or instrument.

The Bank agrees that the amount hereby guaranteed shall be due and payable to the Purchaser on serving us with a notice before expiry of bank guarantee, requiring the payment of the amount and such notice shall be deemed to have been served on the Bank either by actual delivery thereof to the Bank or by dispatch thereof to the Bank by Registered Post at the address of the Bank.

In order to give full effect to the provisions of this guarantee the Bank hereby waives all rights inconsistent with the above provisions and which the Bank might otherwise as a guarantor be entitled to claim and enforce.

We, \_\_\_\_\_, undertake to renew the Bank Guarantee provided the request for renewal is made by the Supplier/ Contractor before the expiry of Bank Guarantee.

We, \_\_\_\_\_, lastly undertake not to revoke this \_\_\_\_\_ guarantee during its currency except with the previous consent of the Purchaser in writing and the guarantee shall be a continuous and irrevocable guarantee upto a sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only)

Notwithstanding anything stated herein before: (i) our liability under this guarantee is restricted to Rs. \_\_\_\_\_ (ii) the guarantee shall remain in force till \_\_\_20\_\_\_ and (iii) The Bank is liable to pay the guarantee amount or any part thereof under this bank guarantee only if the Purchaser serves upon the Bank a written claim or demand on or before \_\_\_\_\_.

Place:

\_\_\_\_\_  
(SIGNATURE)  
SEAL

Date:

CODE NO.

NOTE:

- 1 SUPPLIER/ CONTRACTORS SHOULD ENSURE THAT SEAL AND CODE NO. OF THE SIGNATORY IS PUT BY THE BANKERS, BEFORE SUBMISSION OF THE BANK GUARANTEES.
- 2 THE VALUE OF STAMP DUTY SHOULD BE AS PER LATEST STAMP ACT OF LOCAL STATE GOVERNMENT FROM WHERE THE BANK GUARANTEE ISSUED.
3. **Bank should confirm the bank guarantee through “Structured Financial Messaging System (SFMS)”,. Bank account details of beneficiary are as follows:**

Beneficiary Name	
Bank Account No.	
IFSC code	
Beneficiary Bank Name	
Beneficiary Bank Address	

*Bank charges, if any, on this account will be borne by the beneficiary*

**If the issuing bank is not having the SFMS facility, the bank guarantee needs to be confirmed by its controlling office i.e. Administrative / Regional / Zonal Office to the following address**

Beneficiary Name	
Beneficiary Address	

***Kindly note that necessary action on the Bank Guarantee will be taken by Purchaser only upon receipt of confirmation in either one of the modes as prescribed above.***

## **Section 12 Pre-Bid Undertaking – Service Commitment, Security Deposit**

To,

NDDB Dairy Services,  
**NDDB House,**  
**Safdarjung Enclave,**  
**New Delhi, Southwest Delhi, Delhi, 110029**  
**011-4988300/49883088/Mob7092922421**  
**Contact No. 88534 91248**

Subject: Pre-Bid Undertaking – Service Commitment, Security Deposit & Blacklisting Terms

**Dear Sir/Madam,**

We, [Name of the Bidder], having our registered office at [Bidder's Address], hereby submit this undertaking as part of our bid in response to Tender No.

**Tender NO - NDS/MPO /04/BMC 5KL** for the supply of **5 kl BMC**

We understand that this undertaking does not confer any assurance or guarantee of order placement by [Your Organization Name], and is being submitted as part of our compliance with the bid conditions.

In the event that we are awarded the contract, we hereby agree and undertake the following:

### **Service Commitment**

If awarded the order, we shall provide installation, commissioning, warranty support, post-sale services, maintenance, and fulfill all other service obligations as per the tender terms and Purchase Order conditions.

### **Security Deposit**

Upon award of the contract, we undertake to deposit a Security Deposit of [10% of PO value] in the form of Bank Guarantee into the designated account of [Puc], as a commitment towards fulfilling the service obligations.

### **Forfeiture & Blacklisting Clause**

We further agree that if, after issuance of the Purchase Order: if

- We fail to deliver the agreed services,
- Delay, disrupt, or default on service commitments,
- Breach any of the terms specified in the contract,

**Then Purchaser/Procuring Agency shall have the absolute right to:**

Forfeit the Security Deposit/performance BG, and Blacklist us from participating in future tenders/procurements for a period deemed appropriate.

**Declaration**

Participation in the demonstration shall be deemed as acceptance of this condition, and the bidder shall not have any right to dispute the decisions arising from the demonstration outcome.

This undertaking is submitted as part of the bid compliance and will become binding if we are awarded the contract. We accept that this is essential to ensure service reliability and protect the interests of Purchaser.

I/We understand that any attempt to influence the evaluation process, either directly or indirectly, shall lead to immediate rejection of our bid/award of contract and may also result in our disqualification and/or debarment from participation in future tenders issued by your and your associated organization.

I/We undertake to abide by the integrity, fairness, and transparency principles set out by the procuring authority and relevant procurement guidelines.