



**The Bhagirathi Co-op. Milk Producers' Union Ltd.**  
Feeder Dairy: P.O-Baharampur: PIN -742101: Dist.-Murshidabad  
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## **NOTICE INVITING E-TENDER**

**BU/E&T/MVEHICLE/3831**

**Dated- 21.12.2019**

The Bhagirathi Cooperative Milk Producers Union Limited (BCMPUL) invites **E Tender** in Two bid systems for entering into rate contract for hiring Refrigerated /Insulated Covered Vehicle / Van of various capacities along with driver and helper for transportation of Milk and Milk Products for a period of 3 years (April 2020- March 2023) within India.

### **IMPORTANT DATE AND TIME SCHEDULE**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Date &amp; Time</b>
1	Date of uploading (Publishing)of N.I.T. Documents (Online)	21.12.2019 at 1600 hrs
2	Documents download start date (Online)	21.12.2019 at 1605 hrs
3	Technical Bid proposal submission start date (Online)	21.12.2019 at 1610 hrs
4	Bid Submission end date (Online)	03.01.2020 at 1600 hrs
5	Technical bid opening date	07.01.2020 at 1630 hrs
6	Pre bid Meeting (The Office of The Bhagirathi Milk Union)	23.12.2019 at 1100 hrs
7	Financial Bid Opening date	To be notified later

**The details of work are given below:**

<b>Nature of Work</b>	<b>Service</b>			
<b>Scope of Work</b>	Rate contract for Hiring Refrigerated / Insulated Covered van for different route, of various capacities in different (describe below), along with driver and helper for transportation of Milk and Milk Products for a period of 3 years (April 2020-March 2023) to the distributor / retailer within India.			
<b>Load &amp; Mileage details</b>	<b>SL No.</b>	<b>Load milk Crate Carrying Capacity</b>	<b>Mileage for Insulated Cover Vehicles per liter</b>	<b>Mileage for Refrigerated Cover Vehicles per liter.</b>
	1	600 to 670 Crates	6.5 km	5.5 km

	2	500 to 599 Crates	7 km	6 km
	3	300 to 400 Crates	8 km	7 km
	4	150 to 250 Crates	10 km	9 km
	<b>Note: - One Crate Milk =10 kg. Only Crate without Milk=1.2 to 1.3 kg (approx)</b>			
<b>Estimated Cost of Work</b>	Rate to be offered by the bidder per Km basis inclusive of all expenses (directly & indirectly)			
<b>Area of operation</b>	PAN India. The Transporter should have National permit.			
<b>Contract Period</b>	3 years			
<b>Bid Inviting Authority</b>	The Managing Director of The Bhagirathi Cooperative Milk Producers' Union Limited			
<b>Estimated Cost of Work</b>	Nil. Bidder should quote the rate depending upon prevailing market rate. Rate should be quoted per km basis inclusive of all i.e. Driver, Helper, Fuel, Lubricant, Maintenance cost, etc.			
<b>Security Deposit</b>	<ul style="list-style-type: none"> <li>Rs.20,000/- (Interest free).</li> <li>Additional security deposit of Rs.5000/-(interest free) will have to be deposited against supply and installation of GPS Tracker by the Bhagirathi Milk Union. The amount will be refunded once the contract is successfully executed subject to return of GPS Tracker in good working condition.</li> </ul>			
<b>Eligibility Criteria</b>	<p><b>Credentials:</b></p> <ol style="list-style-type: none"> <li><b>Experience:</b> Minimum 1 year experience within the last five years in transportation of milk and milk products in refrigerated or insulated cover vans. The one year's experience of the tenderer should be in the same name and style as the bidding entity. The one year's experience of the tenderer should be in the same name and style as the bidding entity. Experience certificate from competent authority supporting the claim must be uploaded in the Technical Bid Folder.</li> <li><b>Vehicle Number:</b> Rate should be quoted for Commercial Vehicles only per km basis inclusive of all.</li> </ol>			
<b>Statutory &amp; Non Statutory Documents</b>	<ol style="list-style-type: none"> <li>GST Registration Certificate if any</li> <li>PAN Card</li> <li>RC Book</li> <li>Fitness Certificate of the Vehicle</li> <li>Insurance Certificate</li> <li>Permit for Milk Transportation</li> <li>Road Tax clearance Certificate</li> <li>Documents supporting Identity and Address.</li> <li>Experience Certificate of Milk Transportation.</li> </ol> <p>All these documents are mandatory. Failure to upload the documents will result in disqualification during technical bid.</p>			

**Earnest Money  
Deposit**

The EMD amounting to Rs. 10,000/- should be deposited online through Net Banking, NEFT / RTGS in favour of the The Bhagirathi Cooperative Milk Producers' Union Limited payable at Berhampore.

EMD shall not carry interest.

EMD of successful bidders shall be refunded after deposition of Security Deposit.

Tenderers will select the Tender to bid and initiate payment of pre-defined EMD for that tender by selecting from either of the following payments modes (vide Finance Department Memorandum no. 3975-F(Y) Dt. 28/07/2016) :

1. Net banking (any of the banks listed in the ICICI Bank Payment gateway) in case of payment through ICICI Bank Payment Gateway.
2. RTGS/NEFT in case of offline payment through bank accounts in any Bank.

**Payment procedure:-**

**a) Payment by Net Banking (Any Listed Bank) through ICICI Bank Payment Gateway :**

1. On selection of net banking as the payment mode, the bidder will be directed to ICICI Bank Payment Gateway webpage (along with a string containing a Unique ID) where he will select the Bank through which he wants to do the transaction.
2. Bidder will make the payment after entering his Unique ID and password of the bank to process the transaction.
3. Bidder will receive a confirmation message regarding success/failure of the transaction.
3. If the transaction is successful, the amount paid by the bidder will get credited in the Respective Pooling Account of The Bhagirathi Cooperative Milk Producers' Union Limited maintained with the Focal Point Branch of ICICIBank at R.N. Mukherjee Road, Kolkata for collection of EMD/Tender Fees.
4. If the transaction is failure, the bidder will again try for payment by going back to the first step.

**b) Payment through RTGS/NEFT:**

1. On selection of RTGS/NEFT as the payment mode, the e-Procurement portal will show a pre-filled challan having the details to process RTGS/NEFT transaction.
2. The bidder will print the challan and use the pre-filled information to make RTGS / NEFT payment using his Bank account.
3. Once payment is made, the bidder Will come back to the e-Procurement portal after expiry of a reasonable time to enable the NEFT/RTGS process to complete,

in order to verify the payment made and continue the bidding process.

4. If verification is successful, the fund will get credited to the Respective Pooling Account of The Bhagirathi Cooperative Milk Producers' Union Limited maintained with the Focal Point Branch of ICICI Bank at R.N. Mukherjee Road for collection of EMD/Tender Fees.

5. Hereafter, the bidder will go to e-Procurement portal for submission of his bid.

6. But if the payment verification is unsuccessful, the amount will be returned to the bidder's account.

**B. Refund/Settlement Process:**

i. After opening of the bids and technical evaluation of the same by the Quotation inviting authority through electronic processing in the e-Procurement portal of the State Government, the Quotation inviting authority will declare the status of the bids as successful or unsuccessful which will be made available, along with the details of the unsuccessful bidders, to ICICI Bank by the e-Procurement portal through web services.

ii. On receipt of the information from the e-Procurement portal, the Bank will refund, through an automated process, the EMD of the bidders disqualified at the technical evaluation to the respective bidders' bank accounts from which they made the payment transaction. Such refund will take place within T+2 Bank Working Days where T will mean the date on which information on rejection of bid is uploaded to the e-Procurement portal by the Tender inviting authority.

iii. Once the financial bid evaluation is electronically processed in the e Procurement portal, EMD of the technically qualified bidders other than that of the L1 bidder will be refunded, through an automated process, to the respective bidders' bank accounts from which they made the payment transaction. Such refund will take place within T+2 Bank Working Days where T will mean the date on which information on rejection of financial bid is uploaded to the e-Procurement portal by the Quotation inviting authority.

iv. As soon as the L1 bidder is awarded the contract (AOC) and the same is processed electronically in the e-Procurement portal.

a) EMD of the L1 bidder for tenders of State Government Offices will automatically get transferred from the pooling account to the State Government deposit head "8443-00-103-001-07" through GRIPS along with the bank particulars of the L1 bidder.

b) EMD of the L1 bidder for tenders of the State PSUs/Autonomous Bodies/Local

	<p>Bodies/PRI, etc. will automatically get transferred from the pooling account to their respective linked bank accounts along with the bank particulars of the LI bidder.</p> <p><b>v.</b> In both the above cases, such transfer will take place within T+1 Bank Working Days where T will mean the date on which the Award of Contract (AOC) is issued.</p> <p><b>vi.</b> The Bank will share the details of the GRN No. generated on successful entry in GRIPS with the E-Procurement portal for updating.</p> <p><b>vii.</b> Once the EMD of the LI bidder is transferred in the manner mentioned above, Tender fees, if any, deposited by the bidders will be transferred electronically from the pooling account to the Government revenue receipt head "0070-60-800-013-27" through GRIPS for Government tenders and to the respective linked bank accounts for State PSU/Autonomous Body/Local Body/PRI, etc. tenders.</p> <p><b>viii.</b> All refunds will be made mandatorily to the Bank A/c from which the payment of EMD &amp; Tender Fees (if any) were initiated.</p>
Bid Document	The bid document is available in the E-Tendering Portal of Govt. of West Bengal <a href="https://wbtenders.gov.in">https://wbtenders.gov.in</a> .
Technical Bid Evaluation	The Technical Bid will be evaluated by the Tender Committee. Bidders shall upload all the necessary documents in the Technical Folder which will be verified and evaluated by the Tender Committee.
Financial Bid	<p>Rate shall be quoted in the Financial bid</p> <p>The Transporter shall quote the rate online through Computer only in the space marked for quoting rate in the Bill of Quantities (BOQ).</p> <p>Only downloaded copies of the above documents, digitally signed by the contractor are to be uploaded (Excel file).</p> <p>Single rate per kilometer shall be quoted in the specified space of the BOQ given under financial bid.</p> <p>The rate quoted by the tenderer shall be inclusive of all elements of taxes and duties, demands, tolls etc. The tenderer shall include income tax, GST etc as applicable, octroi if any and all other charges if applicable while quoting the rate. All the other charges like transit insurance charges etc as would be required for the transportation of milk and milk products shall also be included in the rate quoted. No claim whatsoever in this account shall be entertained.</p>
Validity of Bid	1095 days
E-Tender registration and bidding	<p><b>ONLINE BIDDS:</b></p> <p>The bidders interested to submit the bid Online shall get registered and get a digital signature as per the procedure described below:</p> <p>Transport Agencies\ bidders who are interested in participating e tenders are</p>

	<p>requested to contact the representatives of NIC for registration, computer setting and clarification on e-tendering</p> <p>Online tenders can be submitted by logging in the e –Tendering portal of Govt. of West Bengal i.e. <a href="https://wbtenders.gov.in">https://wbtenders.gov.in</a> .</p> <p><b>ONLINE BID SUBMISSION:</b></p> <p>The bidders are required to submit the Technical and Financial bid documents ONLINE i.e. uploading of the documents complete in all respect by following the Online Bid submission procedure.</p>
Download of Tender	<p>1. <b>Download of Tender</b></p> <p>Tender to be downloaded only from the e-Tendering portal of Govt. of West Bengal i.e. <a href="https://wbtenders.gov.in">https://wbtenders.gov.in</a> .The tender will be submitted in two bid system i.e. Technical bid &amp; Financial bid only through online.</p> <p>2. <b>Online Bid submission procedure</b></p> <p>i. <b>Registration of Transporter:</b> Agencies/Bidders who are interested in participating e-tenders will have to get enrolled &amp; registered with the Government e-Procurement system. through logging on to <a href="https://wbtenders.gov.in">https://wbtenders.gov.in</a></p> <p>ii. <b>Digital Signature certificate (DSC):</b> Each transporter is required to obtain a class-II or Class-III Digital Signature Certificate (DSC) having Signing and Encryption certificate for submission of tenders from the approved service provider of the National Information's Centre (NIC) on payment of requisite amount or any service provide as may be allowed by the Finance Department, Govt. of West Bengal.</p> <p>iii. <b>Tender Download:</b> The transporter can search &amp; download NIT &amp; Tender Documents electronically from computer once he logs in to the e-Tendering portal <a href="https://wbtenders.gov.in">https://wbtenders.gov.in</a> using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.</p> <p>iv. <b>Submission of Tenders:</b> General process of submission, Tenders are to be submitted through online to the stipulated website in two folders at a time for each transport route, one in Technical Bid &amp; the other is Financial Bid before the prescribed date &amp; time using the Digital Signature Certificate (DSC). The documents are to be uploaded duly digitally signed. The documents will get encrypted (transformed into non readable formats).</p>
Award of Contract	<p>The <b>bidder selected</b> after evaluation of financial bid by the tender committee will be given Award of Contract, subject to fulfillment of Terms and Conditions provided in the tender.</p>
Publication of Tender	<ol style="list-style-type: none"> <li>1. E-Procurement Portal Govt. of West Bengal (<a href="https://wbtenders.gov.in">https://wbtenders.gov.in</a>)</li> <li>2. Website of the Milk Union (<a href="http://www.bhagirathimilk.com">www.bhagirathimilk.com</a> )</li> <li>3. Office Notice Board</li> </ol>

## **GENERAL TERMS AND CONDITIONS**

1. Toll tax and other taxes and levies shall be reimbursed by the Milk Union on actual basis subject to submission of bill. The Milk Union may also issue card for Milk Transport vehicles for remission in toll taxes.
2. The Bhagirathi Co-operative Milk Producers' Union Ltd. will not accept any variation in conditions stipulated in the tender. Any suggestion in the tender, for any modification of the tender conditions will not be entertained and the conditional offer will render the tender invalid.
3. The proposed vehicle which will be provided for transportation of milk and milk products should be in good condition. Preference will be given to new vehicles not more than 3 years old. Rate quoted for vehicles more than 10 years old shall only be accepted after proper inspection.
4. The transport vehicle staff shall also be responsible for collecting cheques/drafts/letters/Crates, Boxes and other related materials from distributors and submitting it to the official of the concerned Department.
5. Refrigerated vehicles should be insulated to maintain a continual temperature of 2<sup>0</sup>C to 4<sup>0</sup>C. The vehicle must strictly comply insulation and refrigeration norms. For any kind of damages to the vehicle or all kind of repairing charges are to be borne by the transporter. In case of breakdown of schedule vehicles, transporters are bound to arrange alternative vehicles of same capacity and same categories, for uninterrupted supply of milk & milk products. In default transporters are liable to compensate to milk union an amount not less than extra expenditure incurred by the Milk Union in arranging alternative vehicles.
6. If the tenderer has already been blacklisted by any Government/ Government Undertakings/ Co-operative societies, his tender will be rejected. In case information about such black listing comes to the knowledge of the Union after awarding of the tender, the contract will be terminated, liquidated damages levied, apart from taking penal action.
7. BCMPUL reserves the right to accept or reject any or all tender wholly / partly without assigning any reason thereof.
8. Successful bidder has to provide vehicle within one month or within admissible time as decided by the milk union.
9. On selection, the contractor has to execute an agreement on Non-Judicial Stamp paper of Rs.100/- as per terms and conditions enclosed.
10. Vehicles will be run as scheduled timetable of the milk union

## **Precautions:**

1. The tenderer must satisfy himself thoroughly about the geographical area to be covered, nature of work, route conditions /local conditions and the requirement of the Milk Union before submitting his tender.
2. The person signing the tender should be the Proprietor / Partner / Managing Director or any other person duly authorized to sign the tender document. In the latter case, authorization letter should be attached.
3. The tenderer should read every page and understand the implications fully and offer the tender only if he could discharge the obligations set out in the tender documents.
4. Required specification for refrigerated / insulated cover vehicles is attached along-with.
5. Successful bidder has to engage the vehicle within 1 month after obtaining Award of Contract.

## **Other terms & Conditions**

1. The Transporter (transporter for the mentioned route) will be liable to carry out and hand over the milk and milk products to the said distributor/retailer (according to challan). The contract will be valid for 3 years from the date of acceptance of the Work Order / placement of vehicles and the Transporter will be liable for providing the service for the stipulated time period.
2. If the service of the transporter is not found satisfactory or it is adverse to the interest of the Milk Union then the Milk Union may terminate the contract at any point of time, without assigning any reason. On termination of the contract the Security Deposit shall be forfeited and the transporter shall be blacklisted for 3 years and no claim in this regard shall be entertained.
3. The Transporter will be liable to receive the milk and milk products from Feeder Dairy according to the challan and time table, provided by the Marketing Section and transport them through insulated/refrigerated cover vans to the distributor/retailer lying in the concerned route. Accordingly the transporter is bound to return the empty crates, boxes, drafts, received copy of challan and other documents to the Milk Union as soon as the vehicle returns to dairy. If the transporter fails to fulfill the aforesaid responsibilities due to any reasons, which causes any economic loss or detrimental to the reputation of Milk Union then the transporter will be compelled to compensate the penalty amount imposed by the Milk Union which will be deducted from the monthly bill of the transporter.
4. As per the instruction of the Milk Union, the transporter has to maintain a proper record regarding the list of items returned by the distributors/retailers. The transporter will be responsible for any damage of consignment or return due to late arrival etc. which is caused by him/her to the distributors/retailers due any sort of mistakes/negligence .In such situation, the Milk Union will have the power to compensate the loss by deducting suitable amount from the bills of the transporter due to the negligence. The decision of the Milk Union will be final and binding on the transporter.
5. If the Bhagirathi Milk Union has to stop the supply of the milk and milk products of any distributor/retailer of the said route due to any reasons, the Bhagirathi Milk Union will not be bound



to pay any compensation to the transporter. The transporter is bound to follow the instruction of the Union on this note. Bhagirathi Milk Union will inform the decision to the transporter well in advance.

6. If the engaged vehicle of the transporter is unable to supply milk and milk products due to any reason whatsoever then the transporter has to arrange an alternative vehicle to continue the transport service. If he fails to do so, he will be liable to pay the amount of extra expenditure incurred by the Milk Union in arranging such alternate vehicle along with penalty as fixed by the milk union. The corresponding amount along with penalty, if any, will be deducted from the bill of the transporter.
7. As transportation of milk and milk products belong to emergency service, the transporter will have to affix a board written "ON EMERGENCY MILK DUTY BHAGIRATHI MILK UNION" on the vehicle, such that it draws the attention of everyone and the transport service does not get interrupted.
8. The transporter shall have to maintain one reserved space in the transporting vehicle for one of the official of the Milk Union and in case of any accident, the rules of Motor Vehicles (MV) act will be followed.
9. During the transit the transporter shall not carry any passenger or any other materials without permission of Milk Union. If the transporter or his/her staff is associated with any illegal activities or any accidents, Milk Union will not be responsible morally/legally regarding the aforesaid matters.
10. That the transporter shall have to deposit a refundable interest free **security Deposit of Rs. 20,000/-** in favour of The Bhagirathi Cooperative Milk Producers' Union Ltd. in Demand Draft in any Nationalized Bank payable at Berhampore at the time of issuance of work order else the said amount will be deducted from the transport bill in two installments.
11. **Additional security deposit of Rs.5000/-** (interest free) will have to be deposited against supply and installation of GPS Tracker by the Bhagirathi Milk Union. The said amount will be refunded once the contract is successfully executed, subject to return of GPS Tracker in working condition.
12. The Milk Union may increase/decrease the number of distributors/retailers in the said route and the transporter will be bound supply the goods to the newly appointed distributors/retailers as per instruction of the Milk Union.
13. In case of increase in/decrease in the number of distributor/retailer, for which the total traversal increases/decreases, rate escalation/de-escalation shall be given by the Milk Union to the transporter as per prevailing market rate. Rate escalation on any other account shall not be entertained till the execution of the contract.
14. The transporter has to submit the transport bill (triplicate) within 7<sup>th</sup> day of next month. On this basis the bill amount will be paid within 21-30 days of the next month. In case of failure to submit the bill within 7<sup>th</sup> day of succeeding month, the Union will not be responsible for any delay in paying monthly bill. Income tax rules will be imposed accordingly.

15. The transporter will be fully responsible for any demurrage of milk and milk products for negligence to arrange the alternative vehicle or any other negligence from the end of the transporter or his/her staff. The demurrage and penalty amount will be decided by the Bhagirathi Milk Union and it will be deducted from the monthly bill of the transporter.
16. If required, the transporter will be liable to transport milk and milk products of other routes according to the challan and stipulated timetable provided by Marketing Section and at the time of carrying milk and milk products if any damage occurs, the transporter will be liable. In this case the approved rate of that route / type of vehicle will be considered.
17. The time table, for placing the vehicle to dock area for receiving the milk and milk products and for dispatching to the said route, shall be finally decided by Bhagirathi Union and the transporter is bound to follow the instruction / time table.
18. No appeal for enhancement of rate will be entertained during the contract period. Due to any reason if the transport service is stopped or paused, the transporter has to pay the total transportation cost for any alternative arrangement made by the Milk Union and the security amount will be forfeited and suitable compensation will be imposed.
19. The transporter will be liable to submit all the necessary valid documents related to the vehicle such as legal permit, token, vehicle insurance, fitness certificate etc of the vehicle before engaging the vehicle.
20. After accepting the contract, if the transporter fails to engage the vehicle according to the work order, his/her security deposit will be forfeited and he/she will not be able to participate in any kind of tender for three years.
21. If the transporter quits the job during the contract period, the demurrage cost due to this, will be collected from the transporter and the security money will be forfeited and a suitable penalty will be imposed.
22. If any kind of doubt arises regarding the contract or its briefing, both parties can appeal to the arbitrator. In this case the arbitrator will be Chairman / Special Officer of the Milk Union or any representative nominated by them.
23. If it is found that transporter /any staff of the transporter is involved /engaged in any kind of illegal activities then legal action will be taken accordingly and if any transporter /staff of the transporter misbehaves with any officials of the union, then the particular staff will have to be dismissed immediately.
24. The transporter will not carry any other items/goods than the materials provided by the Milk Union. If so, a suitable fine will be imposed to the transporter without assigning any reason, for each time.

25. If the dairy plant is required to be closed under any circumstances like shortage of power, strike, lock-out or any natural calamity and if the transportation service gets interrupted, the Union will not be liable to compensate any demurrage to the transporter.
26. This is completely a commercial contract, not for recruitment. No employee-employer relationship will be maintained between the transporter and the union. In addition to this the transporter has to follow the terms and conditions of the contract apart from this any instruction issued by the Milk Union will be followed by the Transporter.
27. If the service of the transporter is found not satisfactory and violating any of the terms and conditions of the contract, the Milk Union reserves the right to terminate his/her contract without any notice. Due to any reason if the service of the transporter is no more required then Milk Union will not be liable to pay any kind of demurrage to the Transporter for the respective day or for the stipulated time period.
28. The vehicle used by the transporter to transport milk and milk products should comply with the MV act. In case of any kind of fine the amount shall be borne by the transporter.
29. No loading or unloading charges will be paid to the transporter. In addition to this, in case of sale enhancement of milk and milk product, the transporter will have bound to engage an extra vehicle at the same rate or at the rate as decided by the Union.
30. The transporter has to carry advertisement of Bhagirathi milk and milk products around the transporting vehicle provided by Milk Union.
31. The transporters have to maintain within 2-4 degree temperature during the transit period of milk and milk products. Transit Insurance shall be borne by the Milk Union.
32. Transporter must have to engage 1 helper along with driver for the engaged vehicle. Bhagirathi Milk Union will not be responsible for compliance of any kind of legal, statutory obligations for the staffs engaged by the transporter.
33. No overloading penalty will be paid from the Bhagirathi Milk Union for any stipulated capacity of vehicle mentioned in the financial bid.
34. One selection, the contractor has to execute an agreement on Non-Judicial Stamp paper of Rs.100/- (Enclosed Format).
35. G.P.S tracker installed by the Milk Union must be active during the trip.
36. The transporter has to notify the Milk Union before 3 months if he/she wants to withdraw the service. Failure to do so shall invite penalty forfeiture of Security Deposit.

37. EMD so deposited of the successful bidders shall be forfeited if the party fails to provide the vehicle within 1 month.

38. The transporter shall return duly filled in the challan along with all returnable containers (like crates, Box etc) in good condition to the designated official of the Dairy. Any loss or damage caused to the containers, any pilferage, theft etc during the process of transportation shall be recovered from the Transporter. The amount of recovery will be:

- A) Consumer price in case of milk and milk products.
- B) Cost price of Milk Crates and Insulated boxes.
- C) Cost price of packing materials along with fine as decided by the Milk Union.

We look forward to receiving your bids and thank you for your interest in this project.

Sd/-  
Managing Director  
The Bhagirathi Co-operative Milk  
Producers' Union Limited

Copy forwarded to:

- 1. E-Tender portal (Govt. of West Bengal [www.wbtenders.gov.in](http://www.wbtenders.gov.in) )
- 2. Official Website ([www.bhagirathimilk.com](http://www.bhagirathimilk.com) )
- 3. Office Copy

**Encl.** Technical Specification of Refrigerated / Insulated Vehicles

## Specification of Refrigerated / Insulated Vehicles

Description	Technical Particulars
<b>Applications</b>	A refrigerated vehicle comprises of an insulated container body and a refrigeration unit to give the required temperature inside for the Milk product transportation.
<b>Temperature range</b>	(+) 2°C to 4°C
<b>Body Parameters</b>	
<b>Structure</b>	The Body comprises of outer and inner panels and an insulating material, the outer and inner panels should be of CR sheet/stainless steel. The insulated material should be Poly Urethane Foam (PUF) having minimum density of 30 Kg/cub. Meter and minimum 100 mm thick. Load bearing column should be of HR steel as per IS 1079 having pressed formed sections. Proper lightening should be provided inside the cabin and thermal insulated container. No fluorescent tube should used for lightening purpose.
<b>Outer panel – roof and side walls</b>	Minimum 1 mm CR sheet bonded with insulation
<b>Inner panel – side wall and ceiling</b>	Minimum 0.3 mm stainless steel bonded with minimum 6mm marine grade ply wood. All joints should be sealed with good quality sealants and fastened with SS screws.
<b>Floor</b>	Bottom most sheet should be minimum 0.6 mm GP sheet bonded with insulation. Upper layer should be of 12 mm (minimum) ply wood and top most layer of minimum 2 mm aluminum checkered plate.
<b>Door</b>	Two leaves with outer and inner panels and insulation matching with box. It should be completely air sealed with FRP section and suitable EPDM rubber profile.
<b>Door opening angle</b>	Minimum 270°
<b>Foam density</b>	Minimum PUF 30 Kg/m <sup>3</sup>
<b>Thickness of insulation</b>	Minimum 100 mm for side walls and 120 mm for roof and floor
<b>Insulation thermal conductivity</b>	Maximum 0.02 5w/m <sup>o</sup> K
<b>Hold Over Time</b>	The container should hold the inside temperature at least for <b>eight hrs</b> at the ambient temperature of 45°C when it is not opened.

<b>Refrigeration unit</b>	
<b>Unit installation</b>	The refrigeration unit is installed on the body above the cabin of the vehicle and gives a range of temperatures. The unit should be powered by self-propelled truck engine. It should have suitable sized compressor, evaporator and control switches along with voltage stabilizer.
<b>Temperature</b>	The temperature variation is from <b>+4 deg Celsius to + 2 deg Celsius</b>
<b>Temperature recording</b>	The temperature is digitally displayed and recorded by the use of <b>data-logger</b> with an accuracy of +/- 0.5°C. The sensor should be placed inside the Milk & Milk products chamber and the recording should be displayed in the cabin. It should be an electronic device placed in closed chamber of Milk, which records the Milk product temperature after loading of the Milk Product, during traveling till it is unloaded. The minimum capacity of storing the data in data logger should be of 7 days. It should be an alarm system and as soon as the Milk product temperature crosses the safe range alarm alerts the handlers.
<b>Stand by motor</b>	A single phase stand by motor with a extension lead of 20 meters should be provided which should be powered by external electricity source; this electric motor will drive the compressor to maintain internal temperature at the desired level during extended stops and for pre-cooling the Milk & Milk product chamber.
<b>Testing requirement</b>	
<b>Air tightness test</b>	This test should be carried out after all the structural tests have been completed and prior to the heat leakage test. The temperatures inside and outside the thermal container shall be stabilized within 3K of each other and shall be both be within the range 288 K to 298K.
<b>Heat Leakage test</b>	Heat leakage test should be determining the heat leakage of the thermal container shall be taken for a continuous period of not less than 8hrs, during which the following conditions shall be satisfied: <ul style="list-style-type: none"> <li>a) The test shall be performed with a mean wall temperature chosen between 288 K and 298 K.</li> <li>b) A thermal mapping should be conducted for the Milk product storage chamber and the max. Temp. difference between the warmest and the coldest inside points at any one time should not be more than 1deg.C</li> </ul>
<b>Certificates of testing</b>	All above mentioned test should be conducted through an approved laboratory by the Government of India and the equipment should be supplied along with the test certificates.

**Physical dimensions mentioned above in the specifications should be approximated to +/- 5% variation.**