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CORRIGENDUM NOTICE

Bid identification No - 498/ CSS/ NPDD/ SL (Vol-II)

Name of the Tender: BMC, AMCU, Milk Analyser & Weighing Machine Date - 17.01.2025

The following changes has been made

1. The changes in Technical specification of AMCU & Milk analyser & Weighing Machine as per the Pre- Bid Meeting on 03.02.2025.
2. The revised Specification for AMCU (Annex-VI), Milk Analyzer (Annex-VII), BMC Specification (Annex-II) & Weighing Machine (Annex-VIII)
 - Revised commercial bid for Milk Analyzer
 - Document to be submitted with Technical bid (Refer point No - 8)

REVISED AMCU SPECIFICATION

		Earlier specification			Revised Specification 05.02.2025
Sr.No	Particulars	Specification	Sl No	Particular	Specification
1.0	Basic Operations at Society	<p>All operations are manual or semi-automated at society level. No regular power supply is available and fluctuation in power supply is very high. Clean and dust free environment cannot be guaranteed. The operators may not be IT savvy. Major Activities at Society. <ul style="list-style-type: none"> . Purchase of Milk . Payments to producers for milk poured, government subsidies, incentives for quality etc. . Purchase of Cattle feed. . Purchase of Ghee . Other Purchases . Expenditure for Services . Other Expenditures . Local Sale of Milk . Supply/Sale of Milk to the Union . Sale of Cattle Feed . Sale of Ghee . Support of AH,Aletc . Income from Services . Other Income </p>	1.0	Basic Operations at Society	<p>All operations are manual or semi-automated at society level. No regular power supply is available and fluctuation in power supply is very high. Clean and dust free environment cannot be guaranteed. The operators may not be IT savvy. Major Activities at Society. <ul style="list-style-type: none"> . Purchase of Milk . Payments to producers for milk poured, government subsidies, incentives for quality etc. . Purchase of Cattle feed. . Purchase of Ghee . Other Purchases . Expenditure for Services . Other Expenditures . Local Sale of Milk . Supply/Sale of Milk to the Union . Sale of Cattle Feed . Sale of Ghee . Support of AH,Aletc . Income from Services . Other Income </p>
2.0	AMCU-Functional Requirements	<p>. The Unit should be suitable for instant weighing of milk, measuring record fat content, calculating the amount payable to the member based on fat & weight, printing the amount calculated thereof with member identification details. .This unit should also be used for maintaining the complete record of the collection centre as above together with the details of all transactions of the producers/MCC. .Recommended to incorporate capability for online data transfer to Milk Union and designated local Banks for transfer</p>	2.0	AMCU-Functional Requirements	<p>. The Unit should be suitable for instant weighing of milk, measuring record fat content, calculating the amount payable to the member based on fat & weight, printing the amount calculated thereof with member identification details. .This unit should also be used for maintaining the complete record of the collection centre as above together with the details of all transactions of the producers/MCC.</p>

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		of payments to milk producers in their bank accounts directly.			.Recommended to incorporate capability for online data transfer to Milk Union and designated local Banks for transfer of payments to milk producers in their bank accounts directly.
3.0	Computer Hardware and Software	Models of PC offered should be of Enterprises/Business Class Desktop PC (OEM).Home/SMB Class Desktop PC shall not be accepted with Manufacturer Warranty	3.0	Computer Hardware and Software	Model of PC offered should be Enterprises / Business Class Desktop PC (OEM) like Dell, HP, Lenovo and ACER. Assembled desktop PC shall not be accepted with Manufacturer Warranty.
3.1	Processor	. 11 th Generation Intel Core,64 Bit, I-5 Processor	3.1	Processor	. 12 th Generation or higher Intel Core, 64 Bit, i5 Processor
3.2	Form Factor	. Tower Model	3.2	Form Factor	. Tower Model
3.3	Chipset	.Intel Chipset supporting the above processor	3.3	Chipset	.Intel Chipset supporting the above processor
3.4	Memory	. 8 GB DDR3 1333 MHz SDRAM expandable to 16 GB	3.4	Memory	. 8 GB DDR3 1333 MHz SDRAM expandable to 16 GB
3.5	Internal Storage	. 1 TB Sata II Hard Disk 512 GB SSD	3.5	Internal Storage	. 512 GB SSD or higher
3.6	Removable Media	. DVD+/- RW Writer	3.6	Removable Media	NA
3.7	Graphics	. Integrated Intel HD Graphics supporting 1600x1200 Resolutions	3.7	Graphics	. Integrated Intel HD Graphics supporting 1600x1200 Resolutions
3.8	Audio	. Integrated high definition audio	3.8	Audio	. Integrated high definition audio
3.9	Network	. 10/100/1000 Mbps Gigabit Ethernet	3.9	Net work	. 10/100/1000 Mbps Gigabit Ethernet/ with Wi-Fi Connectivity (802.11n or higher)
3.10	Display Monitor	. 18.5" wide screen LCD/LED Backlit TFT Color HD Monitor with 1366x 768 native resolutions.	3.10	Display Monitor	. 18.5" wide screen LCD/LED Backlit TFT Color HD Monitor with 1366x 768 native resolutions
3.11	Input Devices	. USB Standard Keyboard and USB Optical button Scroll Mouse with Pad.	3.11	Input Devices	. USB Standard Keyboard and USB Optical button Scroll Mouse with Pad.

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3.12	Ports & Connectors	. 3 Serial Port, 1 Parallel Port, 1 VGA Port, 1 Microphone/ Headphone Jack, 1 RJ45 Port	3.12	Ports & Connectors	. 3 Serial Port, 1 Parallel Port, 1 HDMI, 1 RJ45 Port
3.13	USB Ports	. 6 USB 2.0 Ports (Min. two on front and two on rear side)	3.13	USB Ports	6 USB 2.0 Ports (Min. two on front and two on rear side)
3.14	PCI Slots	. Minimum 1 free PCI Slots	3.14	PCI Slots	Minimum 1 free PCI Slots
3.15	Compatibility	. Window 11	3.15	Compatibility	Window 11
	Particulars	Specification		Particulars	Specification
3.16	Operating System-11	. Licensed Windows 11 professional 64 bit Preloaded with OS Recovery Media Driver CD.	3.16	Operating System-11	. Licensed Windows 11 professional 64 bit Preloaded with OS Recovery Media Driver CD.
3.17	Anti Virus	.Norton,Symantec,etruat,Macfee,Trend Micro,Quick Heal Latest version with three (3) years license.	3.17	Anti Virus	.Norton,Symantec,etruat,Macfee,Trend Micro,Quick Heal Latest version with three (3) years license.
3.18	Warrantee obligation	. call should be attended by next business day. .problem resolved within 48 hours of attending the call. .within 48 hours in case any part is to be replaced.	3.18	Warrantee obligation	. call should be attended by next business day. .problem resolved within 48 hours of attending the call. .within 48 hours in case any part is to be replaced.
3.19	Scope of work	. Installation and configuration	3.19	Scope of work	. Installation and configuration
3.20	Application Software	. Supplier to develop and provide Integrated AMCU Software for all functions & requirements of Milk collection centre. Supplier to finalize requirements from EIA for all Milk Collection centers, develop/modify a software and install in each AMCU with a testing period of software for 6 months from the date of installation of software and subsequent one time modifications in the software based on feedback /request from EIA/Milk Collection centers to be done without extra charges. . Software should be Bi-Lingual (English Language) . Data generated from the new system should be compatible with the format in which the data is accepted by the existing system. .The Software should be user friendly, menu driven and provide help facility in local language. .The data input forms, reports, menus etc. should be in English.	3.20	Application Software	. Supplier to develop and provide Integrated AMCU Software for all functions & requirements of Milk collection centre. Supplier to finalize requirements from EIA for all Milk Collection centers, develop/modify a software and install in each AMCU with a testing period of software for 6 months from the date of installation of software and subsequent one time modifications in the software based on feedback /request from EIA/Milk Collection centers to be done without extra charges. . Software should be Bi-Lingual (English Language priority. There should be scope of addition of 2 nd Language- Odia) . Data generated from the new system should be compatible with the format in which the

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		<ul style="list-style-type: none"> . The application software, if felt essential by the user may be modified/upgraded to meet the need of the milk collection centre. . The software should have provision of connectivity of such milk collection center with milk collection agencies head office in the future. . The supplier should also make necessary changes on case-to-case basis, wherever required. The application package should contain legal copy of the database used. 			<p>data is accepted by the existing system.</p> <p>.The Software should be user friendly, menu driven and provide help facility in local language.</p> <p>.The data input forms, reports, menus etc. should be in English.</p> <ul style="list-style-type: none"> . The application software, if felt essential by the user may be modified/upgraded to meet the need of the milk collection centre. . The software should have provision of connectivity of such milk collection center with milk collection agencies head office in the future. . The supplier should also make necessary changes on case-to-case basis, wherever required. The application package should contain legal copy of the database used. Real time cloud based app. . Test result updation(Test result updation, Offset correction, Password updation and machine statistics updation) . Real time android app. Test result updation .Testing, cleaning and password change .Remotely control the machine
4.0	DOT MATRIX PRINTER		4.0	DOT MATRIX PRINTER	Impact dot Matrix external printer
4..1	Print Method	Impact dot Matrix external printer	4..1	Print Method	24 pins
4.2	Pins in head	24 pins	4.2	Pins in head	Bi-direction parallel interface USB 2.0 (Full speed)
4.3	Print	Bi-direction parallel interface USB 2.0	4.3	Print	300 cps high speed draft, LQ

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	Direction	(Full speed)		Direction	and other features
4.4	Print Speed	300 cps high speed draft, LQ and other features	4.4	Print Speed	80 (10 cpi)
4.5	Printable column	80 (10 cpi)	4.5	Printable column	Pull tractor unit
4.6	Paper Handling	Pull tractor unit	4.6	Paper Handling	Manual insertion front or rear in top out: Push Tractor front or rear in top out –front or rear or bottom in and top out.
4.7	Paper path	Manual insertion front or rear in top out: Push Tractor front or rear in top out – front or rear or bottom in and top out.	4.7	Paper path	10000 POH (25% Duty)
4.8	MTBF (Hrs at 25% duty cycle)	10000 POH (25% Duty)	4.8	MTBF (Hrs at 25% duty cycle)	10000 POH (25% Duty)
4.9	Copy Capability	Original 3 copies	4.9	Copy Capability	Original 3 copies
4.10	Cartridge	Ribbon cartridge Black with 2.5 million characters	4.10	Cartridge	Ribbon cartridge Black with 2.5 million characters
4.11	Compatible OS with Drivers	MS Windows 8/7/Vista/XP(32bit/64 bit), Windows Server 2003/2008/2012 (32 bit/64 bit)	4.11	Compatible OS with Drivers	MS Windows 10/11 (64 bit), Windows Server 2019 or higher (64 bit)
4.12	Accessories	Roll Stand	4.12	Accessories	Roll Stand
5.0	Electronic Weigh Scale		5.0	Electronic Weigh Scale	
5.1	Functional Requirement	To Electronically weigh & digital display of milk quantity in litre in a container	5.1	Functional Requirement	To Electronically weigh & digital display of milk quantity in litre in a container
5.2	Capacity	200 kg	5.2	Capacity	200 kg
5.3	Least Count	20 gm	5.3	Least Count	20 gm
5.4	Weight Accuracy	20 gm as per Standards of W & M Rules 1987 medium accuracy Class III	5.4	Weight Accuracy	20 gm as per Standards of W & M Rules 1987 medium accuracy Class III
5.5	Certification & Stamping	Duly Certified and stamped by W&M Dept. and confirming to IS:9281(pt 1&2) 1979, IS:9281 and IS:9281 (pt.4) 1983 as amended up-to-date.	5.5	Certification & Stamping	Duly Certified and stamped by W&M Dept. and confirming to IS:9281(pt 1&2) 1979, IS:9281 and IS:9281 (pt.4) 1983 as amended up-to-date.
5.6	Display	1/10,000 (accuracy, Class-III)	5.6	Display	1/10,000 (accuracy, Class-III)

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	Resolution			Resolution	
5.7	Load Cell	300kg S/S ADI	5.7	Load Cell	300kg S/S ADI
5.8	Over Load & shock Load Protection	300% to take impact of loading with audio (beep) visual indication	5.8	Over Load & shock Load Protection	300% to take impact of loading with audio (beep) visual indication
5.9	Platform Size	600 mm X 600 mm	5.9	Platform Size	600 mm X 600 mm
5.10	Platform Moc	AISI SS 304,1.6 mm thick,150 grit top plate	5.10	Platform Moc	AISI SS 304,1.6 mm thick,150 grit top plate
5.11	Platform under frame material/design	.Cold rolled mild steel box of adequate size, Hot dip galvanized after fabrication . All screw/bolts/nuts to be of SS.	5.11	Platform under frame material/design	.Cold rolled mild steel box of adequate size, Hot dip galvanized after fabrication . All screw/bolts/nuts to be of SS.
5.12	Indication in display EWS Unit	Quantity-7 segment RED LED,6 digits,minimum 1.3 mm height,display for mode of operation zero,tare,kg/litre,by default KG.	5.12	Indication in display EWS Unit	Quantity-7 segment RED LED,6 digits,minimum 1.3 mm height,display for mode of operation zero,tare,kg/litre,by default KG.
5.13	Display Unit Mounting	.Pole mounted type with sturdy base and SS 304,38 mm dia,pipe 1.2 m high. . SS 304 Body IP 55,Tactile Switch keys with feedback response, auto calibration & auto span with drift correction . RS 232 Serial port with protocol to meet requirement of IBM compatible.	5.13	Display Unit Mounting	.Pole mounted type with sturdy base and SS 304,38 mm dia,pipe 1.2 m high. . SS 304 Body IP 55,Tactile Switch keys with feedback response, auto calibration & auto span with drift correction . RS 232 Serial port with protocol to meet requirement of IBM compatible.
5.14	Calibration protection & Sealing Arrangement	.Special arrangement to house PCB & Sealing arrangement	5.14	Calibration protection & Sealing Arrangement	.Special arrangement to house PCB & Sealing arrangement
5.15	Load Cell Cable	Load Cell cable from platform to display unit with reinforced heavy duty PVC conduit.	5.15	Load Cell Cable	Load Cell cable from platform to display unit with reinforced heavy duty PVC conduit.
5.16	Battery for working on power failure	In built, 6 V capacity minimum for 6 hrs.	5.16	Battery for working on power failure	In built, 6 V capacity minimum for 6 hrs.
5.17	Power	As given above with minimum 1 m	5.17	Power	As given above with minimum 1

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	Supply	power cable with plug top AC/SC		Supply	m power cable with plug top AC/SC
5.18	Model Approval Certificate	Manufacturer to have model approval certificate of regulatory authority/ Govt of India (Weight & Measure Unit)	5.18	Model Approval Certificate	Manufacturer to have model approval certificate of regulatory authority/ Govt of India (Weight & Measure Unit)
5.19	Stamping at Site	Supplier to arrange stamping of each scale at site from local weights & measure inspector before installation. Supplier should include the cost of stamping in the unit of AMCU for the 1 st year only. Stamping of each weighing scale from 2 nd year onwards will be in the scope of EIA.	5.19	Stamping at Site	Supplier to arrange stamping of each scale at site from local weights & measure inspector before installation. Supplier should include the cost of stamping in the unit of AMCU for the 1 st year only. Stamping of each weighing scale from 2 nd year onwards will be in the scope of EIA.
5.20	Repairing License		5.20	Repairing License	
Sl.No	Particulars	Specification	Sl.No	Particulars	Specification
6.0	Milk Analyzer:	(Single Unit) with Blue tooth wi-Fi facility with Price display	6.0	Milk Analyzer :	(Single Unit) with Blue tooth/ Wi-Fi facility, Mobile application, CE Certified (preferred) & Performance certificate should be certified by NDDDB CALF/NDRI (preferred)
6.1	Analyzer Type	Ultrasonic principle based milk analyzer for testing FAT,SNF and added water.	6.1	Analyzer Type	Ultrasonic principle based milk analyzer for testing FAT,SNF and added water.
6.2	Analyzer CPU	32- Bit Dual ARM Cortex Processor	6.2	Analyzer CPU	N A
6.3	Analyzer CPU Speed	120 MHz or Above	6.3	Analyzer CPU Speed	N A
6.4	Power Supply	External power supply adapter to avoid power line interference and easy maintenance.	6.4	Power Supply	230Volt AC or 12 V DC

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		12v, 30W (Average power during measurement)			
6.5	Rate chart facility	Facility to create rate chart using 5-methods and import/exportRate chart via USB flash drive directly.	6.5	Rate chart facility	N A
6.6	Per Liter Price on Analyzer.	Analyzer Display per liter Price As Omfed Kg fat and Kg snf price structure	6.6	Per Liter Price on Analyzer.	N A
6.7	Data Storage	Option to store customer ID, Quantity (Manual), and at least 4000 test results.	6.7	Data Storage	N A
6.8	Computer Interface	RS232 & USB Connectivity	6.8	Computer Interface	RS232 & USB Connectivity
6.9	WiFiCloud connectivity	Real time cloud based app. Test result updation(Test result updation, Offset correction, Chart updation, Password updation and machine statistics updation)	6.9	WiFiCloud connectivity	NA
6.10	Bluetooth Android app connectivity	Real time android app. Test result updation	6.10	Bluetooth Android app connectivity	NA
6.11	Android app. Machine operational control	Testing, cleaning and password change Remotely control the machine	6.11	Android app. Machine operational control	NA
6.12	OTP based login facility	OTP send to the android app. All settings and correction	6.12	OTP based login facility	OTP send to the android app. All settings and correction
6.13	Measuring Method	Ultrasonic technology	6.13	Measuring Method	Ultrasonic technology
6.14	Password protection	Setup, Calibration	6.14	Password protection	Setup, Calibration
6.15	Centralized Rate chart updation	From Cloud server.	6.15	Centralized Rate chart updation	NA
6.16	Display	High contrast blue back light 4-line LCD display.	6.16	Display	High contrast blue back light 2-Line/4-line LCD display.
6.17	Samples per hour	120 samples	6.17	Samples per hour	90 to 120 samples

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6.18	Sample volume	20 ml	6.18	Sample volume	20 ml
6.19	Measuring cycle	Under 27 Seconds at specified conditions	6.19	Measuring cycle	NA
6.20	Sample milk Temperature	1 Deg. To 40 Deg. Celsius (+/- 1 Deg. C)	6.20	Sample milk Temperature	Optional
6.21	Fat	0.5% to 15% (+/- 0.1%)	6.21	Fat	0.5% to 15% (+/- 0.1%)
6.22	Fat Repeatability	0.5% to 12% (+/- 0.1%) 12% to 15% (+/- 0.2%)	6.22	Fat Repeatability	0.5% to 12% (+/- 0.1%) 12% to 15% (+/- 0.2%)
6.23	Solid Non-Fat (SNF)	3% to 15% (+/- 0.15%)	6.23	Solid Non-Fat (SNF)	3% to 15% (+/- 0.15%)
6.24	CLR	15 to 40 (+/- 1)	6.24	CLR	15 to 40 (+/- 1)
6.25	SNF Repeatability	0.15% (+/- 0.15%)	6.25	SNF Repeatability	0.15% (+/- 0.15%)
6.26	Added Water in Milk	0% to 99% (+/- 3%)	6.26	Added Water in Milk	0% to 99% (+/- 3%)
6.27	Protein	2% to 7% (+/- 0.1%)	6.27	Protein	2% to 7% (+/- 0.1%)
6.28	Lactose	0.01% to 6% (+/- 0.2%)	6.28	Lactose	0.01% to 6% (+/- 0.2%)
6.29	Per Lt Price	Show On Display, Per Liter cost display on screen. As Omfed Kg fat Kg Snf Price.	6.29	Per Lt Price	.NA
6.30	Cleaning methods	Automatic & Manual with plunger	6.30	Cleaning methods	Automatic & Manual with plunger
Sr.No	Particulars	Specification	Sr.No	Particulars	Specification
6.31	Calibration and correction control	Separate function for calibration and correction (Password protected)	6.31	Calibration and correction control	Separate function for calibration and correction (Password protected).Secured calibration through Mobile app.
6.32	Cleaning Time and count control	Programmable Cleaning Time and count	6.32	Cleaning Time and count control	Programmable Cleaning Time and count
6.33	System operational history	Show total tests, cleanings, cleaning skip	6.33	System operational history	Show total tests, cleanings, cleaning skip
6.34	Test	Automatic Intake	6.34	Test sample	Automatic Intake

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	sample take			take	
6.35	Output Readings	Fat, SNF, CLR, Protein, Lactose, Temperature, Added water etc..(Show/Hide programmable Display arrangement) Enable/Disable	6.35	Output Readings	Fat, SNF, CLR, Protein, Lactose, Temperature, Added water etc..(Show/Hide programmable Display arrangement) Enable/Disable
6.36	Separate Channel for calibratio n and correction	COW, BUFFALO and MIX	6.36	Separate Channel for calibration and correction	COW, BUFFALO and MIX
6.37	Advance weight entry facility	Manual	6.37	Advance weight entry facility	NA
6.38	External peripheral connectivi ty	Interface with multimedia keyboard and Pen drive connectivity (Export reports/Chart update)	6.38	External peripheral connectivit y	N A
6.39	External Display connectivi ty	Wired	6.39	External Display connectivit y	N A
6.40	Multiple Analyzer output format	Selectable multiple models analyzers output data facility and serial printer connectivity	6.40	Multiple Analyzer output format	N A
6.41	Result Printing format	Output printing Parameters can be Programmable (Enable / Disable) External receipt printer	6.41	Result Printing format	N A
6.42	Real time clock	Day Collection Manual updation and Server time updation	6.42	Real time clock	N A
6.43	Enclosure	Corrosion Free, Light weight Portable	6.43	Enclosure	AISI 304 0.75MM thick

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		ABS Plastic			minimum
6.44	Reports	Collection report, Farmer report, shift report, Dispatch report and collection summary (Generate farmer ID based or Date to date)	6.44	Reports	N A
6.45	Cleaning solution	One set of Daily and weekly cleaning solution should be provided.	6.45	Cleaning solution	One set of Daily and weekly cleaning solution should be provided along with holding bottom tray for spillage one No and measuring Mug 2 Nos
6.46	Warranty	3-Year	6.46	Warranty	3-Year
7.0	Ultrasonic Milk Sample Stirrer		7.0	Ultrasonic Milk Sample Stirrer	
7.1	Functional Requirement	To remove air from fresh milk sample by vibrations created in the milk before testing of milk.	7.1	Functional Requirement	To remove air from fresh milk sample by vibrations created in the milk before testing of milk.
7.2	Type	Table Top,Ultrasonic Stirrer	7.2	Type	Table Top,Ultrasonic Stirrer
7.3	Stirrer for Ultrasonic Stirrer	Frequency and Timer setting	7.3	Stirrer for Ultrasonic Stirrer	Frequency and Timer setting
7.4	Ultrasonic Frequency	20-25 KHz (Variable)	7.4	Ultrasonic Frequency	20-25 KHz (Variable)
7.5	Timer	1-99 Sec selectable	7.5	Timer	1-99 Sec selectable
7.6	Environment	Suitable for dusty/humid village environment, operating temperature -5 to 50 Degree C	7.6	Environment	Suitable for dusty/humid village environment, operating temperature -5 to 50 Degree C
7.7	Complete Ready to Use	Item complete in all respect with required electric/electronic parts, ready for use at site.	7.7	Complete Ready to Use	Item complete in all respect with required electric/electronic parts, ready for use at site.
7.8	body	Powder Coated Metal , 1.2 mm thick minimum	7.8	body	AISI 304 1.2 mm thick minimum
7.9	Operating Voltage	230 Volts +/-10, AC,50 Hz and 12 Volts DC	7.9	Operating Voltage	230 Volts +/-10, AC,50 Hz and 12 Volts DC
8.0	REMOTE		8.0	REMOTE DISPLAY	

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	DISPLA Y UNIT (RDU)			UNIT (RDU)	
8.1	Functiona l Requirem ent	To display pourer members milk collected & milk testing and other selected parameters in English/ Local Language	8.1	Functional Requireme nt	To display pourer members milk collected & milk testing and other selected parameters in English/ Local Language
8.2	Type	Wall mounted type	8.2	Type	Wall mounted type
8.3	Display Parameter s -8 No	7 Bright segments, Red LED,	8.3	Display Parameters -8 No	7 Bright segments, Red LED,
8.4	Labels for display	Screen Printed	8.4	Labels for display	Screen Printed
8.5	Environm ent	Dusty, Humid, preferably housing to be with IP 55 or equivalent protection, rust proof powder coated metallic.	8.5	Environme nt	Dusty, Humid, preferably housing to be with IP 55 or equivalent protection, rust proof powder coated metallic.
8.6	Connectin g Cables	Minimum 5 m Power cable with plug top with connector at both ends, Minimum 5 m Data cable with connector at both ends	8.6	Connecting Cables	Minimum 5 m Power cable with plug top with connector at both ends, Minimum 5 m Data cable with connector at both ends
9.0	Inverter & Battery		9.0	Inverter & Battery	
9.1	Functiona l Requirem ent	To give regulated AC power to AMCU from mains or attached battery	9.1	Functional Requireme nt	To give regulated AC power to AMCU from mains or attached battery
9.2	Type	Line-Interactive type	9.2	Type	Line-Interactive type
9.3	Capacity	1500 VA minimum	9.3	Capacity	1500 VA minimum
9.4	Back up time (Full Load)	3-hrs minimum (in one shift)	9.4	Back up time (Full Load)	3-hrs minimum (in one shift)
9.5	Output Wave Form	Sine Wave/Quasi Sine wave	9.5	Output Wave Form	Sine Wave/Quasi Sine wave
9.6	Voltage at input	160-280 V (+10%)	9.6	Voltage at input	160-280 V (+10%)
9.7	D C Voltage Bus	24 V	9.7	D C Voltage Bus	24 V
9.8	Voltage at output (With Mains as well as	220V +/- 10%	9.8	Voltage at output (With Mains as well as	220V +/- 10%

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	with Battery)with in-built AVR			with Battery)with in-built AVR	
9.9	Full protection	Inbuilt protection - Under / Over voltage, Short-circuit, Overload Cut off, Low Battery Cut-off , Spikes cut-off	9.9	Full protection	Inbuilt protection - Under / Over voltage, Short-circuit, Overload Cut off, Low Battery Cut-off , Spikes cut-off
9.10	Warning (LED+ Sound)	Low Battery & Overloads	9.10	Warning (LED+ Sound)	Low Battery & Overloads
9.11	Input/ Output Frequency	50Hz +/- 3Hz, No Correction	9.11	Input/ Output Frequency	50Hz +/- 3Hz, No Correction
9.12	Battery switch over	Battery switch over in 3-10 milli seconds	9.12	Battery switch over	Battery switch over in 3-10 milli seconds
9.13	Battery Charging	Preferably to take place even at 130& 300 V with SMPS charger <ul style="list-style-type: none"> • Boost charging at minimum 7A • Battery overcharge protection 	9.13	Battery Charging	Preferably to take place even at 130& 300 V with SMPS charger <ul style="list-style-type: none"> • Boost charging at minimum 7A • Battery overcharge protection
9.14	Battery No and Type	2 No 100 AH Tubular, Acid filled, low maintenance battery with level indicator (Maintenance free Battery desirable)	9.14	Battery No and Type	2 No 100 AH Tubular, Acid filled, low maintenance battery with level indicator (Maintenance free Battery desirable)
9.15	Charging Indicator	Battery charging indicator plus low battery/ fault indicator to be provided	9.15	Charging Indicator	Battery charging indicator plus low battery/ fault indicator to be provided
9.16	Battery Steel Rack	Required	9.16	Battery Steel Rack	Required
9.17	Leads between	Flexible, Cu conductor PVC, Minimum 1 m with lugs at both ends.	9.17	Leads between	Flexible, Cu conductor PVC, Minimum 1 m with lugs at both

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	UPS & Battery			UPS & Battery	ends.
9.18	Warranty of Battery	3 years against manufacturing defect.	9.18	Warranty of Battery	3 years against manufacturing defect.
9.19	Steel rack for UPS	Required to place UPS above floor	9.19	Steel rack for UPS	Required to place UPS above floor
9.20	No load loss at 24 Volt when UPS is ON	Minimum	9.20	No load loss at 24 Volt when UPS is ON	Minimum
10.0	Earthling -	Earth Electrode (Gel type) (Optional)	10.0	Earthling -	Earth Electrode (Gel type) (Optional)
10.1	Technology	Earth Electrode (Gel type) maintenance free earthing. Mineral Filling Compound (MFC), surrounded to earth electrode creates low resistance zone so that output is constant for longer life.	10.1	Technology	Earth Electrode (Gel type) maintenance free earthing. Mineral Filling Compound (MFC), surrounded to earth electrode creates low resistance zone so that output is constant for longer life.
10.2	Pipe Material	Galvanized Pipe as per IS : 1239	10.2	Pipe Material	Galvanized Pipe as per IS : 1239
10.3	Class of Pipe	Class-B	10.3	Class of Pipe	Class-B
10.4	Diameter (Outer Dia.)	48 mm	10.4	Diameter (Outer Dia.)	48 mm
10.5	Length	2 Meter	10.5	Length	2 Meter
10.6	Wall Thickness	2.5 mm	10.6	Wall Thickness	2.5 mm
10.7	Primary Electrode	Mild Steel Strip	10.7	Primary Electrode	Mild Steel Strip
10.8	Mild Steel Strip	2.12 m long, 32 mm wide and 6 mm thick	10.8	Mild Steel Strip	2.12 m long, 32 mm wide and 6 mm thick
10.9	MS Strip hot dip Galvanized	110 micron	10.9	MS Strip hot dip Galvanized thickness	110 micron

REVISED AMCU SPECIFICATION

	thickness				
10.10	Gel Filled	Highly non-corrosive compound	10.10	Gel Filled	Highly non-corrosive compound
10.11	Earth wire to connect Electrode with Power Supply.	Copper 8 m long & 8 mm dia suitable for interconnection	10.11	Earth wire to connect Electrode with Power Supply.	Copper 8 m long & 8 mm dia suitable for interconnection
10.12	Filling compound	Adequate	10.12	Filling compound	Adequate
10.13	Civil works	chamber to secure the earthling			

10.14 The supplier should also provide Annual Maintenance Contract after warranty period on chargeable basis, if felt necessary by the purchaser.

10.15 Training – The supplier shall ensure proper and accurate functioning of all the components of the AMCU and impart training to the operating staff in operation, maintenance and routine check till the operating staffs are confident in operation and routine maintenance.

10.16 Operational & Cleaning SOPs (including leaflet on troubleshooting) - Provide laminated wall chart indicating important steps involved in operation & cleaning of the Milk Analyser for displaying in DCS.

Annexure-VII

Specification of Analyser& stirrer

Analyser& stirrer with Battery Backup Charging by Solar & Electricity

Earlier specification			Present specification		
A. 1. 0	Milk Analyzer	Analyzer Inbuilt with Lithium Battery Backup Stand by –5 – 6 hours, virtual charging by Electric / Solar panel Cap-50watt. Stirrer Runs with Same power supply to Analyzer		Milk Analyzer	Analyzer with external Lithium Battery Backup Stand by –5 – 6 hours, virtual charging by Electric / Solar panel Cap-50watt. Stirrer Runs with Same power supply to Analyzer with Wi-Fi/ Blue tooth enabled
1. 1	Functional Requirement	To test & display FAT, SNF & Added water/Per Liter Price Lactose/Protein/ Salts, /Temp/Density sample Milk.		Functional Requirement	To test & display FAT, SNF & Added water/ Lactose/ Protein/ Salts, /Temp/Density sample Milk.
1. 2	Type	Direct FAT:0.5% to 12% accuracy+/-0.1% Measuring 12% to 15% accuracy+/-0.2% Parameters: SNF: 6% to 15% accuracy+/-0.15% Temperature: 1°C to 40°C Calculated CLR:15 to 40 accuracy+/-1 Parameters: Protein :2% to 7% accuracy+/-0.1 Lactose: 0.01% to 6% accuracy+/-0.2 Resolution: Added Water In Milk 0% to 99% Accuracy+/-3% FAT,SNF, Lactose,Protein,Salts : 0.01% Temperature : 1°C CLR:0.5, Added Water:1% Repeatability: FAT: +/-0.07% SNF: +/-0.1%, CLR: +/-0.5 Milk Testing Time(Measurement) – 25 Sec to 35 Milk Price Per Liter On Display		Type	Direct FAT:0.5% to 12% accuracy+/-0.1% Measuring 12% to 15% accuracy+/-0.2% Parameters: SNF: 6% to 15% accuracy: +/-0.15% Temperature: 1°C to 40°C Calculated: CLR:15 to 40 accuracy : +/-1 Parameters: Protein :2% to 7% accuracy+/-0.1 Lactose: 0.01% to 6% accuracy+/-0.2 Resolution: Added Water in Milk 0% to 99% Accuracy: +/-3% FAT, SNF , Lactose,Protein, Salts: 0.01% Temperature: 1°C CLR:0.5, Added Water:1% Repeatability: FAT: +/-0.07% SNF: +/-0.1%, CLR+0 Milk Testing time (Measurement -25 sec to 40 Sec Milk price Per Liter on Display
1.3	Technical	Milk Temperature: 1 to 40°C Measurement Time: 25 Sec to 35 Sample Volume: 15 ml Average Speed: 120 samples/hr Number of Calibration: 3 Operation Time Limit: Continuous Display: High contrast blue / green backlight 4 line 20-character LCD Display. Average Speed: 120/hr		Technical	Milk Temperature: 1 to 40°C Measurement Time: 25 Sec to 40 Sample Volume: 15 ml Average Speed: 90-120 samples/hr Number of Calibration: 3 Operation Time Limit: Continuous Display: High contrast blue / green

		Environmental: Ambient Temperature 10°C to 40°C Conditions: Relative Humidity 30 to 80%			backlight 2 Line/4 line LCD Display. Average Speed: 90 to 120/hr Environmental: Ambient Temperature 10°C to 40°C Conditions: Relative Humidity 30 to 80%
1.4	Price Per Liter	Display on Analyzer,		Price Per Liter	N A
1.5	Battery Charging Indicator	Display on Machine		Battery Charging Indicator	N A
1.6	Test & Cleaning Log	Can save test & clinging count		Test & Cleaning Log	NA
1.7	Storage Data on Analyser	20 days		Storage Data on Analyzer	NA
1.8	Electricals	Power Input: 160-240V AC, 50HZ Voltage 12 +/-0.05V DC/10A (Max) Output: Average Power 30W Peak Power 120W		Electricals	1. In Put Voltage 100-264V 50Hz 2. Battery 12V12ah Li- Fe P04 3. Output 2 out put (1 for analyzer and 1 for Stirrer) 4. Backup > 250 sample 5. solar input 50W solar panel 6. Solar charging: MPPT charge controlling 7. Charging source Mains + solar 8. Output voltage supply sequence Mains (Priority 1) (battery priority)
1.9	Manual	Operating Manual each in English & Local language per AMCU supply		Manual	Operating Manual each in English & Local language per AMCU supply
2.0	Cleaning	Auto Buzzer Required,		Cleaning	Auto Buzzer Required,
2.1	Storage	Per day collection storage		Storage	N A
				Operational Abilities	Mode selection for Type of Milk ; (1) cow, Buffalo ,Mixed / single Curve with Cleaning calibration, system error list etc.
B. 2.2	Ultrasonic Milk Sample Stirrer	Detachable	B. 2.2	Ultrasonic Milk Sample Stirrer	Detachable
2.3	Functional Requirement	To remove air from fresh milk sample by vibrations created in the milk before testing of milk.		Functional Requirement	To remove air from fresh milk sample by vibrations created in the milk before testing of milk.
				Operational Abilities	NA
2.4	Type	Table Top, Ultrasonic Stirrer		Type	Table Top, Ultrasonic Stirrer
2.5	Stirrer for Ultrasonic Stirrer	Frequency and Time Setting		Stirrer for Ultrasonic Stirrer	Frequency and Time Setting
2.6	Ultrasonic Frequency	20-25 KHz (Variable)		Ultrasonic Frequency	20-25 KHz (Variable)

2.7	Timer	1-99 Sec selectable		Timer	1-99 Sec selectable
2.8	Environment	Suitable for dusty/humid village environment, operating temperature -5 to 50 Degree C		Environment	Suitable for dusty/humid village environment, operating temperature -5 to 50 Degree C
2.9	Complete Ready to Use	Item complete in all respect with required electric/electronic parts, ready for use at site.		Complete Ready to Use	Item complete in all respect with required electric/electronic parts, ready for use at site.
3.1	MoC for body	AISI 304, 1.2 mm thick minimum		MoC For body	AISI 304, 1.2 mm thick minimum
3.2	Operating Voltage	230 Volts +/-10, AC,50 Hz and 12 Volts DC		Operating Voltage& power supply for Milk analyzer	230 Volts +/-10, AC,50 Hz and 12 Volts DC
3.3		Additional Requirements of Milk Analyzer		Loose Accessories	Holdingbottomtrayforspillage -1No. Connectivity through Bluetooth ACPowercablewithplugtop-1 No. Measuringmugs-2No Dailycleaningsolution– No.ofBottle3(Quantityminimum200mlorequivalent). Weeklycleaningsolution- No.ofBottle2(Quantityminimum200mlorequivalent)OR Monthly Cleaning solution- No of bottle 2 minimum200mlorequivalent)
3.4				Certificate	Milk Analyzer should be CE Certified (Preferred)
35				Performance Certificate	Performance certificate should be approved from NDDB calf/NDRI (Preferred)
3.6				Secured calibration	Milk-Analyzer should be Bluetooth/WIFI enabled device and secured calibration is possible through mobile. Only authorized person can operate through secured mobile app, hence error free calibration without any manual intervention. All the historical data of calibration is stored on the cloud
3.7				Preventive	The system should be capable of recording Cleaning data and Error Log, which is stored on the cloud. This data may provide actionable alerts for preventive maintenance.

3.8				Mobile application	Blue tooth enabled Mobile Application
3.9				Warranty	3 Years
4.0				MOC for enclosure	AISI 304 0.75 mm thick minimum
4.1				Operational abilities	Mode selection for type of milk- (1) Cow, Buffalo, Mixed/Single curve with cleaning, calibration, system error list etc.

In place of earlier Specification of (C) for Thermal Printer & (D) external key Board the following revised SPECIFICATION OF MICROPROCESSOR BASED DATA PROCESSOR UNIT WITH IN BUILT THERMAL PRINTER may be considered.

4.2				DPU within built printer & 4G GSM Modem with external antenna with wi-fi, Bluetooth enabled	<ul style="list-style-type: none"> - Microprocessor/Microcontroller:32-bit or higher, 1.5Ghz or higher - Operating System: AOSP/Linux Kernel - RAM: 128MB DDR2 or higher - Memory: 256MB Flash - Storage: InBuilt SD card (8GB or higher) - Clock: Built-in RTC (Realtime clock) with Battery - Display: 3.2" or higher TFT/ Touch Screen Color LCD/Graphic LCD - Printer: Inbuilt Thermal Printer
				Main Components	DPU
4.3					<ul style="list-style-type: none"> - Modem: 4G Modem with slot for External antenna Ports: 2 x USB, 4 x RS232 (Wired/wireless) - Keyboard: USB PC Keyboard - Battery Backup: Inbuilt Wi-Fi: Wi-Fi Hotspot to transfer data when GSM network is not available. - Bluetooth: Bluetooth Communication capability with Ultrasonic milk analyser, Electronic weighing scale, Remote digital display.

4.4				Remote Display	<ul style="list-style-type: none"> - LED height-12.5 mm, 7 Segment, - RS232 interface, along with 5-Meter power and data cable
					Cabinet: ABS/GPSP powder coated rust free cabinet

4.5 The supplier should also provide Annual Maintenance Contract after warranty period on chargeable basis, if felt necessary by the purchaser.

4.6 Training – The supplier shall ensure proper and accurate functioning of all the components of the Milk analyser and impart training to the operating staff in operation, maintenance and routine check till the operating staffs are confident in operation and routine maintenance.

4.7 Operational & Cleaning SOPs (including leaflet on troubleshooting) - Provide laminated wall chart indicating important steps involved in operation & cleaning of the Milk Analyser for displaying in DCS.

SPECIFICATION OF WEIGHING MACHINE as per ANNEXURE-VIII

SI No	Particular	Earlier specification	Present Specification
1.10	Platform MOC	AISISS304,1.6 mm thick,150 Late it to	MS Structure with SS Top Platter of SS-304
1.13	Display Unit mounting	Pole mounted type with sturdy base and SS 304,38 mm dia pipe 1.2m high SS 304 Body IP 55, Tactile switch keys with feedback response, auto calibration & auto span with drift correction RS 232 Serial port with protocol to meet requirement of IBM com Table	Pole mounted type with sturdy base 38mm dia pipe 1.2 m height Display unit to be made of ABS cover with IP 55, Tactile switch keys with feedback response auto calibration & auto span with drift correction RS 232 Serial port with protocol to meet requirement of computer compatible

Other specification is same as per earlier notification

Technical Specification of BMC Annexure –II

2.0 Refrigeration Unit

As per earlier specifications the refrigeration system is designed for operation on R22 refrigerant for reciprocating/Scroll Compressors.

In place of R22 refrigerant, it may be R404/any CFC free refrigerant as per current Pollution Norms

Bulk Milk Cooler (Vertical Type)

In place of Bulk Milk Cooler Vertical type, it may be Vertical/Horizontal/Semi cylindrical type

Other specification is same as per earlier notification

Revised COMMERCIAL BID FORMAT FOR Milk Analyzer

Item	Description	Quantity	Make/ Name of Manufacturer	Unit Price FOR including installation & Commissioning (without Taxes) (In Rs.)	GST (In Rs.)	Unit Price inclusive of all (In Rs.)	Total Amount (In Rs.)
Milk Analyzer	Milk Analyzer with DPU	500					

*** As per point No 08 of the documents to be submitted with technical bid, the return (GSTR-1 & GSTR-3B) from October-24 to Dec-24 may be submitted IN PLACE OF April-23 to October as mentioned earlier