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Corrigendum-II

Bihar Medical Services and Infrastructure Corporation Limited (BMSICL) had invited E-Bids from the interested parties for the procurement, rate contract and the supply of medical equipment for different Govt. Institutions of Bihar vide Notice Inviting Tender No.- BMSICL/2023-24/ME-344. During and after Pre-bid meeting various suggestions were received from different prospective bidders regarding amendment in technical specification of equipment which were discussed and deliberated on by the experts, who after due deliberation recommended certain amendments in the technical specification of the equipment, which are annexed as Annexure-I of this corrigendum. In order to facilitate maximum participation of bidders the tender schedule is being revised as follows:-

Tender Reference No.	BMSICL/2023-24/ME-344
Last date and time of submission of online bids	12th March 2024 till 17:00 Hrs.
Last date and time of submission of original documents of EMD, Tender Fee and Document	13th March 2024 till 14:00 Hrs.
Date, Time and Place of opening of Technical Bid	13th March 2024 (at 15:00 Hrs.) on the website of https://eproc2.bihar.gov.in in the office of BMSICL
Date and time of opening of financial Bids	To be announced later on https://eproc2.bihar.gov.in

Note:-

- 1. Bidders are advised to refer to the Annexure-I of this corrigendum before submission of bid.**
- 2. Those who have submitted their bids are requested to re-submit their bids in accordance with this corrigendum.**

Annexed:- as above

**Sd/-
GM (Procurement)
BMSICL**

Annexure-I		
Name of Equipment :- Universal Ventilator (Adult/Paediatric/Neonatal)		
Sl. No	Technical Specification as per tender	Final Amendment
1	Should have facility for Invasive and Non-Invasive ventilator	No Change
2	Microprocessor Control suitable for infant and adult ventilation.	No Change
3	Hinged arm holder for holding the circuit.	No Change
4	Should be able to record and analyze various parameters. Breath to breath/pulmonary functions, loops to be stored in the memory with feasibility of trend analysis on a TFT touch screen. Screen size should be 12" or more so that be easily seen from distance. Compiled trend analysis at Minimum 48 hours for all measured parameters. Monitoring during mechanical ventilation includes measurement of peak and plateau pressures, intrinsic positive end-expiratory pressure, and work of breathing.	No Change
5	Machine should be Compressed air driven	No Change
6	Should have Nebulization facility.	No Change
7	Ventilator, Compressor & Humidifier should be mounted on one Trolley/cart transportation within Hospital.	No Change
8	Should have Internal rechargeable battery at least 90 mins. backup.	No Change
9	Automatic Self-test compliance and leakage compensation for	No Change
10	Should have the following modes:	No Change
	a. Volume Controlled, CMV, PCV or IRV, SIMV (volume cycled & pressure limited), SIMV+PS (volume cycled & pressure limited), CPAP, Bilevel, APRV. IMPRV, But lowest tidal volume should be 05 to 2000 ml.	No Change
11	Should have the following setting:	No Change
	a. Tidal Volume: minimum 05ml maximum of 2000 ml in Volume control is essential.	No Change
	b. PEEP 0 to 40 cmH20 or more	No Change
	c. Oxygen Concentration 21 –100 % through internal blender. Inspiratory Pressure 1-90 cmH20).	No Change
	d. Respiratory rate 1 to 80 bpm	No Change
12	Alarm	No Change
	a. Adjustable Alarm. - Low/high minute volume, low/high pressure, low/high tidal volume, low/high rate, apnea time, low/high oxygen,	No Change
	b. Special alarm - O2 cell Failure, flow sensor, battery, power supply, gas supply, oxygen concentration.	No Change
13	Compressor should be of same make or compatible with the ventilator	No Change
	a. Should be supplied with External Compressor.	No Change
	b. The compressor has been designed to supply the ventilator with dry, filtered compressed air.	No Change
	c. Compressor should be oil-free.	No Change
	d. Portable & fitted with ventilator cart.	No Change
	e. Air filtration 5 microns.	No Change
	f. Noise level dB 40–50.	No Change

	g. Peak flow of 180lpm	No Change
14	Humidifier	No Change
	a. Servo controlled Humidifier.	No Change
	b. Display should be of LED /LCD.	No Change
	c. Temperature control settings & Temperature range: 28-40 deg.	No Change
	d. Temperature should be adjustable.	No Change
	e. Jar should be autoclavable.	No Change
15	Standard Accessories/spare & Consumable:- O2 cell expiratory value, HME filters.	No Change
	a. Silicon breathing circuit (Adult reusable) - 5 complete set.	Silicon breathing circuit (Adult reusable) - 2 complete set.
	b. Nebulization assembly compatible circuit 5 complete set.	Nebulization assembly compatible circuit 2 complete set.
	c. Humidifier - 1 No.	No Change
	d. O2 Pressure Regulator with Hose - 1 Nos.	No Change
	e. Hose for O2 connection with connector - 5 mts.	No Change
	f. Hose for compressed air with connector - 5 mts.	No Change
	g. Test lung - 1 No.	Test lung - 1 No. (Adult)
	h. Non-invasive ventilator mask reusable for adult (3sizes) -each size 5 No.	No Change
	i. ET tube cuff pressure monitor and HME filter – 10 no	No Change
	j. Inbuilt / integrated nebulizer-1 NO	No Change
	k. All sensors and other non-consumable items (other than reusable silicon ventilator circuits) should be free of cost during warranty and CMC.	No Change
16	Ventilator, Humidifier & Compressor Power Supply input to be 200-240VAC, 50 Hz fitted with Indian conditions plug.	No Change
17	Suitable online UPS is must for ventilator. Ventilator, Humidifier & Compressor Should be US FDA /European CE (issued by notified body) approved Model should be offered.	No Change
	NOTE:	
1	Reusable consumables (other than reusable silicon ventilator circuits) should last during the warranty period.	No Change
2	Ventilator & Humidifier any additional reusable consumables are required during the warranty period those will be supplied free of charge by the supplier.	No Change
3	The life expectancy of the reusable consumable is expected to be of at least one year from the date of installation of the same. The reusable consumables will be procured at the prices accepted as per the contract.	No Change
4	The bidders should submit all reusable consumable items price & their authorized local office/distributor name in the financial bid	No Change
Name of Equipment :- Neonatal Ventilator		

Sl. No	Technical Specification as per tender	Final Amendment
	Technical Characteristics (specific to this type of device)	
1	Advanced technology ventilator for use in NICU, suitable for ventilating Premature Neonates patients.	No change
2	Should have facility for Invasive and Non Invasive ventilation.	No change
3	Microprocessor controlled system with individual selection of various ventilation parameters & PEEP.	No change
4	Display screen of minimum 8" or higher Color TFT/LCD.the	No change
5	Ventilator, Humidifier & Compressor Should be US FDA/European CE (issued by notified body) approved Model should be offered.	No change
6	Should have battery backup at least 90 mins.	No change
7	It should allow the user to deliver conventional ventilation with proximal flow sensor as well as HFOV & compatible to deliver inhaled Nitric Oxide (INO)	No change
8	Should have the following modes of ventilation:	No change
	a) Assist/ Control, b) Pressure control, c) Pressure support, d) SIMV with pressure support (Pressure and volume control), e) PEEP, f) Noninvasive ventilation-BIPAP, CPAP/NIV/High flow, g) Apnea ventilation, user selectable, volume & pressure control, h) HFOV	No change
9	Should have facility to measure and display of the following parameters:	No change
	a. Airway Pressure (Peak & Mean)	No change
	b. Tidal volume (Inspired & Expired)	No change
	c. Minute volume (Inspired & Expired)	No change
	d. Respiratory mechanics	No change
	e. Spontaneous Minute Volume	No change
	f. Total Frequency	No change
	g. FiO2	No change
	h. PEEP	No change
	i. Plateau Pressure	No change
	j. Use selector Alarms for all measured & monitored parameters	No change
	k. Occlusion Pressure	No change
	l. Pressure Flow & Volume curves	No change
	Additional Point	Leak %
	Additional Point	Leak compensated Tidal Volume.
10	Automatic compliance and leakage compensation for circuit.	No change
11	Conventional ventilation & HFO Ventilation Mode Parameters:	No change
	a) BPM: 4to120,	No change
	b) Inspiratory Time: 0.1 to 2.0 second,	No change
	c) CPAP Pressure: 2 to 25 mbar	No change
	d) Inspiratory Pressure: 10 to 65 mbar	No change
	e) FIO2: 21% to 100%	No change
	f) Tidal Volume 2-200 ml with Volume Guarantee	No change

	g) I: E Ratio: 1:1, 1:2, 1:3	No change
	h) HFO Mode parameters	No change
	i) HFO Frequency should be wide range with 5 to 20 Hz	No change
12	Alarm	No change
	a. Adjustable Alarm. - Low/high minute volume, low/high pressure, low/high tidal volume, low/high rate, apnea time, low/high oxygen.	No change
	b. Special alarm - O2 cell Failure, flow sensor, battery, power supply, gas supply, oxygen concentration,	No change
	i. Should have inbuilt/integrated Nebulization assembly facility.	No change
	ii. Ventilator, Compressor & Humidifier should be Same Trolley/cart mounting for easy transportation.	No change
	iii. Humidifier	No change
	a. Servo controlled heated Respiratory Humidifier.	No change
	b. Display should be of LED /LCD.	No change
	c. Temperature control settings & Temperature range: 28-40 deg.	No change
	d. Temperature should be adjustable.	No change
	e. Jar should be autoclavable	No change
	iv. Standard Accessories/spare & Consumable.	No change
	a. Silicon breathing circuit circuit (Neonatal reusable) - 5 complete set.	No change
	b. Nebulization assembly compatible circuit-5 complete set.	No change
	c. Humidifier - 2 No.	No change
	d. Hose for O2 connection with connector - 5 mts.	No change
	e. Hose for compressed air with connector - 5 mts.	No change
	f. Test lung - 1 No.	No change
	g. Inbuilt / integrated nebulizer-1 N0.	No change
	h. All sensors and other non-consumable items (other than reusable silicon ventilator circuits) should be free of cost during 3 years of warranty and 7 years of CMC.	No change
	l. All attachment regarding non-invasive ventilation should be provided in all sizes minimum of 10 in number (additional).	No change
	v. Ventilator, Humidifier & Compressor Power Supply input to be 200-240VAC, 50 Hz fitted with Indian conditions Plug	No change
	vi. Suitable online UPS with commensurate capacity for all ventilators including compressor & Humidifier with maintenance free batteries for minimum one hours back-up should be supplied.	No change
	vii. Ventilator, Humidifier & Compressor should be US FDA/European CE (issued by notified body) approved Model	No change
	NOTE:	No change
	1) Reusable consumables (other than reusable silicon ventilator circuits) should last during the warranty period.	No change
	2) Ventilator & Humidifier any additional reusable consumables are required during the	No change

	warranty period those will be supplied free of charge by the supplier.	
	3) The life expectancy of the reusable consumable is expected to be of at least one year from the date of installation of the same. The reusable consumables will be procured at the prices accepted as per the contract.	No change
	4) The bidders should submit all reusable consumable items price & their authorized local office/distributor name in the financial bid.	No change

Name of Equipment :- Anaesthesia Work-Station		
Sl. No	Technical Specification as per tender	Final Amendment
1	The Machine should have centralized display integration and functional integration.	No Change
2	The Machine should have a built-in anaesthesia ventilator with Pressure, volume controlled as well as spontaneous modes like SIMV & pressure support modes with spirometry loops with electronic PEEP. The machine and ventilator should be from the same manufacturer	The Machine should have a built-in anaesthesia ventilator with Pressure, volume controlled as well as spontaneous modes like SIMV & pressure support modes with spirometry loops with electronic PEEP. The machine and ventilator should be from the same manufacturer. Machine should have AGM with Modular Integration. It should monitor both Insp. and Exp. CO2, N2O, Anesthesia Agents with auto identification and MAC value".
3	Should be compact, ergonomic & easy to use with automatic pre-use check for electronic parts.	No Change
4	Should have complete integrated anaesthesia gas delivery system	No Change
5	It should be electronically controlled with a master switch, pneumatically/electronically operated with prioritized alarm system.	No Change
6	Should provide with adult and paediatric reusable and autoclavable lightweight tubing breathing circuit.	No Change
7	Should be able to deliver a tidal volume from 20ml to 1500ml.	No Change
8	Should have a battery backup for 60 minutes with low battery alarm and over charge protection.	Should have a battery backup for 60 minutes with low battery alarm

		and over charge protection and machine should continue manual ventilation with gases & agent in the event of total power supply & battery failure.
9	Should have monitoring facility of continuous airway pressure & flow as waveforms, tidal volume, frequency, oxygen concentration and oxygen supply pressure	No Change
10	Should have display of at least 10 inches for set parameters	"Should have touch screen display of at least 10 inches or more for set parameters".
11	Should have automatic self test for the entire system.	Should have automatic self test for the entire system. Automatic & manual leak test
12	Anaesthesia machine should be with 3 gas supply system (O ₂ , N ₂ O and Air) with pipeline connections and reserve cylinder yokes.	No Change
13	Gas cylinder (pin indexed) yokes with sturdy clamping bars for easy handling	No Change
14	One Pin index yoke for connecting cylinder each for O ₂ , N ₂ O through pipeline.	No Change
15	Regulator one each for O ₂ and N ₂ O.. N ₂ O should be activated only with oxygen on flow.	No Change
16	Should have pressure gauge for all gas inlets including central lines mounted on the front panel for easy visibility	No Change
17	Should have audible alarm for O ₂ failure	No Change
18	N ₂ O supply should cut off if O ₂ supply fails. (Hypoxic guard).	No Change
19	Oxygen and Nitrous oxide should always be linked either mechanically or pneumatically to ensure a minimum of 25% oxygen delivery to avoid delivery of hypoxic mixture.	No Change
20	Should have dual cascade type flow meter for at least O ₂ and N ₂ O calibrated in multiple scale and Air in single flow meter	No Change
21	The anaesthesia machine should have a master control ON/OFF switch.	No Change
22	Provision to mount any two vaporizers with interlocking facility to allow use of only one vaporizer at a time.	No Change
23	Isoflurane & Sevoflurane vaporizer of newer generation having specifications equivalent to tech 7 type to be provided.	No Change
24	Non-return cum pressure relief valve when pressure exceeds 120cmof H ₂ O.	No Change
25	Should have auxiliary common gas outlet for open circuit.	No Change
26	Should provide with oxygen flush switch	No Change

27	Circle absorber with corrugated reusable breathing circuit for closed circuit system with each unit. It should be autoclavable except the O2 sensor	No Change
28	Should be with ventilator selector switch and circle on/off switch.	No Change
29	Should have low flow anesthesia technique.	No Change
30	Should have a facility to connect to the passive scavenging system and the required tubings to be provided.	No Change
31	Should have atleast two universal electrical outlets.	No Change
32	Should have a provision for mounting monitors on top of the machine and with drawers.	No Change
33	Should have fiber wheels and Foot brakes.	No Change
34	Standard bair circuit : 1 no. with each unit.	No Change
35	Reservoir bag (2liters): 1 nos. with each machine	No Change
36	36. Connectors for bair circuit: 1 nos with each machine.	No Change
37	AMBU bag: 1 no. with each machine.	No Change
38	Pressure regulated valve with 5 meter hose and connector (conversion kit) for oxygen should be provided with each machine	No Change
39	Should be supplied with driver gas hoses with necessary attachments (colour coded)	No Change
40	Should be supplied with necessary attachments to use the breathing circuits viz namely Bair, Jackson-Rees and closed circuit (Single limb circuit)	No Change
41	Should work in 220-240Vac 50 Hz input supply.	No Change
42	Should be supplied with two Vaporizers.	No Change
43	Should supply with 5 kg Soda Lime along with machine	No Change
44	Should have flow triggered assist modes with trigger sensitivity of 0.2L/Min 0.5L/Min	No Change
45	Should have dual flow sensing at both inspiratory & expiratory port for better leak compensation and trigger sensitivity	Should have flow sensing at inspiratory / expiratory port for better leak compensation and trigger sensitivity. Ventilation should not stop in case of flow sensor failure.
46	Should have auxillary O2 connection	No Change
47	US FDA (510K) /EU-CE (notified body) approved model should be offered.	No Change

	Additional point (Our Proposed specification for patient Monitor:)	<p>1. Patient monitor should be of same manufacture as the anesthesia workstation. Should have at least 12 inches color display, operate through both touch screen /rotary knob. Should have minimum 3 / 5 lead ECG, NIBP, SpO2, 2 IBPs, 2 Temperature, PPV display through Arterial Pressure.</p> <p>2. Should Monitor BIS & TOF.</p>
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