

05.04.2023

TAMILNADU MEDICAL SERVICES CORPORATION LTD.,

**ICB TENDER FOR SUPPLY AND INSTALLATION OF VENTILATORS
FOR TERTIARY CARE HOSPITALS AT GOVT. RAJAJI HOSPITAL -
MADURAI, GOVT. KILPAUK MEDICAL COLLEGE HOSPITAL -
CHENNAI AND GOVT. COIMBATORE MEDICAL COLLEGE HOSPITAL
- COIMBATORE IN TAMILNADU**

PKG6/C1/ICB/TNUHP/ JICA/TNMSC/ENGG/ 2022, dt. 29.07.2022

The following corrigendum are issued:-

Sl. No.	Tender document reference	Instead of	Read as									
1.	Page no. 1	SUPPLY AND INSTALLATION OF VENTILATORS FOR TERTIARY CARE HOSPITALS AT GOVT. RAJAJI HOSPITAL - MADURAI, GOVT. KILPAUK MEDICAL COLLEGE HOSPITAL – CHENNAI AND GOVT. COIMBATORE MEDICAL COLLEGE HOSPITAL – COIMBATORE.	SUPPLY AND INSTALLATION OF VENTILATORS- ADULT AND VENTILATORS- NEONATAL FOR TERTIARY CARE HOSPITALS AT GOVT. RAJAJI HOSPITAL - MADURAI, GOVT. KILPAUK MEDICAL COLLEGE HOSPITAL – CHENNAI AND GOVT. COIMBATORE MEDICAL COLLEGE HOSPITAL – COIMBATORE.									
2.	Page No.37 <u>Section II: Bid Data Sheet:</u> A. General	ITB 1.1 Lot/Contract no.1 : Ventilators	Lot/ Contract : 1 Ventilators – Adult Lot/ Contract : 2 Ventilators – Neonatal									
3.	Page No.37 <u>Section II: Bid Data Sheet:</u> A. General	ITB 19.1 Bid security <table border="1"><tr><td>INR 29,44,000/-</td><td>Lot/ Contract: 1</td><td>VENTILATORS</td></tr></table>	INR 29,44,000/-	Lot/ Contract: 1	VENTILATORS	ITB 19.1 Bid security <table border="1"><tr><td>INR 9,92,000/-</td><td>Lot/ Contract: 1</td><td>Ventilators– Adult</td></tr><tr><td>INR 2,73,000/-</td><td>Lot/ Contract: 2</td><td>Ventilators – Neonatal</td></tr></table>	INR 9,92,000/-	Lot/ Contract: 1	Ventilators– Adult	INR 2,73,000/-	Lot/ Contract: 2	Ventilators – Neonatal
INR 29,44,000/-	Lot/ Contract: 1	VENTILATORS										
INR 9,92,000/-	Lot/ Contract: 1	Ventilators– Adult										
INR 2,73,000/-	Lot/ Contract: 2	Ventilators – Neonatal										

Sl. No.	Tender document reference	Instead of	Read as
4.	Page No.52 and Corrigendum dt. 06.01.2023 <u>Section III: Evaluation and Qualification Criteria:</u> <u>2. Qualification</u>	Existing text	Revised at Annexure- I
5.	Page No.58 <u>Section IV: Bidding Forms:</u> <u>Letter of Bid</u>	Existing text	Revised at Annexure- II
6.	Page No.91 <u>Section VI: Schedule of Requirements:</u> 1. List of Goods and Delivery Schedule	Existing text	Revised at Annexure- III
7.	Page No.92 <u>Section VI: Schedule of Requirements:</u> 2. List of Related Services and Completion Schedule	Existing text	Revised at Annexure- IV
8.	Page No.94 and Corrigendum dt. 22.11.2022 and 06.01.2023	Existing Text	Revised at Annexure-V

Sl. No.	Tender document reference	Instead of	Read as
	<u>Section VI:</u> <u>Schedule of</u> <u>Requirements</u> <u>3. Technical</u> <u>Specifications</u> <u>Technical</u> <u>Specification for</u> <u>Ventilators</u>		
9.	Page No.94 <u>Section VI:</u> <u>Schedule of</u> <u>Requirements</u> Annexure I Place of Delivery	Existing text	Revised at Annexure- VI

All other terms and conditions of the tender remain unaltered.

The above forms part of the bidding documents. The bidder shall upload the copy of this corrigendum duly signed by their authorized signatory, along with their bid.

Sd/-

General Manager (E)

Annexure – I

Section III. Evaluation and Qualification Criteria

Evaluation and Qualification Criteria

1. Evaluation

1.1 Evaluation Criteria

The evaluation consists of the following:

- (a) Assessment of the qualification of the Bidder to perform the Contract satisfactorily, in accordance with ITB 30. The qualification criteria for the purpose of this assessment have been described in detail under item 2 (*Qualification*) below.
- (b) Determination of the substantial responsiveness of the Bid in accordance with ITB 31.

Determination of the substantial responsiveness of the Bids may include, among other things, factors (other than the Bid Price quoted in accordance with ITB 14), which may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the factors selected, if any, shall be expressed in monetary terms to facilitate comparison of Bids in accordance with this Section III, Evaluation and Qualification Criteria.

- (c) Evaluation of the Bid Price in accordance with ITB 35.

1.2 Other Evaluation Criteria (ITB 35.1(d))

The Purchaser's evaluation of a Bid may take into account, in addition to the Bid Price quoted in accordance with ITB 14.4, one or more of the following factors as specified in ITB 35.1(d), using the following criteria and methodologies.

- (a) Delivery schedule. (as per Incoterms specified in ITB14.3): **No**

All the Goods and Related Services specified in the List of Goods and Related Services are required to be delivered within the acceptable time range (after the earliest and before the final date, both dates inclusive) specified in Section VI, List of Goods and Delivery Schedule. No credit will be given to deliveries before the earliest date, and Bids offering delivery after the final date shall be treated as non-responsive.

- (b) Deviation in Payment Schedule. **No.**

- (i) Bidders shall state their Bid Price for the Payment Schedule outlined in the Particular Conditions of Contract (PC). Bids shall be evaluated on the basis of this base price.

- (c) Cost of major replacement components, mandatory spare parts, and service: **No**

(d) Availability in the Purchaser's Country of spare parts and after sales services for Goods offered in the Bid: **Yes. An affirmative confirmation is required.**

(e) Projected operation and maintenance costs.

Operating and maintenance costs. An adjustment to take into account the operating and maintenance costs of the Goods will be added to the Bid Price, for evaluation purposes only. The adjustment will be made as follows:

The comprehensive maintenance cost for 7 years after discounting to net present value at a discount rate of 8% per annum. Year wise CAMC price should be submitted. **Bids without this charges will be considered as non-responsive.**

(f) Performance and productivity of the equipment: **No.**

(g) Specific additional criteria: **NIL**

1.3 Award Criteria for Multiple Lots (ITB 35.3)

Not Applicable.

2. Qualification

(I) Qualification of the Bidder but not of Bidder's Affiliates

It is the legal entity or entities comprising the Bidder (which is/are party to the Bidder under a JV or as specialized subcontractors to be employed listed in this Section 2.4.3), and not the Bidder's parent company(ies), group companies, subsidiaries, or other affiliates, that must satisfy the qualification criteria.

(II) Exchange Rate for Qualification Criteria

Wherever a Form in Section IV, Bidding Forms, requires the Bidder to state a monetary amount, the Bidder should indicate the USD equivalent using the rate of exchange determined as follows:

- (a) For turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar or fiscal year, as applicable.
- (b) Value of single contract - Exchange rate prevailing on the date of the contract.

Exchange rates shall be taken from the publicly available source **identified in BDS 34.1** or, in case such rates are not available in the source identified above, any other publicly available source acceptable to the Purchaser. Any error in determining the exchange rates may be corrected by the Purchaser.

(III) Qualification Criteria for Award of Multiple Lots

Bidders are allowed to quote one or more lot(s)/contract(s) and each lot/ contract will be evaluated separately as per the criteria applicable for individual lot(s)/ contract(s).

2.1 Eligibility

Eligibility and Qualification Criteria			Compliance Requirements		Documentation
No.	Factor/ Sub-Factor	Requirement	Manufacturer Bidder / Manufacturer	Non- Manufacturer Bidder	Submission Requirements
2.1.1	Nationality Lot/Contract: 1	Nationality in accordance with ITB 4.3	Must meet requirement	Must meet requirement	Forms ELI – 1 and 2, with attachments
	Nationality Lot/Contract: 2	Nationality in accordance with ITB 4.3	Must meet requirement	Must meet requirement	Forms ELI – 1 and 2, with attachments
2.1.2	Conflict of Interest Lot/Contract: 1	No conflicts of interest in ITB 4.2	Must meet requirement	Must meet requirement	Letter of Bid
	Conflict of Interest Lot/Contract: 2	No conflicts of interest in ITB 4.2	Must meet requirement	Must meet requirement	Letter of Bid
2.1.3	JICA Ineligibility Lot/Contract: 1	Not having been declared ineligible by JICA, as described in ITB 4.4	Must meet requirement	Must meet requirement	Letter of Bid Form ACK
	JICA Ineligibility Lot/Contract: 2	Not having been declared ineligible by JICA, as described in ITB 4.4	Must meet requirement	Must meet requirement	Letter of Bid Form ACK

2.2 Historical Contract Non-Performance and Litigation

Eligibility and Qualification Criteria			Compliance Requirements		Documentation
No.	Factor/ Sub-Factor	Requirement	Manufacturer Bidder / Manufacturer	Non- Manufacturer Bidder	Submission Requirements
2.2.1	History of Non-Performing Contracts Lot/Contract: 1 & 2	Non-performance of a contract ⁽ⁱ⁾ did not occur as a result of supplier's default since 1 st January 2018.	Must meet requirement ⁽ⁱⁱ⁾	Must meet requirement ⁽ⁱⁱ⁾	Form CON

2.2.2	Pending Litigation Lot/Contract: 1 & 2	All pending litigation shall in total not represent more than 60% of the Bidder's net worth and shall be treated as resolved against the Bidder.	Must meet requirement ⁽ⁱⁱ⁾	Must meet requirement ⁽ⁱⁱ⁾	Form CON
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Eligibility and Qualification Criteria			Compliance Requirements		Documentation
No.	Factor/ Sub-Factor	Requirement	Manufacturer Bidder / Manufacturer	Non- Manufacturer Bidder	Submission Requirements
2.2.3	Litigation History Lot/Contract: 1 & 2	No consistent history of court /arbitral award decisions against the Bidder ⁽ⁱⁱⁱ⁾ since 1 st January 2018.	Must meet requirement ⁽ⁱⁱ⁾	Must meet requirement ⁽ⁱⁱ⁾	Form CON

Notes for the Bidder

(i) Non-performance, as decided by the Purchaser, shall include all contracts

(a) where non-performance was not challenged by the supplier, including through referral to the dispute resolution mechanism under the respective contract, and

(b) that were so challenged but fully settled against the supplier.

Non-performance shall not include contracts where Purchaser's decision was overruled by the dispute resolution mechanism. Non-performance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Bidder have been exhausted.

(ii) This requirement also applies to contracts executed by the Manufacturer Bidder/ Manufacturer or Non-Manufacturer Bidder.

(iii) The Bidder shall provide accurate information on the related Bidding Form about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the last five (5) years. A consistent history of awards against the Bidder or any member of a joint venture may result in failure of the Bid (**More than 2 adverse cases over 5 years for a supplier handling on average 10 supply jobs simultaneously will be a cause for rejection**).

2.3 Financial Situation and Capabilities

Eligibility and Qualification Criteria			Compliance Requirements		Documentation
No.	Factor/ Sub-Factor	Requirement	Manufacturer Bidder / Manufacturer	Non- Manufacturer Bidder	Submission Requirements
2.3.1	Financial Performance Lot/Contract: 1 & 2	<p>The audited balance sheets or, if not required by the laws of the Bidder's country, other financial statements acceptable to the Purchaser, for the last 5 years (2017- 2018 to 2021-2022) for Manufacturer/ Manufacturer Bidder and last 3 years (2019- 2020 to 2021-2022) for Non-Manufacturer Bidder shall be submitted and must demonstrate the current soundness of the Bidder's financial position and indicate its prospective long-term profitability.</p> <p>As the minimum requirement, a Bidder's net worth calculated as the difference between total assets and total liabilities should be positive.</p>	Must meet requirement	Must meet requirement	Form FIN –1 with attachments

Eligibility and Qualification Criteria			Compliance Requirements		Documentation
No.	Factor/ Sub-Factor	Requirement	Manufacturer Bidder / Manufacturer	Non- Manufacturer Bidder	Submission Requirements
2.3.2	Average Annual Turnover Lot/Contract: 1	Minimum average annual turnover of INR/ INR equivalent of 29.80 crore for Manufacturer/ Manufacturer Bidder within the last 5 years (2017-2018 to 2021-2022), as total certified payments received for contracts in progress and/ or completed divided by 5 years and INR/INR equivalent of 22.30 crore Non-Manufacturer Bidder in the last 3 years (2019-2020 to 2021-22), as total certified payments received for contracts in progress and/ or completed divided by 3 years .	Must meet requirement	Must meet requirement	Form FIN – 2
	Average Annual Turnover Lot/Contract: 2	Minimum average annual turnover of INR/ INR equivalent of 8.20 crore for Manufacturer/ Manufacturer Bidder within the last 5 years (2017-2018 to 2021-2022), as total certified payments received for contracts in progress and/ or completed divided by 5 years and INR/INR equivalent of 6.10 crore Non-Manufacturer Bidder in the last 3 years (2019-2020 to 2021-22), as total certified payments received for contracts in progress and/ or completed divided by 3 years .	Must meet requirement	Must meet requirement	Form FIN – 2

Eligibility and Qualification Criteria			Compliance Requirements		Documentation
No.	Factor/ Sub-Factor	Requirement	Manufacturer Bidder / Manufacturer	Non- Manufacturer Bidder	Submission Requirements
2.3.3	Financial Resources Lot/Contract: 1	(i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the cash flow requirements estimated as INR/INR equivalent of 3.97 crores for 120 days for Manufacturer/ Manufacturer Bidder and Non-Manufacturer Bidder for the subject contract(s) net of the Bidders other commitments	Must meet requirement	Must meet requirement	Form FIN – 3
		(ii) The Bidders shall also demonstrate, to the satisfaction of the Purchaser, that it has adequate sources of finance to meet the cash flow requirements on contract currently in execution and for future contract commitments.	Must meet requirement	Must meet requirement	Form FIN-3 and FIN – 4
	Financial Resources Lot/Contract: 2	(i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the cash flow requirements estimated as INR/INR equivalent of 1.09 crores for 120 days for Manufacturer/ Manufacturer Bidder and Non-Manufacturer Bidder for the subject contract(s) net of the Bidders other commitments	Must meet requirement	Must meet requirement	Form FIN – 3
		(ii) The Bidders shall also demonstrate, to the satisfaction of the Purchaser, that it has adequate sources of finance to meet the cash flow requirements on contract currently in execution and for future contract commitments.	Must meet requirement	Must meet requirement	Form FIN-3 and FIN – 4

2.4 Experience

Eligibility and Qualification Criteria			Compliance Requirements		Documentation
No.	Factor/ Sub-Factor	Requirement	Manufacturer Bidder / Manufacturer	Non- Manufacturer Bidder	Submission Requirements
2.4.1	General Experience Lot/Contract :1 & 2	Experience under supply contracts as a supplier (Manufacturer Bidder /Manufacturer or Non-manufacturer Bidder) for at least the last 5 years (2017-2018 to 2021-2022) for Manufacturer / Manufacturer Bidder and last 3 years (2019– 2020 to 2021-2022) for Non-Manufacturer Bidder.	Must meet requirement	Must meet requirement	Form EXP – 1
2.4.2	Specific Experience Lot/Contract :1	<p>For supply contracts completed as a supplier (Manufacturer Bidder/ Manufacturer or Non-manufacturer Bidder) in the no. of years specified below up to bid submission deadline, a minimum supply of the similar equipment/goods of the same make quoted in this tender and rendered after sales service during warranty and maintenance period as specified below.</p> <p><u>Manufacturer/ Manufacturer Bidder</u></p> <p>In the last 5 years from 2017-2018 to 2021-22 – 37 Nos. with satisfactory performance of atleast one year on the date of bid opening supported by end user certificate. The supply may be directly or through their authorized agent / dealers.</p> <p><u>Non-Manufacturer Bidder</u></p> <p>In the last 3 years from 2019-2020 to 2021-2022 - 19 Nos. with satisfactory performance of atleast one year on the date of bid opening supported by end user certificate in addition to their manufacturer meeting the criteria separately.</p>	Must meet requirement	Must meet requirement	Form EXP – 2 with attachments

	<p>Specific Experience Lot/Contract :2</p>	<p>For supply contracts completed as a supplier (Manufacturer Bidder/ Manufacturer or Non-manufacturer Bidder) in the no. of years specified below up to bid submission deadline, a minimum supply of the similar equipment/goods of the same make quoted in this tender and rendered after sales service during warranty and maintenance period as specified below.</p> <p><u>Manufacturer/ Manufacturer Bidder</u></p> <p>In the last 5 years from 2017-2018 to 2021-22 – 4 Nos. with satisfactory performance of atleast one year on the date of bid opening supported by end user certificate. The supply may be directly or through their authorized agent / dealers.</p> <p><u>Non-Manufacturer Bidder</u></p> <p>In the last 3 years from 2019-2020 to 2021-2022 - 2 Nos. with satisfactory performance of atleast one year on the date of bid opening supported by end user certificate in addition to their manufacturer meeting the criteria separately.</p>	Must meet requirement	Must meet requirement	Form EXP – 2 with attachments
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Eligibility and Qualification Criteria			Compliance Requirements		Documentation
No.	Factor/ Sub-Factor	Requirement	Manufacturer Bidder / Manufacturer	Non- Manufacturer Bidder	Submission Requirements
2.4.3	Production and Sales of Goods offered Lot/Contract :1	For Manufacturer/ Manufacturer Bidder, Goods offered should have been in production for at least 5 years (2017-2018 to 2021-2022) and has the production capacity of 310 Nos. per year from the date mentioned and the Bid submission deadline. For Non-Manufacturer Bidder, should have sold the similar model of same make quoted at least 19 nos. in last 3 years (2019– 2020 to 2021-2022).	Must meet requirement	Must meet requirement	Form EXP – 3 with attachments
	Production and Sales of Goods offered Lot/Contract :2	For Manufacturer/ Manufacturer Bidder, Goods offered should have been in production for at least 5 years (2017-2018 to 2021-2022) and has the production capacity of 30 Nos. per year from the date mentioned and the Bid submission deadline. For Non-Manufacturer Bidder, should have sold the similar model of same make quoted at least 2 nos. in last 3 years (2019– 2020 to 2021-2022).	Must meet requirement	Must meet requirement	Form EXP – 3 with attachments

Notes for the Bidders

- (i) Summation of number of small supply and/or production contracts (less than the capacity specified under requirement) to meet the overall requirement will not be accepted.
- (ii) Completion shall be evidenced by submission of copy of end-user certificates such as Taking-over Certificates and Completion Certificates as required to be submitted as attachment to Form EXP-2 or Form EXP-3 of Section IV, Bidding Forms.
- (iii) For contracts under which the Bidder participated as a JV member, only the Bidder's share, by capacity, shall be considered to meet this requirement.
- (iv) The minimum experience requirement for award of multiple lots will be the sum of the minimum requirements for respective individual lot.

ANNEXURE- II

[Prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address.]

Letter of Bid

Date : *[Insert date of Bid submission]*
IFB No. : *[Insert Invitation for Bid number]*
Project : *[Insert name of Project]*
Contract : *[Insert name of Contract]*

To: *[insert full name of Purchaser]*

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Document, including addenda issued in accordance with Instructions to Bidders (ITB) 8. *[Insert the number and issuing date of each addendum]*;
- (b) We, including subcontractors/suppliers for any part of the Contract, meet the eligibility requirements in accordance with ITB 4 and ITB 5.
- (c) We, including subcontractors/suppliers for any part of the Contract, have no conflict of interest in accordance with ITB 4;
- (d) We offer to execute in conformity with the Bidding Document and in accordance with the Delivery Schedules specified in the Schedule of Requirements, the following Goods and Related Services: *[insert a brief description of the Goods and Related Services]*;
- (e) The total price of our Bid, excluding any discounts offered in item (f) below is:
[In case of only one lot, insert the total price of the Bid in words and figures, indicating the various amounts and the respective currencies]

[In case of multiple lots, insert:

(i) the total price of each lot; and

(ii) the sum of the total price of all lots (sum of all lots)];

in words and figures, indicating the amounts in the respective currencies]

- (f) The discounts offered and the methodology for their application are:

Sl. No	Lot/Contract No., Brief description with quantity	Total price in figures (Specify Currency for each amounts)	Total price in words (Specify Currency for each amounts)
1	Lot/ Contract : 1 Ventilators (184 Nos.)		

The discounts offered are: *[Specify in detail each discount offered.]*

The exact method of calculations to determine the net price after application of discounts is shown below: *[Specify in detail the method that shall be used to apply the discounts.];*

- (g) Our Bid shall be valid for a period of **120** days from the date fixed for the Bid submission deadline in accordance with the Bidding Document, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (h) If our Bid is accepted, we commit to obtain a Performance Security in accordance with the Bidding Document;
- (i) We are not participating, as a Bidder or as a subcontractor, in more than one Bid in this bidding process in accordance with ITB 4.2(c);
- (j) We understand that this Bid, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, unless and until a formal contract is prepared and executed;
- (k) We understand that you are not bound to accept the lowest evaluated Bid or any other bid that you may receive; and
- (l) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption.

Name of the Bidder¹ [*Insert name of the Bidder*]

Name of the person duly authorized to sign the Bid on behalf of the Bidder² [*Insert complete name of person duly authorized to sign the Bid*]

Title of the person signing the Bid [*Insert complete title of the person signing the Bid*]

Signature of the person named above [*Insert signature of person whose name and capacity are shown above*]

Date signed [*Insert date of signing*] day of [*Insert month*], [*Insert year*]

**: Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid.

1. List of Goods and Delivery Schedule

Line Item No	Description of Goods	Quantity	Unit of Measurement	Final destination (Project Site)	Delivery(as per Incoterms) Date	
					Shortest Delivery Period (calculated from the Contract Effective Date)	Longest Delivery Period (calculated from the Contract Effective Date)
1	Ventilators- Adult	62	Nos.	Vide Annexure I – Place of Delivery	90 days	120 days
2	Ventilators- Neonatal	6	Nos.	Vide Annexure I – Place of Delivery	90 days	120 days

2. List of Related Services and Completion Schedule

Item No	Description of Service	Quantity (if applicable)	Unit of Measurement	Place where Services shall be delivered	The date of Completion for Services (calculated from the Contract Effective Date)
1	Ventilators- Adult	As indicated in the price schedule	As indicated in the price schedule	Vide –Place of Delivery	120 days
2	Ventilators- Neonatal	As indicated in the price schedule	As indicated in the price schedule	Vide –Place of Delivery	120 days

Schedule No. 1. Goods Supplied from Abroad (outside the Purchaser's Country)

Purchaser's Country _____						Date: _____ IFB No: _____ Alternative No: _____ Page No _____ of _____		
1	2	3	4	5	6	7	8	9
Line Item No	Description of Goods	Country of Origin	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price CIP [<i>insert place of destination</i>] in accordance with ITB 14.4(b)(i)	CIP Price per line item (Col. 5×6)	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination specified in BDS	Total Price per line item (Col. 7+8)
[<i>insert number of the item</i>]	[<i>insert description of Goods</i>]	[<i>insert country of origin of the Goods</i>]	[<i>insert quoted delivery date</i>]	[<i>insert number of units to be supplied and name of the physical unit</i>]	[<i>insert unit price CIP per unit</i>]	[<i>insert total CIP price per line item</i>]	[<i>insert the corresponding price per line item</i>]	[<i>insert total price of the line item</i>]
1	Ventilators- Adult			62 Nos.				
2	Ventilators- Neonatal			6 Nos.				
							Total Price	

Name of Bidder [*insert complete name of Bidder*] Signature of Bidder [*signature of person signing the Bid*] Date [*insert date*]

Schedule No. 2. Goods Supplied from within the Purchaser's Country

Purchaser's Country _____							Date: _____ IFB No: _____ Alternative No: _____ Page No _____ of _____	
1	2	3	4	5	6	7	8	9
Line Item No	Description of Goods	Delivery Date as defined by Incoterms	Quantity and physical unit	Unit price EXW	Total EXW price per line item (Col. 4×5)	Price per line item for inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination	Sales and other taxes payable per line item if Contract is awarded (in accordance with ITB 14.8(a)(ii))	Total Price per line item (Col. 6+7)
<i>[insert number of the item]</i>	<i>[insert description of Goods]</i>	<i>[insert quoted delivery date]</i>	<i>[insert number of units to be supplied and name of the physical unit]</i>	<i>[insert EXW unit price]</i>	<i>[insert total EXW price per line item]</i>	<i>[insert the corresponding price per line item]</i>	<i>[insert sales and other taxes payable per line item if Contract is awarded]</i>	<i>[insert total price per item]</i>
1	Ventilators- Adult		62 Nos.					
2	Ventilators- Neonatal		6 Nos.					
						Total Price		

Name of Bidder [insert complete name of Bidder] Signature of Bidder [signature of person signing the Bid] Date [insert date]

Schedule No.3:Price and Delivery Schedule - Related Services

Currencies in accordance with ITB 15.1

Date: _____

IFB No: _____

Alternative No: _____

Page No _____ of _____

1	2	3	4	5	6		7	
Service No	Description of Services (excludes inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination)	Country of Origin	The date of Completion when Related Services are performed	Quantity and physical unit	Unit price		Total Price per Service (Col. 5×6 or estimate)	
					Foreign currency	Local currency	Foreign currency	Local currency
[insert number of the Service]	[insert description of Services]	[insert country of origin of the Services]	[insert delivery date at place of final destination per Service]	[insert number of units to be supplied and name of the physical unit]	[insert unit price per item]	[insert unit price per item]	[insert total price per item]	[insert total price per item]
	Lot/Contract No. 1: Ventilators- Adult							
1	On-site assembly, testing and commissioning of the equipment			62 Nos.				
2	Tools required for assembly and maintenance of the supplied equipment			62 Sets				
3	Operation, maintenance and Service manual of the supplied equipment			62 Sets				
4	Comprehensive Annual maintenance of the supplied equipment beyond warranty period year wise as follows:-							
	Year 1			62 Nos.				
	Year 2			62 Nos.				
	Year 3			62 Nos.				
	Year 4			62 Nos.				
	Year 5			62 Nos.				
	Year 6			62 Nos.				
	Year 7			62 Nos.				
Total Price								

Name of Bidder [insert complete name of Bidder] Signature of Bidder [signature of person signing the Bid] Date [insert date]

Schedule No.3:Price and Delivery Schedule - Related Services

Currencies in accordance with ITB 15.1

Date: _____

IFB No: _____

Alternative No: _____

Page No _____ of _____

1	2	3	4	5	6		7	
Service No	Description of Services (excludes inland transportation and other services required in the Purchaser's Country to convey the Goods to their final destination)	Country of Origin	The date of Completion when Related Services are performed	Quantity and physical unit	Unit price		Total Price per Service (Col. 5×6 or estimate)	
					Foreign currency	Local currency	Foreign currency	Local currency
[insert number of the Service]	[insert description of Services]	[insert country of origin of the Services]	[insert delivery date at place of final destination per Service]	[insert number of units to be supplied and name of the physical unit]	[insert unit price per item]	[insert unit price per item]	[insert total price per item]	[insert total price per item]
	Lot/Contract No. 2: Ventilators- Neonatal							
1	On-site assembly, testing and commissioning of the equipment			6 Nos.				
2	Tools required for assembly and maintenance of the supplied equipment			6 Sets				
3	Operation, maintenance and Service manual of the supplied equipment			6 Sets				
4	Comprehensive Annual maintenance of the supplied equipment beyond warranty period year wise as follows:-							
	Year 1			6 Nos.				
	Year 2			6 Nos.				
	Year 3			6 Nos.				
	Year 4			6 Nos.				
	Year 5			6 Nos.				
	Year 6			6 Nos.				
	Year 7			6 Nos.				
Total Price								

Name of Bidder [insert complete name of Bidder] Signature of Bidder [signature of person signing the Bid] Date [insert date]

ANNEXURE- V

TECHNICAL SPECIFICATIONS-REVISED

Technical Specifications for Adult Ventilators (turbine-type)

(Lot/Contract no.1)

1. Principle - Time cycled, volume constant, pressure - controlled ventilator suitable for use with both high pressure and low- pressure Oxygen sources for adult and pediatric patients with minimum tidal volume of 50 ml for adult/ pediatric The ventilators should be an upgradeable design with software and / or hardware upgradeability for new/ future functions. Use and application:
 - a. The ventilator should be suitable for use in Adult and Paediatric patients in all critical care areas with selection between adult and paediatric modes or patient hoses.
 - b. The ventilator should have both invasive and non - invasive ventilation modes with possibility of upgrade to high Flow Oxygen therapy (if required).
 - c. Non- invasive ventilation should be possible in pressure modes.
2. Power -The ventilator should run on both mains and battery as below:
 - a. Mains power - 230 v 50 Hz with onscreen battery power indication.
 - b. Battery - Internal Battery with minimum one to two- hour battery backup with onscreen battery power indication.
3. Air source - **integrated internal (turbine).**
 - a. For delivering continuous flow upto **180 lpm or more. For achieving better leak compensation in NIV and flow demand of the patient.**
 - b. The air source should have integrated dust filters which should be easily removable and washable.
 - c. The air source should have integrated filters for delivering medical grade air with filtration up to 3 Microns.
4. Graphical Interface - All commands and settings should be through an integrated 10-inch colour touchscreen as below:
 - a. At least 3 curves from pressure, flow, volume or Capnography (optional)
 - b. The curve should be clear for easy viewing at a distance.

It should differentiate the Spontaneous & Mandatory breaths with different color in the Flow curve (optional).

- c. Optional: Any loops from PV, FV, PF should be displayed in any combination such as:
 - i. Waveforms + loops
 - ii. Single loop on screen
 - iii. Waveform + loops + trends
- 5. It should be possible to freeze the loops and calculate inflection points with a cursor.
- 6. It should be also possible to keep a reference point for loops.
- 7. Integrated Graphical trend for 24 hours should be available for monitored parameters.
- 8. Integrated Tabular trend also should be available.
- 9. There should be a day / night mode or bright display for easy viewing at night.
- 11. The waveforms and numerical readings should be freely configurable as per user wish in ANY order:
 - a) Valve response time- The ventilator should have an extremely sensitive valve with response time ≤ 5 msec for ensuring quick delivery of gases during spontaneous breathing.
 - b) Nebulizer - The ventilator should have a simple pneumatic nebulizer/ vibrating mesh technology which should be inspiration synchronized and volume compensated. This should be supplied as standard scope of supply.
 - c) Oxygen cell -The ventilator should have low operating costs with a permanent / non consumable O₂ sensor/Galvanic O₂ sensor for FiO₂ monitoring. Same should be offered as standard. The O₂ sensor should be covered under warranty / CAMC.
 - d) In case consumable / electrochemical O₂ cells are to be offered by a vendor, the same should be provided at free of charge for operational lifetime of equipment for 10 years.
 - e) Humidifier: The ventilator should be supplied with a servo-controlled humidifier with: Dual limb Adult and pediatric hoses".
- 10. Flow Sensor:

Flow sensor should be heated wire/ differential pressure/ ultrasonic or

Proximal Sensor type

or equivalent for higher accuracy and should be covered under warranty and CAMC.

11. Disposables- For highly infectious diseases, disposable patient hoses and disposable HMEs for adults and pediatrics should be offered as per scope of supply.
12. Suction / Oxygen enrichment - 100 % O₂ enrichment for 2 or more minutes with automatic time countdown.
13. Modes of Ventilation - The ventilator should have the following ventilation modes as standard with quick touchscreen-based operation and through an encoder knob for dual patient safety in case of touch screen failure / change from one mode to another:
 - a. Volume Control- Control Assist Control, SIMV with / without Pressure support
 - b. Pressure control -PC - BIPAP/APRV/ equivalent mode as one mode from intubation to extubation, PC- AC.
 - c. Sigh -pressure limited sigh/ volume oriented sigh to avoid volutrauma/ barotraumas.
14. CPAP with / without Pressure Support.
15. PRVC/ Autoflow or equivalent Dual Control Mode for:
 - a. Delivering tidal volume at lowest possible airway pressure.
 - b. Should be possible to combine in all volume control modes and should allow spontaneous breathing in all volume-controlled modes.
16. Apnea backup ventilation mode with adjustable tidal volume and rate.
17. MMV/ASV/ AVM/Auto Mode/PRVC-SIMV or equivalent single mode for ventilating from control mode to spontaneous.
18. *Non - Invasive Ventilation:*
 - a. The alarm limits and compensation criteria should get modified based on selection of Tube / Mask ventilation mode for all the modes.
 - b. The unit should be supplied with non- vented Face / Nasal Masks with gel cushion for face, adjustable cushion pad for nasal bridge and magnetic connectors for quick fastening - reusable or disposable should be specified in 3 sizes (S, M, L) and preferably from same vendor.
19. Inspiration Hold key for maximum of 10 to 15 seconds.

20. Expiration Hold for Maximum of 10 seconds / Auto PEEP maneuver with trapped volume measurement.

21. Should have BTPS compensated settings for:

a) Tidal Volume in Volume modes	➤ Tidal Volume in Volume modes: 50 ml to 2000 ml
b) Inspiratory Pressure	➤ 1-50 cmH ₂ O or more.
c) CPAP/PEEP / Intermittent PEEP	➤ CPAP/PEEP / Intermittent PEEP: 0-35 cmH ₂ O
d) Inspiratory Rate	➤ Inspiratory Rate: 5 - 60 bpm or more.
e) Inspiratory Time	➤ Inspiratory Time: 0.3 - 5 sec or more.
f) Flow acceleration/ Flow adjustment	➤ 5 - 200 mbar / inspiratory flow up to 180 lpm
g) Flow Trigger (preferred for higher sensitivity)	➤ 1 - 15 lpm
h) Pressure support	➤ 0 - 50cmH ₂ O above PEEP
i) Inspiratory hold	➤ 0 - 10 sec or more.
j) Expiratory hold	➤ 0 - 10 sec
k) Sigh (Pressure oriented)	➤ 0 - 35 cmH ₂ O, every 3 minutes for 2 cycles
l) FiO ₂	➤ 21-100%
m) Apnea alarm timing	➤ 15 - 60 seconds
n) Automatic altitude compensation	➤ 700 - 1060 hPa / mbar / CmH ₂ O
o) Inspiration termination Criteria	➤ 5 - 75 % of Peak Inspiratory Flow or 3-30 litres / minute or more.
p) High Flow Oxygen Therapy (optional)	➤ 2 - 80 lpm or more

22. Should have BTPS compensated real time monitoring of:

- a) Pressure - Peak, Plateau, Mean, CPAP/PEEP.
- b) Intrinsic PEEP with trapped Volume.
- c) Tidal Volume - Set (Inspired), Monitored (expired), spontaneous.
- d) Minute volume - Total, spontaneous. Leak.
- e) Peak Flow, Plateau time.

- f) Frequency / Rate - Set (Inspiratory), Spontaneous, total I: E Ratio.
 - g) FiO2 measured.
 - h) Lung Mechanics - Resistance, Compliance, Rapid Shallow Breathing Index (RSB).
 - i) Capnography (optional): mainstream sensor based with display of ETCO2 curve and values.
23. Should have three level (Advice - Caution - Warning) ISO alarm management with different audio visual color coded alarms, including corrective help messages on the screen for:-
- a) High/ Low Pressure
 - b) High / Low Minute Volume
 - c) High Rate
 - d) High Tidal Volume
 - e) High / Low ETCO2 as part of standard supply.
 - f) Apnea / apnea alarm time
 - g) High / low O2 % (automatic settings)
 - h) Oxygen line failure
 - i) Technical error (with error code)
 - j) Blocked / missing in-line filters
 - k) Incorrect /abnormal settings - with warning message
 - l) Scope of supply should include
24. Basic Unit (220- 240 V) with integrated 10- inch or more touch screen and integrated internal battery to power internal turbine / air source.
25. Modular corrosion free Trolley.
- i. Should be imported, of same make as the quoted brand and no local substitute will be accepted.
 - ii. Should have mounting facility for humidifier.
26. Servo controlled humidifier for non - invasive, invasive and high flow oxygen therapy with 1 set reusable Silicon Hose set for Adults.
- 1 Set reusable silicon Hose set for children with chambers for adult and paediatric patients.
- High flow oxygen therapy accessories –optional (price to be quoted separately).
- a) Reusable heated / differential flow sensor - 2 Nos, should be covered under warranty and CAMC.
 - b) Reusable autoclavable expiratory valve - 2nos. (1 on machine and 1 on standby)

- c) O₂ cell - should be non-consumable and should lifelong.

In case consumable / electrochemical O₂ cells are to be offered by a vendor, the same should be provided at free of charge for operational lifetime of equipment for 10 years.

- d) Disposables:

- i. Disposable Adult hose set - 50 Nos.
- ii. Disposable Pediatric hose set - 50 Nos.
- iii. Disposable adult HMEs for use from 200 - 1500 ml
- iv. Disposable pediatric HME for use from 50 - 200 ml

High flow oxygen therapy accessories –optional (price to be quoted separately).

- e) Oxygen connecting Hose - 5 meters.

27. Nebuliser - pneumatic, inspiration synchronized.

28. Hinged arm Support for patient circuit - should be imported, of same make as the quoted brand and no local substitute will be accepted / should be offered.

29. Integrated RS232C Interface.

30. Test Lung should be supplied with the equipment.

31. Quality Standards and support requirements:

- a. The offered unit should have European CE or USFDA certificate.
- b. The unit should comply with relevant IEC Certification, Environmental conditions, Electromagnetic compatibility ICE / EN 60601-1-2.
- c. Indian Subsidiary / dealer should have nationwide network, support offices and must be also to ISO 9001 / ISO 13485 Certified.

32. The following items should be part of optional supply:

a. Low Pressure Oxygen (LPO) should be standard with in the ventilator for intra hospital transport and to connect to the oxygen cylinders directly in case of emergencies.

b. Connection for use with low pressure source such as Oxygen concentrator.

c. O₂ flow: 0.35 - 10 l/min

d. Connecting hose nozzle 6 mm diameter.

33. APRV mode: adjustment of P - high, P - low, T- high, T-Low

34. Capnography: mainstream sensor based with display of ETCO₂ curve and values as optional. The rate for optional items should be quoted

separately in the price bid.

TECHNICAL SPECIFICATIONS FOR NEONATAL VENTILATOR (COMPRESSOR OR TURBINE TYPE) WITH HIGH FREQUENCY OSCILLATORY VENTILATION
(Lot/Contract no.2)

1. General Specification

1. Advanced technology ventilator for use in NICU, suitable for ventilating premature and term neonates, specifically designed for neonates/ infants.
2. Screen 14" to 17" TFT LCD touch screen.
3. Size of ventilator only:
 - Width: 300-600 mm
 - Height: 350-1500 mm
 - Depth: 400-700 mm
4. Weight – 20 - 30 kgs
5. Should have facility for invasive and non-invasive ventilation.
6. Should work either on external compressor or turbine or medical gas pipeline system.
7. Proximal flow sensor should be hot wire anemometer.
8. Distal flow sensor should be permanent.
9. Flow and pressure triggering should be available and should be color differentiated on waveforms.
10. Should have a combination of 3 waveforms, 2 loops, controlled values and patient values all presented together clearly for diagnostic purposes.
11. Trends should be available for 72 hours.
12. 60 min battery backup should be available which is expandable if needed as option.

2. Ventilator Modes

- I. Conventional Ventilation
- II. HFOV only
- III. HFOV + CMV

I. Conventional Ventilation

- a) PC (Pressure Controlled)
 - ✓ CMV
 - ✓ Assist control (AC)
 - ✓ SIMV

- ✓ SIMV+PSV
- ✓ PC- Volume guarantee (volume limited/Volume targeted)
- ✓ PRVC (Pressure regulated volume control)
- ✓ MMV – Mandatory minute ventilation
- b) VC (Volume Controlled)
 - ✓ SIMV
 - ✓ SIMV + PS
- c) Noninvasive ventilation
 - ✓ CPAP, CPAP with PS
 - ✓ Proportion pressure support (PPS)
 - ✓ NIPPV

II. PC – HFOV

III. HFOV + CMV

3. Enhancements

- Apnea ventilation – Flow trigger
- Sigh
- Volume Guarantee (VG)
- Smart Pulmonary view (Optional feature)
- Automatic Tube Compensation ® (ATC)
- Auto Release (in PC – APRV) (Optional feature)
- HFO – Sigh
- Volume Guarantee for HFO (HFO – VG)
- Leak compensation – O2 therapy
- Medication nebulization (optional)
- Maneuver functions Inspiration hold/manual
- Pre Oxygenation

4. Ventilator Settings

Conventional settings

- a) Tidal Volume (ml) : 1-200
- b) Resp. rate: 5-150
- c) Minute Volume (L/min): 0.1-20
- d) PEEP (CmH2O): 1-50
- e) PIP (CmH2O) 0-65 cm H2O
- f) I:E Ratio: 1:5 – 3:1
- g) Inspiratory time 0.1 – 3.0 seconds

- h) Flow Trigger (L/min): 0.2 -5 L/min
- i) Pressure Trigger (CmH₂O): -1 to -20
- j) Inspiratory flow 2-30 L
- k) Rise time for pressure support (Slope) Neonates 0 to 1.5s
- l) O₂ concentration (FiO₂) 21 to 100 Vol %

Settings for HFOV

- a) Frequency range: 3-20 Hz
- b) I:E ratio: 1:1, 1:2, 1:3
- c) P mean: 5-40 cm H₂O
- d) FiO₂: 21-100 %
- e) Tidal Volume (ml): 0.2-40

5. Alarms (Auto set when patient controls are adjusted or may be manually adjusted) All alarms should be colour coded.

- a) High pressure: Range 10-110 cm H₂O; Resolution: 0.5 cm H₂O
- b) Cycle Fail
- c) Low pressure: minus 10 cm H₂O to 10 cm H₂O below high pressure threshold
- d) Low tidal volume: Range 0-200 ml, resolution: 0.2 ml
- e) Low minute volume: range 0-0.02L below high minute volume threshold resolution: 0-.01 L
- f) High Minute Volume: Range 0.02 – 18L; Resolution 0.1 L
- g) Apnoea time: stable in CPAP mode/when backup rate less than 10 BPM. Range 5-60 seconds; Resolution 1 second.

6. Special Functions

- a) Manual breath
- b) Static measurements (Optional feature)
- c) Nebulization
- d) O₂ Boost level
- e) Leakage compensation
- f) Circuit Compensation
- g) Edi Monitoring (Optional feature)
- h) Previous mode
- i) Backup ventilation
- j) Apnea Management.
- k) Pause Oscillation. (Optional feature)

Suction support

- a) Pre-Oxygenation Time: Max. 2 min
- b) Post- Oxygenation Time: Max. 1 min
- c) Patient Disconnected: 1min
- d) VGA option should be available to export screen.
- e) Help function should be available.

7. Technical Specification

- a) Mains power connection: 100V to 240 V, 50/60 Hz
- b) Current consumption at 230V- max 1.4 A
- c) Power consumption: maximum 300 W
- d) Digital machine output: via an RS232 C interface
- e) Gas supply
 - O2 gauge pressure: 39 to 87 psi
 - Air gauge pressure: 39 to 87 psi

8. Accessories

1. The ventilator should be mounted on a trolley with non-rust able steel iron cast wheels with lock.
2. The ventilator should be compatible with standard available disposable ventilator circuits. Two reusable heated wire ventilator circuits to be provided with each ventilator.
3. Proximal flow sensors, hot wire anemometer type, two per each ventilator should be provided.
4. Standard servo-controlled humidifier with heating element and temperature probe (2 nos.) compatible with dual side heated wire ventilator circuits should be provided.

9. Maintenance

- Warranty (3 years from date of installation) and CAMC for 7 years after warranty should include Flow sensor, O2 sensor and Battery.
- The cost of flow sensor and the O2 sensors should be mentioned if not included in the CAMC.

10.**Approvals:** Should be European CE/FDA certified.

11.The following specification are optional features:-

- a. Future upgradable to have measurement of SPO2 by closed loop oxygen control facility to reduce period hypoxemia and hyper-oxemia significantly and it should

work in all modes including invasive and non-invasive. Closed loop oxygen control should use feedback every second for better clinical outcomes using the same equipment.

- b. Trolley and all accessories to be from same manufacture and OEM for better quality and compliance.
- c. Non interchangeable aspiratory and expiratory limb to avoid confusion while using the ventilator.

ANNEXURE VI**Place of Delivery**

Sl. No	Name of the Tertiary Care Hospitals	Quantity (in nos.)	
		Ventilators-Adult	Ventilators-Neonatal
1.	Govt. Rajaji Hospital, Madurai	30	3
2.	Govt. Kilpauk Medical College Hospital, Chennai	10	0
3.	Govt. Coimbatore Medical college Hospital, Coimbatore	22	3
	Total	62	6