**National Kidney and Transplant Institute**
**Special Bids and Awards Committee**
East Avenue, Quezon City 1100
981-0300 / 981-0400 local 1157
http://www.nkti.gov.ph/

# SUPPLEMENTAL BID BULLETIN NO. 21-083-1

## *Re-bidding for One (1) Lot Supply, Delivery, Testing and Commissioning of Two (2) units Mechanical Ventilator with Fully Integrated Electrical Impedance Tomography*

**Bid Reference IB No. 21-083**

This Supplemental Bid Bulletin **No. 21-083-1** is being issued to clarify, modify and ament items/specifications in the Bidding Documents for the aforecited project, to wit:

**A. Changes in some items Technical Specifications**

| Particulars | Changes |
|---|---|
| **Project Title** | **Revised Project Title** |
| Re-bidding for One (1) Lot Supply, Delivery, Testing and Commissioning of Two (2) units Mechanical Ventilator Fully Integrated Electrical Impedance Tomography | Re-bidding for One (1) Lot Supply, Delivery, Testing and Commissioning of Two (2) units Mechanical Ventilator with Fully Integrated Electrical Impedance Tomography |
| **Schedule of Requirements** | **Revised Schedule of Requirements** |
| Within One Hundred Twenty (120) calendar days | One Hundred Twenty (120) calendar days |
| **Technical Specifications** | **Revised Technical Specification** |
| **Ventilation Modes** | **Ventilation Modes** |
| APRV, PRVC, Duo-PAP or its equivalent | APRV or PRVC or Duo-PAP or its equivalent advance ventilator settings |
| **Primary Setting** | **Primary Setting** |
| Pressure/Flow Trigger (cmH2O)<br>-1 to -20 | Pressure Trigger (cmH2O): -1 to -20 or better<br>OR<br>Flow Trigger (L/min.): 0.5 to 10 liter or better |
| Inspiratory Time (s) 0.1 - 8 | Inspiratory Time (s) 0.1 - 8 or better |
| Pressure Control (cmH2O) 3 - 60 | Pressure Control or Functional Equivalent (cmH2O) 3 – 60 or better |
| **Alarms** | **Alarms** |
| Low Oxygen Pressure | Low or Insufficient or No Oxygen Pressure |
| Ventilator Inoperative | Ventilator Inoperative or failure |

| | |
|---|---|
| | **Please see attached Revised Technical Specification** |
| | **Please see attached Revised Schedule of Requirements** |
| Bid Proposal Form | **Please see attached Revised Bid Proposal Form** |

This Supplemental Bid Bulletin including Annexes, if any, shall form part of the Bid Documents. Any provisions in the Bid Documents inconsistent herewith is hereby amended, modified and superseded accordingly.

For guidance and information of all concerned.

Issued this 12th day of May 2021 in Quezon City.

**JOSEPH MICHAEL A. JARO, MD**
**SBAC Chairman**

**REVISED BID PROPOSAL FORM**

**IB No. 21-083: Re-bidding for One (1) Lot Supply, Delivery, Testing and Commissioning of Two (2) units Mechanical Ventilator with Fully Integrated Electrical Impedance Tomography**

**Opening of Bids: ______________________________**

**BAC Conference Room, G/F NKTI Main Building**

| Item No. | Particulars | QTY/UOM | Approved Budget Cost | | Supplier | BID PROPOSAL | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | Unit Cost | Total Amount | | Unit Cost | Total Amount | |
| 1 | Mechanical Ventilator with Fully Integrated Electrical Impedance Tomography | 2 units | 7,000,000.00 | 14,000,000.00 | | | | |
| | | | | | | | | |
| **GRAND TOTAL** | | | | **14,000,000.00** | | | | |

______________________ **Printed Name of Company**

______________________ **Date**

______________________ **Signature**

______________________ **Address**

______________________ **Telephone Number**

______________________ **Printed Name and Designation**

Republic of the Philippines
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# *Section VI.*

# *Revised Schedule of Requirements*

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

| Item Number | Description | Qty./ UOM | Total | Delivered, Weeks/Months | Place of Delivery |
|---|---|---|---|---|---|
| 1 | Mechanical Ventilator with Fully Integrated Electrical Impedance Tomography | 2 units | | One Hundred Twenty (120) calendar days | NKTI SMD |

**Standard Payment Terms: P**ayments shall be made promptly by NKTI, within sixty (60) days from submission of complete documents *i.e.* invoice or claim by the Supplier.
**Conforme:**

Name: ______________________________________________________________

Legal Capacity: _______________________________________________________

Signature: ___________________________________________________________

Duly authorized to sign the Bid for and behalf of: ____________________________

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# *Section VII*
# *Revised Technical Specifications*

***Instruction:***
*Bidders must state in the column provided either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.*

| Item | Specification | Statement of Compliance |
|---|---|---|
| 1 | **MECHANICAL VENTILATOR WITH FULLY INTEGRATED ELECTRICAL IMPEDANCE TOMOGRAPHY** | |
| | **Electrical Impedance Tomography** | |
| | **General Description** | |
| | Electrical Impedance Tomograph, which has been specially designed for use in clinical routine with continuous real-time dynamic images of ventilation and intrapulmonary air distribution at the bedside | |
| | **Capability** | |
| | Continuous information about regional distribution of ventilation, displayed as images, waveforms and parameters | |
| | **Basic Hardware and Accessories** | |
| | The offer includes all equipment and accessories required for operation. | |
| | 15 inch or more touch screen monitor/display | |
| | Power supply module with internal battery in case of line power failure | |
| | Trolley | |

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| | Trunk Cable | |
| | RS232 Interface for the transfer of data from ventilators | |
| | 2 sets of Electrode belt per unit - S, M, L, XL, and XXL sized | |
| | 2 sets of Patient Cable - S, M, L, XL and XXL sizes | |
| | Set ECG electrodes good for first 10 patients per unit | |
| | **Operating Concept** | |
| | The EIT device can be operated in induction rooms, recovery rooms, operating rooms and intensive care unit | |
| | The device is suitable for use on patients greater than 5 years of age with chest circumferences between 70 and 150cm | |
| | With automatic software self-test when device is switch on and with stand-by functionality | |
| | A function for freezing the display is available, for further analysis | |
| | Screens hoot can be exported to a USB storage medium | |
| | A reference measurement can be made with display of time of measurement, which also includes image, waveforms and parameters | |
| | The device indicates the skin-electrode contact | |
| | Three Real-time waveforms can be imported from ventilators (e.g. volume, PAW, Flow) | |
| | The imported volume waveform can be displayed on the main screen of the EIT device | |
| | Trend data can be imported from compatible ventilators with a selection from different parameters (e.g. PPEP, PIP, RR, VT, etCO2 | |
| | EIT data files can be recorded | |
| | Recorded EIT data files are stored on the hard disk of the EIT device | |
| | The recorded EIT data files can be reviewed (on the device) for further analysis | |
| | EIT data files may be transferred to a USB storage medium | |
| | EIT data files can be reviewed using provided software on a separated computer | |

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|---|---|---|
| | **Monitoring** | |
| | The graphic user interface is touch sensitive with a diagonal measurement of at least 15inch | |
| | A "Cause and Remedy" table for displayed messages is available (in the Instruction for use) | |
| | A 15 electrodes mode is available that is automatically used if one electrode has non-sufficient skin contact | |
| | At least 9 fixed keys for frequently used functions are available on the main screen with 4 different screen views available | |
| | The main monitoring screen can simultaneously display 5 or more impedance waveforms and related numeric data | |
| | The relative impedance changes of the entire electrode plane are represented by a waveform display | |
| | The electrode plane can be divided, by the user, into 4 regions | |
| | Each region of interest is represented by an individual impedance waveform representing relative impedance changes in the defined areas | |
| | This distribution of ventilation within each region (as a percentage of ventilation within the electrode plane) is displayed | |
| | A dynamic image continuously displays the distribution of ventilation | |
| | An image can show distribution of ventilation for the last detected breath | |
| | An image can show distribution of ventilation averaged over the last minute | |
| | The local variation of tidal volume can also be displayed as an averaged value over the last minute | |
| | The distribution of ventilation can be trended for up to a 120 minute | |
| | Two points of interest in the 120 minutes trend of distribution of ventilation can be selected and used to inform a differential image | |
| | Changes, within the electrode plane, of end-expiratory lung impedance can be trended over 120 minutes OR more | |
| | Changes of end-expiratory lung impedance over a period of 120 minutes can be displayed for each user selected region of interest | |
| | Two points of interest in 120 minutes trend of changes of regional end-expiratory status at the current cursor positions 1 and 2 in relation to the global tidal variation is displayed as a numeric value | |

| | | |
|---|---|---|
| | The number of breath detected each minute can be displayed | |
| | An image can show the ventilated pixels for the last detected breath | |
| | An image can show the ventilated pixels for trended data of up to 120 minutes | |
| | **Data Recording and Analysis** | |
| | Patient data such as name, age, or date of birth can be entered | |
| | EIT files can be recorded | |
| | Recorded EIT data files are on the hard disk of the EIT device | |
| | The recorded EIT data files can be reviewed (on the device) for further analysis | |
| | **Mechanical Ventilator** | |
| | Patient type adult and pediatric | |
| | LCD or LED colored touch screen | |
| | Storage and display of up to 1000 events with date and time stamp | |
| | Universal breathing circuit compatible | |
| | Built-in nebulizer | |
| | Apnea back-up ventilation | |
| | Non-heated or heated re-usable flow sensor | |
| | Integrated Battery Power 2-4 hours | |
| | Extensive monitoring package: waveform, loop and trend display | |
| | Turbine with compressor technology | |
| | Auto Volt 100-240VAC, 50-60Hz | |
| | Automatic leak compensation during non-invasive ventilation | |
| | **Ventilation Modes** | |
| | Volume Control, Pressure Control | |

| | | |
|---|---|---|
| | SIMV, PSV, CPAP, SPONT | |
| | APRV or PRVC or Duo-PAP or its equivalent advance ventilator settings | |
| | BIPAP | |
| | NIV | |
| | **Monitored Parameters** | |
| | Tidal Volume | |
| | Minute Ventilation | |
| | Breathe Rate | |
| | Spontaneous Rate | |
| | Expiratory Time | |
| | Inspiratory Time | |
| | I:E Ratio | |
| | Peak Pressure | |
| | Mean Airway Pressure | |
| | RSBI | |
| | PEEP | |
| | FiO2 | |
| | **Manual Controls** | |
| | Expiratory Hold Maximum 6 sec | |
| | Inspiratory Hold Maximum 6 sec | |
| | **Primary Setting** | |
| | Rate (bpm) 4 - 90 | |
| | Tidal Volume (ml) 15 - 2000 | |
| | Minute Volume (l/min) 0.5 - 60 | |

| | | |
|---|---|---|
| | SIMV Rate (bpm) 1 - 60 | |
| | FiO2 (%) 21 - 100 | |
| | I:E Ratio 1:10 - 4:1 | |
| | PEEP (cmH2O) 1 - 50 | |
| | Pressure Trigger (cmH2O): -1 to -20 or better<br>OR<br>Flow Trigger (L/min.): 0.5 to 10 liter or better | |
| | Inspiratory Time (s) 0.1 - 8 or better | |
| | Pressure Control or Functional Equivalent (cmH2O) 3 – 60 or better | |
| | **Alarms** | |
| | High/Low Pressure | |
| | High/Low Minute Volume | |
| | High/Low Volume | |
| | Low or Insufficient or No Oxygen Pressure | |
| | Ventilator Inoperative or failure | |
| | **Standards** | |
| | IEC and UL Compliant | |
| | **Accessories** | |
| | Heated Humidifier with chamber | |
| | Mobile Trolley | |
| | Test Lung | |
| | Oxygen Hose | |
| | Oxygen Gauge | |
| | Flow Sensor five (5) pieces per unit | |
| | Un-interruptible Power Supply | |
| | - On-Line | |

| | | |
|---|---|---|
| | - 1000VA | |
| | - 220 +/- 10% VAC, 60Hz Single Phase or AUTOVOLT | |
| | - Built-in Energy Meter | |
| | - Graphical LCD Display | |
| | * Input & Output Voltage | |
| | * Output Frequency | |
| | * Runtime | |
| | * Load | |
| | * Battery Health | |
| | - Bypass Switch | |
| | One Pedia and Adult disposable patient circuit | |
| | Support or Flex Arm | |

**Conforme:**

Name: ____________________________________________________________

Legal Capacity: _____________________________________________________

Signature: _________________________________________________________

Duly authorized to sign the Bid for and behalf of: ___________________________