Republic of the Philippines
Department of Health
Cagayan Valley Regional Office
**REGION II TRAUMA AND MEDICAL CENTER**

**BIDS AND AWARDS COMMITTEE**

**SUPPLEMENTAL/BID BULLETIN NO. 1**
***Bidding for the Supply, Delivery, Installation, Testing and Commissioning of One (1) Unit Computed Tomography (CT) Scan Machine various Medical Equipment*** *with* ***Identification No. R2TMC-BAC2-2023-14***

In response to the issues below, this Bid Bulletin is issued to modify or amend the Bid Documents. This shall form an integral part of the Bid Documents.

1. Final delivery period for the project is: ***One Hundred Twenty (120) calendar days*** upon receipt of the approved Purchase Order.

2. Under Bid Data Sheet, ITB Clause 20.1, the statement "As part of post-evaluation process, bidders must have an available demo unit for inspection and actual testing by the end-users. Absence of demo unit shall be a ground for post-disqualification." shall be deleted, and instead, the final requirement will be as follows:

   ***"As part of post-evaluation process, site visit of installed units shall be required. Absence of site visit of installed units by bidders shall be a ground for post-disqualification."***

3. ***Certificate of Site Inspection and Affidavit of Site Inspection*** to be issued by the end-user and the Engineering Department shall be submitted during the opening of bids.

4. The attached document marked as Annex "A" shall be the ***final Technical Specifications*** for the CT Scan Machine.

**EDITHA V. AGUINALDO, MPA, MBA**
Chairperson, BAC 2 (Supplies & Medical Equipment)
*EVA/stn*

Posted: March 27, 2023

*DAAA/mdbl*

Annex "A"

# Technical Specifications

<table>
<tr><td colspan="4">Republic of the Philippines<br>Department of Health<br>Regional Office 02<br>Region II Trauma and Medical Center</td></tr>
<tr><td>Item No. 1</td><td>Brand New Computed Tomography Machine (64 detector rows/128 reconstructed slices)</td><td>Quantity<br>ABC</td><td>1 unit<br>P60,000,000.00/unit</td></tr>
<tr><td colspan="2">Name of Manufacturer:</td><td colspan="2">Country of Origin:</td></tr>
<tr><td colspan="2">Brand:</td><td colspan="2">Model:</td></tr>
<tr><td colspan="2">PURCHASER'S SPECIFICATION</td><td colspan="2">SUPPLIER'S SPECIFICATION</td></tr>
<tr><td colspan="2">A. Summary Description of Equipment:<br>The equipment is capable performing routine and advance CT scan procedures (i.e. cardiac CT procedures)<br><br>B. Physical characteristics or attributes, form and design of the equipment:<br><br>1. Gantry<br>1.1. Aperture: at least 70cm<br>1.2. Tilt range (degrees): - 24 to +30 or better<br>1.3. Rotation Speed: 0.35 seconds or faster<br>1.4 With at least three laser markers<br>1.5 Examination controls and display are available on the gantry or remotely within the examination room<br><br>2. Patient Table<br>2.1. Horizontal scannable range (helical): 1580 mm or higher<br>2.3. Maximum Horizontal speed: at least175 mm/sec<br>2.4. Maximum Helical Pitch: at least 1.5<br>2.5. Vertical movement range (out of gantry): ≤530 to ≥880 mm<br>2.6. Couch load capacity: at least 200 kg<br>2.7. Cradle travel accuracy/ reproducibility (mm): +/- 1.0 mm or better<br><br>3. Detector and Data Acquisition System</td><td colspan="2"></td></tr>
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| 3.1. Number of slices 128 or higher<br>3.2. Number of detector rows in z direction: at least 64<br>3.3. Detector width at isocenter/collimation: at least 40 mm<br>3.6. Total number of elements: at least 43,000<br><br>**4. Generator**<br>4.1. Generator type: High Frequency with computer control<br>4.2. Power (kW): at least 70 kW<br>4.3. kV selection: at least 4 kV stations<br>4.4. Minimum Tube Voltage: 80 kV or lower<br>4.5. Maximum tube voltage: 140 kV or higher<br>4.6. mA selection should be available<br>4.7. mA increment: 5 mA or below<br>4.8. max mA: at least 600 mA<br><br>**5. Tube**<br>5.1. Anode heat storage (MHU): at least 7 MHU<br>5.2. Equivalent Anode Heat Capacity: at least 17 MHU<br>5.3. Max anode heat dissipation: at least 1060kHU/min<br>5.4. Tube cooling type: Oil / Air (without chiller)<br>5.5. Must be dual focal spot<br><br>**6. Control Console**<br>6.1 Console type: All-in-one console capable of scan, acquisition and post processing<br>6.2. Display Monitor: dual monitor with at least 19 inches at 1280 x 1024 Resolution or better OR Single monitor with at least 23" at 1920 x 1080 resolution or better<br>6.3 RAM: At least 16 GB or manufacturer's latest specification<br>6.4. Graphics Card: manufacturer's latest specification<br>6.5. Total internal disk storage of at least 750 GB storage for system/application, image and raw/scan disk data or manufacturer's latest specification<br>6.6. Additional Storage: CD/DVD combination drive<br>6.7. HIS / RIS Interface/ Modality Worklist / DICOM MPPS: must be Available – HL7 compatible<br>6.8 DICOM Viewer: Support for external DICOM USB media and preference | |

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| management tool to exchange preferences across users<br>6.9 With keyboard, mouse and mouse pad<br><br>**C. Functionality and Performance:**<br>**1. Scan Modes and Settings**<br>1.1. Must have work flow and operational efficiency enhancements through automatic patient positioning with the use of camera and artificial intelligence<br>1.2 Must have editable scan protocols/ program available for different body parts<br>1.3 Must have axial and helical scanning<br><br>**2. Image Reconstruction**<br>2.1. Scan Field of View: 50 cm or higher<br>2.2. Minimum Display Field of View (DFOV): 5.0 cm<br>2.3. Slice thickness: 0.625mm or thinner<br>2.4. Reconstruction matrix: at least 512 x 512<br>2.5. Display matrix: at least 1024 x 1024<br>2.6. Reconstruction time: at least 55 images/frames per second<br>2.7. Must have iterative reconstruction or equivalent technology<br><br>**3. Dose Management**<br>3.1. Must adhere to As Low As Reasonably Achievable (ALARA) Principle<br>3.2. Dose reporting: must be available<br>3.3. Dose modulation technique: must be available<br>3.4. Electrocardiogram (ECG) dose modulation: must be available<br>3.5. Pediatric-specific dose control: must be available<br>3.6. Filters: must be available<br><br>**4. Clinical Facilities and Applications**<br>4.1. Helical Image reconstruction algorithm and approach must be available<br><br>4.2. Axial/ sequential Image reconstruction algorithm and approach must be available<br>4.3 Bolus tracking<br>4.4. Metal Artifact reduction Software<br>4.5. Vessel Analysis Software<br>4.6. Bone Removal/Subtraction software<br>4.7. CT Neuro Perfusion | |

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| 4.8 Advance Cardiac, coronary and vascular acquisition software<br>4.9 Adaptive scanning for moderate/high heart rates and irregular rhythm or equivalent<br>4.10. Coronary Motion Correction Algorithm<br>4.11. Prospective ECG gated scan<br>4.12. Retrospective helical ECG gated reconstruction<br>4.13 Advanced Software Applications on workstation<br>4.13.1. Vessel Analysis Software<br>4.13.2. Bone Removal/Subtraction software<br>4.13.3. CT Cerebrovascular Auto Segmentation, CT Subtraction<br>4.13.4. CT Perfusion Analysis, CT Volume Perfusion<br>4.13.5. Thoracic Analysis Software, Lung Disease Assessment<br>4.13.6. Lung Nodule Analysis Software<br>4.13.7. CT Pulmonary Analysis<br>4.13.8. Calcium Scoring<br>4.13.9. Cardiac Plaque Assessment<br>4.13.10. Advance Coronary CT/Cardiac capabilities<br>4.13.11. Transcatheter Aortic Valve Replacement (TAVR) or Transcatheter Aortic Valve Implantation (TAVI) Planning software<br>4.13.12. Myocardial Defect Assessment<br>4.13.13. Comprehensive Cardiac Function Analysis<br>4.13.14. Advance Oncology Software / CT Lesion Analysis<br>4.13.15. Hepatic Liver Analysis Software / CT Liver Analysis<br>4.13.16. CT Colon Analysis / Virtual Colonoscopy<br>4.13.17. Stroke Management / Application Software for Hemorrhagic and ischemic<br>4.13.18. Image Fusion Software with other modalities<br>4.13.19. Dental Scan software<br>4.13.20 Can be upgraded to perform CT fluoroscopy<br><br>**D. Safety Features:**<br>-Emergency stop button must be available on the control console and gantry<br>-Manual override must be available for patient table movement in case of power outage<br><br>**E. Convenience Features:** | |

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| -N/A<br><br>**F. Accessories and Consumables**<br><br>**1. One (1) Unit Post Processing Workstation (to include 1 workstation table and chair)**<br><br>1.1. Hardware type/Processor: at least 6 Core, minimum 3.0 GHz<br>1.2. RAM: 16 GB or higher<br>1.3. Graphics Card: at least 1 GB<br>1.4. OS and Applications: at least one (1) 256 GB SSD<br>Must have the applications and processing software capability of the operating console computer including 3D analysis software<br>1.5 Image storage: at least two (2) 512GB SSD in RAID configuration for image protection and redundancy<br>1.6. Archival Storage: Internal DVD Writer drive for read/write of DICOM CD/DVD media, read/write of Data Export CD/DVD data and service use (DVD Install)<br>1.7. Display Monitor: dual or single configuration, minimum 19" LCD dual, 23" for single monitor at least 2MP<br>1.8 With at least one (1) unit print, scan, copy printer<br>1.9 With keyboard, mouse, mouse pad and speakers<br><br>**2. Set of Patient Restraints**<br><br>**3. Patient Positioning Tools**<br><br>**4. Manufacturer's phantoms for calibration AND American College of Radiology (ACR) Image Quality Phantom (bubble level included) for quality control and conformance/performance testing. A storage rack for the phantoms must be provided.**<br><br>**5. One (1) TVSS (Transient Voltage Surge Suppressor)**<br><br>**6. One (1) Dual Barrel Contrast Injector**<br><br>**7. One (1) UPS for the CT Scan Unit- 30-minute back-up time**<br><br>**8. One (1) UPS for the post-processing workstation- 30 minutes back-up time** | |

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| **9. One (1) Transformer sufficient for CT machine**<br><br>**10. One (1) DICOM Printer for Dry Films. Capable of printing 14 x 17" and 8 x 10" dry film sizes**<br><br>**11. One (1) Gigabit 8 port network switch**<br><br>**12. One (1) Power distribution Panel**<br><br>**13. One (1) Console Table and Chair**<br><br>**14. One (1) Lead Glass (1.2m x 1.0 m) at least 2 mm lead equivalence**<br><br>**15. Radiation Accessories:**<br>15.1. Two (2) sets Lead Gown with hangers<br>15.2 Two (2) sets Gonadal Shield<br>15.3. Two (2) sets Thyroid Shield<br>15.4. Two (2) sets Hand Gloves<br>15.5. Two (2) sets Eye Goggle<br><br>**16. Two (2) brand new inverter type air conditioning units for the scan room 3-ton cabinet with dedicated circuit breaker**<br><br>**17. One (1) brand new inverter type air conditioning unit for the console room (at least 2.5 HP) with dedicated circuit breaker**<br><br>**18. Two (2) units dehumidifier for at least 30 sqm coverage**<br><br>**19. One (1) unit Emergency cart (with locking wheels, at least 4 drawers, with tray and IV pole with 4 hooks)**<br><br>**20. Patient Intercom/Two-way communication system**<br><br>**G. Electrical Requirements**<br>-220V, 60Hz. Appropriate Transformer will be provided by the winning bidder<br><br>**H. Quality Certifications**<br>-Supplier must submit an ISO 13485:2016 product | |

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| compliance certificate or equivalent<br>- European Conformity Mark must be available if the unit is also marketed in the European Union<br><br>**Other Terms and Conditions of Acceptability** (To form part of the post-qua requirements.)<br><br>1. Bidder/Supplier to submit planning guide for the existing room for the proposed system.<br>2. Three (3) years warranty for the CT Scan system including accessories with quarterly preventive maintenance. Warranty starts on the date FDA Physics team's satisfactory report.<br>3. Certificate of calibration must be provided per year during the warranty period.<br>4. To provide cost estimates for repairs and consumables during the economic life of the machine.<br>5. Complete manuals (operator, installation, QC, service etc.) must be endorsed to the end user.<br>6. All operating system and application software included in the package must be genuine/ licensed.<br>7. The system must be integrated with existing PACS/RIS of the hospital<br>8. Bid offer is in the Philippine peso to include taxes and duties, transportation to site, delivery, installation and PH-FDA conformance testing expenses on site<br>9. Certification of exclusive distributorship or authorized distributorship from the manufacturer for a particular territory must be provided.<br>10. Equipment must comply with the applicable requirements under DOH Administrative Order (AO) No. 35, s. 1994<br>11. Certification that the supplier/manufacturer has the capability for corrective/preventive maintenance of the unit<br>12. Quarterly on-site preventive maintenance must be performed within warranty period. Preventive maintenance should include system settings back-up to be stored in an external drive.<br>13. There should be a minimum of 5 CT trained engineers currentlyemployed by the principal.<br>14. The supplier or principal must provide applications training on site for users and maintenance personnel of the hospital. At least two (2) weeks training on-site (staggered basis). Additional, one (1) week off-site training for selected personnel if additional special procedures were not covered during the on-site | |

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| training<br>15. Certificate of training for the trainees must be provided by the supplier/manufacturer<br>16. Certification that the brand has been sold in the Philippines for at leastten (10) years.<br>17. The principal must have an existing office in the Philippines for at least five (5) years.<br>18. The system offered must have at least 3 installations in the country not more than 5 years.<br>19. The principal or bidder must have employed local application specialist to provide support onsite.<br>20. The principal or bidder must be able to do remote pro-active and predictive monitoring including critical equipment parameters, remote diagnosis and repair and remote updates and upgrades.<br>21. The principal or bidder must be able to do remote assistance to help improve staff productivity and run their daily operations effectively.<br>22. The principal or bidder must have a team who are always available to provide quick application guidance or advice on troubleshooting remotely.<br>23. Certification of 95% guaranteed uptime for the Equipment offered during the warranty period<br>24. Allow customers 24/7 access using any device for high level equipment transparency, enabling our customers to monitor efficiently via a comprehensive dashboard on equipment status and activities real-time.<br>25. Certification from the principal/manufacturer that the equipment is brand new unit and not discontinued model.<br><br>25. The supplier/manufacturer shall specify post warranty comprehensive preventive maintenance cost including cost and price of major spare parts for the next three (3) years after warranty | |

I hereby certify that the statement of compliance to the foregoing technical specifications are true and correct, otherwise, if found to be false either during bid evaluation or post qualification, the same shall give rise to automatic disqualification of our bid.

| Name of Company/Bidder | Signature over Printed Name of Authorized Representative | Date |
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