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Lingayen, Pangasinan

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**INVITATION TO BID**

**for**

**Supply and Delivery of** **One (1) unit MRI Scanner at Provincial Governor’s Office, Lingayen, Pangasinan (for the use of the Hospitals)**

Project Identification No.: PANG-2024-03-0323-G

1. The **Provincial Government of Pangasinan**, through the **Capital Outlay (PR#2024-02-0772)** intends to apply the sum of **Ninety-Five Million Pesos (****P****95,000,000.00)** being the Approved Budget for the Contract (ABC) to payments under the contract for **Supply and Delivery of One (1) unit MRI Scanner at Provincial Governor’s Office, Lingayen, Pangasinan (for the use of the Hospitals).**

**Specifications:**

1. **Main Component of MRI Scanner**
2. **Magnet**
3. Superconducting magnet 1.5 Tesla active shielded
4. Bore diameter: 60cm minimum, patient bore with flared opening
5. With active or passive shimming
6. Magnet cooling should be cryogens based
7. Zero Helium boil-off technology
8. Magnet homogeneity shall be less than or equivalent 0.5ppm guaranteed at 40cm Diameter Spherical Volume
9. Field view of at least 50cm in X, Y, and Z-axis
10. **Gradient**
11. Actively shielded gradient system
12. Maximum gradient amplitude at least 33 mT/m or above
13. Slew rate or at least 120 T/m/s or higher
14. Duty cycle should be 100 percent
15. RF transmitter and receiver must both be digital
16. Solid-state type RF amplifier
17. **Radiofrequency (RF) System**
18. The RF system (transmitter and receiver) should be computer controlled, and fully digital type
19. Receiver bandwidth per channel 1 MHz each or above
20. RF transmitter power should be 10kW or less
21. Number of independent Digital RF channels at least & channel
22. Proper RF shielding must be provided
23. **Radiofrequency (RF) Coils**
24. The main RF body coil shall be integrated to the magnet
25. Coils to be included: Apart from integrated RF/Body coil
26. One (1) unit phased array for brain, head and neck imaging with mirror: at least 14 elements
27. One (1) unit phased array spine coil thoraic and lumbar spine imaging: at least 12 elements
28. One (1) unit phased array body/cardiac coil for abdomen, pelvic and MRCP and cardiac imaging: At least 8 elements in single FOV
29. Multipurpose Coils for MSK and Pediatric Imaging
30. One (1) unit flex coil for shoulder, hip & general and pediatric imaging: at least 8 elements
31. One (1) unit flex coil for knee, ankle, foot & general and pediatric imaging: at least 8 elements
32. One (1) unit flex coil for hand, wrist & general and pediatric imaging: at least 8 elements
33. **Patient Table**
34. Should be fully motorized, computer-controlled movements in vertical and horizontal directions
35. Positions accuracy of +/-1.0 mm or smaller
36. Must be able to support patient load at least 200kg.
37. Table height at its lowest position should be 47 to 50 cm
38. Should have patient alarm system
39. Should have facility for manual traction in case of emergency
40. Should deliver the protocols for automatic bolus chasing in peripheral angiography with the automatic table movement
41. **One (1) unit Main Console**
42. CPU: Intel Quad Core, minimum 3.5GHz
43. RAM: at least 64GB
44. Hard Drive Capacity: at least 1 TB
45. CD/DVD writer, at least Tow(2) USB Ports
46. Keyboard and optical mouse
47. Reconstruction performance of at least 30,000 FFT/s at 256 x 256 matrix for full FOV
48. Monitor:
49. Color:, TFT, LCD Type
50. Single panel
51. Size: at least 23 inch in size
52. Resolution: at least 1920 x 1200
53. **One (1) unit Diagnostic Workstation**
54. CPU: Quad Core, 2.6GHz or higher
55. RAM: at least 32 GB
56. Hard drive/Storage: minimum 1 TB
57. CD/DVD writer
58. Keyboard and optical mouse
59. Monitor
60. Color:, TFT, LCD Type
61. Double panel
62. Size: at least 19 inch in size each panel
63. Resolution: at least 1200 x 1024
64. **Acquisition Software with License**
65. Spin echo (SE)
66. Fast spin echo (FSE)
67. Gradient echo (GRF)
68. Spoiled gradient echo 2D & 3D
69. Fast Steady state sequence
70. FLAIR (Fluid Attenuated Inversion Recovery)
71. Single-shot echo planar imaging (EPI)
72. Multi-shot echo planar-imaging (EPI)
73. Fat- and water saturation
74. Fat- and water excitation
75. 2D and 3D time-of-flight
76. 2D/3D phase contrast
77. Contrast-enhanced MRA (CE Magnetic Resonance Angiography)
78. Parallel acquisition techniques (PAT) or equivalent (ARC and ASSET, mSense and GRAPPA, Sense and dsSense)
79. Must feature motion correction sequences for head, neck, spine, abdomen, MSK in axial sagittal and coronal orientation like Propeller/Blade/Multivane XD
80. Flow Compensations
81. Saturation band (multi select/free to angulate)
82. Thick maximum intensity projection (MIP)
83. Thin maximum intensity projection (MIP)
84. Thick and thin multi-planar reconstruction (MPR)
85. Stitching/composing software
86. Automaticg calculation of Apparent Diffusion Coefficient map
87. Body diffusion
88. MR spectroscopy
89. Should have the following spectroscopy techniques:
90. Single voxel spectroscopy
91. 2D and 3D Multiple voxel spectroscopy
92. The complete processing/post processing software including color metabolite maps should be available on console and workstation
93. MR Cholangiopancreatography
94. MPRAGE, 3D TFE, 3D FGRE or equivalent
95. Basic Cardiac MR package
96. Diffusion Tensor Imaging with fiber tracking (Tracktography)
97. With motion correction algorithm/package for high-resolution motion free. Should have motion correction software for uncooperative patients. It should be possible to have the same routine in T1, T2 and FLAIR Imaging
98. Susceptibility artifacts reduction diffusion weighted imaging like SWI/SWAN/SWIp
99. Perfusion Imaging with whole brain coverage and in line calculation of the resulting hemodynamic data
100. Bolus chasing with automatic moving table should be offered and should be available with fluoro triggered MR angiography
101. eDWI or REVEAL diffusion weighted imaging for whole body DWI or equivalent feature must be available
102. high Resolution Small FOV DWI technique like ZOOMit/Zoom Diffusion or FOCUS
103. Synthetic DWI Imaging or calculated DWI that can offer multiple b-Values without having to acquire, saving acquisition time without compromise of SNR. Especially higher b-values like 2500 useful for prostate imaging
104. Should be supplied with ECG Trigger; respiratory trigger, peripheral pulse trigger and external trigger
105. Free Breathing feature without respiratory belt i.e. Auto Navigator, Vital Eye, Biomatrix.
106. Non-contrast cerebral perfusion technique based on pulsed and continuous blood labelling technique i.e. 3DASL
107. Advance Metal Artifact reduction for soft tissue imaging near metal implants i.e. Warp Advance, Mavric SL or OMAR XD
108. Liver fat quantification techniques i.e. ideal IQ, liver Lab, or mDixon Quant
109. Advance and latest acceleration techniques i.e. Compressed sensing like HyperSense/Compressed SENSE/Compressed Sensing feature that help reduce scan time by 50% without compromising on resolution
110. Multiphase Dynamic Contrast enhanced Imaging like DISCO, TWIST Vibe 4D Thrive
111. Cartilage T2\* Accesment technique with color Maps i.e. MapIT, Cartigram or Cartilage Assessment (if not available on Console offer on Workstation)
112. Time Resolved Dynamic MRA angio technique i.e. TRICKS, TWIST or 4D TRAC
113. Non-contrast 2D MRA (Carotid, Popliteal, Femoral) i.e. Inhance 2D Inflow or QISS
114. Non-contrast Subtraction MR Angio for Peripheral i.e. 3D Delta Flow
115. Non-contrast Angio for Brain i.e. Inhance 3D Velocity R/4D TRANCE/Syngo 3D NATIVE
116. Non-contrast Angio for Renal i.e. Syngo NATIVE TrueFisp/Inhance Inflow IR
117. 3D FSE Isotropic Imaging for Neuro, Spine, MSK and Body Like 3d Cube, 3D Space Brainview, 3D Spineview, 3D MSKView, 3D Pelvis View, Also offer 3D FSE Double IR Sequence
118. Free Breathing, High-Temporal Resolution, Multiphase Dynamic Contrast enhanced Imaging using Stack or Star technique with motion compensation i.e. LAVA STAR 3D Vane XD or STAR VIBE
119. Smart Reconstruction Technique to reduce Out of FOV artifacts and background noise
120. **Additional Advance Softwares**
121. FDA approved Deep learning algorithms that automatically identify anatomical structures to prescribe slices for challenging setup planes for brain and knee
122. FDA approved Deep learning based reconstruction to reduce noise, blurring and ringing artifacts for MR images. It is embedded and applied to raw data to remove noise and ringing artifacts and compatible with 2D, 3D, Dixon and cardiac applications
123. **Post Processing Software for Thin Client Server**
124. Post Processing application for comprehensive body imaging.
125. Post processing for comprehensive neuro imaging, including ASL, Diffusion, Perfusion, Spectroscopy, DTI and Tractography
126. Software for analyzing, post processing & reporting multi-parametric MR prostate exams based on PIRADS. To be offered on Diagnostic Workstation
127. Cooling/Chiller System
128. Modular cooling system
129. Gradient coil chiller
130. Air cooled cryogen compressor
131. **Accessories**
132. One (1) MR compatible wheelchair (Third Party)
133. One (1) MR compatible stretcher/gurney (Third Party)
134. One (1) set MR compatible CCTV system for patient observation (Third Party)
135. One (1) MR compatible fire extinguisher (Third Party)
136. One (1) MR Compatible Two-Way Intercom System
137. One (1) Flexible patient transfer board (Third Party)
138. One (1) Hand-Held metal detector (Third Party)
139. One (1) unit Laser Printer (third Party)
140. One 91) MR compatible medical Gas outlet (Third Party)
141. One (1) unit Music System
142. Earplugs (1000 pcs)
143. Headset Covers (1000 pcs)
144. One (1) unit Oxygen Monitor
145. One (1) unit MR Coil Cabinet
146. **Air Conditioning System (Third Party)**
147. Two (2) units appropriate air conditioning system for the magnet room/scanning room.
148. One (1) unit appropriate air conditioning system for the equipment room.
149. **Electrical Requirements (Third Party)**
150. Step-up and/or stepdown power transformer(s) with appropriate ratings to supply power from the main electrical source to the MRI Scanner. The supplier must provide the electrical connection to the hospital’s main power line.
151. One (1) unit Uninterrupted Power supply (UPS) with power conditioner and with minimum 10 minutes back up time for the MRI Scanner and chiller. The UPS must be medical grade and designed specifically for MRI.
152. One (1) Transient Voltage Surge Suppressor (TVSS) with appropriate ratings for the MRI Scanner. The TVSS must be compliant with UL 1449: Surge Protection Devices.
153. Appropriate wirings and circuit breakers for the MRI Scanner, Chiller and Equipment Room.
154. **Warranty Period / Coverage Warranty**:

Three (3) years comprehensive warranty on parts and service for the MRI Ystem including Hellium and Chiller System

1. **Training:**

Two Weeks: on-site training for Rad Techs and Radiologistss

1. **Other requirements to be required / submitted by the Bidder for Bid Opening (as applicable)**
2. Brochures and technical data sheet of the MRI Scanner and accessories
3. Site inspections is required. Certification must be submitted whether the MRI Scanner needs magnetic shielding based on the survey of the proposed location
4. Must have principal local presence for after sales and support
5. List of Service Engineer and Application Personnel (Name and Email Address)
6. Certification that the manufacturer has been in the business of manufacturing MRI Scanners for at least 25 years
7. MAnufaturer’s Certificate that supplies, parts and accessories shall be available for at least ten (10) years after expiration of the warranty period
8. Certification by the principal that service engineers are factory trained on service and repair.
9. Manufaturer’s Certificate that the brand has been in the local market for the past 10 years
10. A list of at least fifteen (15) MRI installation by the manufacturer of the same model installed in Philippine hospitals or health institutions within the past 10 years, must be submitted
11. System must be US FDA approved.

Bids received in excess of the ABC shall be automatically rejected at bid opening.

1. The **Provincial Government of Pangasinan** now invites bids for **Supply and Delivery of Hospital Equipment.** Delivery of the Goods is required Seven (7) Calendar Days. Bidders should have completed from the date of submission and receipt of bids, a contract similar to the project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II. Instruction to Bidders.
2. Bidding will be conducted through open competitive bidding procedures using a non-discretionary “pass/fail” criterion as specified in the 2016 Revised Implementing Rules and Regulation (IRR) of Republic Act (RA) 9184), otherwise known as the “Government Procurement Reform Act”

Bidding is restricted to Filipino citizen/sole proprietorships, partnerships, or organizations with at least sixty percent (60% interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA 5183.

1. Interested bidders may obtain further information from **Provincial Government of Pangasinan** and inspect the Bidding Documents at the address given below during Bidders **March 25, 2024 – April 12, 2024; 8:00 am to 5:00pm and April 15, 2024; 8:00 am to 10:00am**.
2. A complete set of Bidding Documents may be acquired by interested Bidders during **March 25, 2024 – April 12, 2024; 8:00 am to 5:00pm and April 15, 2024; 8:00 am to 10:00am at the BAC Office, 2nd Floor Malong Building, Lingayen, Pangasinan** and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of **Fifty Thousand Pesos (P50,000.00)**.

It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that Bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

1. The **Provincial Government of Pangasinan** will hold a **Pre-Bid Conference** on **April 3, 2024; 10:00 am** at **Conference Room, 2nd Floor Malong Building, Capitol Compound, Lingayen, Pangasinan**, which shall be open to prospective bidders.
2. Bids must be duly received by the BAC Secretariat at the address below on or before **April 15, 2024; 10:00am**. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 18

Bid opening shall be on **April 15, 2024; 10:00am** at **Conference Room, 2nd Floor, Malong Building, capitol Compound, Lingayen, Pangasinan**. Bids will be opened in the presence of the bidders’ representatives who choose to attend at the address below. Late bids shall not be accepted.

1. The **Provincial Government of Pangasinan** reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Section 41 of RA 9184 and its IRR, without thereby incurring any liability to the affected bidder or bidders.
2. For further information, please refer to:

**MELICIO F. PATAGUE II**

Provincial Administrator

BAC Chairman

Provincial Administrator

Capitol Building, Capitol Compound

Lingayen, Pangasinan

**MARLON C. OPERAÑA**

Provincial Accountant

BAC Technical Working Group

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Finance Building, Capitol Compound

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**MELICIO F. PATAGUE II**

Provincial Administrator

BAC Chairman