

PRE-SELECTION DOCUMENT

FOR

THE INSTALLATION OF CT SCAN MACHINE

IN

AYUB TEACHING HOSPITAL

ON

PUBLIC PRIVATE PARTNERSHIP

I. INTRODUCTION

This Public Private Partnership is an agreement between Ayub Teaching Hospital (contracting authority) and a private party, to be selected through open competition, as per Government of Khyber Pakhtunkhwa rules and regulations, for the provision of round the clock CT Scan services at the premises of the Ayub Teaching Hospital (ATH).

This arrangement is intended to establish a cooperative and productive working relationship between the *contracting authority and concessionaire*.

II. EVALUATION OF FIRMS

The potential firms shall be evaluated for the following three elements, as per Chapter IV of The Khyber Pakhtunkhwa Public Private Partnership Act, 2014:

1. Ability to manage finances
2. Professional and technical qualification
3. Managerial and organizational capacity

Details of the evaluation criteria of pre-selection is given at annex I.

III. TERMS AND CONDITIONS

1. **CT Scan Machine:** The private partner shall install 16 Slice CT Scan Machine with all accessories and facilities necessary (as per details given at annex II) for optimum functioning.
2. **Time Period:** All the phases of the project shall be completed in 120 days (construction of building facility in 3 months and installation of the functional machine in next 3 months) from the date of signing of the agreement/Memorandum of Understanding.
3. **Steering Committee:** The construction, installation and operation will be supervised by the Steering Committee, comprising members of both the partners under the chairmanship of the Hospital Director.
4. **Working Hours and uptime:** The investigations facility shall be provided round the clock with an uptime of 95% per annum.
5. **Agreement Period:** This agreement shall be for a period of five years, extendable for another two years on mutual agreement of the partners.

6. **Land & Building:** The Hospital shall provide land for construction of building. The contractor shall construct a facility sufficient to serve the purpose with the following facilities:

- Console & Control Room
- Reporting Room
- Waiting Area
- Reception
- Two Washrooms
- Manager Office
- Fire Extinguishing Equipment
- Cooling/Heating System
- Wi-Fi
- Drinking Water
- Generator back-up
- Store

Since CT Scan is highly specialized equipment with peculiar and specific needs in terms of above mentioned aspects as well as topographical requirements, it is therefore, the responsibility of concessionaire to inspect and ensure the suitability of the site/space as provided by contracting authority.

The building constructed by the concessionaire shall remain the property of contracting authority, after expiry of agreement/MOU period.

7. **Delay:** For delayed installation beyond the aforesaid period, a penalty of PKR 20,000 per week shall be levied. If the facility is not made available to contracting authority within 30 days after the expiry of the scheduled time period of installation, the order shall stand automatically cancelled and security deposit shall stand forfeited.
8. **Ownership:** At the end of the agreement period, the building shall be the property of the hospital. The CT Scan machine shall be the property of the private partner.
9. **Out-door Patients:** The firm shall charge fee for various CT investigation for out-door patients. The private partner is not required to quote fee at this stage.
10. **In-door Patients:** CT facility shall be provided to the in-door patients free of cost (soft copy through the Hospital Information System). However, if a patient demands for CT Scan film then the private party shall charge the patient. The private partner is not required to quote fee at this stage.
11. **Human Resource:** Provision of human resource, including both technical & non-technical shall be the responsibility of the Private Partner. Radiologist for reporting of indoor shall be provided by Ayub Teaching Hospital.
12. **Maintenance:** Maintenance of the machine shall be the responsibility of the private partner to ensure round the clock service to the patients.

13. **Utility Bills:** All expenses on account of electricity, water etc. shall be borne by concessionaire.
14. **Consumables:** Provision of the all type consumables/disposables shall be the responsibility of the private partner.
15. **Reporting For In-Door Patients:** Reporting for in-door patients shall be done by the Radiologist of ATH free of cost.
16. **Reporting For Out-Door Patients:** The private partner can have the services of ATH Radiologist for reporting of out-door patients through mutually agreed fee. Alternatively, the private partner can have its own radiologist for the purpose.
17. **Mass Emergency/Catastrophe/Disaster:** This investigations shall be done free of cost in such situations. The emergency shall be decided by the hospital authority.
18. **Discipline:** The staff will have to obey hospital discipline in terms of timing, uniforms and other requirements.
19. **Environment and staff safety:** The facility shall remain safe for patients and staff. It shall be registered with the national agency for radiation safety.
20. **Reporting design:** Report shall be computerized, delivered in a proper file highlighting hospital and department. An envelope shall be used for the film.
21. **Teaching:** The private partner shall permit the under graduate and post graduate medical students of Ayub Medical Teaching Institution for training purposes. This unit shall be considered an integral part of the hospital for medical education.
22. **Damage to Machine:** Contracting authority will not be responsible for any loss/damage to machine or property due to natural calamity or otherwise.
23. **Cleanliness & House-Keeping:** The cleanliness of the equipment and building, and house-keeping of the facility shall be the responsibility of concessionaire.
24. **Back-Up Power:** Concessionaire will have to procure a suitable stand-by source of power (Generator Set and UPS), capable of catering the power requirement of CT Scan machine with all accessories and facility, so that services remain available un-interrupted round the clock.
25. **Repeat Scan:** The poor quality CT scans shall be repeated at no extra cost. Decision for repeat scan shall only be made by the consultant (Radiologist) on duty.

26. **Online System:** The concessionaire will be responsible to connect the machine with the Hospital Management Information System (HIMS) and Picture Communication and Archiving System (PACS) in collaboration with the IT department of ATH.
27. **Patient Turn Over:** The contracting authority is in not a position to offer a commitment or surety as far as the case load/distribution is concerned on day to day basis.
28. **Medico-Legal Cases:** ATH receives patients with medico-legal registration as well, hence privacy and protection of data is of prime importance.
29. **Data Rights:** All data generated in the proposed center shall be the 'Intellectual property' of contracting authority only.
30. **Privacy of Patients:** Privacy and other ethical values of patients under investigation shall be maintained in individual cases by concessionaire.
31. **Government Rules:** The private partner shall abide by all the guidelines issued by the Federal or Provincial Government of Pakistan and contracting authority from time to time during the contract period.
32. **Concessionaire status:** Status of the private partner, as a whole or in part, is non-transferable and, the concessionaire shall not sell or transfer by any mode whatsoever any proprietary right or entrust any other party to run the CT / facility.
33. **Dispute Resolution:** In the event of dispute or difference whatsoever arising between the parties to the agreement, an arbitrator shall be appointed as per Government of Khyber Pakhtunkhwa rules. The provisions of the Arbitration and Conciliation Act shall be applicable and the award made thereunder shall be final and binding upon the parties, subject to legal remedies available under the Law.
34. **Documents Submission:** Documents complete in all respect along with the Pre-Selection Form (annex III) shall be submitted to the Hospital Director, Ayub Teaching Hospital on or before the closing date as mentioned in the advertisement.

ANNEXURE I

EVALUATION CRITERIA FOR PRE-SELECTION

70 percent score is mandatory according to the following elements of the evaluation criteria:

No.	ELEMENT	Points
1.	Ability to Manage Finances	40
2.	Professional & Technical Qualification	30
3.	Managerial and Organizational Capability	30
Total		100

Details of the elements of the evaluation criteria are given below:

1. Adequate professional and technical qualifications, human resources, equipment and other physical facilities as necessary to carry out all the phases of the Project as per details and specification given in Annex II, including design, construction, operation and maintenance;
2. sufficient ability to manage the financial aspects of the Project and capability to sustain its financing requirements, supported by official bank documents; and
3. appropriate managerial and organizational capability, reliability and experience, including previous experience in operating similar projects, i.e. 16 Slices CT Scanner and preferably similar projects through Public-Private Partnership.

Firms are required to provide sufficient details with supporting documents to prove their suitability according to the evaluation criteria elements

ANNEXURE II

SPECIFICATIONS OF WHOLE BODY 16 SLICE CT SCANNER

1. GANTRY

System should be capable of acquiring 16 slices per gantry rotation or more for all applications in helical and axial mode. (One slice means data acquired from 360 degree tube rotation).

Gantry bore to be at least 65 cm or more.

Minimum gantry rotation time to be at least 1.0 sec or less for 16 slices per 360 degree rotation for all applications.

Maximum scan field of view to be at least 50 cm or better

Minimum slice thickness 0.6 mm or less in axial and helical mode.

Bilateral control of gantry and table from the gantry housing and operator console.

2. X-RAY TUBE

Heat storage capacity of at least 3.5 MHU or more.

Anode heat dissipation of maximum 567 kHU/min or more.

Generator output of at least 240 mA or more.

3. GENERATOR

High frequency power generator with minimum power of at least 30 kW or more.

KV Range: 80 kV to 130 kV or better

Should have ability to vary the power (mAs) automatically in steps.

Real time dose reduction hardware

4. COUCH

Dual motorized control (from console & gantry) of table movements in horizontal and vertical axis.

Maximum weight allowed on the couch up to 220 kg or more.

Horizontal movement speed up to 200 mm/s or more

Single acquisitions scan range of at least 125 cm or more.

5. CONSOLE COMPUTER

System architecture and operating system must be based on latest technology (Intel Xeon 3.3 GHz)

Multi-tasking and parallel processing CPU system.

At least 16GB RAM or more.

Hard disk capacity for image storage of at least 75,000 (uncompressed) images or more.

Reconstruction of at least 13 images per second or better

Image area display matrix (512 x 512)

Console color monitor (02 Nos). TFT/LCD type of at least 21 inches or more, medical grade with 1920 x 1080 resolutions

DVD / CDR

6. Console software

Trueisotropic volume acquisition

Variable delay algorithm for automatically finding the best phase for cardiac CT imaging.

Automated contrast media bolus tracking software.

3-D reconstruction display;

Maximum and Minimum intensity projections.

Multi planer and curved planer reconstruction.

3-D Shaded surface display (SSD)

3D volume rendering software.

Automated real-time tube current adjustment for best diagnostic image quality at lowest possible dose, independent of patient size and anatomy

Artifacts Reduction Algorithm

Dedicated Pediatric Protocol. 80 KV

Dose Control Parameters (online/continuous)

Dose Display CTDI, DLP, Dose efficiency etc.

Iterative reconstruction technique with dedicated dose reduction software and hardware

Pediatric scanning package including software and infant holder / immobilizer. Inbuilt feature of dose reduction for pediatric scanning

Automated 3D bone removal functionality

7. CT POST PROCESSING Multi-Modality WORKSTATIONS

Manufacturer's original Multimodality 1 Thin Client Solution with Licensed software and having 2 concurrent user licenses with necessary hardware for CT post processing.

FDA & CE Approved.

Offered post processing workstation should be from same OEM.

Server Hardware

Min 19-inch LCD monitor for Administration

Min 08 -16 GB (extendable)

Min 1TB Image database disk.

DVD + RW for image storage & for software loading.

Computer system of Client WS:

Min 21-inch 2 MP or more medical grade monitor.

Quad Core XEON processor 2.4 GHz processors or better

Min 6 GB RAM

Min 250 GB Image database disk.

DVD + RW for image storage & for software loading.

Online UPS for workstations 3 KVA with dry batteries 10 min back up time.

8. Workstation Software

Software up gradation of all existing applications during the warranty period

Following software should be provided at all workstations.

3-D reconstruction display;

Maximum and Minimum intensity projections.

Multi planer and curved planer reconstruction.

3-D shaded surface display (SSD)

3D volume rendering software.

3-D Virtual Endoscopy

Advance peripheral / general vessels analysis

"Single click bone removal for neuro evaluation for bone-free evaluation of the neuro vasculature for the diagnostic evaluation of neurovascular disease (e.g. aneurysms & stenosis) and planning interventional treatment (e.g. coiling and stenting). Complete with Vessel analysis and stenosis measurement tools.

9. DICOM 3

DICOM 3 ready (multi-vendor and multimodality compatible) for Send, Receive, Archive, Retrieve and Print on main console and workstation.

10. QUALITY & SAFETY STANDARDS

MMD (CE) compliance.

FDA 510 K approval.

11. POWER REQUIREMENTS

Three Phase with line voltage of 220 V & 50 Hz.

12. ACCESSORIES

Programmable Injector with flow / volume and temperature control. Mounted on mobile base with 500 syringes of 150 ml capacity and connecting tubes (Medrad, Angiomat, Nemoto, Medtron.)

DICOM 3 Ready Dry Laser Camera / Imager multi size up to 14" x 17" with 3 drawers for different size of films (care stream, Agfa, Fuji, Konica) for black/white printing on film including 1000 films.

Film viewers (x02) for images up to 14 x 17 with variable light control and shutter

On line sine wave UPS for whole C.T. Scanner with a minimum back up of full load sine wave UPS for whole system, back up time 10 minutes.

Diesel power Generator 200 KVA including ATS, sound proof canopy, foundation pad, earthing and cabling (Perkins, Cummins, caterpillar)
Protection devices (lead aprons (x6) with hangers, lead gloves (x6) pairs, all 0.5mm Pb or eq.
Lead glass 5x3 ft. lead 1.5 mm pbeq
Standard set of Phantoms for calibration of CT

ANNEXURE III

Form No.

AYUB TEACHING HOSPITAL ABBOTTABAD

OFFICE OF THE HOSPITAL DIRECTOR

Reference No. /...../...../

Dated:

PRE-SELECTION FORM

for CT SCAN MACHINE

1- Name and full address of firm
.....
.....

2- Address to: The Hospital Director, Ayub Teaching Hospital Abbottabad

3- Reference: Notice No. / dated

4- Pre-Selection Document fee Rs. _____ deposited vide demand draft no.
..... dated of (Name and
address of Banker)

5- We (Name of Firm) agree to abide by all the terms & conditions as
mentioned in Pre-Selection Document No. dated

6- Documents are complete in all respect and have been duly signed.

Signature of authorized official with stamp