

 GAUTENG PROVINCE PROVINCIAL TREASURY REPUBLIC OF SOUTH AFRICA		Provincial Supply Chain Management								
		Request for Proposal				Page 1 of 3				
RFP NUMBER										
RFP DESCRIPTION										
CUSTOMER DEPARTMENT										
CUSTOMER INSTITUTION										
BRIEFING SESSION	Y		N		SESSION COMPULSORY		Y		N	
					SESSION HIGHLY RECOMMENDED		Y		N	
BRIEFING VENUE					DATE		TIME			
COMPULSORY SITE INSPECTION	Y		N		DATE		TIME			
INSPECTION ADDRESS										
TERM AGREEMENT CALLED FOR?	Y		N		TERM DURATION					
CLOSING DATE					CLOSING TIME					
TENDER BOX LOCATION										
GPT is acting as Common Service Provider or buying organisation on behalf of all Gauteng Provincial Government Customer Departments / Institutions. The goods / services are therefore required by the Customer Department / Institution, as indicated on this form RFP 01.										

Notes:

- All bids / tenders must be deposited in the Tender Box at the following address:
Gauteng Provincial Treasury, Imbumba House, 75 Fox Street, Marshalltown, Johannesburg
- Bids / tenders must be deposited in the Tender Box on or before the closing date and time.
- Bids / tenders submitted by fax will not be accepted.
- The GPT Tender Box is generally open 24 hours a day, 7 days a week.
- This bid is subject to the preferential procurement policy framework act and the preferential procurement regulations, 2017, the general conditions of contract (gcc) 2010 and, if applicable, any other special conditions of contract.
- ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL GPG RFP FORMS – (NOT TO BE RE-TYPED)
- ALL REQUIRED INFORMATION MUST BE COMPLETED (FAILURE TO DO SO MAY RESULT IN YOUR BID BEING DISQUALIFIED):

The Tendering System

The RFP Pack consists of two parts namely, Section 1 and Section 2. These two sections must be submitted separately, clearly marked with the Tender Number and the Section Number.

Training sessions

Non-compulsory "How to tender" workshops are held every Wednesday at 75 Fox Street from 10:00-13:00.

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SUPPLIER INFORMATION					
COMPANY NAME					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:			CENTRAL SUPPLIER DATABASE No:	MAAA
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	TICK APPLICABLE BOX]		B-BBEE STATUS LEVEL SWORN AFFIDAVIT		[TICK APPLICABLE BOX]
	☐ Yes ☐ No				☐ Yes ☐ No
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]					
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?		☐ Yes ☐ No [IF YES, ANSWER THE QUESTIONNAIRE IN RFP 09]

SIGNATURE OF BIDDER		DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED			

This RFP is subject to the General Conditions of Contract and where applicable any other Special Conditions of Contract.



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Tender documents can be obtained from <http://www.treasury.gpg.gov.za>

ANY ENQUIRIES REGARDING BIDDING PROCEDURE MAY BE DIRECTED TO:

DEPARTMENT	
CONTACT PERSON	
TELEPHONE NUMBER	
FACSIMILE	
E-MAIL ADDRESS	

ANY ENQUIRIES REGARDING TECHNICAL INFORMATION MAY BE DIRECTED TO:

DEPARTMENT	
CONTACT PERSON	
TELEPHONE NUMBER	
FACSIMILIE	
E-MAIL ADDRESS	

TYPE OF CONTRACT (COMPLETED BY PROJECT MANAGER)

SERVICE BASED	Y		N		TERM BASED TYPE	Y		N		VALUE BASED TYPE	Y		N	
VALUE BASED	Y		N											
QUANTITY BASED	Y		N											
TERM BASED	Y		N											



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RFP Point System

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RFP NUMBER		CLOSING DATE	
VALIDITY OF RFP		CLOSING TIME	

In case of queries, please contact the GPT Contact Centre at tel: 0860 011 000

*GPT is acting as Common Service Provider or buying organisation on behalf of all Gauteng Provincial Government Customer Departments / Institutions.

The goods / services are therefore required by the Customer Department / Institution, as indicated on RFP 01.

The Gauteng Provincial Government requests your bid on the goods and/or services listed on the attached forms. Please furnish all information as requested and return your bid on the date stipulated. Late and incomplete submissions may invalidate the bid submitted.

This RFP will be evaluated on the basis of Preferential Procurement Regulation, 2017 pertaining to the Preferential Procurement Policy Framework Act (Act number 5 of 2000).

Point System

Points SHALL be allocated as follows:

Points for

Points for

*** It is the responsibility of the bidder to attach A VALID SWORN AFFIDAVIT {EME/QSE} ATTESTED BY A COMMISSIONER OF OATHS OR VALID CERTIFIED COPY OF B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE WITH THIS RFP DOCUMENT TO QUALIFY FOR THE PREFERENCE POINTS**



Provincial Supply Chain Management

Instructions to Bidders

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1. The RFP (Request for Proposal) Pack is drawn up so that certain essential information should be furnished in a specific manner. Any additional particulars shall be furnished in a separate annexure.
2. The RFP forms should not be retyped or redrafted, but photocopies may be prepared and used. Additional offers may be made for any item, but only on a photocopy of the page in question or on other forms obtainable from the relevant Department or Institution advertising this RFP. Additional offers made in any other manner may be disregarded.
3. Should the RFP forms not be filled in by means of electronic devices, bidders are encouraged to complete forms in a black ink.
4. Bidders shall check the numbers of the pages and satisfy themselves that none are missing or duplicated. No liability shall be accepted with regards to claims arising from the fact that pages are missing or duplicated.
5. The forms RFP 04 to RFP 09 and PREF documents shall be completed, signed and submitted with the bid. RFP 10 (National Industrial Participation Programme Form) will only be added to the RFP pack to be completed by bidders when an imported component in excess of US \$ 10 million is expected.
6. A separate RFP 06 form (RFP Price Schedule per item) shall be completed in respect of each item. Photocopies of this form may be prepared and used or additional copies, (if required) are obtainable from the relevant Department or Institution advertising this RFP(not applicable for Pre-qualification of Bidders).
7. Firm delivery periods and prices are preferred. Consequently bidders shall clearly state whether delivery periods and prices will remain firm or not for the duration of any contract, which may result from this RFP, by completing RFP 06 (RFP Price Schedule per item) and RFP 07 (Non-Firm Prices per item) (not applicable for Pre-qualification of Bidders).
8. If non-firm prices are offered bidders must ensure that a separate RFP 07 (Non-Firm Prices per item) is completed in respect of each item for which a non-firm price is offered. Photocopies of this form may be prepared and used or additional copies, (if required) are obtainable from the relevant Department or Institution advertising this RFP (not applicable for Pre-qualification of Bidders).
9. Where items are specified in detail, the specifications form an integral part of the RFP document (see the attached specification) and bidders shall indicate in the space provided whether the items offered are to specification or not (not applicable for Pre-qualification of Bidders).
10. In respect of the paragraphs where the items offered are strictly to specification, bidders shall insert the words "as specified" (see the attached specification) (not applicable for Pre-qualification of Bidders).
11. In cases where the items are not to specification, the deviations from the specifications shall be indicated (see the attached specification).
12. In instances where the bidder is not the manufacturer of the items offered, the bidder must as per RFP 06 (RFP Price Schedule per item) submit a Letter of Supply from the relevant manufacturer or his supplier (not applicable for Pre-qualification of Bidders).
13. The offered prices shall be given in the units shown in the attached specification, as well as in RFP 06 (RFP Price Schedule per item) (not applicable for Pre-qualification of Bidders).
14. With the exception of imported goods, where required, all prices shall be quoted in South African currency. Where bids are submitted for imported goods, foreign currency information must be supplied by completing the relevant portions of RFP 06 (RFP Price Schedule per item) and RFP 07 (Non-Firm Prices per item) (not applicable for Pre-qualification of Bidders).
15. Unless otherwise indicated, the costs of packaging materials (if applicable) are for the account of the bidder and must be included in the bid price on RFP 06 (RFP Price Schedule per item) (not applicable for Pre-qualification of Bidders).
16. Delivery basis (not applicable for Pre-qualification of Bidders):
 - (a) Supplies which are held in stock or are in transit or on order from South African manufacturers at the date of offer shall be offered on a basis of delivery into consignee's store or on his site within the free delivery area of the bidder's centre, or carriage paid consignee's station, if the goods are required elsewhere.
 - (b) Notwithstanding the provisions of paragraph 16(a), offered prices for supplies in respect of which installation / erection / assembly is a requirement, shall include ALL costs on a "delivered on site" basis, as specified on RFP 06 (RFP Price Schedule per item).
17. Unless specifically provided for in the RFP document, no bids transmitted by facsimile or email shall be considered.
18. Failure on the part of the bidder to sign any of the forms RFP 04 to RFP 10 and PREF documents and thus to acknowledge and accept the conditions in writing or to complete the attached RFP forms, Preference documents, questionnaires and specifications in all respects, may invalidate the bid.
19. Bids should preferably not be qualified by the bidder's own conditions of bid. Failure to comply with these requirements (i.e. full



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Instructions to Bidders

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acceptance of the General Conditions of Contract or to renounce specifically the bidder's own conditions of bid, when called upon to do so, may invalidate the bid.

20. In case of samples being called for together with the bid (refer to RFP 05 in this regard), the successful bidder may be required to submit **pre-production samples** to the South African Bureau of Standards (SABS) or such testing authority as designated at the request of the relevant Department concerned. Unless the relevant Department decides otherwise, pre-production samples must be submitted within thirty (30) days of the date on which the successful bidder was requested to do so. Mass production may commence only after both the relevant Department and the successful bidder have been advised by the SABS that the pre-production samples have been approved.
21. Should the pre-production samples pass the inspections / tests at the first attempt, the costs associated with the inspections / tests will be for the account of the relevant Department. If the SABS or such testing authority as designated do not approve the pre-production samples, but requires corrections / improvements, the costs of the inspections / tests must be paid by the successful bidder and samples which are acceptable in all respects must then reach the SABS or such testing authority as designated within twenty-one (21) days of the date on which the findings of the SABS or such testing authority as designated were received by the successful bidder. Failure to deliver samples within the specified time and to the required standards may lead to the cancellation of the intended contract.
22. In case of samples being called for together with the bid (refer to RFP 05 in this regard), the samples must be submitted together with the bid before the closing time and date of the RFP, unless specifically indicated otherwise. Failure to submit the requested sample(s) before the closing time and date of the RFP may invalidate the bid.
23. In cases where large quantities of a product are called for, it may be necessary for the relevant item to be shared among two (2) or more suppliers.
24. In cases where the relevant Department or Institution advertising this RFP may deem it necessary, a formal contract may be entered into with the successful bidder, in addition to a Letter of Acceptance and / or purchase order being issued.
25. If any of the conditions on the RFP forms are in conflict with any special conditions, stipulations or provisions incorporated in the bid invitation, such special conditions, stipulations or provisions shall apply.
26. This RFP is subject to the General Conditions of Contract and re-issues thereof. Copies of these conditions are obtainable from any office of the Gauteng Provincial Government (GPG).
27. Each bid must be submitted in a separate, sealed envelope on which the following must be clearly indicated:
 - NAME AND ADDRESS OF THE BIDDER;
 - THE BID (RFP) NUMBER; AND
 - THE CLOSING DATE.

The bid must be deposited or posted;

 - posted to Gauteng Provincial Treasury and to reach the destination not later than the closing time and date; OR
 - deposited in the tender box of the Gauteng Provincial Treasury before the closing time and date.
28. The Gauteng Provincial Government has become a member and as such a key sponsor of the Proudly South African Campaign. GPG therefore would like to procure local products of a high quality, produced through the practise of sound labour relations and in an environment where high environmental standards are maintained. In terms of the Proudly South African Campaign South African companies are encouraged to submit interesting and innovative achievements in the manufacturing field (if relevant to this RFP) – including information on new products, export achievements, new partnerships and successes and milestones.
29. **Compulsory GPG Contract:** It is a mandatory requirement that successful bidder/s (to whom a tender is awarded) sign a GPG Contract upon award of any given contract.



Provincial Supply Chain Management

Bid Commitment and Declaration of Interest

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PART B: BID COMMITMENT

1. I/We hereby bid to supply all or any of the supplies and/or to render all or any of the services described in the attached RFP documents to the Gauteng Province of the Republic of South Africa, on the terms and conditions and in accordance with the specifications stipulated in the bid documents (and which shall be taken as part of, and incorporated into, this bid) at the prices and on the terms regarding time for delivery and/or execution inserted therein.
2. I/We agree that -
 - (a) the offer herein shall remain binding upon me/us and open for acceptance by the Gauteng Provincial Government as represented by the Department requesting this proposal during the validity period indicated and calculated from the closing time of the bid;
 - (b) this bid and its acceptance shall be subject to the terms and conditions contained in the General Conditions of Contract and Preference Points Claim Form – General Conditions and Definitions of the Preferential Procurement Policy Framework Act - PPPFA (PREF 01) with which I am/we are fully acquainted;
 - (c) if I/we withdraw my/our bid within the period for which I/we have agreed that the bid shall remain open for acceptance, or fail to fulfil the contract when called upon to do so, the Province may, without prejudice to its other rights, agree to the withdrawal of my/our bid or cancel the contract that may have been entered into between me/us and the Province and I/we will then pay to the Province any additional expense incurred by the Province having either to accept any less favourable bid or, if fresh bids have to be invited, the additional expenditure incurred by the invitation of fresh bids and by the subsequent acceptance of any less favourable bid; the Province shall also have the right to recover such additional expenditure by set-off against moneys which may be due or become due to me/us under this or any other bid or contract or against any guarantee or deposit that may have been furnished by me/us or on my/our behalf for the due fulfilment of this or any other bid or contract and pending the ascertainment of the amount of such additional expenditure to retain such moneys, guarantee or deposit as security for any loss the Province may sustain by reason of my/our default;
 - (d) if my/our bid is accepted the acceptance may be communicated to me/us by letter or order by ordinary post or registered post and that SA Post Office Ltd shall be regarded as my/our agent, and delivery of such acceptance to SA Post Office Ltd shall be treated as delivery to me/us;
 - (e) the law of the Republic of South Africa shall govern the contract created by the acceptance of my/our bid and that I/we choose domicile citandi et executants in the Republic at (full address of this place);

FULL ADDRESS

3. I/We furthermore confirm that I/we have satisfied myself/ourselves as to the correctness and validity of my/our bid; that the price(s) and rate(s) quoted cover all the work/item(s) specified in the bid documents and that the price(s) and rate(s) cover all my/our obligations under a resulting contract and that I/we accept that any mistakes regarding price(s) and calculations will be at my/our risk.
4. I/We hereby accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me/us under this agreement as the Principal(s) liable for the due fulfilment of any contract, which might be awarded based on this offer.
5. I/We agree that any action arising from this contract may in all respects be instituted against me/us and I/we hereby undertake to satisfy fully any sentence or judgement which may be pronounced against me/us as a result of such action.
6. I/We declare that I/we have **participation/no participation*** in the submission of any other offer for the supplies/services described in this RFP document. If there is participation, state names(s) of bidder(s) involved
 * **Delete whichever is not applicable.**

OTHER BIDDERS INVOLVED

7.

AUTHORISATION

Are you duly authorised to sign the bid? (Also refer to RFP 01 – page 2)

INDICATE

Y ☐ ☐ N ☐ ☐

8.

DECLARATION

Has the Declaration of Interest (part B of this form: RFP 04) been duly completed?

INDICATE

Y ☐ ☐ N ☐ ☐



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Bid Commitment and Declaration of Interest

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PART B : DECLARATION OF INTEREST

9. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-

- the bidder is employed by state; and/or
- the legal person on who's behalf the bidding document is signed, has a relationship with persons/a person who are/is involved with the evaluation and / or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on who's behalf the declarant acts and persons who are involved with the evaluation and / or adjudication of the bid

10. In order to give effect to the above, the following questionnaire shall be completed and submitted with the bid.

10.1 Full Name of Bidder or his/ her representative:	
10.2 Identity Number:	
10.3 Position occupied in the company : (director, trustee, shareholder ² , member)	
10.4 Registration number of company, enterprise, close corporation, partnership agreement or trust	
10.5 Tax Reference Number:	
10.6 Vat Registration Number:	
10.6.1 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / PERSAL numbers must be indicated in paragraph 11 below.	

¹"State" means-

- a) any national and provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999),
- b) any municipality or municipal entity
- c) provincial legislature
- d) national Assembly or the national Council of provinces, or
- e) Parliament

²"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise/business and exercises control over the enterprise.

10.7 Are you or any person connected with the bidder, presently employed by the state?		Y			N		
If so, furnish the following particulars	Name of person/Director/shareholder/member:						
	Name of Institution to which the person is connected:						
	Position occupied in the institution:						
	Any other particulars:						



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Bid Commitment and Declaration of Interest

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10.8 If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector?	Y				N		
10.8.1 If yes, did you attach proof of such authority to the bid document? (Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid).	Y				N		
If no, furnish reasons for non-submission of such proof							

10.9 Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months?	Y				N		
If YES, furnish particulars							

10.10 Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?	Y				N		
If so, furnish particulars							

10.11 Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid?	Y				N		
If so, furnish particulars							

10.12 Do you or any of the directors / trustees / shareholders / members of the company have any interest in any other related companies whether or not they are bidding for this contract?	Y				N		
If so, furnish particulars							



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11. Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	Personal Income Tax Reference Number	State Employee Number / Persal Number

DECLARATION

I, THE UNDERSIGNED (NAME) CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 10.1 to 10.12 ABOVE IS CORRECT.

I ACCEPT THAT THE PROVINCE MAY ACT AGAINST ME IN TERMS OF PARAGRAPH 23 OF THE GENERAL CONDITIONS OF CONTRACT SHOULD THIS DECLARATION PROVE TO BE FALSE.

NAME OF BIDDER OR ASSIGNEE(S)	SIGNATURE OF BIDDER OR ASSIGNEE(S)

DATE	POSITION



Provincial Supply Chain Management

Declaration of Bidder's Past Supply Chain Management Practices

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- 1 This Standard Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the Supply Chain Management System.
- 3 The bid of any bidder may be disregarded if that bidder, or any of its directors have-
 - a. abused the institution's supply chain management system;
 - b. committed fraud or any other improper conduct in relation to such system; or
 - c. failed to perform on any previous contract.
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

4.1 Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied). The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.		Y		N	
If so, furnish particulars:					
4.2 Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.		Y		N	
If so, furnish particulars:					
4.3 Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?		Y		N	
If so, furnish particulars:					
4.4 Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?		Y		N	
If so, furnish particulars:					



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Special Conditions

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RFP NUMBER	
RFP DESCRIPTION	
CUSTOMER DEPARTMENT	
CUSTOMER INSTITUTION	

THE FOLLOWING MUST ACCOMPANY YOUR BID, IF INDICATED BY “√”

Samples	SABS /Equivalent Certificate May not be older than one (1) year, the cost of which will be for the account of the bidder.	Bidders Briefing Session
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Special Conditions

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EVALUATION METHODOLOGY

Bidders must complete Compulsory documents and attach it to their tender document, failing which the tender shall not be considered for Stage 1 evaluation.

Points will be awarded in accordance with the Preferential Procurement Policy Framework Act (PPPFA)

Stage 1

Criteria for Functionality	Points
TOTAL	

NOTE: Bidders who fail to meet the above minimum requirements (Stage 1) shall be automatically eliminated

Stage 2

Criteria for Price and B-BBEE Status	Points
Bid Price	90
Preference Points	10
TOTAL	100

Bidders are required to use the two envelope bidding system, whereby the Technical Proposal (Stage 1) and Pricing and B-BBEE (Stage 2) be placed in two separate sealed envelopes marked:

- **Stage One**–

- **Stage Two**–

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SUPPLIER JOB CREATION ANALYSIS

Company Name		Date Est.	
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	Permanent	Temp	SA Citizens	Other	Comments
Staff compliment at Establishment of Enterprise					
Current staff compliment					
Number of jobs to be created if Bid is successful					

- The successful bidder may be audited during the course of the contract to verify the above information.

Comments to include:

- If Job Creation is direct (by your own company) or indirect (by your supplier)
- Where the jobs created for employees that were in existing positions or unemployed? (Net Job Creation)

NOTE: Job Creation should adhere to all applicable RSA Legislation and Regulations.

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THIS SECTION IS FOR OFFICE USE ONLY!						
Observations	Initial Job Count	Job Creation Potential	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Year 1						
Year 2						
Year 3						
Year 4						
Year 5						

TENDER SPECIFICATION OF CONTRACT GT/GDH/023/2022 THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO VARIOUS GAUTENG DEPARTMENT OF HEALTH INSTITUTIONS FOR THE PERIOD OF THREE YEARS

ABBREVIATIONS

B-BBEE:	Broad Based Black Economic Empowerment
B-BBEE Controlled:	A juristic person, having shareholding or similar members interest, in which black Company participants, enjoy a right to Exercisable Voting Rights that is at least 51% of the total such rights measured using the Flow-Through Principle.
B-BBEE Owned:	A juristic person having shareholding or similar members interest, that is BEE Company controlled, in which black participants enjoy a right to Economic interest that is at least 51% of the total such rights measured using the Flow-Through Principle.
BEC:	Bid Evaluation Committee
BSC:	Bid Specification Committee
EME:	Exempted Micro Enterprise
GCC:	General Conditions of Contract
GPG:	Gauteng Provincial Government
GPT:	Gauteng Provincial Treasury
POPI:	Protection of Personal Information Act
PPPFA:	Preferential Procurement Policy Framework Act
QC:	Quality Control
QSE:	A qualifying small business enterprise in terms of the code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act
RFP:	Request for Proposal
SABS:	South African Bureau of Standards
SANAS:	South African National Accreditation System
SANS:	South African National Standard
SAHPRA:	South African Health Product Regulatory Authority
SCC:	Special Conditions of Contract
VAT:	Value- Added Tax

TENDER SPECIFICATION OF CONTRACT GT/GDH/023/2022 THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO VARIOUS GAUTENG DEPARTMENT OF HEALTH INSTITUTIONS FOR THE PERIOD OF THREE YEARS

1. THE PURPOSE

- 1.1 The purpose of this tender is to appoint a service provider/s for the supply, delivery, installation, commissioning and maintenance of imaging radiology equipment items to various Gauteng Department of Health institutions for a period of three years.

2. THE BACKGROUND

The various Gauteng Department of Health institutions need to provide diagnostic X-ray services. The Gauteng Department of Health requires various Imaging Radiology Equipment Items based on an end-user need analysis identifying various imaging radiology equipment items.

The required items range from digital general X-ray units, digital mobile X-ray units, digital fluoroscopy C-arm units, specialised digital X-ray units, ultrasound units and digital mammography units. Due to infrastructure design limitations (ceiling height) at some Health facilities, it was necessary to include floor mounted general X-Ray units, as an option.

The range of the imaging radiology equipment included in this tender, accommodates the different levels of care being rendered at Health facilities. For example, a fluoroscopy C-arm with a flat panel detector versus a fluoroscopy C-arm with a CCD Camera / Image Intensifier (affordable option).

3. LEGISLATIVE AND REGULATORY FRAMEWORK

The General Conditions of Contract (GCC):

This bid and all contracts emanating from this tender will be subject to the General Conditions of Contract (GCC), as issued by National Treasury in accordance with Treasury Regulation 16A published in terms of the Public Finance Management Act, 1999 (Act 1 of 1999). The general conditions are available on the National Treasury website (www.treasury.gov.za).

3.2 The Special Conditions of Contract:

The Special Conditions of Contract are supplementary to that of the General Conditions of Contract. Where the Special Conditions of Contract conflict with the General Conditions of Contract, the Special Conditions of Contract shall prevail.

3.3 Other legal prescripts:

- a. The Constitution of SA, Section 217
- b. Broad-Based Black Economic Empowerment Act, 2003 (Act. No. 53 of 2003)
- c. Public Finance Management Act, 1999 (Act No. 1 of 1999)
- d. Preferential Procurement Policy Framework Act no. 5 OF 2000
- e. Preferential Procurement Regulations, 2017

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- f. Open Tender Framework
- g. Gauteng Finance Management Supplementary Amendment Act 6 of 2019

4. THE FORMAT OF THE BID DOCUMENT

The bidders must submit the bid in a lever arch file in the format, as per Table 1 below.

Table 1: The Bid Format

Part of Bid Submission	Required documents
Part 1	Section 1: Technical Proposal of the tender All the documents included in Section 1 must be read, completed, signed where applicable and submitted. Product information documents (e.g. catalogues, operating manuals, instruction leaflets, etc.), in at least the English language. 1. SBD 01: Invitation to Bid 2. SBD 4: Declaration of Interest 3. SBD 8: Certification and Declaration of Bidder's Past Supply Chain Management Practices 4. SBD 9: Certificate of Independent Bid Determination 5. Quality Standards Certifications: - Products supplied to the Gauteng Department of Health must conform to the quality standards and international device regulations. The bidders must submit the following certifications together with the bid documents before the closing date and time of the bid: 5.1 Certificate of compliance - An original or original stamped certified copy of the signed Certificate of Compliance per product together with the bid documents at the closing date and time of the bid. This is required to certify that the material / product offered, complies with the international medical device regulations, such as: SANS, CKS, CE, ISO or equivalent. 5.2 South African Health Product Regulatory Authority (SAHPRA) Licence/Certificate - An original or original stamped certified copy of the signed certificate of compliance as proof of registration with South African Health Product Regulatory Authority. 6. A list of Gauteng based Technicians with Training Certificates employed by the bidder: - A list of Gauteng based Technicians employed by the bidder that will be responsible for the installation, commissioning, calibration and maintenance of the item/s

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	tendered for, must be submitted with the bid documents at the closing date and time of the bid. 7. An original stamped certified copy of the qualification/s of each Gauteng based technician employed by the bidder: An original stamped certified copy of the qualification/s of each Gauteng based technician employed by the bidder, relevant to the installation, commissioning, calibration and maintenance of the item/s tendered for, must be submitted with the bid documents at the closing date and time of the bid. 8. Product Brochure and Technical Data Sheets: Bidders must submit the fully comprehensive product brochures in pdf format in black and white and a copy of the technical data sheets (must also be submitted in pdf format in black and white) that includes the technical specifications of the items tendered for. Bidders that do not submit it will be disqualified. 9. Manufacturing Certificate: An original or original certified copy of the Product Manufacturer Certificate, if the bidder is the original product manufacturer; or If the bidder is not the original product manufacturer, an original certified copy of the Manufacturing Certificate as well as an original or original certified copy of the letter from the original product manufacturer, reseller or wholesale supplier that authorises the bidder to resell the product. 10. Tax Compliance Requirements: A printout via SARS e-Filing of the valid Tax Compliance Status (TCS) PIN, must be submitted with the bid documents at the closing date and time of the bid. In bids where consortia, joint ventures and sub-contractors are involved, each party must submit a separate PIN. The PIN, which is issued by the South African Revenue Services, can be used by third parties to verify the compliance status of the bidder online via SARS e-Filing. 11. Copy of Central Supplier Database (CSD) Registration Summary Report Bidder must be registered with CSD and provide the Supplier Master Registration Number (MAAA number) NB: All mandatory documents commissioned, and /or certified copies must be in line with the justices of the piece and Commissioners of Oaths Act, no. 16 of 1963.
Part 2	All the supporting documents of proof required for the General and Safety Requirements Evaluation and Technical Evaluation: - Organizational structure showing the technicians and the CVs of the technicians. - Company profile. - An original certified copy of the accreditation issued by the South African National Accreditation System (SANAS) to the Inspection Body affiliated with the bidders for

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	the Acceptance Quality Assurance Test and commissioning of the equipment offered. d. Any publication or supporting document for the Technical Evaluation. Certificate e. The bidders are required to submit a certified copy of the Registration as an importer with the <u>South African Revenue Service (SARS)</u> together with the Import Permit obtained from to the <u>International Trade Administration Commission (ITAC)</u>.
Part 3	Section 2: Financial Proposal of the tender. Completed Price Schedule document, referred to as Annexure B of the tender pack as well as an electronic copy in Excel format (not PDF), captured and saved on a CD. SBD 3. 2: Price Schedule – Goods Non-Firm Prices - Annexure B: Price schedule (total cost of ownership model for Imaging Radiology Equipment. - SBD 6.1: Preference Points Claim Form in terms of the Preferential Procurement Regulations of 2017

5. THE PRODUCTS SPECIFICATIONS

The bidders must refer to the attached Annexure A -

The tender specification for the supply, delivery, installation, commissioning and maintenance of imaging radiology equipment at Gauteng Health Institutions for the period of three years.

6. EVALUATION METHODOLOGY

The evaluation of the bids will be done in accordance with the requirements of the Preferential Procurement Policy Framework Act (Act 5 of 2000) and the Preferential Procurement Regulations, 2017 in two stages:

Stage 1A: Pre-qualification Criteria for Preferential Procurement Evaluation

Stage 1B: Mandatory Administrative Responsiveness Evaluation

Stage 1C: Technical Evaluation

Stage 2: Price and Preference Points Evaluation

The 90/10 preference point system, which is applicable to bids with a Rand value equal to, or above R30 000 and up to a Rand value of R 50 million (all applicable taxes included), shall be applied, where a maximum of 90 points will be allocated for price and maximum of 10 for preference points (BBBEE level of contribution).

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STAGE 1A: PRE-QUALIFICATION CRITERIA FOR PREFERENTIAL PROCUREMENT EVALUATION

In terms of the Preferential Procurement Regulations, 2017, par. 4(1) (a) the Gauteng Department of Health has decided to apply pre-qualification criteria to advance bidders that have a level 1 to 6 B-BBEE Status Level of Contributor.

Therefore, only bidders that have a level 1 to 6 B-BBEE Status Level of Contributor in terms of the code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act. No. 53 of 2003) may respond to this tender.

Valid proof of the level 1 to 6 B-BBEE Status Level of Contributor must be submitted together with the bid, as follows:

An original or original certified copy of a B-BBEE certificate from a SANAS accredited B-BBEE Verification Agency

or

In the instance where a bidder is an EME on B-BBEE level 1 or 2 and 4 or a QSE on B-BBEE level 1 and 2, then only an original affidavit commissioned by a Commissioner of Oaths: B-BBEE Exempted Micro Enterprise or Qualifying Small Enterprise in terms of the Codes of Good Practice (the template should be downloaded from the CIPC or DTI websites).

Note:

- a. In case of a consortium or joint venture, an original agreement signed by all party representatives must be submitted together with an original or original certified copy of a consolidated B-BBEE Certificate from a SANAS accredited B-BBEE Verification Agency.
- b. In the case of a single entity like a trust, an original affidavit or an original or original certified copy of a B-BBEE Certificate from a SANAS accredited B-BBEE Verification Agency will suffice.

If a bidder does not meet the requirements stated above the bid will be disqualified.

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STAGE 1B: MANDATORY ADMINISTRATIVE RESPONSIVENESS EVALUATION

Only bidders who have complied with the Pre-Qualification Criteria for Preferential Procurement Evaluation will be evaluated for the Mandatory Administrative Responsiveness.

1. Quality Standards Certifications:

Products supplied to the Gauteng Department of Health must conform to the quality standards and international device regulations. The bidders must submit the following certification together with the bid documents before the closing date and time of the bid:

- a. An original stamped certified copy of the signed Certificate of Compliance per product together with the bid documents at the closing date and time of the bid. This is required to certify that the material / product offered, complies with the international medical device regulations, such as: SANS, CKS, CE, ISO, IEC-601-1, IEC-601-1-2 and IEC-60601 / IS-13450 or equivalent.
- b. South African Health Product Regulatory Authority (SAHPRA) Licence/Certificate:
An original or original stamped certified copy of the signed certificate of compliance as proof of registration with South African Health Product Regulatory Authority.

2. A list of Gauteng based Technicians with Training Certificates employed by the bidder:
A list of Gauteng based Technicians employed by the bidder that will be responsible for the installation, commissioning, calibration and maintenance of the item/s tendered for, must be submitted with the bid documents at the closing date and time of the bid.

3. An original certified copy of the qualification/s of each Gauteng based technician employed by the bidder:

An original certified copy of the qualification/s of each Gauteng based technician employed by the bidder, relevant to the installation, commissioning, calibration and maintenance of the item/s tendered for, must be submitted with the bid documents at the closing date and time of the bid.

4. Product Brochure, fully comprehensive and Technical Data Sheets:

Bidders must submit the fully comprehensive product brochures in pdf format in black and white and a copy of the technical data sheets (must also be submitted in pdf format in black and white or colour) that includes the technical specifications of the items tendered for.

ALL BROCHURES MUST BE CLEARLY MARKED:

- Brochures for (Item description)
- Item number: to be indicated on brochure
- Name of the company
- It is the responsibility of the bidder to identify the page numbers when referencing in Technical Specifications column F (reference to brochure/technical data sheets). Technical specifications line item will not be evaluated where page number is not provided in

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Technical Specifications column F (reference to brochure/technical data sheets) due to non-responsiveness of the bid row.

Bidders that do not submit will be disqualified.

5. Manufacturing Certificate:

An original or original certified copy of the Product Manufacturer Certificate, if the bidder is the original product manufacturer; or

If the bidder is not the original product manufacturer, an original certified copy of the Manufacturing Certificate as well as an original or original certified copy of the letter from the original product manufacturer, reseller or wholesale supplier that authorises the bidder to resell the product.

Any pending cases from regulatory / compliance bodies, i.e. **FDA**, etcetera regarding the manufacturing and certification of the equipment offered, must be disclosed before installation. The manufacturer must issue installation certificate.

6. Compulsory Standard Bidding Documents

The bidders must complete, sign and submit the following Standard Bidding Documents that are compulsory:

- a) SBD 01: Invitation to Bid
- b) SBD 3.2: Price Schedule – Goods Non-Firm
- c) SBD 4: Declaration of Interest
- d) SBD 8: Certification and Declaration of Bidder's Past Supply Chain Management Practices
- e) SBD 9: Certificate of Independent Bid Determination

If a bidder does not meet the requirements stated above the bid will be disqualified.

STAGE 1C: TECHNICAL EVALUATION

Only bidders who have complied with the Mandatory Administrative Responsiveness Evaluation will be evaluated for the Technical Evaluation.

Bidders must observe and refer to the tender specifications of the imaging radiology items, namely Annexure A: Tender Specification, Technical Evaluation - Item 1 to 17 in the Tender Specification for the Supply, Delivery, Installation, Commissioning and maintenance of various Imaging Radiology Equipment Items to various Gauteng hospitals for the period of three years. If a bidder does not meet the requirements stated above the bid will be disqualified.

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STAGE 2: PRICE AND PREFERENCE POINTS EVALUATION

- a. Only bidders who have complied with all of the previous stages of evaluation will be considered for the price and preference point system evaluation.
- b. In terms of the Preferential Procurement Regulations 2017, Regulation 6.1 The 90/10 preference point system, which is applicable to bids with a Rand value equal to, or above R 50 million (all applicable taxes included) will apply.
- c. Bidders are referred to the SBD 3.2 and Annexure B for pricing schedule and the SBD 6.1 for the Preference Point System.

7. SPECIAL CONDITIONS

7.1 Copyright

This document may be reproduced and distributed under the strict condition that the content hereof is not altered, unless the alteration has been done by authorized personnel stipulated by the GPT and the normal GPT document control procedures are followed.

8. GENERAL AND SAFETY CONDITIONS

a. Licenses:

- 1) The import / product license must be registered under the successful bidder's name or a letter of joint venture must be submitted by the license holder where the license is not in the name of the bidder.
- 2) The successful bidder must submit the installation and user license application form (RC Dealer Form) of the equipment to Radiation Control Directorate.
- 3) All electro-medical devices must be approved and licensed by the Radiation Control Directorate / SAHPRA. The successful bidders must -
 - i. Submit an original or an original certified copy of the license.
 - ii. Grant licenses and access to third party supplier, as per written agreement at no extra cost, for connectivity of their systems to the equipment offered.
 - iii. Grant licenses and access to third party supplier, as per written agreement at no extra cost, for connectivity of their systems to replacement (loan) equipment, new software (for example PACS / RIS / HIS)
- 4) A copy of a valid import / product licence issued by the Directorate Radiation Control of the National Department of Health in terms of the Hazardous Substance Act 15 of 1973 and associated Regulations, must be submitted.
- 5) State all the same or other similar products installed and the reference sites where such equipment is currently in operation in RSA or elsewhere since 2010.

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b. Acceptance Tests:

The successful bidders must -

- 1) Ensure that the required Acceptance Tests are performed immediately after installation.
- 2) Must submit the acceptance test results to Radiation Control Directorate / SAHPRA to obtain approval for functionality of the unit by the user.

c. Electrical power supply:

The successful bidders must -

- 1) Verify that adequate electrical power supply is available for the optimal functionality of the equipment.
- 2) If electrical power supply is found to not be adequate, then an upgrade that meets our Certificate of Compliance must be provided.

d. Building alterations and installation:

The successful bidders must –

- 1) Provide a separate quotation for building alterations, where applicable.
- 2) Is responsible for all the building, air conditioning, electrical, mechanical and plumbing alterations, which can only be executed through the approval of the Department of Infrastructure Development (DID) and the Facility Management Unit (FMU) at the Institution, where applicable.
- 3) Consult the Facility Managing Unit (FMU) at the Health institution and the regional representative of the Gauteng Department of Infrastructure Development (DID) in respect of the building alterations in order to establish minimum standards.
- 4) Inspect the site in order to quote for any building alterations that need to be made to accommodate the equipment tendered for. A building plan should be presented to the Facility Management Unit at the Health institution who will in turn obtain the necessary approvals prior to commencement of actual work.
- 5) Specify the following on the quotation for building alterations:
 - a. Construction alterations:
 - b. Air conditioning, where applicable (specify), as follows
 - 1) Include any air conditioning that is considered necessary for optimal functioning of the unit.
 - 2) Any such air conditioning must be covered by the three-year guarantee period.
 - 3) The air conditioner must be 18 000 BTU or above.
 - c. Electrical alterations, where applicable (specify)
 - d. Mechanical and plumbing alterations, where applicable (must be specified).
 - e. Including other related work
- 6) Complete the following within 6-12 weeks after receiving purchase order:

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- a. The delivery of the equipment to the institution.
 - b. The finalization of the building alterations.
 - c. Time required for installation and commissioning from the date of delivery of the equipment to the institution.
 - d. Total time required from the placement of the order to the commissioning of the equipment.
- 7) In the instance of any delay in the installation, a communication must be done with the relevant institution in writing.
 - 8) Should there be existing equipment in the X-ray room, the successful bidder must in consultation and co-operation with the Asset Management Unit at the Health institution, remove it for official disposal. Please note that the existing equipment remains the property of the Health institution, where applicable.
 - 9) Is required to provide equipment layout and electrical drawings in brochure form and on a CD or memory stick.
 - 10) The staff of the successful bidder shall be available for consultation and to attend installation planning meetings throughout the entire installation process of the system.
 - 11) Do a pre-installation survey and notify the Health institution with recommendation of any gaps affecting the installation of the equipment.
 - 12) The successful bidder must ensure that the configuration between the processed images on the Digital Imaging Workstation and that transferred to the receivers of these images, such as PACS, Laser Printer, CD/DVD are properly calibrated/reconfigured during installation, service and maintenance, repairs, and future software updates/upgrades.
- e. Radiation Protection
- The successful bidders must -
- 1) Provide all Quality Control Test Tools for basic testing of the applicable Systems.
 - 2) Machine Should comply with AERB Guidelines March 2016 for radiation equipment.
- f. Technology
- 1) No product or part thereof shall be second hand or refurbished.
 - 2) The successful bidders must be able to upgrade the software at no cost during the contract period. The system must be upgradeable to enhance functionality.
 - 3) The offered product must comprise of the latest technology. The technology and the date of initial manufacture of the technology range must be stated.
- g. Manuals and documentation
- 1) The successful bidders must submit an original hard copy or an electronic copy of all the brochures that includes the brand and complete technical specification as follows: correct
 - a. The brochure in pdf format in black and white.
 - b. The marketing brochure as well as the technical product data sheets.

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NB: Technical product data sheets is a document that summarizes the performance and other characteristics of the product, machine, components eg. Electronic, material, sub-system eg. Power and software details.

- 2) The successful bidders must submit the complete service / repair and user manual book as follows:
 - a. Original manuals must be supplied.
 - b. The service / repair and user manual book must include the following information:
 - b1. Fault finding guide
 - b2. Circuit diagrams / schematics
 - b3. Circuit descriptions and PCB layouts
 - b4. Calibration guide
 - b5. Part numbers and exploded diagram of mechanical parts / panels
 - c. An electronic copy or CD of the manuals and documentation in English must be supplied.
 - d. The following must be submitted in English:
 - d1. Complete operator /user manuals
 - d2. DICOM conformance statements
 - d3. HIS and RIS/PACS conformance statements
 - d4. Quality assurance manuals
 - d5. Service manuals with full maintenance procedures, parts lists, system diagrams and electrical, mechanical and pneumatic schematics.
 - d6. Log book with instructions for daily, weekly, monthly and quarterly maintenance checklists.
 - d7. Certificate of calibration and inspection from factory.
 - d8. The vendor shall provide updates and revisions of the manuals at no extra charge for the lifetime of the equipment
- h. Warranty, Maintenance and Quality Control Testing
 - 1) The three-year warranty will commence after formal acceptance and handover of the equipment.
 - 2) The annual QC tests are mandatory on X-Ray units.
 - 3) Scheduled Services by Technical Staff and Annual QC tests by Inspection Bodies, must be performed during normal working hours, from 08h00 to 17h00 during week days or as per arrangement.
 - 4) Successful bidders must supply a three-year warranty against poor workmanship and latent defects and parts, as follows:
 - a. The warranty must include all materials used and all workmanship.
 - b. All software updates must be included in the warranty at no extra costs.
 - c. Spares and traveling time cost to be included in the warranty. Spares should be available within three to five working days.

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- d. A callout and backup service for urgent service requests must be available daily for 24 hours and be included in the warranty. The response time must be within two hours.
- 5) The successful bidder must arrange with both the respective Hospital / Institution and the Health Technology Services - HOD of Radiography / Radiology / Medical
 - 6) Physicist before commissioning the equipment at the respective hospital / institution.
 - 7) The equipment will only be accepted after the commissioning and approval for use by Radiation Control Directorate / SAHPRA.
 - 8) Software changes to the equipment that are corrective in nature and initiated due to software errors, regulatory requirements or safety reasons, shall be delivered and installed at no charge for the life span of the equipment.
 - 9) If movable equipment is taken away to the service and repair facility for repair and maintenance during the warranty and maintenance periods, a loan set must be supplied for use by the institution.
 - 10) If the equipment bidden for cannot be repaired during the warranty period, it must be replaced and the institution be furnished with new equipment
 - 11) Up-Time is defined as follows: 24/7; i.e. 365 days times 24 hours = 8760 Hours. A down time of 2% relates to 175 hours per annum.
 - 12) The up-time of the unit must comply as follows:
The up-time of the unit must be better than 98%, excluding scheduled preventative maintenance and software upgrades, measured on a quarterly basis. The percentage lower than 98% will be added to the warranty period.
 - 13) A sliding scale penalty clause will form part of the service contract. This will result in the maintenance payment being reduced by a pro rata amount that the up-time is less than 98%.
 - 14) The seven year all inclusive, fully comprehensive preventative maintenance, service and repair contract will commence after the three-year warranty period has expired, as follows
 - 15) This contract would cover, but not be limited to the following: labour, travelling, accommodation, service and maintenance.
 - 16) Specify the total cost per year and the cumulative cost for the seven-year all-inclusive service contract.
 - 17) The contract must cover, but not be limited to the following: All parts (including, where appropriate, X-Ray tubes and other glassware), labour, travelling, accommodation, service and maintenance.
 - 18) The seven-year maintenance plan must also include all quality checks and quality assurance requirements (including Annual QA-tests by SANAS accredited inspection bodies) and also all required calibrations.
 - 19) All software updates must be included in the seven-year maintenance plan at no extra costs.

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- 20) A Technical Report outlining the functional status of each unit must be submitted to the Head of the Department on an annual basis. (not to be confused with Annual QC Test Results issued by the Inspection Bodies)
 - 21) For each and every repair, service and maintenance and all other services (upgrades, updates, etcetera) a job card must be furnished.
 - 22) The lifespan and end of support date of the equipment offered must be indicated.
 - 23) Spare parts must be guaranteed available for the specified life of the equipment, with a minimum of ten years.
 - 24) Spare part kits should specify all spare parts that will be included and stored on-site.
- i. Commissioning of the equipment
- The equipment and accessories ordered shall be delivered, installed, tested and commissioned at the expense of the successful bidders prior to acceptance.
- j. User and Technical Training
- 1) The successful bidder must state the required training to the end-user. Upon commissioning the system, the application specialist must immediately be available to provide training to the end-user staff.
 - 2) On-site training on all new equipment to be included in the price.
 - General X-ray equipment:
Five working days per week for the first 2 weeks or as per arrangement on site user training sessions on the operation of the equipment must be provided at no additional cost to the final bid price to ensure the correct application of the unit.
 - Ultrasound equipment:
Five working days per week for the first 2 weeks. On site user training sessions on the operation of the equipment must be provided at no additional cost to the final bid price to ensure the correct application of the unit.
 - Mammography equipment:
Five days per week for the first 2 weeks. On site user training sessions on the operation of the equipment must be provided at no additional cost to the final bid price to ensure the correct application of the unit.
 - 3) Optional training for two days for clinical engineers, medical physicist and IT specialists must be provided.
 - 4) The application specialist must provide repetitive and refresher training for one day every six months for the duration of the warranty and maintenance, as requested by the users in order to demonstrate and train all staff on all aspects of the equipment.
 - 5) Quality Control training for two days must be provided by the supplier's technician / Inspection Body is mandatory within the first year and must be included in the tender price (not included in other training).
 - 6) All other further training must be available on request.
 - 7) Successful bidders must note that dedicated test equipment, spare parts and any special tooling required for the maintenance of equipment quoted on must be

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made available and a dedicated workshop must be arranged. The Department has the right to visit and validate the workshop.

k. Repair and Service Facility

- 1) Bidder's must have an established service and repair facility in the province of Gauteng and must be available at regional level. If the service is sub-contracted to a local agent, a signed copy of the letter of appointment and acceptance must be submitted with this bid / quotation.
- 2) The name, area in Gauteng, address and telephone number/s of the service department must be provided. (proof of residence must be provided).

9. PAYMENT TERMS

Section 38(1)(f) of the PFMA and Treasury Regulation 8.2.3 regulates the payment to suppliers within 30 days of invoice receipt. In support of this it is compulsory for the successful bidders, at the time of the tender awards, to register for GPT Electronic Invoice Submission and Tracking.

10. THE CONDITIONS OF THE BID AWARD

- a) The Gauteng Department of Health reserves the right not to award or cancel the bid, as stipulated in Regulation 13 of the PPR, 2017.
- b) The bid will be awarded to the bidder/s whose bid scored the highest combined price and preference points out of 100.
- c) The Gauteng Department of Health reserves the right to award the same item to more than one bidder to address product availability and compatibility and this will be at the discretion of the Bid Evaluation Committee”.
- d) The Gauteng Department of Health reserves the right to negotiate further with preferred bidders, where prices are above the targeted market price as stipulated in Regulation 6 and 7 of the PPR, 2017.
- e) The successful bidder must be tax compliant at the awarding of the tender.
- f) Bidder must be registered with CSD and provide the Supplier Master Registration Number (MAAA number)

11. TRAVEL

The Gauteng Department of Health will not be liable for any other travel costs incurred by the bidders. Prices quoted must be furnished based on “rendered on site” at the Gauteng Emergency Medical Services.

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12. AUTHORISATION DECLARATION

- a) Any bidder who is sourcing goods or services from a third party must compile an "Authorization Declaration" in full for all relevant goods or services, sign it and submit it together with the bid documents at the closing date and time of the bid.
- b) The Gauteng Department of Health reserves the right to verify any information supplied by the bidder in the Authorization Declaration and should the information be found to be false or incorrect, the Gauteng Department of Health will exercise any of the remedies available to it in the bid documents.
- c) The bidder must ensure that all financial and supply arrangements for goods or services have been mutually agreed upon between the bidder and the third party. No agreement between the bidder and the third party will be binding on the Gauteng Department of Health.
- d) The bidders must submit a duly completed and signed Authorization Declaration, with the required annexure(s), in accordance with the above provisions in order not to delay the evaluation of the bid.

13. BRIEFING SESSION

- 13.1 The briefing session will not be held due to Covid 19 protocol, however, bidders will be provided with an opportunity to obtain clarity on certain aspects of the procurement process as set out in this bid document.
- 13.2 The state reserves the right to answer questions via email session and or to respond formally on the same platform before the closing date of the bid.
- 13.3 Bidders are encouraged to prepare questions upfront and send them to Joseph.Mopeli@gauteng.gov.za by e-mail and to contract management (email will be provided) before the closing date of the bid. The closing date for receipt of all enquiries is seven days before the closing date of the bid.
- 13.4 All enquiries beyond this closing date will not be considered

14. COUNTER CONDITIONS

The attention of the bidders is drawn to the fact that amendments to any of the Bid Conditions or setting of counter conditions by bidders may result in the invalidation of such bids.

15. FRONTING

- a) The Gauteng Department of Health supports the spirit of broad based black economic empowerment and recognizes that real empowerment can only be achieved through individuals and businesses conducting themselves in accordance with the Constitution and in an honest, fair, equitable, transparent and legally compliant manner. Against this background the National Treasury condemns any form of fronting.

TENDER SPECIFICATION OF CONTRACT GT/GDH/023/2022 THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO VARIOUS GAUTENG DEPARTMENT OF HEALTH INSTITUTIONS FOR THE PERIOD OF THREE YEARS

- b) The Gauteng Department of Health, in ensuring that bidders conduct themselves in an honest manner will, as part of the bid evaluation processes, conduct or initiate the necessary enquiries/investigations to determine the accuracy of the representation made in bid documents.
- c) Should any of the fronting indicators as contained in the Guidelines on Complex Structures and Transactions and Fronting, issued by the Department of Trade and Industry, be established during such enquiry/investigation, the onus will be on the bidder / contractor to prove that fronting does not exist.
- d) Failure to do so within a period of 14 days from date of notification may invalidate the bid / contract and may also result in the restriction of the bidder/contractor to conduct business with the public sector for a period not exceeding ten years, in addition to any other remedies the National Treasury may have against the bidder/contractor concerned.

e)

16. VALIDITY PERIOD

Bids are held to be valid for a period of one hundred and twenty (120) days after the closing date. Should a bidder retract his offer without good reason, in the opinion of the Department, he may be held responsible for the cost of a possible re-tender.

17. CONTRACT PERIOD

The contract period shall be for a period of three years.

18. PARTICIPATING DEPARTMENTS / INSTITUTIONS

Various Gauteng Department of Health institutions will participate in the contract.

19. MERGERS, TAKE OVERS AND CHANGES IN SUPPLIER DETAIL

- a) Where a contracted supplier merges with or is taken over by another, the contracted supplier must inform the Department of Health in writing immediately (within 7 days) of relevant details.
- b) The Department of Health reserves the right to agree to the transfer of contractual obligations to the new supplier under the prevailing conditions of contract or to cancel the contract.
- c) A contracted supplier must inform the Department of Health within 7 days of any changes of address, name or banking details.

20. THIRD PARTIES

- a) Participating authorities will not make a payment to or consult regarding orders with a third party.
- b) No third party is entitled to put an account on hold.

TENDER SPECIFICATION OF CONTRACT GT/GDH/023/2022 THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO VARIOUS GAUTENG DEPARTMENT OF HEALTH INSTITUTIONS FOR THE PERIOD OF THREE YEARS

21. POST AWARD REPORTING

Historical Data:

All successful bidders may be required to submit historical value and volume reports via e-mail on a quarterly (3) monthly basis to:

Gauteng Department of Health, Directorate: Acquisition and Contract Management

22. TECHNICAL ENQUIRIES

Mr. Joseph Mopeli

E-mail: Joseph.Mopeli@gauteng.gov.za



GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

TENDER SPECIFICATION OF CONTRACT GT/GDH/023/2022 THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO VARIOUS GAUTENG DEPARTMENT OF HEALTH INSTITUTIONS FOR THE PERIOD OF THREE YEARS

ANNEXURE A: TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO VARIOUS GAUTENG DEPARTMENT OF HEALTH INSTITUTIONS FOR THE PERIOD OF THREE YEARS

The bidders must complete the Tender Specification as follows:

1. The original Tender Specification must be submitted.
2. The Tender Specification in MS Excel format that is attached below must be completed in order to submit in an electronic copy in Excel format (not PDF), captured and saved on a memory stick in its original form and must be saved on a memory stick.
3. Each response to the line item will be verified in the brochures, technical data sheets, user and technical manuals submitted by the suppliers. Reference to Brochure / Technical Data Sheet must include a page number for verification purposes.
Should the information required not be stated in the brochures, technical data sheets, user and technical manuals the vendor should then supply a letter from the manufacturer to verify the response.
4. The bidders must refer to Tender Specification Item 1 to 17 in the Microsoft Excel to indicate the compliance with the tender specification:

- | | |
|---------|--|
| Item 1: | Technical Evaluation:
Digital Fixed X-Ray Unit, Floor Mounted X-Ray Tube, Supine Bucky Table, Vertical Bucky Stand and Two Digital Flat Panel Detectors |
| Item 2: | Technical Evaluation:
Digital Fixed X-Ray Unit, Ceiling Suspended X-Ray Tube, Supine Bucky Table, Vertical Bucky Stand and Two Digital Flat Panel Detectors |
| Item 3: | Technical Evaluation:
X-Ray Unit, Bucky, Conventional with Floating Table |
| Item 4: | Technical Evaluation:
Digital Fixed Chest X-Ray Unit, Floor Mounted X-Ray Tube and Erect Bucky Stand with Fixed Detector |
| Item 5: | Technical Evaluation: |



TENDER SPECIFICATION OF CONTRACT GT/GDH/023/2022 THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO VARIOUS GAUTENG DEPARTMENT OF HEALTH INSTITUTIONS FOR THE PERIOD OF THREE YEARS

- Digital Fixed Chest X-Ray Unit, Ceiling Suspended X-Ray Tube and Erect Bucky Stand with Fixed Detector
- Item 6: Technical Evaluation:
Digital X-Ray Unit, U-Arm Type
- Item 7: Technical Evaluation:
Digital Mobile X-Ray Unit, 16-24 Kw with Flat Panel Digital Detector
- Item 8: Technical Evaluation:
Digital Mobile X-Ray Unit, 25-50 Kw with Flat Panel Digital Detector
- Item 9: Technical Evaluation:
Digital Mobile Fluoroscopy C-Arm with Flat Panel Detector, 12KW
- Item 10: Technical Evaluation:
Digital Mobile Fluoroscopy C-Arm, Light Weight with Rotating Anode and CCD Camera II CCD, 5KW
- Item 11: Technical Evaluation:
Ultrasound Unit Midrange
- Item 12: Technical Evaluation:
Ultrasound Machine, High End with TEE
- Item 13: Technical Evaluation:
Ultrasound Machine, High End, Echocardiogram Unit WITH 4D/3D Capability with TEE
- Item 14: Technical Evaluation:
Ultrasound Machine, Portable, High End and Compact
- Item 15: Technical Evaluation:
Mammography Unit, Full Field Digital Detector with Tomosynthesis
- Item 16: Technical Evaluation:
Mammography Unit with full Field Digital Detector with Tomosynthesis, Integrated Stereotactic Tomosynthesis Biopsy Device, Computer Aided Diagnostics Software, Contrast Mammography and Automated Breast Density
- Item 17: Technical Evaluation:
Bone Densitometer, Fan Beam and Linear Scanning



TENDER SPECIFICATION OF CONTRACT GT/GDH/023/2022 THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO VARIOUS GAUTENG DEPARTMENT OF HEALTH INSTITUTIONS FOR THE PERIOD OF THREE YEARS

ANNEXURE B: PRICE SCHEDULE

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO VARIOUS GAUTENG DEPARTMENT OF HEALTH INSTITUTIONS FOR THE PERIOD OF THREE YEARS

The bidders must complete the Price Schedule as follows:

1. The original RFP07 GPT (SBD 3.2) - Price schedule must be submitted, as well as an electronic copy in Excel format (not PDF), captured and saved on a CD or memory stick.
Hard Copy Format:
The original (hard copy) must be written clearly and legibly.
Soft Copy Format:
The electronic (soft copy) must be submitted on a CD RW or memory stick to the Gauteng Provincial Treasury Tender Office. The CD or memory stick must be clearly marked with the Company Name and tender number. The electronic copy in Excel format must be used by the BEC to compile the evaluation worksheets of the bids.
2. The Price Schedule in MS Excel format that is attached below must be completed in order to submit it in original.
3. The bidders must also retype the Price Schedule in MS Excel format and complete it electronically in order to submit it electronically.
4. The bidders must ensure that there are no discrepancies between the electronic (soft copy) saved on a memory stick and the original hard copy submissions of the Price Schedule. If any discrepancies are detected, the hard copy document will take precedence over the electronic copy. The Gauteng Department of Health may contact the bidder, but shall not be obliged to do so, for clarification regarding any discrepancies found.
5. Each original bid with the CD OR memory stick must be submitted in a separate, sealed envelope to Gauteng Provincial Treasury, Tender Box before the closing date and time. The name and address of the bidder, the bid number and the closing date must be clearly endorsed on the sealed envelope.

TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

LIST OF ITEMS

1	DIGITAL FIXED X-RAY UNIT, FLOOR MOUNTED X-RAY TUBE, SUPINE BUCKY TABLE , VERTICAL BUCKY STAND AND TWO DIGITAL FLAT PANEL DETECTORS
2	DIGITAL FIXED X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE, SUPINE BUCKY TABLE , VERTICAL BUCKY STAND AND TWO DIGITAL FLAT PANEL DETECTORS
3	X-RAY UNIT, BUCKY, CONVENTIONAL WITH FLOATING TABLE
4	DIGITAL FIXED CHEST X-RAY UNIT, FLOOR MOUNTED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR
5	DIGITAL FIXED CHEST X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR
6	DIGITAL X-RAY UNIT, U-ARM TYPE
7	DIGITAL MOBILE X-RAY UNIT, 16-24 KW WITH FLAT PANEL DIGITAL DETECTOR
8	DIGITAL MOBILE X-RAY UNIT, 25-50 KW WITH FLAT PANEL DIGITAL DETECTOR
9	DIGITAL MOBILE FLUOROSCOPY C-ARM WITH FLAT PANEL DETECTOR, 12kW
10	DIGITAL MOBILE FLUOROSCOPY C-ARM, LIGHT WEIGHT WITH ROTATING ANODE AND CCD CAMERA II CCD, 5kW
11	ULTRASOUND UNIT MIDRANGE
12	ULTRASOUND MACHINE, HIGH END WITH TEE
13	ULTRASOUND MACHINE, HIGH END, ECHOCARDIOGRAM UNIT WITH 4D/3D CAPABILITY WITH TEE
14	ULTRASOUND MACHINE, PORTABLE, HIGH END AND COMPACT
15	MAMMOGRAPHY UNIT, FULL FIELD DIGITAL DETECTOR WITH TOMOSYNTHESIS
16	MAMMOGRAPHY UNIT WITH FULL FIELD DIGITAL DETECTOR WITH TOMOSYNTHESIS, INTEGRATED STEREOTACTIC TOMOSYNTHESIS BIOPSY DEVICE, COMPUTER AIDED DIAGNOSTICS SOFTWARE, CONTRAST MAMMOGRAPHY AND AUTOMATED BREAST DENSITY
17	BONE DENSITOMETER, FAN BEAM AND LINEAR SCANNING

 GAUTENG PROVINCE HEALTH REPUBLIC OF SOUTH AFRICA						TENDER SPECIFICATION	
THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS							
DIGITAL FIXED X-RAY UNIT, FLOOR MOUNTED X-RAY TUBE, SUPINE BUCKY TABLE, VERTICAL BUCKY STAND AND TWO DIGITAL FLAT PANEL DETECTORS							ITEM 1:
Note: a. The rows and columns of the tender specification: 1) The rows: The rows are the tender specifications (line items) b) The columns have the following headings: o Item Number o Tender Specification o Weight o Comply (Yes/No) o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point) o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document b. The rows and columns that the bidders must complete: The bidders must complete the following columns in each row (each specification line item): o Comply (Yes/No) o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point) o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document c. The scoring of the bids: 1) Weights: Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows: specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with. A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with. 2) Scores: The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows: 0 - The specification does not comply. 1 - The specification is fully compliant. <u>Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.</u> 3) Weighted Score: The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1. 4) Total Score: The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 84 points. d. The required score to be considered for an award: 1) The bidders must comply with all the specifications (line items) with a # weight. 2) The bidders must all obtain a minimum score of 68 points or higher out of 85 points in respect of the specifications (line items) with a weight of 1.							
Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification		
A.	DIGITAL X-RAY UNIT SYSTEM						
A.1	The system must be capable of performing all general radiographic examinations of adults and children	#					
A.2	The system must be configured with the x-ray tube affixed to a floor mounted tube stand, a fixed bucky table and a vertical bucky stand combination.	#					
A.3	The system must incorporate two flat panel digital detectors that must fit into the table bucky and the erect bucky, each sized between 35cm X 43cm to 43cm x 43 cm range.	#					
A.4	Fixed / Wireless removable flat panel detector options must be available. Details of detector size, type, and cost per type of available options are stated in supporting documents.	1					
A.5	System must include a minimum of LCD 19 inch sized, flat screen colour monitor for operators console / acquisition review	1					
A.6	UPS provided to be mounted on a bracket/cabinet, not to be placed directly on the floor.	1					
A.7	The system must have removable grids. STATE DETAILS.	#					
A.8	A wall mounted hanger/cabinet for the storage of removable grids and detector must be provided.	1					

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DIGITAL FIXED X-RAY UNIT, FLOOR MOUNTED X-RAY TUBE, SUPINE BUCKY TABLE, VERTICAL BUCKY STAND AND TWO DIGITAL FLAT PANEL DETECTORS					ITEM 1:
B.	X-RAY GENERATOR				
B.1	Generator should be of latest technology with high frequency and high speed starter and a power output of 60kW and above. Details are stated in supporting documents provided.	#			
B.2	A monitoring and display for heat status must be provided.	1			
B.3	AEC Functionality with 3-field ionization chamber	#			
B.4	APR Functionality (Anatomical programming) . Details are stated in supporting documents provided	#			
B.5	Minimum of 600mA at 100kV. Maximum mA output at 100 kV according to IEC60601-2-7 is stated.	1			
B.6	Selectable kV range of 40-150 kVp in 1 kVp increments.	1			
B.7	The system must have selectable mAs. Details are stated.	#			
B.8	Shortest exposure time with AEC. Details are stated.	1			
B.9	Automatic mains compensation capability must be included.	1			
C.	X-RAY TUBE AFFIXED TO FLOOR MOUNTED STAND				
C.1	X-ray tube should be a rotating anode high speed, compatible with both detectors. Details including latest type of mode, are stated in supporting documents provided.	#			
C.2	Dual focal spot (small and large focus sizes) must be provided. Details of nominal focal spot sizes and focal spot combinations ,according to IEC 60336 prescription, are stated in supporting documents provided.	#			
C.3	Real time of tube overloading and protection is required and must be displayed.	#			
C.4	Anode heat storage capacity must be minimum of 300 kHU and above. Details are stated in supporting documents provided.	#			
C.5	Total inherent filtration at 70kV is 2.5mm Al (IEC 60601-1-3 Standard).	#			
C.6	Manual multileaf collimator with rotating flange collimator	1			
C.7	Swivelling/rotation of collimator must be up to 45° relative to zero axis on either direction.	#			
C.8	Light localizer on / off switching	1			
C.9	Collimator must have electronic timer to terminate the light.	1			
C.10	X-ray Tube rotation range between 120 ° up to 135 ° relative to zero axis on either direction.	#			
C.11	Variable SID of the system	#			
C.12	Free standing tube stand with rotational column design and telescopic tube arm movement,	#			
C.13	Column rotation around its own axis at must be up to 90 ° on either direction with a locking mechanism.	#			
C.14	The ceiling suspended x-ray tube system must have a transverse travel range. Details of range are stated.	#			
C.15	The length of the longitudinal floor rails set must be a minimum of 250cm and above to ensure an extended travel range.	1			
C.16	The longitudinal rail extension set must have permanent stoppers / brackets at each end of the rail set, with shock absorbers to ensure the unit does not derail.	1			
C.17	Electromagnetic brakes with fully counter balanced mechanism.	#			
C.18	The digital display panel must additionally indicate the bucky table and the bucky wall stand symbol to show selection of either unit.	#			
C.19	Interlocking mechanism for at least 100cm, 115cm, 150cm and 180 cm SID . These distances must be electronically displayed on the x-ray tube /collimator housing.	1			

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DIGITAL FIXED X-RAY UNIT, FLOOR MOUNTED X-RAY TUBE, SUPINE BUCKY TABLE, VERTICAL BUCKY STAND AND TWO DIGITAL FLAT PANEL DETECTORS					ITEM 1:
D.	FIXED RADIOGRAPHIC TABLE				
D.1	Motorized height-adjustable table.	#			
D.2	Minimum table height ≤ 55cm and a maximum table height ≥ 85cm. Details of the range and total lift of height adjustable table, are stated in supporting documents provided.	#			
D.3	Floating Tabletop with Radioluscent Mattress	#			
D.4	Table top to be radioluscent.	#			
D.5	Built in tray/support for 43 cm x 43 cm digital detector and removable grid	#			
D.6	The digital flat panel detector must be fixed option or wireless and removable option.	1			
D.7	Table to accommodate a maximum patient load of ≥ 250kg centered and ≥ 250kg off-centered.	#			
D.8	Table length ≥ 200cm	#			
D.9	Table width ≥ 80cm	#			
D.10	Longitudinal and transverse tabletop movement.	#			
D.11	Control of the table functions via footswitch	#			
D.12	The footswitch must be double tapped for activation.	1			
D.13	Electromagnetically released permanent brakes to be standard	#			
D.14	Emergency stop mechanism must be attached to the table.	#			
D.15	Removable compression band.	1			
D.16	Cassette / Detector holder for out of bucky work.	#			
E.	VERTICAL STAND WITH DETECTOR UNIT / ERECT BUCKY				
E.1	Vertical stand fitted with a digital flat panel - detector and AEC measuring chambers displayed on erect stand.	#			
E.2	Built in tray/support for digital detector	#			
E.3	The digital flat panel detector must be fixed OR wireless and removable.	1			
E.4	Vertical height of stand must be ≥ 200 cm.	#			
E.5	Range of vertical movements of bucky: minimum height ≤ 45 cm from the floor maximum height ≥ 180cm. Details are stated.	#			
E.6	Patient hand grips for arms above head and on side of detector holder.	#			
F.	TWO DIGITAL FLAT PANEL DETECTORS (FP)				
F.1	Two Digital FP detectors of 35cm x 43cm x 43cm field size.	#			
F.2	Amorphous silicon with cesium iodide scintillator.	#			
F.3	Detectors must have a minimum acquisition depth of 14 bits and above grayscale. Details are stated in supporting documents provided.	#			
F.4	Pixel pitch must be ≤ 160 micrometer (µm).	#			
F.5	Detector to have matrix in pixels of 2000 x 2000 and above.	#			
F.6	For Wireless and Removable Flat Panel Detector, include the following :				
F.6.1	Wi-Fi and LAN capability of Wireless detector. A tethered cable for wireless FP-detector option in case of Wi-Fi disruption or detector discharge .	1			
F.6.2	A wireless detector must be offered. Details are stated.	1			
F.6.3	The wireless detector must be able to trigger for acquisition without connectivity to the X-Ray generator to allow the wireless detector to be used in different areas.	1			
F.6.4	Images must be stored on the system even during battery failure.	1			
F.6.5	Battery pack.	1			
F.6.6	Battery charger.	1			
F.7	DQE must be ≥ 60% @ 0 line pairs per millimeter / ≥ 50% @ 0.05 line pairs per millimeter / ≥ 40% @ 1 line pairs per millimeter (lp/mm). DQE and MTF details are stated in supporting documents.	1			
F.8	Description of the scatter radiation grids used in conjunction with the detectors, are detailed in supporting documents provided.	1			
F.9	The data transmission / reading speed from exposure to preview should be ≤ 5 seconds.	#			
F.10	The data transmission / reading speed from exposure to full image should be ≤ 10 seconds.	#			

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DIGITAL FIXED X-RAY UNIT, FLOOR MOUNTED X-RAY TUBE, SUPINE BUCKY TABLE, VERTICAL BUCKY STAND AND TWO DIGITAL FLAT PANEL DETECTORS					ITEM 1:
G.	OPERATOR CONSOLE				
G.1	High resolution digital radiography system with DICOM network connection for image processing and image display on a preview monitor	#			
G.2	A diagnostic LCD ≥ 19 inch sized, flat screen colour monitor for the imaging workstation is required. Must be based on the latest flat panel detector technology for high image dynamics with excellent signal/noise ratio.	1			
G.3	Application and examination database software included. Details are stated	#			
G.4	Image processing software are included	#			
G.5	64 bit 3.2GHz i5 Core Dual Microprocessor or similar	1			
G.6	RAM: 4 GB and above range	1			
G.7	64 bit Operating system included (Windows or Similar)	1			
G.8	Image storage capacity ≥ 10 000 full format images on internal hard drive. Details of image storage capacity must be stated in GB, as well as in maximum number of images in the supporting documents provided.	1			
G.9	No Autodeletion of images stored on internal hard drive. System to alert when near maximum storage capacity is reached.	1			
G.10	System must be DICOM compliant. The certificate must be submitted.	#			
G.11	System must be capable and ready for use at no additional costs for integration with -.				
G.11.1	HIS	1			
G.11.2	HMS	1			
G.11.3	RIS	1			
G.11.4	PACS	1			
G.12	DVD/CD Writer inclusive of software for functionality of the DVD/CD Writer.	#			
G.13	Virus free software.	#			
G.14	Ergonomic keyboard with mouse and function buttons.	#			
G.15	Memory stick support/USB PORT.	1			
G.16	Touch screen monitor.	1			
H.	USER INTERFACE				
H.1	Patient data entering	1			
H.2	Menu	1			
H.3	Integrated generator operation	1			
H.4	Menu control	1			
H.5	Organ program selection	1			
H.6	Window position/width	1			
H.7	Horizontal/vertical image mirroring	1			
H.8	Image manipulation: rotation, cropping, contrast, brightness, sharpness, inversion	1			
H.9	Left/right, ap/pa working	1			
H.10	Configurable text annotation	1			
H.11	Filter selection for edge enhancement	1			
H.12	Filter selection for noise suppression	1			
H.13	Image pan and zoom capability	1			
H.14	measurement tools	1			

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DIGITAL FIXED X-RAY UNIT, FLOOR MOUNTED X-RAY TUBE, SUPINE BUCKY TABLE, VERTICAL BUCKY STAND AND TWO DIGITAL FLAT PANEL DETECTORS					ITEM 1:
I.	APPLICATION AND EVALUATION PROGRAMS				
I.1	Organ-related application program	1			
I.2	Post processing functionality	1			
I.3	Windowing (centre/width)	1			
I.4	Paging forward and back	1			
I.5	Multi-image display on the monitor (mosaic)	1			
I.6	Retro-collimation facilities (shutter)	1			
I.7	Image documentation in the background	1			
I.8	Multi-tasking technique	1			
I.9	Edge enhancement	1			
I.10	Noise suppression	1			
I.11	pan, zoom and image manipulation	1			
I.12	Individual energy subtraction programs provided	1			
J.	SYSTEM INTERFACE				
J.1	Detector interface	1			
J.2	PACS ready	1			
J.3	Interface DICOM: "Basic Print"	1			
J.4	Interface DICOM: "Modality Worklist"	1			
J.5	Interface DICOM: "Send as SCU"	1			
J.6	Interface DICOM: "Storage"	1			
J.7	Interface DICOM "Image export/ transfer/query/retrieval to PACS/HIS/RIS	1			
J.8	Conformance Statement for all DICOM interfaces . Conformance Statements are included.	1			
J.9	Firewall protection	1			
J.10	The successful bidder must ensure that the configuration between the processed images on the Digital Imaging Workstation and that transferred to the receivers of these images, such as PACS , Laser Printer , CD/DVD are properly calibrated/ reconfigured during installation, service and maintenance,repairs, and future software updates/upgrades .	1			
K.	RADIATION PROTECTION				
K.1	The system must have the ability to display Exposure Indicator values (EI/ S-values), immediately after exposure.	1			
K.2	X-ray Warning Notice for display at the X-ray Room entrance (not branded).	1			
K.3	An advanced Retake / Reject / Repeat analysis software package that includes user defined analysis and calculations as well as rejections, must be provided for all procedures.	#			
K.4	The applicable systems must have an integrated Dose Area Product (DAP) meter that includes skin dose equivalent measurement functions.	1			
K.5	A radiation report (QA, QC and PM) must be automatically generated and transferable via DICOM.	1			
K.6	Image Quality Test Tools must be provided.	#			
L.	POWER SUPPLY				
L.1	An True Online Uninterrupted Power Supply System (UPS system) must be offered for control console systems. The UPS support time must be ≥ 30 minutes to enable proper shutdown of systems. Details must be stated.	#			
M.	OPTIONAL ITEMS				
M.1	An external hard drive of 1 TB, DICOM configured to store, transfer and print X-Ray images.	1			
M.2	Motorized collimation control as an option	1			
M.3	Tilting bucky as an option	1			
M.4	Synchronized tube and detector movements. auto detector tracking and autotube positioning	1			
M.5	The system must have the ability to perform digital long length stitching images (scoliosis/long bones).	1			
M.6	Auto image stitching program included in the software package.	1			



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DIGITAL FIXED X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE, SUPINE BUCKY TABLE , VERTICAL BUCKY STAND AND TWO DIGITAL FLAT PANEL DETECTORS

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

2) The columns:

b) The columns have the following headings:

o Item Number

o Tender Specification

o Weight

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 86 points.

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 68 points or higher out of 86) points in respect of the specifications (line items) with a weight of 1.

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DIGITAL FIXED X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE, SUPINE BUCKY TABLE , VERTICAL BUCKY STAND AND TWO DIGITAL FLAT PANEL DETECTORS					
Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	DIGITAL FIXED X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE, SUPINE BUCKY TABLE , VERTICAL BUCKY STAND AND TWO DIGITAL FLAT PANEL DETECTORS				
A.1	The system must be capable of performing all general radiographic examinations of adults and children	#			
A.2	The system must be configured with the x-ray tube affixed to a ceiling suspended tube assembly, a fixed bucky table and a vertical buckey stand combination.	#			
A.3	The system must incorporate two flat panel digital detectors that must fit into the table buckey and the erect buckey ,each sized between 35cm X 43cm to 43cm x 43 cm range.	#			
A.4	Fixed/Wireless removable flat panel detector options must be available. Details of detector size , type, and cost per type of available options are stated in supporting documents .	1			
A.5	System must include a minimum of LCD 19 inch sized, flat screen colour monitor for operators console / acquisition review station.	1			
A.6	UPS provided to be mounted on a bracket/cabinet, not to be placed directly on the floor.	1			
A.7	The system must have removable grids.	1			
A.8	A wall mounted hanger/cabinet for the storage of removable grids and detector must be provided .	1			
B.	X-RAY GENERATOR				
B.1	Generator should be of latest technology with high frequency and high speed starter and a power output of 60kW and above. Details are stated in supporting documents provided.	#			
B.2	A monitoring and display for heat status must be provided.	1			
B.3	AEC Functionality with 3-field ionization chamber	#			
B.4	APR Functionality (Anatomical programming) . Details are stated in supporting documents provided	#			
B.5	Minimum of 600mA at 100kV. Maximum mA output at 100 kV according to IEC60601-2-7 is stated.	1			
B.6	Selectable kV range of 40-150 kVp in 1 kVp increments.	1			
B.7	The system must have selectable mAs. Details are stated.	#			
B.8	Shortest exposure time with AEC. Details are stated.	1			
B.9	Automatic mains compensation capability must be included.	1			



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C.	X-RAY TUBE HOUSING AFFIXED TO CEILING SUSPENSION: CEILING SUSPENDED TUBE ASSEMBLY				
C.1	X-ray tube should be a rotating anode high speed, compatible with both detectors. Details including latest type of mode, are stated in supporting documents provided.	#			
C.2	Dual focal spot (small and large focus sizes) must be provided. Details of nominal focal spot sizes and focal spot combinations, according to IEC 60336 prescription, are stated in supporting documents provided.	#			
C.3	Real time of tube overloading and protection is required and must be displayed.	#			
C.4	Anode heat storage capacity must be minimum of 300 kHU and above. Details are stated in supporting documents provided.	#			
C.5	Total inherent Filtration at 70kV is 2.5mm Al (IEC 60601-1-3 Standard).	#			
C.6	Manual multileaf collimator with rotating flange collimator	1			
C.7	Swivelling/rotation of collimator must be up to 45° relative to zero axis on either direction.	#			
C.8	Light localizer on/off switching	1			
C.9	Collimator must have electronic timer to terminate the light.	1			
C.10	X-ray Tube rotation range between 120° up to 135° relative to zero axis on either direction.	#			
C.11	Variable SID of the system	#			
C.12	A ceiling suspended x-ray tube support with a telescopic column must be offered.	#			
C.13	An interlocking auto-centering function in longitudinal and transversal directions to be provided.	1			
C.14	The digital display panel must additionally indicate the bucky table and the bucky wall stand symbol to show selection of either unit.	#			
C.15	The ceiling suspended x-ray tube system must have a transverse travel range. Details of range are stated.	1			
C.16	The vertical travel of the column must ≥ 50cm from the floor. State range of offered system.	1			
C.17	Electromagnetic brakes with fully counter balanced mechanism	#			
C.18	Interlocking mechanism for at least 100cm, 115cm, 150cm and 180 cm SID. These distances must be electronically displayed on the x-ray tube /collimator housing.	1			
C.19	A solid control arm with integrated handles as well as an electronic digital angle display panel and individual brake release buttons including a single button releasing all locks to be offered.	#			
C.20	The digital display panel must also indicate the SID (source image distance) of the unit from the bucky table.	#			



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D.	FIXED RADIOGRAPHIC TABLE				
D.1	Motorized height-adjustable table.	#			
D.2	Minimum table height $\leq 55\text{cm}$ and a maximum table height $\geq 85\text{cm}$. Details of the range and total lift of height adjustable table, are stated in supporting documents provided.	#			
D.3	Floating Tabletop with Radioluscent Mattress	#			
D.4	Table top to be radioluscent.	#			
D.5	Built in tray/support for 43 cm x 43 cm digital detector and removable grid	#			
D.6	The digital flat panel detector must be fixed option or wireless and removable option.	1			
D.7	Table to accommodate a maximum patient load of $\geq 250\text{kg}$ centered and $\geq 250\text{kg}$ off-centered.	#			
D.8	Table length $\geq 200\text{cm}$	#			
D.9	Table width $\geq 80\text{cm}$	#			
D.10	Longitudinal and transverse tabletop movement.	#			
D.11	Control of the table functions via footswitch	#			
D.12	The footswitch must be double tapped for activation.	1			
D.13	Electromagnetically released permanent brakes to be standard	#			
D.14	Emergency stop mechanism must be attached to the table.	#			
D.15	Removable compression band.	1			
D.16	Cassette / Detector holder for out of bucky work.	#			
E.	VERTICAL STAND WITH DETECTOR UNIT / ERECT BUCKY				
E.1	Vertical stand fitted with a digital flat panel - detector and AEC measuring chambers displayed on erect stand.	#			
E.2	Built in tray/support for digital detector	#			
E.3	The digital flat panel detector must be fixed OR wireless and removable.	1			
E.4	Vertical height of stand must be $\geq 200\text{ cm}$.	#			
E.5	Range of vertical movements of bucky: minimum height $\leq 45\text{ cm}$ from the floor maximum height $\geq 180\text{cm}$. Details are stated.	#			
E.6	Patient hand grips for arms above head and on side of detector holder.	#			



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F.	TWO x DIGITAL FLAT PANEL DETECTORS				
F.1	Two x Digital FP detectors of 35cm x 43cm to 43cm x 43 cm field size.	#			
F.2	Amorphous silicon with cesium iodide scintillator.	#			
F.3	Detectors must have a minimum acquisition depth of 14 bits and above grayscale. Details are stated in supporting documents provided.	#			
F.4	Pixel pitch must be ≤ 160 micrometer (μm).	#			
F.5	Detector to have matrix in pixels of 2000 x 2000 and above.	#			
F.6	For Wireless and Removable Flat Panel Detector, include the following :				
F.6.1	Wi-Fi and LAN capability of Wireless detector. A tethered cable for wireless FP-detector option in case of Wi-Fi disruption or detector discharge .	1			
F.6.2	A wireless detector must be offered. Details are stated.	1			
F.6.3	The wireless detector must be able to trigger for acquisition without connectivity to the X-Ray generator to allow the wireless detector to be used in different areas.	1			
F.6.4	Images must be stored on the system even during battery failure.	1			
F.6.5	Battery pack.	1			
F.6.6	Battery charger.	1			
F.7	DQE must be $\geq 60\%$ @ 0 line pairs per millimeter / $\geq 50\%$ @ 0.05 line pairs per millimeter / $\geq 40\%$ @ 1 line pairs per millimeter (lp/mm). DQE and MTF details are stated in supporting documents.	1			
F.8	Description of the scatter radiation grids used in conjunction with the detectors, are detailed in supporting documents provided.	1			
F.9	The data transmission / reading speed from exposure to preview should be ≤ 5 seconds.	#			
F.10	The data transmission / reading speed from exposure to full image should be ≤ 10 seconds.	#			
G.	OPERATOR CONSOLE				
G.1	High resolution digital radiography system with DICOM network connection for image processing and image display on a preview monitor	#			
G.2	A diagnostic LCD ≥ 19 inch sized, flat screen colour monitor for the imaging workstation is required. Must be based on the latest flat panel detector technology for high image dynamics with excellent signal/noise ratio.	1			
G.3	Application and examination database software included.Details are stated	#			
G.4	Image processing software are included	#			
G.5	64 bit 3.2GHz i5 Core Dual Microprocessor or similar	1			
G.6	RAM: 4 GB and above range	1			



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G.7	64 bit Operating system included (Windows or Similar)	1			
G.8	Image storage capacity $\geq 10\,000$ full format images on internal hard drive. Details of image storage capacity must be stated in GB, as well as in maximum number of images in the supporting documents provided.	1			
G.9	No Autodeletion of images stored on internal hard drive. System to alert when near maximum storage capacity is reached.	1			
G.10	System must be DICOM compliant. The certificate must be submitted.	#			
G.11	System must be capable and ready for use at no additional costs for integration with:				
G.11.1	HIS	1			
G.11.2	HMS	1			
G.11.3	RIS	1			
G.11.4	PACS	1			
G.11	DVD/CD Writer inclusive of software for functionality of the DVD/CD Writer.	#			
G.12	Virus free software.	#			
G.13	Ergonomic keyboard with mouse and function buttons.	#			
G.14	Memory stick support/USB PORT.	1			
G.15	Touch screen monitor.	#			
H	USER INTERFACE				
H.1	Patient data entering	1			
H.2	Menu	1			
H.3	Integrated generator operation	1			
H.4	Menu control	1			
H.5	Organ program selection	1			
H.6	Window position/width	1			
H.7	Horizontal/vertical image mirroring	1			
H.8	Image manipulation: rotation, cropping, contrast, brightness, sharpness, inversion	1			
H.9	Left/right, ap/pa working	1			
H.10	Configurable text annotation	1			
H.11	Filter selection for edge enhancement	1			
H.12	Filter selection for noise suppression	1			
H.13	Image pan and zoom capability	1			
H.14	measurement tools	1			



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I.	APPLICATION AND EVALUATION PROGRAMS				
I.1	Organ-related application program	1			
I.2	Post processing functionality	1			
I.3	Windowing (centre/width)	1			
I.4	Paging forward and back	1			
I.5	Multi-image display on the monitor (mosaic)	1			
I.6	Retro-collimation facilities (shutter)	1			
I.7	Image documentation in the background	1			
I.8	Multi-tasking technique	1			
I.9	Edge enhancement	1			
I.10	Noise suppression	1			
I.11	pan, zoom and image manipulation	1			
I.12	Individual energy subtraction programs provided	1			
J.	SYSTEM INTERFACE				
J.1	Detector interface	1			
J.2	PACS ready	1			
J.3	Interface DICOM: "Basic Print"	1			
J.4	Interface DICOM: "Modality Worklist"	1			
J.5	Interface DICOM: "Send as SCU"	1			
J.6	Interface DICOM: "Storage"	1			
J.7	Interface DICOM "Image export/ transfer/query/retrieval to PACS/HIS/RIS	1			
J.8	Conformance Statement for all DICOM interfaces . Conformance Statements are included.	1			
J.9	Firewall protection	1			
J.10	The succesful bidder must ensure that the configuration between the processed images on the Digital Imaging Workstation and that transferred to the receivers of these images, such as PACS , Laser Printer , CD/DVD are properly calibrated/ reconfigured during installation, service and maintenance,repairs, and future software updates/upgrades.	1			



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K.	RADIATION PROTECTION				
K.1	The system must have the ability to display Exposure Indicator values (EI/ S-values), immediately after exposure.	1			
K.2	X-ray Warning Notice for display at the X-ray Room entrance (not branded).	1			
K.3	An advanced Retake / Reject / Repeat analysis software package that includes user defined analysis and calculations as well as rejections, must be provided for all procedures.	#			
K.4	The applicable systems must have an integrated Dose Area Product (DAP) meter that includes skin dose equivalent measurement functions.	1			
K.5	A radiation report (QA, QC and PM) must be automatically generated and transferable via DICOM.	1			
K.6	Image Quality Test Tools must be provided.	#			
L.	POWER SUPPLY				
L.1	An True Online Uninterrupted Power Supply System (UPS system) must be offered for control console systems. The UPS support time must be ≥ 30 minutes to enable proper shutdown of systems. Details must be stated.	#			
M.	OPTIONAL ITEMS				
M.1	An external hard drive of 1 TB, DICOM configured to store, transfer and print X-Ray images.	1			
M.2	Motorized collimation control as an option	1			
M.3	Tilting bucky as an option	1			
M.4	Synchronized tube and detector movements. auto detector tracking and autotube positioning	1			
M.5	The system must have the ability to perform digital long length stitching images (scoliosis/long bones).	1			
M.6	Auto image stitching program included in the software package.	1			



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ITEM 3:

X-RAY UNIT, BUCKY, CONVENTIONAL WITH FLOATING TABLE

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

b) The columns have the following headings:

o Item Number

o Tender Specification

o Weight

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 24 points.

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 19 points or higher out of 24 points in respect of the specifications (line items) with a weight of 1.



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ITEM 3: X-RAY UNIT, BUCKY, CONVENTIONAL WITH FLOATING TABLE

Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A	X-Ray GENERATOR (Micro-processor controlled high frequency)				
A.1	The nominal kilowatt output rating must be $\geq 60\text{kW}$.	#			
A.2	An True Online Uninterrupted Power Supply System (UPS system) must be offered for control console systems. The UPS support time must be ≥ 30 minutes to enable proper shutdown of systems. Details must be stated.	#			
A.3	Selectable kV range of 40-150 kVp in 1 kVp increments.	1			
A.4	Minimum of 600mA at 100kV. Maximum mA output at 100 kV according to IEC60601-2-7 is stated.	1			
A.5	The system must have selectable mAs. Details are stated	1			
A.6	Equipped with Emergency Stop Switch	#			
A.7	Audio visual exposure indicator	#			
A.8	Shortest switching time with automatic exposure control $\leq 1\text{ms}$. State details.	1			
A.9	High Speed Starter unit to drive the X-Ray tube must be included.	1			
A.10	A monitoring and display for heat status must be provided.	#			
A.11	APR Functionality (Anatomical programming) . Details are stated in supporting documents provided.	#			
A.12	Automatic exposure control, including three field ionisation chambers for both table and vertical stand must be	#			
A.13	Automatic overload protection must be standard on the generator.	#			
A.14	Automatic mains compensation capability must be included.	#			
A.15	The generator control panel must be mounted and secured.	1			
A.16	An RS 232 data interface or equivalent must exist on the system. Tenderers must prove this on their documentation or by demonstration.	#			
A.17	The generator must be tailored to accept a second tube unit. Please indicate on your data sheet this compliance.	1			
A.18	The factory brochure and data sheets must indicate all the above requirements as well as indicate the generators ability to be utilised for digital radiography and flat panel integration. Failure to provide such original proof will render your tender invalid.	#			
A.19	The generator must be three phase.	#			



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ITEM 3:

X-RAY UNIT, BUCKY, CONVENTIONAL WITH FLOATING TABLE

B. X-Ray TUBE AND CABLES					
B.1	The high speed anode rotation with dual focus X-Ray tube unit must be supplied. State the size of the focal spots.	1			
B.2	High voltage cables and installation cables to suit installation to be provided.	#			
B.3	Manual multileaf collimator with rotating flange collimator.	#			
B.4	Anode heat storage capacity must be minimum of 300 kHU and above. Details are stated in supporting documents provided.	#			
C. CEILING SUSPENDED TUBE ASSEMBLY					
C.1	A ceiling suspended X-Ray tube support with a triangular or round telescopic column for stability must be offered.	#			
C.2	Dual focal spot (small and large focus sizes) must be provided. Details of nominal focal spot sizes and focal spot combinations, according to IEC 60601 prescription, are stated in supporting documents provided.	#			
C.3	Swivelling/rotation of collimator must be up to 45° relative to zero axis on either direction.	#			
C.4	Light localizer on/off switching	#			
C.5	Collimator must have electronic timer to terminate the light.	1			
C.6	X-ray Tube rotation range between 120 ° up to 135 ° relative to zero axis on either direction.	#			
C.7	Variable SID of the system	#			
C.8	An interlocking auto-centering function in longitudinal and transversal directions to be provided.	1			
C.9	The digital display panel must additionally indicate the bucky table and the bucky wall stand symbol to show selection of either unit.	#			
C.10	The ceiling suspended x-ray tube system must have a transverse travel range. Details of range are stated.	1			
C.11	The vertical travel of the column must ≥ 50cm from the floor. State range of offered system.	1			
C.12	Electromagnetic brakes with fully counter balanced mechanism	#			
C.13	Interlocking mechanism for at least 100cm, 115cm, 150cm and 180 cm SID . These distances must be electronically displayed on the X-Ray tube /collimator housing.	1			
C.14	A solid control arm with integrated handles as well as an electronic digital angle display panel and individual brake release buttons including a single button releasing all locks to be offered.	1			
C.15	The digital display panel must also indicate the SID (source image distance) of the unit from the bucky table.	1			
C.16	Total inherent Filtration at 70kV is 2.5mm Al (IEC 60601-1-3 Standard).	#			



GAUTENG PROVINCE
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TENDER SPECIFICATION

THE SUPPLY. DELIVERY. INSTALLATION. COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 3:

X-RAY UNIT. BUCKY. CONVENTIONAL WITH FLOATING TABLE

D.	FLOATING TOP BUCKY TABLE				
D.1	Motorized height-adjustable table.	#			
D.2	Minimum table height $\leq 55\text{cm}$ and a maximum table height $\geq 85\text{cm}$. Details of the range and total lift of height adjustable table, are stated in supporting documents provided.	#			
D.3	Floating Tabletop with Radioluscent Mattress	#			
D.4	Table top to be radioluscent.	#			
D.5	Built in tray/support for 43 cm x 43 cm bucky tray.	#			
D.6	The bucky tray system must be movable and detachable.	1			
D.7	The bucky tray must be upgradeable to accommodate the flat panel detector.	#			
D.8	Table to accommodate a maximum patient load of $\geq 250\text{kg}$ centered and $\geq 250\text{kg}$ off-centered.	#			
D.9	Table length $\geq 200\text{cm}$	#			
D.10	Table width $\geq 80\text{cm}$	#			
D.11	Longitudinal and transverse tabletop movement .	#			
D.12	Control of the table functions via footswitch	#			
D.13	The footswitch must be double tapped for activation.	1			
D.14	Electromagnetically released permanent brakes to be standard	#			
D.15	Emergency stop mechanism must be attached to the table.	#			
D.16	Removable compression band.	1			
D.17	Cassette/ Detector holder for out of bucky work.	#			
D.18	A floating table top bucky system for general radiography must be offered. State model of offer.	#			
D.19	An electronic tomographic facility (no coupling rod) must be offered as a costed option.	1			
D.20	AEC Functionality with 3-field ionization chamber	#			
E.	ERECT BUCKY STAND				
E.1	Vertical stand fitted with a bucky tray system and three AEC measuring chambers.	#			
E.2	A wall stand with vertical bucky carriage for left or right hand operation must be offered.	#			
E.3	Built in tray/support for all cassette sizes and built in grid.	#			
E.4	The bucky tray system must be movable and detachable.	1			
E.5	The bucky tray must be upgradeable to accommodate the flat panel detector.	#			
E.6	Vertical height of stand must be $\geq 200\text{ cm}$.	1			
E.7	Range of vertical movements of bucky: minimum height $\leq 45\text{ cm}$ from the floor maximum height $\geq 180\text{cm}$. Details are stated.	1			
E.8	Patient hand grips for arms above head and on side of the bucky.	#			
E.9	A lateral support arm for lateral chest imaging must be provided as standard.	#			



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ITEM 3:

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E.10	The bucky device must be able to tilt into the horizontal position for seated patient imaging and wheel chair patients.	#			
E.11	State the Grid ratio and lines/cm.	1			
F.	ACCESSORIES				
F.1	A compression belt for the table must be offered with the system.	#			
F.2	A patient radioluscent mattress must be offered.	#			
F.3	A lateral cassette holder for decubitus projections to hold cassettes ranging from 18 x 24cm to 35 x 43cm.	#			
F.4	Image Quality Test Tools must be provided.	#			
F.5	Radiation beam cone tools to be quoted as optional items	1			



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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 4:

DIGITAL FIXED CHEST X-RAY UNIT, FLOOR MOUNTED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

2) The columns:

b) The columns have the following headings:

o Item Number

o Tender Specification

o Weight

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 83 points.

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 66 points or higher out of 83 points in respect of the specifications (line items) with a weight of 1.



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DIGITAL FIXED CHEST X-RAY UNIT, FLOOR MOUNTED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR

Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	Digital X-ray unit System				
A.1	The system must be capable of performing all general radiographic examinations of adults and children	#			
A.2	The system must be configured with the x-ray tube affixed to a floor mounted tube stand, a fixed bucky table and a vertical bucky stand combination.	#			
A.3	The system must incorporate two flat panel digital detectors that must fit into the table bucky and the erect bucky, each sized between 35cm X 43cm to 43cm x 43 cm range.	#			
A.4	Fixed / Wireless removable flat panel detector options must be available. Details of detector size, type, and cost per type of available options are stated in supporting documents .	1			
A.5	System must include a minimum of LCD 19 inch sized, flat screen colour monitor for operators console / acquisition review station.	1			
A.6	UPS provided to be mounted on a bracket/cabinet, not to be placed directly on the floor.	1			
A.7	The system must have removable grids. STATE DETAILS.	#			
A.8	A wall mounted hanger/cabinet for the storage of removable grids and detector must be provided .	1			

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B. X-RAY GENERATOR					
B.1	Generator should be of latest technology with high frequency and high speed starter and a power output of 60kW and above. Details are stated in supporting documents provided.	#			
B.2	A monitoring and display for heat status must be provided.	1			
B.3	AEC Functionality with 3-field ionization chamber	#			
B.4	APR Functionality (Anatomical programming) . Details are stated in supporting documents provided	#			
B.5	Minimum of 600mA at 100kV. Maximum mA output at 100 kV according to IEC60601-2-7 is stated.	1			
B.6	Selectable kV range of 40-150 kVp in 1 kVp increments.	1			
B.7	The system must have selectable mAs. Details are stated.	#			
B.8	Shortest exposure time with AEC. Details are stated.	1			
B.9	Automatic mains compensation capability must be included.	1			
C. X-RAY TUBE AND FLOOR MOUNTED TUBE COLUMN STAND					
C.1	X-ray tube should be a rotating anode high speed, compatible with both detectors. Details including latest type of mode, are stated in supporting documents provided.	#			
C.2	Dual focal spot (small and large focus sizes) must be provided. Details of nominal focal spot sizes and focal spot combinations ,according to IEC 60336 prescription, are stated in supporting documents provided.	#			
C.3	Real time of tube overloading and protection is required and must be displayed.	#			
C.4	Anode heat storage capacity must be minimum of 300 kHU and above. Details are stated in supporting documents provided.	#			
C.5	Total inherent filtration at 70kV is 2.5mm Al (IEC 60601-1-3 Standard).	#			
C.6	Manual multileaf collimator with rotating flange collimator	1			
C.7	Swivelling/rotation of collimator must be up to 45° relative to zero axis on either direction.	#			
C.8	Light localizer on / off switching	1			
C.9	Collimator must have electronic timer to terminate the light.	1			
C.10	X-ray Tube rotation range between 120 ° up to 135 ° relative to zero axis on either direction.	#			
C.11	Variable SID of the system	#			
C.12	Free standing tube stand with rotational column design and telescopic tube arm movement,	#			
C.13	Column rotation around its own axis at must be up to 90 ° on either direction with a locking mechanism.	#			
C.14	The ceiling suspended x-ray tube system must have a transverse travel range. Details of range are stated.	#			
C.15	The length of the longitudinal floor rails set must be a minimum of 250cm and above to ensure an extended travel range.	1			

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C.16	The longitudinal rail extension set must have permanent stoppers / brackets at each end of the rail set, with shock absorbers to ensure the unit does not derail.	1			
C.17	Electromagnetic brakes with fully counter balanced mechanism.	#			
C.18	Interlocking mechanism for at least 100cm, 115cm, 150cm and 180 cm SID . These distances must be electronically displayed on the x-ray tube /collimator housing.	1			
D.	VERTICAL STAND WITH DETECTOR UNIT / ERECT BUCKY				
D.1	Vertical stand fitted with a digital flat panel - detector and AEC measuring chambers displayed on erect stand.	#			
D.2	Built in tray/support for digital detector	#			
D.3	The digital flat panel detector must be fixed OR wireless and removable.	1			
D.4	Vertical height of stand must be ≥ 200 cm.	#			
D.5	Range of vertical movements of bucky: minimum height ≤ 45 cm from the floor maximum height ≥ 180 cm. Details are stated.	#			
D.6	Patient hand grips for arms above head and on side of detector holder.	#			
E.	ONE DIGITAL FLAT PANEL DETECTOR				
E.1	One Digital FP detectors of 35cm x 43cm to 43cm x 43 cm field size.	#			
E.2	Amorphous silicon with cesium iodide scintillator.	#			
E.3	Detectors must have a minimum acquisition depth of 14 bits and above grayscale. Details are stated in supporting documents provided.	#			
E.4	Pixel pitch must be ≤ 160 micrometer (μ m).	#			
E.5	Detector to have matrix in pixels of 2000 x 2000 and above.	#			
E.5	For Wireless and Removable Flat Panel Detector, include the following :				
E.5.1	Wi-Fi and LAN capability of Wireless detector. A tethered cable for wireless FP-detector option in case of Wi-Fi disruption or detector discharge .	1			
E.5.2	A wireless detector must be offered. Details are stated.	1			
E.5.3	The wireless detector must be able to trigger for acquisition without connectivity to the X-Ray generator to allow the wireless detector to be used in different areas.	1			
E.5.4	Images must be stored on the system even during battery failure.	1			
E.5.5	Battery pack.	1			
E.5.6	Battery charger.	1			
E.6	DQE must be $\geq 60\%$ @ 0 line pairs per millimeter / $\geq 50\%$ @ 0.05 line pairs per millimeter / $\geq 40\%$ @ 1 line pairs per millimeter (lp/mm). DQE and MTF details are stated in supporting documents.	1			
E.7	Description of the scatter radiation grids used in conjunction with the detectors, are detailed in supporting documents provided.	1			
E.8	The data transmission / reading speed from exposure to preview should be ≤ 5 seconds.	#			
E.9	The data transmission / reading speed from exposure to full image should be ≤ 10 seconds.	#			

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DIGITAL FIXED CHEST X-RAY UNIT, FLOOR MOUNTED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR

F.	OPERATOR CONSOLE				
F.1	High resolution digital radiography system with DICOM network connection for image processing and image display on a preview monitor	#			
F.2	A diagnostic LCD ≥ 19 inch sized, flat screen colour monitor for the imaging workstation is required. Must be based on the latest flat panel detector technology for high image dynamics with excellent signal/noise ratio.	1			
F.3	Application and examination database software included. Details are stated	#			
F.4	Image processing software are included	#			
F.5	64 bit 3.2GHz i5 Core Dual Microprocessor or similar	1			
F.6	RAM: 4 GB and above range	1			
F.7	64 bit Operating system included (Windows or Similar)	1			
F.8	Image storage capacity ≥ 10 000 full format images on internal hard drive. Details of image storage capacity must be stated in GB, as well as in maximum number of images in the supporting documents provided.	1			
F.9	No Autodeletion of images stored on internal hard drive. System to alert when near maximum storage capacity is reached.	1			
F.10	System must be DICOM compliant. The certificate must be submitted.	#			
F.11	System must be capable and ready for use at no additional costs for integration with:				
F.11.1	HIS	1			
F.11.2	HMS	1			
F.11.3	RIS	1			
F.11.4	PACS	1			
F.12	DVD/CD Writer inclusive of software for functionality of the DVD/CD Writer.	#			
F.13	Virus free software.	#			
F.14	Ergonomic keyboard with mouse and function buttons.	#			
F.15	Memory stick support/USB PORT.	1			
F.16	Touch screen monitor.	1			
G	USER INTERFACE				
G.1	Patient data entering	1			
G.2	Menu	1			
G.3	Integrated generator operation	1			
G.4	Menu control	1			
G.5	Organ program selection	1			
G.6	Window position/width	1			
G.7	Horizontal/vertical image mirroring	1			
G.8	Image manipulation: rotation, cropping, contrast, brightness, sharpness, inversion	1			
G.9	Left/right, ap/pa working	1			

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ITEM 4:**DIGITAL FIXED CHEST X-RAY UNIT, FLOOR MOUNTED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR**

G.10	Configurable text annotation	1			
G.11	Filter selection for edge enhancement	1			
G.12	Filter selection for noise suppression	1			
G.13	Image pan and zoom capability	1			
G.14	measurement tools	1			
H.	APPLICATION AND EVALUATION PROGRAMS				
H.1	Organ-related application program	1			
H.2	Post processing functionality	1			
H.3	Windowing (centre/width)	1			
H.4	Paging forward and back	1			
H.5	Multi-image display on the monitor (mosaic)	1			
H.6	Retro-collimation facilities (shutter)	1			
H.7	Image documentation in the background	1			
H.8	Multi-tasking technique	1			
H.9	Edge enhancement	1			
H.10	Noise suppression	1			
H.11	pan, zoom and image manipulation	1			
H.12	Individual energy subtraction programs provided	1			
I.	SYSTEM INTERPHASE				
I.1	Detector interface	1			
I.2	PACS ready	1			
I.3	Interface DICOM: "Basic Print"	1			
I.4	Interface DICOM: "Modality Worklist"	1			
I.5	Interface DICOM: "Send as SCU"	1			



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I.6	Interface DICOM: "Storage"	1			
I.7	Interface DICOM "Image export/ transfer/query/retrieval to PACS/HIS/RIS	1			
I.8	Conformance Statement for all DICOM interfaces . Conformance Statements are included.	1			
I.9	Firewall protection	1			
I.10	The succesful bidder must ensure that the configuration between the processed images on the Digital Imaging Workstation and that transferred to the receivers of these images, such as PACS , Laser Printer , CD/DVD are properly calibrated/ reconfigured during installation, service and maintenance,repairs, and future software updates/upgrades .	1			
J.	RADIATION PROTECTION				
J.1	The system must have the ability to display Exposure Indicator values (EI/ S-values), immediately after exposure.	1			
J.2	X-ray Warning Notice for display at the X-ray Room entrance (not branded).	1			
J.3	An advanced Retake / Reject / Repeat analysis software package that includes user defined analysis and calculations as well as rejections, must be provided for all procedures.	#			
J.4	The applicable systems must have an integrated Dose Area Product (DAP) meter that includes skin dose equivalent measurement functions.	1			
J.5	A radiation report (QA, QC and PM) must be automatically generated and transferable via DICOM.	1			
J.6	Image Quality Test Tools must be provided.	#			
K.	POWER SUPPLY				
K.1	A True Online Uninterrupted Power Supply System (UPS system) must be offered for control console systems. The UPS support time must be ≥ 30 minutes to enable proper shutdown of systems. Details must be stated.	#			
L.	OPTIONAL ITEMS				
L.1	An external hard drive of 1 TB, DICOM configured to store, transfer and print X-Ray images.	1			
L.2	Motorized collimation control as an option	1			
L.3	Tilting bucky as an option	1			
L.4	Synchronized tube and detector movements. auto detector tracking and autotube positioning	1			
L.5	The system must have the ability to perform digital long length stitching images (scoliosis/long	1			
L.6	Auto image stitching program included in the software package.	1			
L.7	A trolley with lockable castors, radiolucent top and an integrated detector holder that must move across the length of the trolley.	1			

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ITEM 5:

DIGITAL FIXED CHEST X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR

- Note:
- a. The rows and columns of the tender specification:
- 1) The rows:
The rows are the tender specifications (line items)
- 2) The columns:
b) The columns have the following headings:
- o Item Number
 - o Tender Specification
 - o Weight
 - o Comply (Yes/No)
 - o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)
 - o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document
- b. The rows and columns that the bidders must complete:
The bidders must complete the following columns in each row (each specification line item):
- o Comply (Yes/No)
 - o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)
 - o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document
- c. The scoring of the bids:
- 1) Weights:
Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:
A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.
A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.
- 2) Scores:
The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:
0 - The specification does not comply.
1 - The specification is fully compliant.
- Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.
- 3) Weighted Score:
The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.
- 4) Total Score:
The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 83 points.
- d. The required score to be considered for an award:
1) The bidders must comply with all the specifications (line items) with a # weight. 2) The bidders must all obtain a minimum score of 66 points or higher out of 83 points in respect of the specifications (line items) with a weight of 1.

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ITEM 5:

DIGITAL FIXED CHEST X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR

Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	Digital X-ray unit System				
A.1	The system must be capable of performing all general radiographic examinations of adults and children	#			
A.2	The system must be configured with the x-ray tube affixed to a floor mounted tube stand, a fixed bucky table and a vertical bucky stand combination.	#			
A.3	The system must incorporate two flat panel digital detectors that must fit into the table bucky and the erect bucky, each sized between 35cm X 43cm to 43cm x 43 cm range.	#			
A.4	Fixed / Wireless removable flat panel detector options must be available. Details of detector size, type, and cost per type of available options are stated in supporting documents.	1			
A.5	System must include a minimum of LCD 19 inch sized, flat screen colour monitor for operators console / acquisition review station.	1			
A.6	UPS provided to be mounted on a bracket/cabinet, not to be placed directly on the floor.	1			
A.7	The system must have removable grids. State details	#			
A.8	A wall mounted hanger/cabinet for the storage of removable grids and detector must be provided.	1			
B.	X-RAY GENERATOR				
B.1	Generator should be of latest technology with high frequency and high speed starter and a power output of 60kW and above. Details are stated in supporting documents provided.	#			
B.2	A monitoring and display for heat status must be provided.	1			
B.3	AEC Functionality with 3-field ionization chamber	#			
B.4	APR Functionality (Anatomical programming) . Details are stated in supporting documents provided	#			
B.5	Minimum of 600mA at 100kV. Maximum mA output at 100 kV according to IEC60601-2-7 is stated.	1			
B.6	Selectable kV range of 40-150 kVp in 1 kVp increments.	1			
B.7	The system must have selectable mAs. Details are stated.	#			
B.8	Shortest exposure time with AEC. Details are stated.	1			
B.9	Automatic mains compensation capability must be included.	1			

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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 5:

DIGITAL FIXED CHEST X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR

C.	X-RAY TUBE HOUSING AFFIXED TO CEILING SUSPENSION: CEILING SUSPENDED TUBE ASSEMBLY				
C.1	X-ray tube should be a rotating anode high speed, compatible with both detectors. Details including latest type of mode, are stated in supporting documents provided.	#			
C.2	Dual focal spot (small and large focus sizes) must be provided. Details of nominal focal spot sizes and focal spot combinations, according to IEC 60336 prescription, are stated in supporting documents provided.	#			
C.3	Real time of tube overloading and protection is required and must be displayed.	#			
C.4	Anode heat storage capacity must be minimum of 300 kHU and above. Details are stated in supporting documents provided.	#			
C.5	Total inherent filtration at 70kV is 2.5mm Al (IEC 60601-1-3 Standard).	#			
C.6	Manual multileaf collimator with rotating flange collimator	1			
C.7	Swivelling/rotation of collimator must be up to 45° relative to zero axis on either direction.	#			
C.8	Light localizer on / off switching	1			
C.9	Collimator must have electronic timer to terminate the light.	1			
C.10	X-ray Tube rotation range between 120 ° up to 135 ° relative to zero axis on either direction.	#			
C.11	Variable SID of the system	#			
C.12	Free standing tube stand with rotational column design and telescopic tube arm movement,	#			
C.13	Column rotation around its own axis must be up to 90 ° on either direction with a locking mechanism.	#			
C.14	The ceiling suspended x-ray tube system must have a transverse travel range. Details of range are stated.	#			

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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 5:

DIGITAL FIXED CHEST X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR

C.15	The length of the longitudinal floor rails set must be a minimum of 250cm and above to ensure an extended travel range.	1			
C.16	The longitudinal rail extension set must have permanent stoppers / brackets at each end of the rail set, with shock absorbers to ensure the unit does not derail.	1			
C.17	Electromagnetic brakes with fully counter balanced mechanism.	#			
C.18	Interlocking mechanism for at least 100cm, 115cm, 150cm and 180 cm SID . These distances must be electronically displayed on the x-ray tube /collimator housing.	1			
D.	VERTICAL STAND WITH DETECTOR UNIT				
D.1	Vertical stand fitted with a digital flat panel - detector and AEC measuring chambers displayed on erect stand.	#			
D.2	Built in tray/support for digital detector	#			
D.3	The digital flat panel detector must be fixed OR wireless and removable.	1			
D.4	Vertical height of stand must be ≥ 200 cm.	#			
D.5	Range of vertical movements of bucky: minimum height ≤ 45 cm from the floor maximum height ≥ 180 cm. Details are stated.	#			
D.6	Patient hand grips for arms above head and on side of detector holder.	#			
E.	DIGITAL FLAT PANEL DETECTOR SYSTEM				
E.1	One Digital FP detectors of 35cm x 43cm to 43cm x 43 cm field size.	#			
E.2	Amorphous silicon with cesium iodide scintillator.	#			

TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 5:

DIGITAL FIXED CHEST X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR

E.3	Detectors must have a minimum acquisition depth of 14 bits and above grayscale. Details are stated in supporting documents provided.	#			
E.4	Pixel pitch must be ≤ 160 micrometer (μm).	#			
E.5	Detector to have matrix in pixels of 2000 x 2000 and above.	#			
E.6	For Wireless and Removable Flat Panel Detector, include the following :				
E.6.1	Wi-Fi and LAN capability of Wireless detector. A tethered cable for wireless FP-detector option in case of Wi-Fi disruption or detector discharge .	1			
E.6.2	A wireless detector must be offered. Details are stated.	1			
E.6.3	The wireless detector must be able to trigger for acquisition without connectivity to the X-Ray generator to allow the wireless detector to be used in different areas.	1			
E.6.4	Images must be stored on the system even during battery failure.	1			
E.6.5	Battery pack.	1			
E.6.6	Battery charger.	1			
E.7	DQE must be $\geq 60\%$ @ 0 line pairs per millimeter / $\geq 50\%$ @ 0.05 line pairs per millimeter / $\geq 40\%$ @ 1 line pairs per millimeter (lp/mm). DQE and MTF details are stated in supporting documents.	1			
E.8	Description of the scatter radiation grids used in conjunction with the detectors, are detailed in supporting documents provided.	1			
E.9	The data transmission / reading speed from exposure to preview should be ≤ 5 seconds.	#			
E.10	The data transmission / reading speed from exposure to full image should be ≤ 10 seconds.	#			

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ITEM 5:

DIGITAL FIXED CHEST X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR

F.	OPERATOR CONSOLE				
F.1	High resolution digital radiography system with DICOM network connection for image processing and image display on a preview monitor	#			
F.2	A diagnostic LCD ≥ 19 inch sized, flat screen colour monitor for the imaging workstation is required. Must be based on the latest flat panel detector technology for high image dynamics with excellent signal/noise ratio.	1			
F.3	Application and examination database software included. Details are stated	#			
F.4	Image processing software are included	#			
F.5	64 bit 3.2GHz i5 Core Dual Microprocessor or similar	1			
F.6	RAM: 4 GB and above range	1			
F.7	64 bit Operating system included (Windows or Similar)	1			
F.8	Image storage capacity $\geq 10\,000$ full format images on internal hard drive. Details of image storage capacity must be stated in GB, as well as in maximum number of images in the supporting documents provided.	1			
F.9	No Autodeletion of images stored on internal hard drive. System to alert when near maximum storage capacity is reached.	1			
F.10	System must be DICOM compliant. The certificate must be submitted.	#			
F.11	System must be capable and ready for use at no additional costs for integration with -				
F.11.1	HIS	1			
F.11.2	HMS	1			
F.11.3	RIS	1			
F.11.4	PACS	1			
F.12	DVD/CD Writer inclusive of software for functionality of the DVD/CD Writer.	#			
F.13	Virus free software.	#			

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DIGITAL FIXED CHEST X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR

F.14	Ergonomic keyboard with mouse and function buttons.	#			
F.15	Memory stick support/USB PORT.	1			
F.16	Touch screen monitor.	1			
G.	USER INTERFACE				
G.1	Patient data entering	1			
G.2	Menu	1			
G.3	Integrated generator operation	1			
G.4	Menu control	1			
G.5	Organ program selection	1			
G.6	Window position/width	1			
G.7	Horizontal/vertical image mirroring	1			
G.8	Image manipulation: rotation, cropping, contrast,brightness,sharpness, inversion	1			
G.9	Left/right, ap/pa working	1			
G.10	Configurable text annotation	1			
G.11	Filter selection for edge enhancement	1			
G.12	Filter selection for noise suppression	1			
G.13	Image pan and zoom capability	1			
G.14	measurement tools	1			

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ITEM 5:

DIGITAL FIXED CHEST X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR

H	APPLICATION AND EVALUATION PROGRAMS				
H.1	Organ-related application program	1			
H.2	Post processing functionality	1			
H.3	Windowing (centre/width)	1			
H.4	Paging forward and back	1			
H.5	Multi-image display on the monitor (mosaic)	1			
H.6	Retro-collimation facilities (shutter)	1			
H.7	Image documentation in the background	1			
H.8	Multi-tasking technique	1			
H.9	Edge enhancement	1			
H.10	Noise suppression	1			
H.11	pan, zoom and image manipulation	1			
H.12	Individual energy subtraction programs provided	1			
I	SYSTEM INTERPHASE				
I.1	Detector interface	1			
I.2	PACS ready	1			
I.3	Interface DICOM: "Basic Print"	1			
I.4	Interface DICOM: "Modality Worklist"	1			
I.5	Interface DICOM: "Send as SCU"	1			
I.6	Interface DICOM: "Storage"	1			
I.7	Interface DICOM "Image export/ transfer/query/retrieval to PACS/HIS/RIS	1			
I.8	Conformance Statement for all DICOM interfaces . Conformance Statements are included.	1			

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DIGITAL FIXED CHEST X-RAY UNIT, CEILING SUSPENDED X-RAY TUBE AND ERECT BUCKY STAND WITH FIXED DETECTOR

I.9	Firewall protection	1			
I.10	The successful bidder must ensure that the configuration between the processed images on the Digital Imaging Workstation and that transferred to the receivers of these images, such as PACS, Laser Printer, CD/DVD are properly calibrated/ reconfigured during installation, service and maintenance, repairs, and future software updates/upgrades.	1			
J.	RADIATION PROTECTION				
J.1	The system must have the ability to display Exposure Indicator values (EI/ S-values), immediately after exposure.	1			
J.2	X-ray Warning Notice for display at the X-ray Room entrance (not branded).	1			
J.3	An advanced Retake / Reject / Repeat analysis software package that includes user defined analysis and calculations as well as rejections, must be provided for all procedures.	#			
J.4	The applicable systems must have an integrated Dose Area Product (DAP) meter that includes skin dose equivalent measurement functions.	1			
J.5	A radiation report (QA, QC and PM) must be automatically generated and transferable via DICOM.	1			
J.6	Image Quality Test Tools must be provided.	#			
K.	POWER SUPPLY				
K.1	An True Online Uninterrupted Power Supply System (UPS system) must be offered for control console systems. The UPS support time must be ≥ 30 minutes to enable proper shutdown of systems. Details must be stated.	#			
L.	OPTIONAL ITEMS				
L.1	An external hard drive of 1 TB, DICOM configured to store, transfer and print X-Ray images.	1			
L.2	Motorized collimation control as an option	1			
L.3	Tilting bucky as an option	1			
L.4	Synchronized tube and detector movements. auto detector tracking and autotube positioning	1			
L.5	The system must have the ability to perform digital long length stitching images (scoliosis/long bones).	1			
L.6	Auto image stitching program included in the software package.	1			
L.7	A trolley with lockable castors, radiolucent top and an integrated detector holder that must move across the length of the trolley.	1			



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ITEM 6:

DIGITAL X-RAY

UNIT, U-ARM TYPE

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

2) The columns:

b) The columns have the following headings:

o Item Number

o Tender Specification

o Weight

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 67 points.

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 54 points or higher out of 67 points in respect of the specifications (line items) with a weight of 1.



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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 6:

DIGITAL X-RAY

UNIT, U-ARM TYPE

Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	CEILING SUSPENDED / MOUNTED X-RAY UNIT, U-ARM TYPE, INDEPENDENT FOR A SINGLE BAY (IN TRAUMA UNIT)				
A.1	Counter balance system.	#			
A.2	One cordless / wireless detector .	#			
A.3	One workstation with a viewing station.	#			
A.4	Ease of movement to be well secured with locks at the tube head, if possible, or at the arm. Details must be stated.	1			
A.5	Cables to be well secured, avoid dangling above operators heads.	1			
A.6	Horizontal / tranverse travel to be 3 meters and more, as per need in area positioned.	1			
A.7	The vertical travel of the U-arm must reach as low as 40-60cm above the floor.	1			
A.8	Distance from the detector to the X-Ray source (SID) must not be less than 100cm.	#			
A.9	Distance from the detector to the X-Ray source (SID) must be adjustable.	1			
A.10	The projection direction for the recumbent patients must include all angles between +90° and -90°.	1			
A.11	The X-Ray system must be equipped with collision protection.	1			
B.	ONE DETECTOR TRAY				
B.1	The tube on the one end of the U-arm and the detector must be synchronized.	#			
B.2	The detector tray must be integrated with the U-arm.	#			
B.3	A battery pack must be provided to charge the detector.	1			
B.4	Tether interphase cable, LAN cable, generator interphase cables must be provided.	1			
B.5	The detector tray must accommodate both the detector and the removable grid.	#			
B.6	The grid ratio must be 10:1 lines per centimeter. The details must be stated.	1			
B.7	43cm x 43cm Detector tray.	1			
C.	ONE FLAT PANEL DETECTOR				
C.1	Pixel pitch up to 160 micrometer (µm).	#			
C.2	The flat panel detector must be wireless	1			
C.3	Detectors have acquisition depth of 14bits and above grayscale. Details are stated in supporting documents provided.	1			
C.4	The size of the flat panel detector must be between 35cm x 43cm to 43cm x 43cm.	#			
C.5	Detector to have matrix in pixels of 2000 x 2000 and above	#			



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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 6:

DIGITAL X-RAY

UNIT, U-ARM TYPE

C.6	Patient's information/ image preview data must be transferable in not more than 3 seconds.	1			
C.7	The flat panel detector must be DICOM compliant and enabled.	#			
C.8	The weight of the the flat panel detector must be less than 5kg.	1			
C.9	The flat panel detector must be of Cesium iodide material.	#			
C.10	DQE must be between a range of 60%-70% @ 0 line pairs per millimeter / 50%- 60 % @ 0.05 line pairs per millimeter / 40 %-50% @ 1 line pairs per millimeter (lp/mm). DQE and MTF details are st	1			
C.11	The wall mounted cabinet must be installed for storage of removable wireless detector (optional) , QC test Tools and Grid.	1			
D.	ONE WORKSTATION				
D.1	The workstation must be connected to the PACS system, if available at the hospital.	1			
D.2	The successful bidder must provide the license to connect the workstation to the PACS and link to hospital network.	1			
D.3	The size of the touch screen LCD monitor must be 19" or above.	#			
D.4	Enhanced and extensive connectivity with MHL, display port, HDMI, VGA, USB ports.	1			
D.5	Full HD resolution and wide viewing angle 1000 x 1000 matrix.	#			
D.6	Stand designed uniquely for the workstation.	1			
D.7	Keyboard and mouse to be included.	1			
D.8	Repeat and reject analysis software package must be included.	1			
D.9	QC software package for viewing monitors must be included (SMPTE pattern or similar.)	1			
D.10	Browser must be compatible to Windows 10 or higher.	1			
E.	IMAGE ACQUISITION AND PROCESSING				
E.1	Must have an organ related application program.	#			
E.2	Must be able to configure the organ related application program to individual parameters.	1			
E.3	Pre- and post-processing of image parameters must be included.	1			
E.4	The following must be available on image processing:				
E.4.1	a. Identification of patients	1			
E.4.2	b. ID marker selection Left or Right	1			
E.4.3	c. AP/PA selection	1			



TENDER SPECIFICATION

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ITEM 6:

DIGITAL X-RAY

UNIT, U-ARM TYPE

E.5	Image functions to include:				
E.5.1	a. PAN and zoom capability	1			
E.5.2	b. Rotation	1			
E.5.3	c. Inversion	1			
E.5.4	d. Windowing	1			
E.5.5	e. Filtration	1			
E.5.6	f. Annotation	1			
E.5.7	g. Subtraction	1			
E.5.8	h. Measurement	1			
E.5.9	i. Image manipulation	1			
E.5.10	j. Filter selection for noise suppression and edge enhancement.	1			
E.6	The image contrast must be adjustable.	1			
E.7	All updated parameters to be included at no extra cost.	1			
F.	Image documentation and archiving:				
F.1	a. DICOM Print, Transfer, Modality, Work List, Send, Storage and Storage Commit and MPPS.	1			
F.2	b. All DICOM conformance statements must be provided.	#			
F.3	c. Storage capacity for 10 000 or more images must be available on the internal hard drive.	1			
G.	ONE X-RAY GENERATOR				
G.1	Must be a three phase, high frequency system.	#			
G.2	Output must be 80KW and above.	#			
G.3	The minimum KV must be 40KV up to 150KV at reasonable incremental values, 1 KV step. State incremental step.	1			



THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 6:

DIGITAL X-RAY

UNIT, U-ARM TYPE

G.4	The mA must be 800mA for a 80kW generator at 100kV. The details must be stated.	1			
G.5	The generator must have selectable mAs.	1			
G.6	The settings on the operator console must be displayed digitally.	1			
G.7	Troubleshooting, overload protection and error codes to be incorporated into the system.	1			
H.	ONE CEILING SUSPENDED X-RAY TUBE ON THE U-ARM				
H.1	Rotating anode.	#			
H.2	Dual Focal Spot (small and large focus).	#			
H.3	Anode Heat Storage Capacity must be 300kHU or above.	#			
H.4	Multi lead collimator to have rotating flange for collimation around the central beam.	1			
H.5	Swivel / Rotation of collimator around its own axis.	1			
H.6	Light localizer with electronic switch.	1			
I.	CPU HARD-DRIVE				
I.1	Must have a high storage capacity of 1TB.	1			
I.2	DVD RW and readable facilities to be available.	1			
I.3	Random access memory must not be less than 4GB.	1			
I.4	Must have a i5 core Intel processor or higher.	1			
I.5	Integrated graphics.	1			
I.6	Antivirus software protector to be provided.	1			
J.	RADIATION PROTECTION				
J.1	The system must have the ability to display Exposure Indicator values (EI/ S-values), immediately after exposure.	1			
J.2	X-ray Warning Notice for display at the X-ray Room entrance (not branded).	1			
J.3	An advanced Retake / Reject / Repeat analysis software package that includes analysis as well as calculations in percentages, must be provided for applicable systems.	1			
J.4	The applicable systems must have an integrated Dose Area Product (DAP) meter that includes skin dose equivalent measurement functions.	1			
J.5	A radiation report must be automatically generated and transferable via DICOM.	1			
K.	POWER SUPPLY				
K.1	An Uninterrupted Power Supply System (UPS system) must be offered for all systems and sub-systems where stated. The UPS support time must range between 10 minutes - 30 minutes to enable proper shutdown of systems and subsystems. Details must be stated.	#			
L.	OPTIONAL ITEMS				
L.1	One cordless / wireless detector.	1			
L.2	One battery pack.	1			
L.3	One battery charger	1			
L.4	One LCD monitor of 18" or above.	1			



THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 7:

DIGITAL MOBILE X-

RAY UNIT, 16-24 KW WITH FLAT PANEL DIGITAL DETECTOR

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

2) The columns:

b) The columns have the following headings:

- o Item Number
- o Tender Specification
- o Weight
- o Comply (Yes/No)
- o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)
- o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

- o Comply (Yes/No)
- o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)
- o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 114 points.

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 92 points or higher out of 114 points in respect of the specifications (line items) with a weight of 1.



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 7:

DIGITAL MOBILE X-

RAY UNIT, 16-24 KW WITH FLAT PANEL DIGITAL DETECTOR

Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	Microprocessor Controlled high frequency Generator				
A.1	Power range 16-24 kW	#			
A.2	Maximum mA Range of 160 mA and above at 100kV. Maximum mA output at 100 kV according to IEC60601-2-7 is stated.	1			
A.3	maximum kV range 40-125	1			
A.4	Exposure range time 1 ms- 10s	1			
A.5	mAs range 0.1 -320 mAs	1			
A.6	Steps for kV-settings are adjustable from minimum to maximum kV range 1kV increments. Details are stated	1			
A.7	Anatomical programming protocols must be included.	#			
B.	Mobile stand and collimator				
B.1	Manual multileaf collimator with SID measuring device and field illumination	1			
B.2	Collimator must have electronic timer to terminate the light	1			
B.3	± 45° swivelling/rotation of collimator	1			
B.4	Light and field intensity of collimator of 100 lux and above.	1			
B.5	Handswitch with release button(dead man switch)	1			
B.6	Retractable tape meter for easy SID measurement (measuring tape and electronic indicator on tube housing.	1			
B.7	X-ray exposure switch on extension cable of 2 meters and above.	1			
B.8	Pressure sensitive driven handle for speed control and braking to be available.	1			
B.9	Anti- collision sensors for frontal and on the sides of the unit .	1			
B.10	Storage compartment for 2 x 43 cmx43 cm wireless detectors	1			
B.11	Apron hanger (Hook type bracket for hanger) .	1			
B.12	All connections and cables attached to mobile unit, must be safely secured	1			
B.13	Radiation Warning signs must be displayed /permanently affixed on both sides of the unit	1			



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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 7:

DIGITAL MOBILE X-

RAY UNIT, 16-24 KW WITH FLAT PANEL DIGITAL DETECTOR

C.	X-ray Tube				
C.1	High speed X-ray tube with rotating anode	#			
C.2	Nominal focal spot according to IEC 60336 : 0.5 mm/ 0.6mm and 1mm/ 1.2 mm/.8mm (nominal)	1			
C.3	Anode heat storage capacity of 80 000 J (107 000 HU) and above	#			
C.4	X-ray tube rotation. Details of all rotational angles are stated.	1			
C.5	The maximum focus height from the floor, must be 200cm (2m) and above.	1			
C.6	Telescopic arm : The maximum distance of tube arm reach must be between range 100cm-230cm.	1			
C.7	Counterbalanced system	1			
C.8	The system must have the ability to display Exposure Indicator values (EI/ S-values), immediately after exposure	1			
D.	Motordrive and Batteries				
D.1	Large sturdy wheels to be incorporated	1			
D.2	Speed of motorized forward movement up to 5 km/h	1			
D.3	Battery operated movement of the unit	1			
D.4	Forward and reverse movement capability	1			
D.5	Lead acid free , maintenance- free sealed batteries.	1			
D.6	Two Independent battery power pack systems for driving and imaging. Full Details of battery power pack are clearly stated	1			
D.7	Automatic charging in the detector holder	1			
D.8	Battery charging time up to 12 hrs when completely discharged.	1			
D.9	Battery charge status/ level indicator to be available .	1			
D.10	Battery operating time when fully charged: Not less than 3 hours.	1			



THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 7:

DIGITAL MOBILE X-

RAY UNIT, 16-24 KW WITH FLAT PANEL DIGITAL DETECTOR

E.	Digital Flat Panel Detector				
E.1	Wireless Digital FP detector between 35 cm x 43 cm to 43cm x 43 cm field size	#			
E.2	Amorphous silicon with cesium iodide scintillator	#			
E.3	Detector to have matrix in pixels of 2000 x 2000 and above.	#			
E.4	Detectors have acquisition depth of 14 bits and above grayscale. Details are stated in supporting documents provided.	1			
E.5	Pixel pitch up to 160 micrometer (µm).	#			
E.6	DQE must be between a range of 60%-70% @ 0 line pairs per millimeter / 50%- 60 % @ 0.05 line pairs per millimeter / 40 %-50% @ 1 line pairs per millimeter (lp/mm). DQE and MTF details are stated in supporting documents.	1			
E.7	A radiation grid compatible with the detector, are provided.	1			
E.8	The data transmission/ reading speed from exposure to preview up to 10 seconds .	1			
E.9	The data transmission/ reading speed from exposure to full image up to 15 seconds .	1			
F.	Image Processing and System performance				
F.1	High resolution digital radiography system with DICOM network connection for image processing and image display on a preview monitor	1			
F.2	A diagnostic radiology 17 inch imaging workstation based on latest flat panel detector technology for high image dynamics with excellent signal/noise ratio is required. The operator console and workstation is permanently incorporated/attached into the mobile unit	1			
F.3	Application and examination database software included.Details are stated	1			
F.4	Image processing software are included	1			
F.5	64 bit 3.2GHz i5 Core Dual Microprocessor or similar	1			
F.6	RAM: 4 GB and above range	1			
F.7	64 bit Operating system included (Windows or Similar)	1			
F.8	Image storage capacity up to 4 000 full format images on internal hard drive. Details of image storage capacity are stated in GB, as well as in maximum number of images in the supporting documents provided.	1			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 7:

DIGITAL MOBILE X-

RAY UNIT, 16-24 KW WITH FLAT PANEL DIGITAL DETECTOR

F.9	No Autodeletion of images stored on internal hard drive. System to alert when near maximum storage capacity is reached.	1			
F.10	System must be DICOM compatible and capable of HIS/HMS/ RIS and PACS integration	1			
F.11	DVD /CD Writer inclusive of software for functionality of the DVD/CD Writer.	1			
F.12	Virus free software	1			
F.13	Memory stick support/USB PORT for QC	1			
F.14	Touch screen monitor	1			
F.15	Pre-programmable settings	1			
G.	USER INTERFACE				
G.1	Patient data entering	1			
G.2	Menu	1			
G.3	Integrated generator operation	1			
G.4	Menu control	1			
G.5	Organ program selection	1			
G.6	Window position/width	1			
G.7	Horizontal/vertical image mirroring	1			
G.8	Image manipulation: rotation, cropping, contrast,brightness,sharpness, inversion	1			
G.9	Left/right, ap/pa working	1			
G.10	Configurable text annotation	1			
G.11	Filter selection for edge enhancement	1			
G.12	Filter selection for noise suppression	1			
G.13	Image pan and zoom capability	1			
G.14	measurement tools	1			

**THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS****ITEM 7:****DIGITAL MOBILE X-****RAY UNIT, 16-24 KW WITH FLAT PANEL DIGITAL DETECTOR**

H.	CONTROL CONSOLE				
H.1	Patient data entering	1			
H.2	Manual	1			
H.3	Bar code reader	1			
H.4	Monitor size of 17 inch(diagonal)	1			
H.5	Colour	1			
H.6	Menu	1			
H.7	Integrated generator operation	1			
H.8	Menu control	1			
H.9	Organ program selection	1			
H.10	Window position/width	1			
H.11	Horizontal/vertical image mirroring	1			
H.12	Image rotation	1			
H.13	Left/right, ap/pa working	1			
H.14	Configurable text annotation	1			
H.15	Filter selection for edge enhancement	1			
H.16	Filter selection for noise suppression	1			
H.17	Image zoom capability	1			

**THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS****ITEM 7:****RAY UNIT, 16-24 KW WITH FLAT PANEL DIGITAL DETECTOR****DIGITAL MOBILE X-**

I.	APPLICATION AND EVALUATION PROGRAMS				
I.1	Organ-related application program	1			
I.2	Post processing functionality	1			
I.3	Windowing (centre/width)	1			
I.4	Paging forward and back	1			
I.5	Multi-image display on the monitor (mosaic)	1			
I.6	Retro-collimation facilities (shutter)	1			
I.7	Image documentation in the background	1			
I.8	Multi-tasking technique	1			
I.9	Edge enhancement	1			
I.10	Noise suppression	1			
I.11	Zoom	1			
I.12	Individual energy subtraction programs provided	1			
J.	DICOM FUNCTIONS				
J.1	Interface DICOM: "Basic Print"	1			
J.2	Interface DICOM: "Modality Worklist"	1			
J.3	Interface DICOM: "Storage"	1			
J.4	Interface DICOM: "Send as SCU"	1			
J.5	Interface DICOM "Image export/transfer to Laser Printer/Image viewer/ PACS/HIS/RIS	1			
J.6	A "Confirmation Statement" for all DICOM interfaces to be supplied	1			
J.7	Retractable LAN cable for back up connection	1			
J.8	Firewall protection	1			

**TENDER SPECIFICATION****THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS****ITEM 7:****DIGITAL MOBILE X-****RAY UNIT, 16-24 KW WITH FLAT PANEL DIGITAL DETECTOR**

K.	RADIATION PROTECTION				
K.1	The system must have the ability to display Exposure Indicator values (EI/ S-values), immediately after exposure	1			
K.2	X-ray Warning Notice for display on the mobile unit	1			
K.3	An advanced Retake / Reject / Repeat analysis software package that includes analysis as well as calculations in percentages, must be provided for applicable systems.	1			
K.4	The applicable systems must have an integrated Dose Area Product (DAP) meter that includes skin dose equivalent measurement functions.	1			
K.5	A radiation report must be automatically generated and transferable via DICOM.	1			
L.	OPTIONAL ITEMS				
L.1	1 X TB HARD DRIVE(external) ; DICOM CONFIGURED TO STORE, TRANSFER AND PRINT X-RAY IMAGES.	1			
L.2	Keyboard and mouse	1			
L.3	External battery charger	1			
L.4	TOR Rad or similar Image Resolution QC Test Tool	1			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 8:

DIGITAL MOBILE X-RAY UNIT, 25-50 KW WITH FLAT PANEL DIGITAL DETECTOR

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

2) The columns:

b) The columns have the following headings:

o Item Number

o Tender Specification

o Weight

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 113 points.

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 83 points or higher out of 113 points in respect of the specifications (line items) with a weight of 1.



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 8:

DIGITAL MOBILE X-RAY UNIT, 25-50 KW WITH FLAT PANEL DIGITAL DETECTOR

Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	Microprocessor Controlled high frequency Generator				
A.1	Power range 25-50 kW	#			
A.2	Maximum mA Range of 250 mA and above at 100kV. Maximum mA output at 100 kV according to IEC60601-2-7 is stated.	1			
A.3	maximum kV range 40-150	1			
A.4	Exposure range time 1 ms- 10s	1			
A.5	mAs range 0.1 -500 mAs	1			
A.6	Steps for kV-settings are adjustable from minimum to maximum kV range 1kV increments. Details are stated	1			
A.7	Anatomical programming protocols must be included.	#			
B.	Mobile stand and collimator				
B.1	Manual multileaf collimator with SID measuring device and field illumination	1			
B.2	Collimator must have electronic timer to terminate the light	1			
B.3	± 45° swivelling/rotation of collimator	1			
B.4	Light and field intensity of collimator of 100 lux and above.	1			
B.5	Handswitch with release button(dead man switch)	1			



THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 8:

DIGITAL MOBILE X-RAY UNIT, 25-50 KW WITH FLAT PANEL DIGITAL DETECTOR

B.6	Retractable tape meter for easy SID measurement (measuring tape and electronic indicator on tube housing.	1			
B.7	X-ray exposure switch on extension cable of 2 meters and above.	1			
B.8	Pressure sensitive driven handle for speed control and braking to be available.	1			
B.9	Anti- collision sensors for frontal and on the sides of the unit .	1			
B.10	Storage compartment for 2 x 43 cmx43 cm wireless detectors	1			
B.11	Apron hanger (Hook type bracket for hanger) .	1			
B.12	All connections and cables attached to mobile unit, must be safely secured	1			
B.13	Radiation Warning signs must be displayed /permanently affixed on both sides of the unit	1			
C.	X-ray Tube				
C.1	High speed X-ray tube with rotating anode	#			
C.2	Nominal focal spot according to IEC 60336 : 0.5 mm/ 0.6mm and 1mm/ 1.2 mm/.8mm (nominal)	1			
C.3	Anode heat storage capacity of 80 000 J (107 000 HU) and above	#			
C.4	X-ray tube rotation. Details of all rotational angles are stated.	1			
C.5	The maximum focus height from the floor, must be 200cm (2m) and above.	1			
C.6	Telescopic arm : The maximum distance of tube arm reach must be between range 100cm-230cm.	1			
C.7	Counterbalanced system	1			
C.8	The system must have the ability to display Exposure Indicator values (EI/ S-values), immediately after exposure	1			
D.	Motordrive and Batteries				
D.1	Large sturdy wheels to be incorporated	1			
D.2	Speed of motorized forward movement up to 5 km/h	1			
D.3	Battery operated movement of the unit	1			
D.4	Forward and reverse movement capability	1			
D.5	Lead acid free , maintenance- free sealed batteries.	1			
D.6	Two Independent battery power pack systems for driving and imaging. Full Details of battery power pack are clearly stated	1			
D.7	Automatic charging in the detector holder	1			
D.8	Battery charging time up to 12 hrs when completely discharged.	1			
D.9	Battery charge status/ level indicator to be available.	1			
D.10	Battery operating time for imaging: ≥ 3 hours.	#			
E.	Digital Flat Panel Detector				



THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 8:

DIGITAL MOBILE X-RAY UNIT, 25-50 KW WITH FLAT PANEL DIGITAL DETECTOR

E.1	Wireless Digital FP detector of between 35 cm x 43 cm to 43cm x 43 cm field size	#			
E.2	Amorphous silicon with cesium iodide scintillator	#			
E.3	Detector to have matrix in pixels of 2000 x 2000 and above.	#			
E.4	Detectors have acquisition depth of 14 bits and above grayscale. Details are stated in supporting documents provided.	1			
E.5	Pixel pitch up to 160 micrometer (µm).	#			
E.6	DQE must be between a range of 60%-70% @ 0 line pairs per millimeter / 50%- 60 % @ 0.05 line pairs per millimeter / 40 %-50% @ 1 line pairs per millimeter (lp/mm). DQE and MTF details are stated in supporting documents.	1			
E.7	A radiation grid compatible with the detector, are provided.	1			
E.8	The data transmission/ reading speed from exposure to preview up to 10 seconds .	1			
E.9	The data transmission/ reading speed from exposure to full image up to 15 seconds .	1			
F.	Image Processing and System performance				
F.1	High resolution digital radiography system with DICOM network connection for image processing and image display on a preview monitor	1			
F.2	A diagnostic radiology 17 inch imaging workstation based on latest flat panel detector technology for high image dynamics with excellent signal/noise ratio is required. The operator console and workstation is permanently incorporated/attached into the mobile unit	1			
F.3	Application and examination database software included.Details are stated	1			
F.4	Image processing software are included	1			
F.5	64 bit 3.2GHz i5 Core Dual Microprocessor or similar	1			
F.6	RAM: 4 GB and above range	1			
F.7	64 bit Operating system included (Windows or Similar)	1			
F.8	Image storage capacity up to 4 000 full format images on internal hard drive. Details of image storage capacity are stated in GB, as well as in maximum number of images in the supporting documents provided.	1			
F.9	No Autodeletion of images stored on internal hard drive. System to alert when near maximum storage capacity is reached.	1			
F.10	System must be DICOM compatible and capable of HIS/HMS/ RIS and PACS integration	1			
F.11	DVD /CD Writer inclusive of software for functionality of the DVD/CD Writer.	1			
F.12	Virus free software	1			
F.13	Touch screen monitor	1			
F.14	Pre-programmable settings	1			
G.	USER INTERFACE				



THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

DIGITAL MOBILE X-RAY UNIT, 25-50 KW WITH FLAT PANEL DIGITAL DETECTOR

ITEM 8:

G.1	Patient data entering	1			
G.2	Menu	1			
G.3	Integrated generator operation	1			
G.4	Menu control	1			
G.5	Organ program selection	1			
G.6	Window position/width	1			
G.7	Horizontal/vertical image mirroring	1			
G.8	Image manipulation: rotation, cropping, contrast, brightness, sharpness, inversion	1			
G.9	Left/right, ap/pa working	1			
G.10	Configurable text annotation	1			
G.11	Filter selection for edge enhancement	1			
G.12	Filter selection for noise suppression	1			
G.13	Image pan and zoom capability	1			
G.14	measurement tools	1			
H.	CONTROL CONSOLE				
H.1	Patient data entering	1			
H.2	Manual	1			
H.3	Bar code reader	1			
H.4	Monitor size of 17 inch(diagonal)	1			
H.5	Colour	1			
H.6	Menu	1			
H.7	Integrated generator operation	1			
H.8	Menu control	1			
H.9	Organ program selection	1			
H.10	Window position/width	1			
H.11	Horizontal/vertical image mirroring	1			
H.12	Image rotation	1			
H.13	Left/right, ap/pa working	1			
H.14	Configurable text annotation	1			
H.15	Filter selection for edge enhancement	1			
H.16	Filter selection for noise suppression	1			
H.17	Image zoom capability	1			
I.	APPLICATION AND EVALUATION PROGRAMS				
I.1	Organ-related application program	1			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 8:

DIGITAL MOBILE X-RAY UNIT, 25-50 KW WITH FLAT PANEL DIGITAL DETECTOR

I.2	Post processing functionality	1			
I.3	Windowing (centre/width)	1			
I.4	Paging forward and back	1			
I.5	Multi-image display on the monitor (mosaic)	1			
I.6	Retro-collimation facilities (shutter)	1			
I.7	Image documentation in the background	1			
I.8	Multi-tasking technique	1			
I.9	Edge enhancement	1			
I.10	Noise suppression	1			
I.11	Zoom	1			
I.12	Individual energy subtraction programs provided	1			
J.	DICOM FUNCTIONS				
J.1	Interface DICOM: "Basic Print"	1			
J.2	Interface DICOM: "Modality Worklist"	1			
J.3	Interface DICOM: "Storage"	1			
J.4	Interface DICOM: "Send as SCU"	1			
J.5	Interface DICOM "Image export/transfer to Laser Printer/Image viewer/ PACS/HIS/RIS	1			
J.6	A "Conformance Statement" for all DICOM interfaces to be supplied	1			
J.7	Retractable LAN cable for back up connection	1			
J.8	Firewall protection	1			
J.9	The succesful bidder must ensure that the configuration between the processed images on the Digital Imaging Workstation and that transferred to the receivers of these images, such as PACS , Laser Printer , CD/DVD are properly calibrated/ reconfigured during installation, service and maintenance,repairs, and future software updates/upgrades .	1			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 8:

DIGITAL MOBILE X-RAY UNIT, 25-50 KW WITH FLAT PANEL DIGITAL DETECTOR

K.	RADIATION PROTECTION				
K.1	The system must have the ability to display Exposure Indicator values (EI/ S-values), immediately after exposure	1			
K.2	X-ray Warning Notice for display on the mobile unit	1			
K.3	An advanced Retake / Reject / Repeat analysis software package that includes analysis as well as calculations in percentages, must be provided for applicable systems.	1			
K.4	The applicable systems must have an integrated Dose Area Product (DAP) meter that includes skin dose equivalent measurement functions.	1			
K.5	A radiation report must be automatically generated and transferable via DICOM.	1			
L.	OPTIONAL ITEMS				
L.1	1 X TB HARD DRIVE(external) ; DICOM CONFIGURED TO STORE, TRANSFER AND PRINT X-RAY IMAGES.	1			
L.2	Keyboard and mouse	1			
L.3	External battery charger	1			
L.4	TOR Rad or similar Image Resolution QC Test Tool	1			

TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 9:

DIGITAL MOBILE FLUOROSCOPY C-ARM WITH FLAT PANEL DETECTOR, 12kW

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

2) The columns:

b) The columns have the following headings:

o Item Number

o Tender Specification

o Weight

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 115 points.

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 92 points or higher out of 115 points in respect of the specifications (line items) with a weight of 1.



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 9:

DIGITAL MOBILE FLUOROSCOPY C-ARM WITH FLAT PANEL DETECTOR, 12kW

Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	Lightweight digital mobile Fluoro C-arm system with Flat Panel Detector				
B.	C-Arm				
B.1	C-arm system with easy movement, radiation indicator, handswitch, footswitch and a footbrake to lock the system.	#			
B.2	The C-arm must have a motorised vertical movement of at least 400 mm or better	1			
B.3	The C-arm must have a horizontal range of about 200 mm or better.	1			
B.4	The C-arm must have a orbital movement range of 135° and better . The orbital movement values (- ° value to + ° value) are stated. The range of orbital rotation are stated.	1			
B.5	The C-arm system must have a rotation/angulation around the horizontal of at least ± 220° or better. Details are stated in supporting documents.	1			
B.6	The unit offered must have a swivel range (panning) of at least 10 degrees in each direction (WIG/WAG). The Swiveling (panning) range are stated.	1			
B.7	The C-arm system must have a focus to image receptor distance of ≥ 90 cm. Details are stated in	1			
B.8	C-arm vertical free space ≥80 cm). Details are stated in supporting documents.	1			
B.9	C-arm depth ≥65 cm. Details are stated in supporting documents.	1			
B.10	Ultra-compact foot switch , with rear wheel steering,including push bar and handles for easy maneuverability and positioning of the stand. Details are stated in supporting documents	1			
B.11	Patented steering & braking lever,with parallel movement of the mobile stand in all directions.	1			
B.12	Position memory function. Details of C-arm position memory are stated in supporting documents	1			
B.13	Counterbalanced C-arm equiped with effective brakes	1			
B.14	Colour coding of C-arm movements for ease of C-arm movements	1			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 9:

DIGITAL MOBILE FLUOROSCOPY C-ARM WITH FLAT PANEL DETECTOR, 12kW

C.	X-ray tube and generators				
C.1	Generator should be single phase, high frequency, microprocessor-controlled with a nominal output of 12kW or better. Details must be stated.	#			
C.2	The X-ray tube must have a rotating anode. Details are stated.	#			
C.3	Dual focus. Dimensions for each focus are stated in supporting documents.(Prefer $\pm 0.3 / 0.6$ mm or better)	#			
C.4	Max. anode heat content: 250 kHU or better. Details of kHU are stated in supporting documents.	#			
C.5	The tube shall be able to work with full output of the generator and shall have an overload protection. Details are stated in supporting documents.	1			
D.	Operating Values				
D.1	Pulsed fluoroscopy:	#			
D.2	kVp range: 40kV -120 kV or better. Details are stated in supporting documents.	1			
D.3	Fluoro mA range: minimum of 1.5mA up to maximum of 100 mA or better. Details are stated in supporting documents.	1			
D.4	Pulse width for pulsed fluoroscopy : A minimum of 5 ms . Details are stated in supporting documents.	1			
D.5	Variable pulse rate range: Details of variable pulse rate range in pulses per second, are stated in supporting documents.	1			
D.6	Digital radiography (snapshot):	#			
D.7	kVp range: 40 -120 kV or better. Details are stated in supporting documents.	1			
D.8	mA up to 100 mA or better. Details are stated in supporting documents.	1			
D.9	Programmable Radiography mA	1			
D.10	Radiography mAs range	1			
D.11	Boost Fluoro exposure settings	1			
D.12	Automatic Brightness Control (ABC) for Fluoro image	1			
E.	Filtering				
E.1	Total filtration: must include ≥ 3 mm Al equivalent. Details are stated in supporting documents.	1			
E.2	Added Filtration: Must include 0.1 mm Cu or better as an Optional item	1			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 9:

DIGITAL MOBILE FLUOROSCOPY C-ARM WITH FLAT PANEL DETECTOR, 12kW

F.	Collimator System				
F.1	Motorized Collimator	1			
F.2	Collimator rotation should be $\pm 90^\circ$. Details are stated in supporting documents.	1			
F.3	Circular/ Rectangular opening with lead iris leaves . Details are stated .	1			
F.4	Asymetric slot collimator. Details are stated in supporting documents.	1			
F.5	Must be able to adjust collimation without emitting radiation	1			
F.6	Minimum of two shutters. The shutters shall be able to rotate and shall be independently adjustable. Details of the degrees of rotation and the independent adjustability of the shutters, are stated in supporting documents.	1			
G.	Flat panel detector system				
G.1	Amorphous silicon photodiode or better. Details are stated in supporting documents	#			
G.2	TFT technology: Scintillator to be Cesium Iodide. Details are stated in supporting documents	#			
G.3	Detector Field size should be 20cm x 20cm and above. Details on the physical detector size as well as size of active image area must be stated.	#			
G.4	Pixel size smaller than 190 μm . Details are stated in supporting documents	1			
G.5	Detector matrix must be more than 1,000 x 1,000 pixels (1k x 1k). Details must be stated in supporting documents.	#			
G.6	Three selectable zoom sizes must be included. Details on zoom sizes available ,as well as detector matrix pixel for each zoom size, are stated in supporting documents .	1			
G.7	Dynamic range/ Gray scale : 14 bit or better	1			
G.8	Laser localiser integrated in the detector housing	1			
H.	Television system and display television monitor and support stand.				
H.1	Two high-resolution and high-brightness flatscreen LCD colour monitors on a trolley:	1			
H.2	Screen size: 2 x 19" or better	1			
H.3	Maximum Resolution: 1,024 x 1,024 pixels or better	1			
H.4	Viewing angle of 170 degrees and higher (horizontal and vertical). Details are stated in supporting documents.	1			
H.5	Brightness: should be $> 600 \text{ cd/m}^2$. Details are stated in supporting documents	1			



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ITEM 9:

DIGITAL MOBILE FLUOROSCOPY C-ARM WITH FLAT PANEL DETECTOR, 12kW

I.	User interface				
I.1	Must have a separate Monitor cart:	#			
I.2	Ergonomic design: Details are stated.	1			
I.3	Synchronized user interphase.	#			
I.4	Intuitive icons for easy use	1			
I.5	Touch screen control panel	1			
I.6	User friendly. Details are stated in supporting documents	1			
I.7	One monitor must have touch screen capabilities for patient data input and other user input.	1			
I.8	Programmable setup of the interface must be possible.	1			
J.	Digital image processing				
J.1	Real-Time Processing Functions:				
J.1.1	Recursive filter	1			
J.1.2	Stack filter ('Last Image Hold') memory for at least six images	1			
J.1.3	Edge enhancement. Details are stated in supporting documents	1			
J.1.4	Windowing and step windowing	1			
J.1.5	Digital image rotation and reversal without emitting radiation	1			
J.1.6	Grayscale inversion	1			
J.1.7	Digital shutters must be available	1			
J.1.8	Application-Oriented Anatomical Programs to be available eg Bone, Heart, Abdomen, Endo. Details are stated in supporting documents.	1			
J.1.9	Software imaging programs for Motion, Metal, Soft, Large Patient . Details are stated in supporting documents	1			
J.2	Image Acquisition:				
J.2.1	Autosave	#			
J.2.2	Cine loop with auto-playback	1			
J.2.3	Sequential image storage and display:	1			
J.2.4	State all available frame rates Details are stated in supporting documents	1			
J.2.5	Start, stop and replay rate controls	1			
J.2.6	Grayscale: 14 bit or better	1			
J.3	Postprocessing Functions:				
J.3.1	Edge enhancement	1			
J.3.2	Zoom: 3 levels	1			
J.3.3	Image rotation	1			



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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 9:

DIGITAL MOBILE FLUOROSCOPY C-ARM WITH FLAT PANEL DETECTOR, 12kW

J.3.4	Windowing	1			
J.3.5	Grayscale inversion	1			
J.3.6	Image cropping (digital shutters)	1			
J.3.7	Digital measurement functions (distance/angle)	1			
J.4	Digital Memory:				
J.4.1	Storage capacity for minimum of 20 000 images and more. Details of maximum storage capacity in number of images and GB, are stated.	1			
J.4.2	Memory matrix: 1,024 x 1,024 pixels or better	1			
J.4.3	Image matrix: 1,024 x 1,024 pixels or better	#			
J.4.4	Digital image processing:	1			
J.4.5	Up to 32 bit or better	1			
J.4.6	14 bit A/D converter or better	1			
K.	Data Organization				
K.1	Patient-based data management . Details are stated in supporting documents	1			
K.2	Pre-registration via DICOM Worklist (PACS/RIS). Details are stated in supporting documents	1			
K.3	Manual input for emergency registration	#			
L.	Archiving				
L.1	Must be incorporated into hospital PACS network/PACS ready.	1			
L.2	DICOM compatible (latest version)	#			
L.3	Primary Capture mode. Details are stated in supporting documents	1			
L.4	Available DICOM Classes:				
L.4.1	Storage Class incl. multiframe capability and Storage Commitment	1			
L.4.2	Print Class	1			
L.4.3	Interface DICOM: "Send as SCU"	1			
L.4.4	Worklist Class incl. Modality	1			
L.5	Modality Performed Procedure Step (MPPS):				
L.5.1	Query/Retrieve	1			
L.5.2	Verification	1			
L.5.3	A "Conformance Statement" for all DICOM interfaces to be supplied	1			



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ITEM 9:

DIGITAL MOBILE FLUOROSCOPY C-ARM WITH FLAT PANEL DETECTOR, 12kW

L.6	Video printer (option): paper and /or film must be included	1			
L.7	USB port	1			
L.8	Export formats: DICOM, TIFF, zipped format (state size), JPEG, Multimedia (AVI)	1			
L.9	DVD-RW drive must be included:	1			
L.10	The storage capacity and number of images storage capacity on the unit (prefer >20 000)	1			
L.11	Automatic DICOM viewer software must be written on DVD and USB device when images are exported	1			
M.	Electrical requirements				
M.1	The offered system must function off a standard 220V (+/- 10 % single phase, 50 Hz supply and be fitted with a SABS approved 3 pin rubber plug top held down by two screws. The minimum length of the power supply cord must be 5 meters.	#			
M.2	Security key switch (x-ray) must have at least 2 keys	1			
N.	The following must be included in the offer				
N.1	Laser positioning device, mounted on generator under the table.	1			
N.2	Emergency stop button	1			
N.3	Video output for external documentation	1			
N.4	4-pedal foot switch	1			
N.5	The system must have an integrated Dose Area Product (DAP) meter that includes skin dose equivalent measurement functions.	#			
N.6	Radiation Warning Light/Visual Display	1			
N.7	Sterile covers for the c-arm and the monitor system must be supplied.	1			
N.8	Thermal printer (210 mm HD)	1			



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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 9:

DIGITAL MOBILE FLUOROSCOPY C-ARM WITH FLAT PANEL DETECTOR, 12kW

O.	RADIATION PROTECTION				
O.1	The system must have dose reduction mechanisms including software. Details of dose reduction mechanisms and software are stated in supporting documents.	1			
O.2	Standard QC software packages and QC Tools must be provided as required. Details are stated in supporting documents.	1			
O.3	An advanced Retake / Reject / Repeat analysis software package that includes analysis as well as calculations in percentages, must be provided for applicable systems.	1			
O.4	The applicable systems must have an integrated Dose Area Product (DAP) meter that includes skin dose equivalent measurement functions.	1			
O.5	A radiation report must be automatically generated and transferable via DICOM.	1			
P.	SOFTWARE PACKAGE				
P.1	A vascular software package as an option. Details are stated in supporting documents	1			
P.2	DSA Package must be included as an option	1			
P.3	DSA real-time subtraction with re-masking capability must be included as an option	1			
P.4	MSA max. opacification sequence must be included as an option	1			
P.5	RSA (roadmapping) must be included as an option	1			
P.6	Pixel shift / landmarking must be included as an option	1			
P.7	Bolus chase must be included as an option	1			
P.8	CO2 Package (Include as Option)	1			
P.9	Automatic image optimization when using negative contrast medium in subtraction modes	1			
Q.	OPTIONAL ITEMS				
Q.1	The optional UPS for C arm must be fitted into a cabinet with heavy duty wheels / castors that comes with footbrakes. The UPS support time must range between 10 minutes - 30 minutes to enable proper shutdown of systems and subsystems. Details must be stated.	1			
Q.2	The electric cable connecting the UPS unit to the C-arm must be 5m in length. State if UPS is integrated into the C-arm system or provided as an external unit to provide uninterruptable power supply during power outages.	1			
Q.3	Optional : Flat screen monitor with Swivel arm that allows the user to position the monitor .	1			



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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

DIGITAL MOBILE FLUOROSCOPY C-ARM, LIGHT WEIGHT WITH ROTATING ANODE AND CCD CAMERA II CCD, 5kW

ITEM 10:

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

b) The columns have the following headings:

o Item Number

o Tender Specification

o Weight

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with. T

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 73 points.

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 58 points or higher out of 73 points in respect of the specifications (line items) with a weight of 1.



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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 10:

DIGITAL MOBILE FLUOROSCOPY C-ARM, LIGHT WEIGHT WITH ROTATING ANODE AND CCD CAMERA II CCD, 5kW

Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	C-Arm, Fluoroscopy, Light Weight, Mobile, Digital with Rotating Anode and CCD Camera , 5kW				
B.	C-Arm				
B.1	C-arm system with easy movement, radiation indicator, handswitch, footswitch and a footbrake to lock the system.	#			
B.2	The C-arm must have a motorised vertical movement of at least 400 mm or better.	1			
B.3	The C-arm must have a horizontal range of about 200 mm or better.	1			
B.4	The C-arm must have a orbital movement range of 135° and better . The orbital movement values (- ° value to + ° value) are stated.	1			
B.5	The C-arm system must have a rotation/angulation around the horizontal of ± 220° or better. Details are stated in supporting documents.	1			
B.6	The unit offered must have a swivel range (panning) of at least 10 degrees in each direction (WIG/WAG). The Swiveling (panning) range are stated.	1			
B.7	The C-arm system must have a focal spot (source) to image receptor distance of ≥ 90 cm. Details are stated in supporting documents.	1			
B.8	C-arm vertical free space ≥80 cm). Details are stated in supporting documents.	1			
B.9	C-arm depth ≥65 cm. Details are stated in supporting documents.	1			
B.10	Ultra-compact foot switch , with rear wheel steering,including push bar and handles for easy maneuverability and positioning of the stand. Details are stated in supporting documents	1			



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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

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DIGITAL MOBILE FLUOROSCOPY C-ARM, LIGHT WEIGHT WITH ROTATING ANODE AND CCD CAMERA II CCD, 5kW

B.11	Patented steering & braking lever, with parallel movement of the mobile stand in all directions.	1			
B.12	Counterbalanced C-arm equipped with effective brakes	1			
B.13	Colour coding of C-arm movements for ease of C-arm movements	1			
C.	X-ray tube and generators				
C.1	Generator should be single phase, high frequency, microprocessor-controlled with a nominal output of 5 kW or better. Details are stated in supporting documents.	1			
C.2	The X-ray tube must have a rotating anode. Details are stated.	#			
C.3	Dual focus. Dimensions for each focus are stated in supporting documents (0.3 - 0.6 mm or better).	1			
C.4	Maximum anode heat content: 200 kHU or better. Details of kHU are stated in supporting documents.	#			
C.5	The tube shall be able to work with full output of the generator and shall have an overload protection. Details are stated in supporting documents.	1			
D.	Operating Values				
D.1	Fluoroscopy and Radiography Mode	#			
D.2	Pulsed fluoroscopy	#			
D.2.1	Pulse width for pulsed fluoroscopy : A minimum of 5 ms . Details must be stated in supporting documents.	1			
D.2.2	Fluoro kVp range: 40kV -120 kV or better. Details must be stated in supporting documents.	1			
D.2.3	Fluoro mA range: minimum of 1.5mA up to maximum of 100 mA or better. Details must be stated in supporting documents.	1			
D.2.4	Variable pulse rate range: Details of variable pulse rate range in pulses per second, must be stated in supporting documents.	1			
D.3	Digital radiography (snapshot/ single shot mode)	#			
D.3.1	Radiography kVp range: minimum of 40 kV - maximum of 120 kV or better. Details must be stated in supporting documents.	1			



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D.3.2	Radiography mA: Maximum of 100 mA or better. Details must be stated in supporting documents.	1			
D.3.3	Programmable Radiography mA	1			
D.3.4	Radiography mAs range	1			
D.4	Boost Fluoro exposure settings	1			
D.5	Automatic Brightness Control (ABC) for Fluoro image	1			
E.	Filtering				
E.1	Total filtration: must include ≥ 3 mm Al equivalent. Details must be stated in supporting documents.	1			
E.2	Added Filtration: Must include 0.1 mm Cu or better as an Optional item	1			
F.	Collimator System				
F.1	Motorized Collimator	1			
F.2	Collimator rotation should be $\pm 90^\circ$. Details are stated in supporting documents.	1			
F.3	Iris Circular Collimator: Circular opening with lead iris leaves. Details of diameter of circular opening are stated.	1			
F.4	Asymmetric slot collimator. Details are stated in supporting documents.	1			
F.5	Must be able to adjust collimation without emitting radiation	1			
F.6	Minimum of two shutters. The shutters shall be able to rotate and shall be independently adjustable. Details of the degrees of rotation and the independent adjustability of the shutters, are stated in supporting documents.	1			
G.	Imaging detector system				
G.1	The unit must be delivered with a high resolution tube and 23 cm image intensifier and above. Please state image intensifier size and the resolution of the system.	#			
G.2	Digital camera must be a CCD type system with a matrix of 1000 x 1000 pixels and above. Details must be stated in supporting documents.	#			
G.3	Three selectable zoom sizes must be included (Triple mode). Details on zoom sizes available, as well as detector matrix pixel for each zoom size, must be stated in supporting documents.	1			



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ITEM 10:

DIGITAL MOBILE FLUOROSCOPY C-ARM, LIGHT WEIGHT WITH ROTATING ANODE AND CCD CAMERA II CCD, 5kW

G.4	Dynamic range/ Gray scale : 12 bit or better	1			
G.5	Laser localiser integrated in the detector housing	1			
H.	Television system and display television monitor and support stand.				
H.1	12 bit matrix and above.	1			
H.2	Two x 19inch high-resolution and high-brightness flatscreen LCD colour monitors on a trolley:	1			
H.3	Maximum Resolution: 1000 x 1000 pixels or better	1			
H.4	Viewing angle of 170 degrees and higher (horizontal and vertical). Details must be stated in supporting documents.	1			
H.5	Brightness: should be > 600 cd/m ² . Details must be stated in supporting documents	1			
H.6	The system must have the following features:				
H.6.1	Last image hold. LIH	1			
H.6.2	Rotation of image on monitor	1			
H.6.3	Memory for images. Details must be stated.	1			
H.7	A Black and White Thermal printer must be connected to the system for the production of paper images	1			
I.	User interface				
I.1	Must have a separate Monitor cart	#			
I.2	Ergonomic design: Details must be stated.	1			
I.3	Synchronized user interphase.	#			
I.4	Intuitive icons for easy use	1			
I.5	Touch screen control panel	1			
I.6	User friendly. Details must be stated in supporting documents	1			
I.7	One monitor must have touch screen capabilities for patient data input and other user input.	1			
I.8	Programmable setup of the interface must be possible.	1			
I.9	Storage capacity for minimum of 20 000 images and more. Details of maximum storage capacity in number of images and GB, must be stated.	1			



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ITEM 10:

DIGITAL MOBILE FLUOROSCOPY C-ARM, LIGHT WEIGHT WITH ROTATING ANODE AND CCD CAMERA II CCD, 5kW

I.10	Available DICOM Classes:				
I.10.1	Storage Class incl. multiframe capability and Storage Commitment	1			
I.10.2	Print Class	1			
I.10.3	Interface DICOM: "Send as SCU"	1			
I.10.4	Worklist Class incl. Modality	1			
I.10.5	Modality Performed Procedure Step (MPPS)	1			
I.10.6	Query/Retrieve	1			
I.10.7	Verification	1			
I.10.8	A "Conformance Statement" for all DICOM interfaces to be supplied	1			
J.	RADIATION PROTECTION				
J.1	The system must have dose reduction mechanisms including software. Details of dose reduction mechanisms and software are stated in supporting documents.	1			
J.2	Standard QC software packages and QC Tools must be provided as required. Details are stated in supporting documents	1			
J.3	An advanced Retake / Reject / Repeat analysis software package that includes analysis as well as calculations in percentages, must be provided for applicable systems.	1			
J.4	The applicable systems must have an integrated Dose Area Product (DAP) meter that includes skin dose equivalent measurement functions.	1			
J.5	A radiation report must be automatically generated and transferable via DICOM.	1			
K.	OPTIONAL ITEMS				
K.1	Optional Sterile covers for the c-arm and the monitor system must be offered.	1			
K.2	Optional cassette holder with a mounting bracket must be supplied that matches the size of image intensifier.	1			
K.3	Grid as an option.	1			
K.4	A character display unit for the entry of data via a keyboard must be offered as an option.	1			
K.5	Position memory function optional. Details of C-arm position memory must be stated in supporting documents	1			



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ITEM 10:

DIGITAL MOBILE FLUOROSCOPY C-ARM, LIGHT WEIGHT WITH ROTATING ANODE AND CCD CAMERA II CCD, 5kW

K.6	A laser guide must be offered	1			
K.7	The electric cable connecting the UPS unit to the C-arm must be 5m in length. State if UPS is integrated into the C-arm system or provided as an external unit to provide uninterruptable power supply during power outages.	1			
K.8	The optional UPS for C arm must be fitted into a cabinet with heavy duty wheels / castors that comes with footbrakes. The UPS support time must range between 10 minutes - 30 minutes to enable proper shutdown of systems and subsystems. Details must be stated.	1			



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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

**ITEM 11:
ULTRASOUND UNIT MID-RANGE**

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

2) The columns:

b) The columns have the following headings:

o Item Number

o Tender Specification

o Weight

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 23 points.

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 18 points or higher out of 23 points in respect of the specifications (line items) with a weight of 1.



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ITEM 11:
ULTRASOUND UNIT MID-RANGE

Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	Imaging Modes				
A.1	Ultrasound unit must have applications for adults and paediatrics -				
A.1.1	Abdominal and pelvic	#			
A.1.2	Qbstetrics and gynecological	#			
A.1.3	Small parts	#			
A.1.4	Vascular imaging	#			
A.1.5	Transcranial	#			
A.1.6	Cardiac	#			
A.2	Unit should be capable of offering a frame rate of ≥ 400 frames per second.	#			
A.3	The colour frame rate should be ≥ 400 . State maximum colour frame rate.	1			
A.4	Unit should offer a ≥ 17 -inch high definition LCD colour monitor.	#			
A.5	Ergonomic design keyboard. Details must be stated.	1			
A.6	Brightness / contrast adjustment on monitor.	#			
A.7	Programmable panel with changeable labels.	#			
A.8	Graphical user interphase (user friendly and exam specific).	#			
A.9	Height adjustable user interphase.	1			
A.10	Unit must be housed on a ergonomic and compact mobile cart with lockable wheels for easy maneuverability.	#			
A.11	All post processing must be available on frozen images (for example Measurements, Annotation, Gain, Gray Map, Chrome map, Baseline) . Details are stated.	#			
A.12	The gray scale level for image display modes, should be ≥ 256 shades.	#			
A.13	Touch screen Control Panel must be ≥ 8 inch.	#			
A.14	Unit should have an emergency log on.	#			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

**ITEM 11:
ULTRASOUND UNIT MID-RANGE**

B.	Functionality				
B.1	≥ 12 bit digital converter for dynamic image / live image (beam former).	#			
B.2	B -mode must have trapezoid function.	#			
B.3	B mode must have panoramic view function.	1			
B.4	Autocalibration for measurements on panoramic image must be standard.	1			
B.5	B mode with broad band harmonic for increased resolution from near and far field.	#			
B.6	B-Mode image on linear transducer to be electronically steerable.	#			
B.7	Image format to operate in dual and quad screen.	#			
B.8	Independent gain control for Pulsed Wave Doppler.	#			
B.9	Scanning Operating Modes: B-mode, M-mode, Pulsed Wave Doppler (Spectral), Continuous Wave Doppler, Tissue harmonics Power Doppler and Color Doppler.	#			
B.10	Pulse Repetition Frequency (PRF) / Velocity must be adjustable in increments.	#			
B.11	Pulse Repetition Frequency (PRF) / Velocity values must be displayed on the screen.	#			
B.12	Transducer Frequency must be displayed.	#			
B.13	Wall filter must be adjustable.	#			
B.14	The sampling gate must be adjustable: ≥ 0.3mm and ≤ 15mm.	#			
B.15	Unit should have directional Power Doppler functionality.	1			
B.16	M-mode / Doppler review (cine playback or loop) of ≥ 10 seconds. Details should be stated.	#			
B.17	M-mode / Doppler to be steerable.	#			
B.18	Independent B-mode and Color Doppler gain adjustment must be available.	#			
B.19	Independent image optimization of each mode must be available.	#			
B.20	The Maximum scanning depth must be ≥ 30cm. Details should be stated.	#			
B.21	One button auto image optimization should be available.	1			
B.22	Internal Hard drive with minimum usable storage space of ≥ 250GB. You must be able to store videos and still images on internal hard drive.	#			
B.23	Auto deletion of images should be managed (activated / de-activated) by the user.	#			
B.24	Machine to notify when maximum minimum image storage capacity is reached. The actual maximum storage capacity in GB and total number of images should be stated.	#			
B.25	External Hard Drive of ≥ 5TB for additional storage/archiving is included.	1			



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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

**ITEM 11:
ULTRASOUND UNIT MID-RANGE**

B.26	Black and white digital thermal printer attached to the unit must be included.	#			
B.27	The ultrasound unit must include a CD/DVD Writer/Recorder drive as a standard.	#			
B.28	The CD/DVD Writer/Recorder must be compatible with all types of computers/laptops.	1			
B.29	2 x USB Port for printer & memory stick use should be an integral part the unit for storage/recording of real time loops (video) and still images.	#			
B.30	The system must be DICOM 3 compliant.	#			
B.31	Advanced DICOM including full worklist must be included in Main Unit.	#			
B.32	Export of images from the system must be possible via LAN, USB, CD and DVD (including transfer of images to PACS) . The methods are stated in supporting documents.	#			
B.33	The following storage formats must be possible on the ultrasound unit: JPEG, Bitmap, Tiff, AVI and DICOM.	#			
B.34	On screen measurements must be possible on real time examination.	#			
B.35	5th,50th and 95th percentile growth graphs must be offered on all fetal biometries. This information must be retrievable for all follow-up visits to detect abnormal growth of the foetus early.	#			
B.36	Display of graphs must be available to compare measurements of twins , triplets in single and quad display.	#			
B.37	User should be able to programme exam presets.	#			
B.38	Unit must offer user programmable annotation for quick labelling.	#			
B.39	Storage and review of patient data must be available for comparative exams. Details are stated.	1			
C.	Transducers				
C.1	The selected frequency of the imaging transducer must be displayed on the screen.	#			
C.2	Three transducers must be included as a standard and the end-user must be able to select the final transducers. Clearly State all available transducers with prices per transducers (swapping of products/transducers and software to be allowed with equitable costs). Details are stated.	#			
C.3	Types and frequency range of transducers:				
C.3.1	Convex Probe (Curvilinear). The MHz range are stated (within 1-6 MHz).	#			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

**ITEM 11:
ULTRASOUND UNIT MID-RANGE**

C.3.2	Microconvex for neonatal / paediatrics. The MHz range are stated (4-8).	#			
C.3.3	Microconvex Transvaginal / transrectal. The MHz range are stated (within 3-8 MHz).	#			
C.3.4	Linear probe (vascular) The MHz range are stated (4-12).	#			
C.3.5	Linear probe (MSK) The lower MHz range must be 5-6 MHz and the upper range must be between 14 and 21 MHz.	#			
C.3.6	Adult Cardiac Probe. State the MHz range (1-4MHz).	#			
C.3.7	Paediatric Cardiac Probe. State the MHz range (2-10 MHz).	#			
C.3.8	≥ 3 x standard Probe holders.	#			
C.3.9	≥ 3 x Active probe ports. Details of total number of active probe ports must be stated.	#			
C.4	Digital Black and white thermal printer must be offered as part of the system. It must not be an optional item.	#			
C.5	Cable tray /hooks cable support system.	#			
C.6	Gel warmer.	1			
C.7	Easy removable air filters (by end users).	#			
C.8	Ultrasound Quality Control Phantom (swapping of phantoms, products and software to be allowed with equitable costs). Details are stated.	1			
C.9	SOFTWARE:				
C.9.1	Compound Imaging (Cross Beam angles).	#			
C.9.2	Speckle Reduction (Minimum of 4-5 steps). Refines images(reduces noise).	#			
C.9.3	System must have software to enhance needle visualization during biopsy.	1			
C.9.4	Measurement and Report software packages must be configurable.	#			
C.9.5	Details of tools/software provided as a standard must be stated.	#			
C.9.6	The standard software packages supplied must be fully upgradable.	#			
C.9.7	The cost of updating and upgrading all standard software packages supplied , during warranty and maintenance period must be included in the offer . It must be clearly outlined as a line item in the offer documentation.	#			



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ITEM 11:
ULTRASOUND UNIT MID-RANGE

D.	POWER SUPPLY				
D.1	An external Uninterrupted Power Supply System (UPS system) must be offered for the system.	#			
D.2	The external UPS support time must $\geq$ 30 minutes to enable proper shutdown of systems and subsystems.	#			
D.3	The system should also have a built-in UPS.	1			
E.	OPTIONAL ITEMS				
E.1	Any additional tools / software not included in the standard package must be clearly listed	1			
E.2	Side storage bin.	1			
E.3	Elastography software shear wave for liver or strain wave for breast.	1			
E.4	3D software	1			
E.5	4D software	1			
E.6	Continuous Wave Doppler software to be activated relevant to the user.	1			
E.7	Additional probes and software must be available as optional items. Optional items must be listed and priced separately.	1			
E.8	Chair, ergonomic, height adjustable with lockable castors for the Health professional.	1			
E.9	Foot rest as a standard.	1			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 12:
ULTRASOUND MACHINE, HIGH END WITH TEE

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

2) The columns:

b) The columns have the following headings:

o Item Number

o Tender Specification

o Weight

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of A. or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or A. which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 29 points.

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 23 points or higher out of 29 points in respect of the specifications (line items) with a weight of 1.



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 12:
ULTRASOUND MACHINE, HIGH END WITH TEE

Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	Ultrasound high end with TEE				
A.1	Unit must offer ≥ 17 -inch LCD high resolution colour monitor. State the size and technology.	#			
A.2	Unit must be of the latest technology. (manufactured within two years).	#			
A.3	The unit must be a Fully Digital high end colour doppler with excellent power sensitivity while maintaining detailed resolution.	#			
A.4	The Width of the unit should be ≥ 100 cm.	#			
A.5	The height of the unit must be ≥ 150 cm	#			
A.6	Hard keys should be user configurable	#			
A.7	User interface must be height adjustable	#			
A.8	the maximum number of channels must be ≥ 512	#			
A.9	the system's dynamic range must be a range of 40- 90dB	#			
A.10	Internal Hard drive with minimum usable image storage space of ≥ 350 GB. You must be able to store videos and still images on internal hard drive.	#			
A.11	The ultrasound unit must include a CD/DVD Writer/Recorder drive as a standard.	#			
A.12	The CD/DVD Writer/Recorder must be compatible with all types of computers/laptops.	#			
A.13	The system must be DICOM 3 compliant	#			
A.14	Advanced DICOM including full worklist must be included in Main Unit.	#			
A.15	Export of images from the system must be possible. (including transfer of images to PACS). State the methods.	#			
A.16	The system must have a touch command screen for ease of operations	#			
A.17	Digital Black and white thermal printer must be offered as part of the system. It must not be an optional item.	#			
B.	Imaging Modes				
B.1	Unit should offer frame rate ≥ 500 frames per second.	#			
B.2	The Maximum scanning depth of the abdominal convex probe/transducer must be ≥ 40 cm and above. State the details.	#			
B.3	Independent gain control button for Pulsed Wave	#			
B.4	The PW sampling range 0.2 to 20mm (gate sizes)	#			
B.5	Pulse Repetition Frequency range of 10000 to 19000Hz. State details.	#			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 12:

ULTRASOUND MACHINE, HIGH END WITH TEE

B.6	2D image on linear transducers must be electronically steerable. State details.	#			
B.7	All post processing must be available on frozen images (for example Measurements, Annotation, Gain, Gray Map, Chrome map, Baseline) . Details are stated.	#			
B.8	Independent M-Mode gain adjustment must be available	#			
B.9	the unit must have Panoramic Software on all linear probes.	#			
B.10	the unit must have trapezoid software on all linear probes.	#			
B.11	The Grey scale level must be ≥ 256 .	#			
B.12	Internal Hard drive with minimum usable storage space of ≥ 350 GB. You must be able to store videos and still images on internal hard drive.	#			
B.13	Conventional Tissue Harmonics must be offered on all probes.	#			
B.14	Differential Tissue Harmonics to improve spatial resolution and tissue visualization must be offered.	1			
B.15	Indicate if the unit is able to offer pulse subtraction technique.	1			
B.16	2D Loop must be ≥ 400 frames should be recorded. State details.	#			
B.17	Indicate the maximum length of the captured loop in minutes.	1			
C.	Doppler and Colour Doppler				
C.1	Real time triplex mode must be standard.	#			
C.2	Doppler display modes must be configurable by the user:				
C.2.1	horizontal display	#			
C.2.2	vertical display	#			
C.3	All probes must offer Pulsed Wave Doppler.	#			
C.4	The maximum detectable velocity for pulse wave must be ≥ 350 cm/per sec.	#			
C.5	Image display format in:				
C.5.1	Single screen format.	#			
C.5.2	Dual screen format.	#			
C.5.3	Quad screen format.	#			
C.5.4	Simultaneous display of the colour image and 2D image, side by side, in real-time.	#			
C.6	The unit must have independent colour gain adjustment in 1 dB steps. Details are stated.	1			
C.7	The colour frame rate should be ≥ 400 frames per second.	#			
C.8	Colour flow must be fully operational through the total depth of the image.	#			
C.9	On screen measurements must be possible from real time examination.	#			
C.10	Unit must offer user programmable annotation for quick labelling.	#			
C.11	Storage and review of patient data must be available to compare exams.	#			
C.12	The unit must have processing selections -				
C.12.1	wall filters	#			
C.12.2	colour averaging	#			
C.12.3	Directional colour flow to display the existence of blood flow and the direction of flow movement with high sensitivity	#			

TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 12:
ULTRASOUND MACHINE, HIGH END WITH TEE

D.	Transducers / Probes				
D.1	The selected frequency of the imaging transducer must be displayed on the screen.	#			
D.2	Four transducers must be included and the end user must be able to select the final transducers. Clearly State all available transducers with prices per transducers (swapping of products / transducers and software to be allowed with equitable costs). Details are stated.	#			
D.3	Advanced Dynamic Flow on all transducers for vascular recognition imaging.	#			
D.4	Types and frequency range of Transducers:				
D.4.1	Convex Probe (Curvilinear) with tissue harmonics. The MHz range are stated (within 1-6 MHz)	#			
D.4.2	Microconvex for neonatal / paediatrics with tissue harmonics. The MHz range are stated (4-8)	#			
D.4.3	Microconvex Transvaginal / transrectal with tissue harmonics. The MHz range are stated (within 3-8 MHz)	#			
D.4.4	Linear probe (vascular) with tissue harmonics. The MHz range are stated (4-12)	#			
D.4.5	Linear probe (MSK) with tissue harmonics. The lower MHz range must be 5-6 MHz and the upper range must be between 14 and 21 MHz.	#			
D.5	Adult Cardiac Probe with tissue harmonics. State the MHz range (1-4MHz).	#			
D.6	Paediatric Cardiac Probe. State the MHz range (2-10 MHz).	#			
D.7	Neonatal Cardiac Probe. State the MHz range (2-10 MHz).	#			
D.8	Mono-plane Endorectal/ (transrectal) transducer with tissue harmonics. State the MHz range.	1			
D.9	Biplane Endorectal (transrectal) transducer, linear and convex, with tissue harmonics. State the MHz range.	1			
D.10	Transesophageal echocardiography (TEE) with tissue harmonics. State the MHz range.	1			
D.11	Paediatric Transesophageal echocardiography (TEE) with tissue harmonics. State the MHz range.	1			
D.12	State your advanced cardiac applications as an option.	1			
D.13	State your Speckle imaging application as an option	1			
D.14	State your 2D, 3D and 4D MPR applications as options	1			
D.15	Tissue harmonics should be available on all offered transducers	#			
D.16	Indicate the footprint size of the Pediatric sector transducer	1			
D.17	The selected frequency of the imaging transducer must be displayed on the screen.	#			
D.18	All transducers must be digitally controlled so that continuous beam forming is possible	#			
D.19	System must have 4 or more active imaging transducer connectors with electronic switching between probes.	#			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 12:
ULTRASOUND MACHINE, HIGH END WITH TEE

E.	Measurements				
E.1	16 callipers (8channel) for measuring distance/volume/angle and area must be offered	#			
E.2	State the storage facility offered for patient fetal growth measurement data files. The information must be able to be retrieved for follow-up comparison. ≥250GB must be offered.	#			
E.3	Measurement and Report software packages must be configurable	#			
E.4	Unit must offer 50th percentile growth graphs from the Doppler measurements, RI/PI. The information must be able to be retrieved for follow-up comparison	#			
E.5	5th, 50th and 95th percentile growth graphs must be offered on all fetal biometries. This information must be retrievable for all follow-up visits to detect abnormal growth of the foetus early.	#			
E.6	Applications measurements should automatically be labelled/displayed on the touch command screen for all applications, (2D mode and Doppler). Comprehensive reports must be generated automatically.	#			
E.7	Cable tray /hooks ..cable support system	#			
E.8	easy removable air filters	#			
E.9	Gel warmer.	1			
E.10	USB PORT additional	1			
F.	Recording devices				
F.1	Digital black and white thermal printer must be offered as a standard. Printer mounted on the machine	1			
G.	Power Supply				
G.1	An external Uninterrupted Power Supply System (UPS system) must be offered for the system.	#			
G.2	The external UPS support time must ≥ 30 minutes to enable proper shutdown of systems and subsystems.	#			
G.3	The system should also have a built-in UPS.	#			
H.	FUNCTIONALITY				
H.1	Display of graphs must be available to compare measurements of twins or triplets in single and quad display format	#			
H.2	System must offer user programmable annotation for quick labelling	#			
H.3	System must offer user programmable annotation for quick labelling	#			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 12:
ULTRASOUND MACHINE, HIGH END WITH TEE

I. OPTIONAL ITEMS					
I.1	State the details of all Cardiology tools and software as well as relevant probes:				
I.1.1	Fold down monitor for easy transportation	1			
I.2	State the details of optional tools and software that can be provided:				
I.2.1	side storage bin	1			
I.3	Ultrasound Quality Control Phantom (swapping of phantoms, products and software to be allowed with equitable costs). Details are stated.	1			
I.4	Indicate if the unit is able to support Elastography Software to include Shearer wave and strain	1			
I.5	Indicate if the unit is able to support auto NT (obstetrics)	1			
I.6	Indicate if the unit is able to support auto IMT (carotid Doppler)	1			
I.7	Indicate if the unit is able to support a software that depicts small calcifications.	1			
I.8	A remote control for:				
I.8.1	Controlling the system in general	1			
I.8.2	Controlling the system during difficult examinations	1			
I.8.3	Controlling the system with voice commands	1			
I.8.4	Contrast harmonics (micro bubbles) software	1			
I.9	Additional probes and software as optional items. Optional items must be listed and priced separately.	1			
I.10	Chair, ergonomic, height adjustable with lockable castors for the Health professional.	1			
I.11	Foot rest as a standard	1			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 13:

ULTRASOUND MACHINE, HIGH END, ECHOCARDIOGRAM UNIT WITH 3D/4D CAPABILITY WITH TEE

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

b) The columns have the following headings:

o Item Number

o Tender Specification

o Weight

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 14 points.

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 11 points or higher out of 14 points in respect of the specifications (line items) with a weight of 1.



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 13:
ULTRASOUND MACHINE, HIGH END, ECHOCARDIOGRAM UNIT WITH 3D/4D CAPABILITY WITH TEE

Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	ULTRASOUND HIGH END ECHOCARDIOGRAM UNIT WITH 3D/4D CAPABILITY				
A.1	Top of the range High-End Ultrasound with Echocardiography	#			
A.2	Digital broadband beam	#			
A.3	Digital channels $\geq 500\ 000$.	#			
A.4	2D Imaging	#			
A.5	Real time 4D (Live 3D) using matrix transducer technology for instantaneous volume rendering of cardiac anatomy	#			
A.6	Live biplane / Triplane Imaging using Matrix transducers (infinite plane adjustments)	#			
A.7	Dynamic range of $\geq 250\text{dB}$	#			
A.8	Real-Time Compounding (Spatial Compound)	#			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 13:

ULTRASOUND MACHINE, HIGH END, ECHOCARDIOGRAM UNIT WITH 3D/4D CAPABILITY WITH TEE

A.9	Speckle Reduction Software	#			
A.10	Speckle Trace / Tracking Software (for wall motion abnormalities)	#			
A.11	Adaptive Image Processing for noise and artifact reduction	#			
A.12	Ergonomic transducers designs with lightweight flexible cables	#			
A.13	Color Frame Rates of ≥ 650 fps	#			
A.14	2D Frame rates of ≥ 800 fps	#			
A.15	High-resolution interactive graphical color touch panel with adjustment for various ambient light conditions	1			
A.16	Fully articulating flicker-free at least ≥ 19 -inch wide format high resolution flat panel TFT with nearly infinite positioning adjustments	1			
A.17	Fully articulating control panel, including height, swivel, and slide	#			
A.18	Must have $\geq$ four active transducer ports. Details of total number of active probe ports must be stated	#			
A.19	Min and Max velocity for PW Doppler must be displayed on the screen	#			
A.20	Min and Max velocity for CW Doppler must be displayed on the screen	#			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 13:

ULTRASOUND MACHINE, HIGH END, ECHOCARDIOGRAM UNIT WITH 3D/4D CAPABILITY WITH TEE

A.21	one-button image optimization for 2D and Doppler modes	#			
B.	CLINICAL APPLICATION SOFTWARES				
B.1	The echocardiogram machine must have the following software applications (protocols):				
B.1.1	Adult Echocardiography	#			
B.1.2	Pediatric Echocardiography (inclusive of neonatal)	#			
B.1.3	Stress Echocardiography (Treadmill and Chemical)	#			
B.1.4	2D Transesophageal Echocardiography	#			
B.1.5	4D / Live 3D Transthoracic Echocardiography (TTE)	#			
B.1.6	4D / Live 3D Transesophageal Echocardiography	#			
B.2	Full Cardiac Echocardiogram Software Package	#			
B.3	Full Vascular Software Package	#			
B.4	The standard software packages supplied must be fully upgradable .	#			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 13:

ULTRASOUND MACHINE, HIGH END, ECHOCARDIOGRAM UNIT WITH 3D/4D CAPABILITY WITH TEE

B.5	The cost of updating and upgrading all standard software packages must be supplied , during warranty and maintenance period must be included in the offer . It must be clearly outlined as a line item in the offer documentation.	#			
C.	IMAGING MODES AND IMAGE DISPLAY				
C.1	The operating modes should include: 2D, M mode, 3D live/4D, PW, CW, High PRF, Color Doppler, Power Doppler, Directional Power Doppler, steerable CW, Tissue doppler , Color tissue doppler, Trinlex and Harmonic with pulse inversion technology	#			
C.2	Innovative single crystal transducer technology with pure wave (or similar) capability for greater acoustic efficiency and bandwidth	1			
C.3	Innovative single transducer crystal technology with active matrix array capability for greater acoustic efficiency	1			
C.4	3D Live / 4D Volume Imaging using matrix transducer	#			
C.5	Live 3D Zoom / 4D	#			
C.6	3D Live /4D Volume Imaging using standard transducer	#			
C.7	4D / Live 3D Quantification with MPR	#			
C.8	4D / Live 3D display of dynamic 3D rendering and LV true volumes.	#			
C.9	Quantification of valves using the 4D / live 3D transesophageal transducer.	#			
C.10	Automatic Doppler Analysis on still and live images(autotrace)	#			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 13:

ULTRASOUND MACHINE, HIGH END, ECHOCARDIOGRAM UNIT WITH 3D/4D CAPABILITY WITH TEE

C.11	Tissue Specific Imaging Application Software	#			
C.12	Onboard quantification for:				
C.12.1	a. Automated Strain Imaging and Speckle tracking.	#			
C.12.2	b. Display of automated borders	#			
C.12.3	c. Display of valve annular motion	#			
C.13	Dual Live display with BW reference image and color Doppler image	#			
C.14	Colorization of volume imaging	#			
C.15	Trapezoid view on linear probes.	#			
C.16	High Definition Write Zoom and Read Zoom with pan feature	#			
C.17	Scanning depth ranges for adult echocardiatic probes of a minimum depth between $\geq 1\text{cm}$, and a maximum $\leq 40\text{cm}$	#			
C.18	Measurement tools including: distance, depth, area, volume and circumference	#			
C.19	On-board workstation data management with thumbnail previews and storage of images, loops, and reports	#			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 13:

ULTRASOUND MACHINE, HIGH END, ECHOCARDIOGRAM UNIT WITH 3D/4D CAPABILITY WITH TEE

C.20	Retrospective and prospective clip capture to internal drive or removable media	#			
C.21	Integrated DVD/CD burning capability for storage of DICOM 3 images or export in JPEG, Bitmap, Tiff, AVI and DICOM 3 for pc/laptops compatabilty	#			
C.22	DICOM 3.0 Print and Store capability to internal drive or DVD/CD	#			
C.23	Internal HDD must be ≥250GB	#			
C.24	One Off-line Work station with Full Reporting Systems	#			
D.	TRANSDUCERS				
D.1	The following transducers below must be included as standard. Details are stated:				
D.1.1	The selected frequency of the imaging transducer must be displayed on the screen.	#			
D.1.2	Adult Sector transducer (1 MHz to 5 MHz) using innovating single crystal transducer technology.	#			
D.1.3	Paediatric Sector transducer (4 MHz to 12 MHz) using innovating single transducer crystal	#			
D.1.4	Neonatal Sector transducer (2 MHz to 8 MHz) using innovating single transducer crystal	#			
D.1.5	Matrix transducer for transthoracic 4D / Live 3D Echo	#			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 13:

ULTRASOUND MACHINE, HIGH END, ECHOCARDIOGRAM UNIT WITH 3D/4D CAPABILITY WITH TEE

D.1.6	Matrix Trans-esophageal transducer (TEE) using matrix array technology for 4D / Live 3D trans-esophageal Imaging	#			
D.1.7	Matrix Trans-esophageal transducer (TEE) using Single crystal transducer technology for 2D imaging	#			
D.1.8	Matrix Paediatric Trans-esophageal transducer (TEE) using Single crystal transducer technology for 2D imaging	#			
D.2	The following transducers must be included as optional. The end user must be able to make the final selection of transducers. Clearly State all available transducers with prices per transducer (swapping of products/transducers and software to be allowed with equitable costs). Details are				
D.2.1	Convex Probe (Curvilinear) with tissue harmonics. The MHz range are stated (within 1-6 MHz)	1			
D.2.2	Microconvex for neonatal / paediatrics with tissue harmonics. The MHz range are stated (4-8 MHz)	1			
D.2.3	Microconvex Transvaginal / transrectal with tissue harmonics. The MHz range are stated (within 3-8 MHz)	1			
D.2.4	Linear probe (vascular) with tissue harmonics. The MHz range are stated (4-12MHz)	1			
E.	GENERAL				
E.1	Small Black White photo printer integrated into the system	#			
E.2	Measurement and Report software packages	#			
E.3	Minimum of 3-Lead ECG Cable with connecting port	#			



TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 13:

ULTRASOUND MACHINE, HIGH END, ECHOCARDIOGRAM UNIT WITH 3D/4D CAPABILITY WITH TEE

E.4	Integrated spirometric function(display respiratory motion)	#			
F.	POWER SUPPLY				
F.1	An external Uninterrupted Power Supply System (UPS system) must be offered for the system.	#			
F.2	The external UPS support time must $\geq$ 30 minutes to enable proper shutdown of systems and subsystems.	#			
F.3	The system should also have a built-in UPS.	#			
G.	Optional				
G.1	Ultrasound Quality Control Phantom (swapping of phantoms, products and software to be allowed with equitable costs). Details are stated.	1			
G.2	side storage bin	1			
G.3	A second Off-line Work station with Full Reporting System as optional item	1			
G.4	External Harddrive of $\geq$ 1 TB as optional item	1			
G.5	Chair, ergonomic, height adjustable with lockable castors for the Health professional.	1			
G.6	Gel warmer (unit intergrated)	1			

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ULTRASOUND MACHINE, PORTABLE, HIGH END AND COMPACT

ITEM14:

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

2) The columns:

b) The columns have the following headings:

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 30 points or higher out of 38 points in respect of the specifications (line items) with a weight of 1.

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM14: ULTRASOUND MACHINE, PORTABLE, HIGH END AND COMPACT					
Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	General				
A.1	Unit should offer at least a ≥17 inch LCD high resolution colour monitor with integrated keyboard (laptop type). State the size and technology.	1			
A.2	The system should have a built-in UPS.	1			
B.	The machine must be configurable to perform the following ultrasound investigations:				
B.1	Adult cardiac and paediatric	1			
B.2	Adult and paediatric transesophageal	1			
B.3	Stress echo	1			
B.4	Abdominal	#			
B.5	Paediatric	#			
B.6	Vascular	#			
B.7	Obstretical	#			
B.8	Gynaecological	#			
B.9	Small parts	#			
B.10	Musculoskeletal	#			
B.11	Regional anaesthesia	1			
C.	imaging modes				
C.1	• 2D	#			
C.2	• M-mode	#			
C.3	• Anatomical M-mode	#			
C.4	• Color M-mode	1			
C.5	• Color Power doppler imaging	#			
C.6	• Pulsed wave (PW) Doppler	#			
C.7	• High Pulse Repetition Frequency (HPRF) PW Doppler	#			
C.8	• Continuous wave (CW) Doppler	1			
C.9	• Freehand 3D imaging (available as an option)	1			
C.10	•advanced quantification/ measurement software	1			
C.11	• Invert and color invert	#			
C.12	• Color compare mode	#			
C.13	• Dual mode	#			
C.14	• Duplex for simultaneous 2D and Doppler	#			
C.15	• Triplex for simultaneous 2D, Doppler, and color or color power doppler	#			
C.16	• 2D and flow optimization signal processing	#			
C.17	• Tissue harmonic imaging (THI)	#			
C.18	• Reconstructed zoom with pan	#			
C.19	• High definition write zoom	#			
C.20	• Trapezoidal imaging	#			
C.21	• Contrast imaging (as an option)	1			

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ULTRASOUND MACHINE, PORTABLE, HIGH END AND COMPACT					ITEM14:
C.22	• Adaptive Doppler	#			
C.23	• Color tissue Doppler imaging	#			
C.24	• Pulsed wave tissue Doppler imaging	#			
D.	2D grayscale				
D.1	• Time Gain Compensation (TGC): pre-defined TGC curves optimized for consistently	#			
D.2	• User adjustable Lateral Gain Control (LGC)	#			
D.3	• High definition zoom concentrates all image processing power into a user-defined area of interest	#			
D.4	• ability to combine high definition zoom with pan zoom	#			
D.5	• Cineloop image review	#			
D.6	• Selectable 2D compression settings	#			
D.7	• Sector size and steering control for sector and curved array	#			
E.	image formats				
E.1	• Dual imaging with either independent cineloop buffers or split screen imaging	#			
E.2	• Live compare	#			
E.3	• 256 Gray scale levels or more	#			
E.4	Unit should be capable of offering a frame rate of ≥ 400 frames per second.	#			
E.5	The colour frame rate should be ≥ 400 . State maximum colour frame rate.	#			
F.	M-mode				
F.1	• Available on all imaging transducers	#			
F.2	• Selectable sweeping rates	#			
F.3	• Time markers: minimum of 0.2 seconds up to a maximum of 2.0 seconds	1			
F.4	• Acquisition zoom capability	#			
F.5	• Selectable display format prospective and retrospective	#			
F.6	• Cineloop review for retrospective analysis	#			
G.	Anatomical M-mode				
G.1	• Available for all imaging transducers	#			
G.2	• Uses 2D image as a basis for M-mode analysis at a defined line, independent of transducer orientation	#			
G.3	• Anatomical M-mode trace can be generated or modified post freeze	#			
H.	Tissue Doppler imaging				
H.1	• Allows high frame rate acquisition of tissue motion	#			
H.2	• Color gain, TGC, and LGC	#			
H.3	• ≥ 15 color maps	#			
H.4	• Tissue velocity (6cm to 50cm/s)	1			
I.	Pulsed wave Doppler				
I.1	• Available on all imaging transducers	#			
I.2	• Adjustable sample volume size:(e.g. 0.5-20 mm) -state size	1			
I.3	• Triplex / real time duplex mode of operation	#			
I.4	• Simultaneous 2D, color Doppler and pulsed wave Doppler (triplex)	#			
I.5	• automatic optimization button / knob - adjusts scale, baseline and doppler gain	1			
J.	Continuous wave Doppler				
J.1	• Steerable through 90° sector	1			

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ULTRASOUND MACHINE, PORTABLE, HIGH END AND COMPACT					ITEM14:
K.	Spectral Doppler				
K.1	• Display annotations including: Doppler mode, scale (cm/sec), Nyquist limit, wall filter setting, gain, acoustic output status, sample volume size	#			
K.2	• Angle correction with automatic velocity scale adjustment	#			
K.3	• Adjustable velocity display ranges	#			
K.4	• Normal/invert display around horizontal zero line	#			
K.5	• Selectable sweep speeds	#			
K.6	• Selectable low-frequency signal filtering with adjustable wall filter settings	#			
K.7	• Selectable grayscale curve for optimal display	#			
K.8	• Selectable display format of prospective and retrospective	#			
K.9	• 256 Gray scale levels or more	#			
K.10	• Post-processing in Pulsed Wave (PW) frozen mode includes map, baseline, sweep speed, invert, compress, reject, and chroma	#			
L.	Color Doppler				
L.1	• Adaptive mode adjusts Doppler frequency and sensitivity based on color ROI placement within image available on all imaging transducers	#			
L.2	• Cineloop review with full playback control	#			
L.3	• Advanced motion suppression with intelligent algorithms; to eliminate color motion artifacts. State details.	1			
L.4	• Trackball-controlled color region of interest: size and position	#			
L.5	• Maps, filters, color sensitivity, line density, smoothing, echo, color persistence, gain and baseline optimized automatically by exam type or is user selectable	#			
L.6	• Velocity and variance displays	#			
L.7	• Color invert in live and frozen imaging	#			
L.8	• User selectable smoothing control	#			
L.9	• User selectable persistence control	#			
L.10	• Color/2D line density control	#			
M.	Tissue harmonic imaging				
M.1	• Available on all imaging transducers	#			
N.	Color Power doppler				
N.1	Directional power flow available	#			
N.2	• Available on all imaging transducers	#			
N.3	• Cineloop review	#			
N.4	• Multiple color maps	#			
N.5	• Individual controls for gain, Pulse Repetition Frequency (PRF), baseline, filters, sensitivity,	#			
N.6	• Dynamic motion differentiation	#			
N.7	• Adjustable region of interest: size and position	#			
N.8	• User selectable Persistence button / knob.	1			
N.9	• User selectable Blending button / knob.	1			
O.	Connectivity				
O.1	• One USB ports on control panel	#			
O.2	• AdditionalUSB	1			
O.3	• ≥80 GB hard drive space or more	#			

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ULTRASOUND MACHINE, PORTABLE, HIGH END AND COMPACT					ITEM14:
O.4	• Internal slot-load CD/DVD RW drive	1			
O.5	• DICOM print, store, and storage commitment	#			
O.6	• DICOM structured reporting capability	#			
O.7	• Modality worklist	#			
O.8	• A DICOM images must exported with the DICOM reader.	#			
O.9	The DICOM conformance statement must be included.	1			
O.10	• Export data as PC compatible or DICOM files	#			
O.11	• Ethernet	#			
O.12	• B/W printers to be supplied.	#			
O.13	• The ultrasound unit must be DICOM and HL7 compliant and enabled to be PACS ready without any additional costs.	#			
P.	Probes: the following probes must be included in the price. Give prices for individual probes.				
P.1	The selected frequency of the imaging transducer must be displayed on the screen.	#			
P.2	Three transducers must be included and the end user must be able to select the final transducers Clearly State all available transducers with prices per transducers (swapping of products/transducers and software to be allowed with equitable costs). Details are stated	#			
P.3	The transducers selected by the end-user must be supplied with the relevant software.	#			
P.4	The standard and compatible software are the following in line with the transducers selected: small parts, vascular, breast, abdominal and obstetrics & gynaecology.	#			
P.5	The relevant and compatible software are the following in line with the transducers selected: MSK, TEE adult, TEE pediatric, pediatric TTE, adult TTE.	1			
P.6	Convex Probe (Curvilinear). The MHz range are stated (within 1-6 MHz)	#			
P.7	Microconvex for neonatal/ paediatrics. The MHz range are stated (4-8)	#			
P.8	Microconvex Transvaginal/transrectal. The MHz range are stated (within 3-8 MHz)	#			
P.9	Linear probe (vascular) The MHz range are stated (4-12)	#			
P.10	Linear probe (MSK) The lower MHz range must be 5-6 MHz and the upper range must be between 14 and 21 MHz.	#			
P.11	Adult Cardiac Probe. State the MHz range (1-4MHz)	1			
P.12	Paediatric Cardiac Probe. State the MHz range (2-10 MHz)	1			
P.13	TEE Probe, adult. The lower MHz range must be 2MHz and the upper range must be 9MHz.	1			
P.14	TEE Probe, pediatric. The lower MHz range must be 3MHz and the upper range must be 11MHz.	1			

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ULTRASOUND MACHINE, PORTABLE, HIGH END AND COMPACT					ITEM14:
Q.	SOFTWARE				
Q.1	Compound Imaging (Cross Beam angles)	#			
Q.2	Speckle Reduction (Minimum of 4-5 steps). Refines images (reduces noise)	#			
Q.3	System must have software to enhance needle visualization during biopsy	1			
Q.4	Measurement and Report software packages must be configurable	#			
Q.5	Details of tools/software provided as a standard are stated	#			
Q.6	The standard software packages supplied must be fully upgradable .	#			
Q.7	The cost of updating and upgrading all standard software packages supplied , during warranty and maintenance period must be included in the offer . It must be clearly outlined as a line item in the offer documentation.	#			
Q.8	A rechargeable battery with a charger must be supplied.	#			
Q.9	Fully charged battery must have an actual time use of one hour or more.	1			
Q.10	The weight of the portable ultrasound unit must be ≤ five kg.	#			
Q.11	A multi port (for transducer connectivity)	#			
Q.12	Cart with castors with two wheel lock brakes	#			
Q.13	A compact carry case with wheels for the ultrasound unit must be supplied.	1			
Q.14	Paediatric and adult ECG cables (three lead) must be supplied.	1			
R.	OPTIONAL ITEMS				
R.1	USB PORT additional	1			
R.2	Any additional tools/software not included in the standard package must be clearly listed and priced	1			
R.3	Elastography software	1			
R.4	3D software	1			
R.5	4D software	1			
R.6	• Freehand 3D imaging (available as an option)	1			
R.7	Hockey stick optional	1			



GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

MAMMOGRAPHY UNIT, FULL FIELD DIGITAL DETECTOR WITH TOMOSYNTHESIS

ITEM 15:

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

2) The columns:

b) The columns have the following headings:

o Item Number

o Tender Specification

o Weight

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 62 points.

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 50 points or higher out of 62 points in respect of the specifications (line items) with a weight of 1.



GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

TENDER SPECIFICATION

THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

MAMMOGRAPHY UNIT, FULL FIELD DIGITAL DETECTOR WITH TOMOSYNTHESIS

ITEM 15:

Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	CLINICAL REQUIREMENTS				
A.1	The equipment must be suitable for the following types of cases:				
A.1.1	Screening mammography	#			
A.1.2	Diagnostic mammography (Must include ACR Phantom)	#			
A.1.3	Tomosynthesis	#			
A.1.4	Specimen radiography	#			
A.1.5	System must be able to render high quality images on all types of breast density and size	#			
A.1.6	Must include spot magnification, open magnification, spot compression films	#			
A.1.7	The unit must be capable of handling ≥ 40 screening mammography patients a day, five days a week	1			
B.	New developments: Please include new developments and state availability and upgradeability				
B.1	Reconstructed virtual mammographic imaging . Please supply a detailed description in an annexure.	#			
B.2	State whether a reconstructed virtual mammographic image from the tomosynthesis series is an available function?	1			
B.3	If a reconstructed virtual mammographic image is not available yet, will it be available in the near future? when is the function expected to be available?	1			
B.4	If not included in this offer. Will the machine offered be upgradeable to have the reconstructed mammographic image function?	1			
B.5	State and describe any other new technology/developments not mentioned above.	1			
B.6	Please include all new technology/developments as options	1			
C.	TOMOSYNTHESIS				
C.1	This must include multiple tomographic slice imaging at different depths within the breast parallel to the image plane using multiple angle acquisitions	#			
C.2	State slice thickness of raw data.	1			
C.3	State range of slice thickness available for viewing (reconstructed image slice thickness).	1			
C.4	The detector size must be the full size of the area that is to be imaged for the selected compression paddle size. (The dimension of the beam and the detector must be the same size). For small and large size breasts.	#			
C.5	Tomosynthesis images should have pixel sizes with a maximum of 100 microns.	#			
C.6	State Pixel size. Smaller pixel sizes will receive a higher rating	1			
C.7	Auto grid retraction should be available for geometric magnification views and tomosynthesis	#			



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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

MAMMOGRAPHY UNIT, FULL FIELD DIGITAL DETECTOR WITH TOMOSYNTHESIS

ITEM 15:

C.8	The interface and acquisition for tomosynthesis must be an integral part of the Mammographic imaging system. No hardware upgrade will be acceptable only Licence Key Activation	#			
C.9	Gantry angle for Tomosynthesis must be displayed	#			
D.	TECHNICAL REQUIREMENTS				
D.1	Gantry				
D.1.1	The detector stand must be fully motorized and allow for height adjustment of the image detector	#			
D.1.2	Detector movements must be immediate, smooth, quiet and free from vibration	#			
D.1.3	Multiple controls should be on both sides and should be easily accessible on all views regardless of the Radiographer's positioning style (multiple controls on tube head and assembly are preferred). State location of controls for operator usage	#			
D.1.4	There must be an emergency stop button which controls gantry and compressor motion	#			
D.1.5	Interlocks must be present to prevent movement of the gantry while patient is under compression	#			
D.1.6	There must be an image marking system	#			
D.1.7	Specify detector focal distance	1			
D.1.8	The lower and upper limit of the vertical range of the motorized column is specified. Lower limit must be able to accommodate a patient in a wheel chair	1			
D.1.9	Vertical range of compression paddle in relation to the detector must be specified. (minimum and maximum height from the detector to the compression paddle). Must be able to compress specimens	1			
D.1.10	State U-arm rotation range (tube position for a normal CC view is at 0 degrees). A wider u-arm rotation range will get a higher rating.	1			
D.1.11	How are the locking mechanisms supported (i.e. mechanical release/electro-mechanical)? Provide details	1			
D.1.12	The cables must be fully contained within the system	#			
D.1.13	Compression must activate the light field.	#			
D.2	Compression System shall allow for:				
D.2.1	Powered compression with manual completion	#			
D.2.2	Automatic release after completion of exposure	#			
D.2.3	System must allow for manual release of compression, in the case of electrical fault or power failure	#			
D.2.4	Movement of compression paddle shall be smooth and quiet. Automatic release must be able to be turned off (for biopsy and testing)	#			
D.2.5	Maximum compression should not exceed 200 N	#			
D.2.6	Maximum compression should be adjustable ? Manually	1			
D.2.7	Compression paddles should :				
D.2.7.1	Smooth surfaced	#			
D.2.7.2	Deliver maximum compression with minimum physical deformation with respect to the left/right breast (bowing) or the chest wall (tilting)	#			



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D.2.7.3	All sizes, description and indication of all the compression paddles included to be specified.	1			
D.2.8	State any additional compression paddles offered as optional and state the price.	1			
D.2.9	Paddles must:				
D.2.9.1	Tolerate high volume usage without cracking or breaking	#			
D.2.9.2	Be easy to clean	#			
D.2.9.3	Be of a shatterproof material	#			
D.2.9.4	Be artifact free.	#			
D.2.9.5	All markings are on the paddle must be completely invisible at all possible exposure factors	#			
D.2.9.6	Be X-ray transparent for the full range of kVs available on the unit	#			
D.2.9.7	Be easy to mount and exchange	#			
D.2.9.8	The system should have grid localizing compression paddle	#			
D.2.9.9	Two sets of foot switches shall be provided to allow operator to compress while hands are positioning breast	#			
D.3	Digital Image Detector				
D.3.1	The detector must be a full field flat panel detector	#			
D.3.2	State whether the flat panel are making use of Direct digital (DDR) or indirect digital image production. DDR will receive a higher rating.	1			
D.3.3	State the composition of the converter in the flat panel detector e.g. cesium iodide, selenium, gadolinium etc. (selenium preferred)	1			
D.3.4	The detector must have a pixel size maximum of 100 microns.	#			
D.3.5	State the pixel size and spatial frequency in lp/mm. Smaller pixel size is an advantage	1			
D.3.6	State matrix size for 24x30 detector size. A larger matrix size will receive a higher rating.	1			
D.3.7	The detector should be at least 24 x 30. State detector size	1			
D.3.8	Detector to breast support edge-to-edge distance (chest wall gap) should be less than 5 mm.	#			
D.3.9	The detector must provide full beam-stop?	#			
D.3.10	The input plate to the detector should be X-ray transparent at all kV energies.	#			
D.3.11	There must be an algorithm that removes input plate and detector deformities ensuring a uniform and linear detector output.	#			
D.3.12	State the DQE value of the detector for a spatial frequency of 1 lp/mm (must be compliant with the IEC62220-1 standard)	1			



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ITEM 15:

D.3.13	Is the digitization logarithmic or linear?	1			
D.3.14	State the digitization/imaging bit depth? (minimum of 14 bit). A higher bit depth is an advantage	1			
D.3.15	A minimum of 14 bit gray scale depth for raw image is required for mammography.	1			
D.3.16	State the gray scale depth in bits of the processed image?	1			
D.3.17	Image format must be DICOM 3 compatible	#			
D.3.18	State which image format is available for export (lossless JPEG,TIF)	1			
D.3.19	State spatial corrections performed to the image?	1			
D.3.20	Only lossless and no compression of data is accepted	#			
D.3.21	State the transfer time of 1 image between the acquisition workstation and diagnostic/reporting workstation. a shorter time will be an advantage. ?15s	1			
D.3.22	State any features which differentiates your digital detector from other manufacturers	1			
D.3.23	The unit must have ACR or equivalent accreditation (state details)	#			
D.3.24	State details of all other accreditation.	1			
D.3.25	Dose reduction features of the system to be specified	1			
D.3.26	State the average dose in mGy to a standard breast (4.5 cm PMMA)during tomosynthesis and mammogram (state both)	1			
D.4	X-Ray Generator and Tube				
D.4.1	The unit shall have a visual indication of "Radiation On"	#			
D.4.2	The unit shall have an audio indication of "Radiation On"	#			
D.4.3	The X-ray tube focal spots (measured by NEMA/IEC standards) should be:				
D.4.3.1	Small focus: ≤ 0,15 mm	1			
D.4.3.2	Large focus: 0,3 mm	#			
D.4.4	Give Tube specifications detail as follows:				
D.4.4.1	State Anode material types available (Tungsten as one of the options is preferred)	1			
D.4.4.2	State Filter material types	1			
D.4.4.3	State Target/ filter combinations available	1			
D.4.4.4	State heat storage capacity of the anode	1			
D.4.4.5	State heat storage capacity of the tube housing	1			
D.4.4.6	State the minimum kV values	1			
D.4.4.7	State the maximum kV values (49kV is preferable)	1			
D.4.5	The system should have a backup timer, which will terminate exposure at a given predetermined level and should have appropriate visual and aural indications	#			
D.4.6	The system must have a high frequency generator.	#			
D.4.7	State the kW rating of the X-ray tube	1			



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D.4.8	State kW rating of the generator (> 5kW preferable)	1			
D.4.9	The tube must have a rotating anode. State speed (preferable ≥ 8800 RPM)	1			
D.4.10	State maximum mA with small and large focus	1			
D.4.11	Anatomical programming is essential. Give details	#			
D.5	Collimation System				
D.5.1	When selecting magnification, there shall be either automatic collimation, or exposure should be locked out until the appropriate collimation diaphragm or plate is attached.	#			
D.5.2	The unit shall have a collimator light or visual field indication for patient positioning, and such light will provide no less than 100 lux at the table surface	#			
D.5.3	The X-ray field shall not extend beyond any edge of the image receptor at any SID except for the chest wall edge	#			
D.6	Grid	#			
D.6.1	Describe the grid (specify ratio and grid lines/mm)	1			
D.6.2	The grid, shall be of high quality carbon-fibre material, or air-core construction	#			
D.6.3	Radiation safety: state any additional accessories or features designed to minimize the dose to operator and patient	1			
D.6.4	The system must have a radiation shield	#			
D.7	Acquisition Work Station				
D.7.1	The acquisition system shall be configured with viewing abilities for the Radiographer to review positioning, anatomy, annotations, and post-exposure factors	#			
D.7.2	The acquisition system shall have the following characteristics:				
D.7.2.1	Minimum of 20" monitor screen	#			
D.7.2.2	Flicker-free monitor screen	#			
D.7.2.3	Non-interlaced 5 MP monitor	#			
D.7.2.4	Anti-glare screen	#			
D.7.2.5	User calibration	#			
D.7.2.6	Contrast brightness adjustment	#			
D.7.2.7	Range of zoom factors	#			
D.7.2.8	Distance measurement and graphics	#			
D.7.2.9	User annotation	#			
D.7.2.10	2D localiser	#			
D.7.2.11	The workstation should allow for reception of worklist updates from a DICOM HIS/RIS system. State the DICOM norms that your systems accommodates	#			



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D.7.2.12	Storage of images on the acquisition station image storage capacity ≥ 2000 images	1			
D.7.2.13	The transfer time between the end of X-ray and the processed image appearing on the workstation should be no longer than 10 seconds	1			
D.7.3	The acquisition station shall have both pre-and post-exposure display.	1			
D.7.4	The critical radiographic factors shall be displayed before irradiation can be initiated, and remain displayed for at least ten seconds beyond exposure termination:				
D.7.4.1	Patient name	#			
D.7.4.2	Patient sex	#			
D.7.4.3	Patient age	#			
D.7.4.4	Patient hospital number	#			
D.7.4.5	Patient study number	#			
D.7.4.6	Referring physician	#			
D.7.4.7	Radiologist	#			
D.7.4.8	Radiographer ID	#			
D.7.4.9	Date	#			
D.7.4.10	Time	#			
D.7.4.11	View (BIRADS/ACR) View Names e.g. LCC, RMLO	#			
D.7.4.12	kV	#			
D.7.4.13	Filter selection	#			
D.7.4.14	Target selection	#			
D.7.4.15	Magnification factor	#			
D.7.4.16	Fully automated exposure techniques	#			
D.7.4.17	Compression pressure	#			
D.7.4.18	Compression thickness	#			
D.7.4.19	Field size	#			
D.7.4.20	An estimate of mean glandular dose at the termination of the exposure	#			
D.7.5	Reject / Repeat analysis Software to be provided and included in the tender price	#			
D.7.6	DVD/ CD writer facilities	#			
D.7.7	System must be able to export DICOM 3, TIF and lossless JPEG images to CD/DVD drive and USB port.	#			
D.8	Image Review Station (Radiology reporting station)				
D.8.1	The system must allow the Radiologist to review positioning, anatomy, annotations and exposure factors	#			
D.8.2	The system must have at least two 21" high resolution (5MP), high brightness monitors with variable format image display. All monitors should be self-calibrating and have correction software to maintain uniform display intensity across the various workstations. (? two separate points)	#			
D.8.3	The review workstation must at least have the following:				



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D.8.3.1	Black & white high resolution (5MP) at least 2048 x 2560 monitor	1			
D.8.3.2	Flicker-free	#			
D.8.3.3	Non-interlaced	#			
D.8.3.4	Ultra bright CRT or LCD (LCD preferred)	1			
D.8.3.5	Anti glare screens	#			
D.8.3.6	Auto calibration	#			
D.8.3.7	User calibration	#			
D.8.3.8	Correct software to maintain all display functions (geometry, linearity, focus, brightness and contrast	#			
D.8.3.9	Display status for exams (e.g. sent to printer, sent to archive or to CD writer)	#			
D.8.3.10	State Image storage capacity $\geq$ 2000 images	1			
D.8.4	The system should include a dedicated one touch key pad for fast access to main review functions which enables fast reading throughput	#			
D.8.4.1	The system should include a mouse as optional navigation tool should the reviewer prefer to use a mouse instead of a keypad	#			
D.8.4.2	The review work station should provide a complete range of available hanging protocols allowing the radiologist to create a tailor-made review workflow	#			
D.8.4.3	Rotation of images must be possible	#			
D.8.4.4	Typical image display timings should be one second between images of the same patient and five seconds between different patients	#			
D.8.4.5	The review system shall enable the user to call up previous studies and automatically view them on the monitors using the available protocols as standard operation	#			
D.8.4.6	The review workstation must have post-processing tools, including:				
D.8.4.6.1	Windowing	#			
D.8.4.6.2	Zoom	#			
D.8.4.6.3	Magnifying glass size adjustable by user	#			
D.8.4.6.4	Inverting black and white	#			
D.8.4.6.5	Vertical and horizontal panning of single images	#			
D.8.4.6.6	Graphic user annotations	#			
D.8.4.6.7	Quadrant viewing	#			
D.8.4.6.8	Measuring rulers	#			
D.8.4.6.9	Exam reading status	#			
D.8.4.6.10	Sorting facility for patient review	#			
D.8.4.6.11	Visual indicator showing when part of the image is hidden from view	#			
D.8.4.6.12	Password for individual readers to protect user reading preference setup	#			



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ITEM 15:

D.8.4.7	What is the sustained throughput for the device (I.e. maximum number of fully reconstructed phantom images that may be taken in a two hour period? State number (the higher the better)	1			
D.8.4.8	Display of the selected patient must be almost immediate. state time from selection of patient to display of the images(the quicker the better)	1			
D.8.4.9	Data security precautions must be included	#			
D.8.4.10	What precautions does your system have for data security? Please describe in detail	1			
D.8.4.11	DVD/ CD writer facilities	#			
D.8.4.12	System must be able to export DICOM 3, TIF and lossless JPEG images to CD/DVD drive and USB port.	#			
D.9	DICOM / PACS CONNECTIVITY				
D.9.1	System must be DICOM/PACS ready	#			
D.9.2	Aquisition station and radiolgy review station must be connected to the PACS	#			
D.9.3	DICOM Modality Worklist SCU	#			
D.9.4	DICOM Storage (Push) SCU/SCP (MG, SC objects)	#			
D.9.5	DICOM Storage Commitment (Push) SCU/SCP (MG, SC objects)	#			
D.9.6	DICOM Query/Retrieve SCU (MG, SC objects)	#			
D.9.7	DICOM Basic Grayscale Print SCU (MG object)	#			
D.9.8	DICOM Verification SCU/SCP	#			
D.9.9	Auto transfer	#			
D.9.10	CD-R Data interchange	#			
D.9.11	The vendor shall provide DICOM conformance statements for all major equipment.	1			
D.9.12	The vendor shall assist in achieving complete interoperability with other DICOM equipment currently in the hospital that will be required to inter-operate with the FFDM.	1			
D.9.13	Vendor staff shall assist with interfacing the new system to a Radiology Information System (RIS) and Hospital Information System (HIS) as required and selected by us.	1			
D.9.14	The manufacturer must provide a set of test tools and programmes to analyse resulting images to ensure consistent high-quality imaging. Tests such as: brightness uniformity, high frequency modulation, SNR uniformity, bad pixel verification, MTF, ACR phantom scoring etc. shall be performed regularly. A quality assurance program must be embedded into the system and quality assurance procedures and manuals must be provided.	#			



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E.	Digital specimen radiography system				
E.1	Give details of the offered Digital specimen radiography system	1			
E.2	Dedicated mammography chair with recliner and brakes to be supplied	#			
F.	Back up archive				
F.1	Backup archive must be included e.g. external harddrive	#			
F.2	A mini-PACS covering mammography and breast ultrasound should be included in the offer. Provide details	#			
F.3	Give details of Mini-PACS	1			
G.	Power Supply				
G.1	An Uninterrupted Power Supply System (UPS system) must be offered for all systems and sub-systems where stated. The UPS support time must be ≥ 30 minutes to enable proper shutdown of systems and subsystems. Details must be stated.	#			



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ITEM 16: MAMMOGRAPHY UNIT WITH FULL FIELD DIGITAL DETECTOR WITH TOMOSYNTHESIS, INTEGRATED STEREOTACTIC TOMOSYNTHESIS BIOPSY DEVICE, COMPUTER AIDED DIAGNOSTICS SOFTWARE, CONTRAST MAMMOGRAPHY AND AUTOMATED BREAST DENSITY

Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

2) The columns:

b) The columns have the following headings:

- o Item Number
- o Tender Specification
- o Weight
- o Comply (Yes/No)
- o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)
- o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

- o Comply (Yes/No)
- o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)
- o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

2) Scores:

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 82 points.

d. The required score to be considered for an award:

- 1) The bidders must comply with all the specifications (line items) with a # weight.
- 2) The bidders must all obtain a minimum score of 65 points or higher out of 82 points in respect of the specifications (line items) with a weight of 1.



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Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	CLINICAL REQUIREMENTS				
A.1	The equipment must be suitable for the following types of cases:				
A.1.1	Screening mammography	#			
A.1.2	Diagnostic mammography (Must include ACR Phantom)	#			
A.1.3	Tomosynthesis	#			
A.1.4	2D and steriotactic pre-operative needle localization	#			
A.1.5	Specimen radiography	#			
A.1.6	2D and Steriotactic guided breast biopsy	#			



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A.1.7	System must be able to render high quality images on all types of breast density and size	#			
A.2	Must include spot magnification, open magnification, spot compression films	#			
A.3	The unit must be capable of handling minimum of 40 screening mammography patients a day, five days a week	1			
A.4	Must include most recent CAD	#			
A.5	CAD must be upgradable.	#			
B.	New developments: Please include new developments and state availability and upgradeability				
B.1	Please include Intravenous contrast enhanced mammography in the offer. Please supply a detailed description in an annexure.	#			
B.2	State availability of Intravenous Contrast Enhanced Mammography If it is not available yet. State whether it is likely in the near future (development in the pipeline) and when it will be available	1			
B.3	If Intravenous Contrast Enhanced Mammography is not offered, would the machine offered here be upgradable to include contrast enhanced mammography at a later stage?	1			
B.4	Please include in the offer an automated measurement function of the density of the breast according to American College of Radiology standards. Please supply a detailed description in an annexure. (this does not refer to automated exposure control but to a numeric value measured and given to the overall breast density according to ACR standards)	1			



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B.5	State availability automated measurement function of breast density (ACR). If it is not available yet. State whether it is likely in the near future and when it will be available.	1			
B.6	If automated breast density measurement is is not offered, would the machine offered be upgradable to include this function?	1			
B.7	Please include "reconstructed virtual mammographic image" (e.g. C-view/ S-View) in the offer. Please supply a detailed description in an annexure.	1			
B.8	State whether a reconstructed virtual mammographic image from the tomosynthesis series is an available function?	1			
B.9	If a reconsructed virtual mammographic image is not available yet, will it be available in the near future? when is the function expected to be available?	1			
B.10	If not included in this offer. Will the machine offered be upgradeable to have the reconstructed mammgraphic image function?	1			
B.11	State and describe any other new technology/developments not mentioned above.	1			
B.12	Please include all new technology/developments as options	1			
C.	TOMOSYNTHESIS				
C.1	This must include multiple tomographic slice imaging at different depths within the breast parallel to the image plane using multiple angle acquisitions	#			
C.2	State slice thickness of raw data.	1			
C.3	State range of slice thickness available for viewing (reconstructed image slice thickness).	1			
C.4	The detector size must be the full size of the area that is to be imaged for the selcted compression paddle size. (The dimension of the beam and the detector must be the same size). For small and large size breasts.	#			
C.5	Tomosynthesis images should have pixel sizes with a maximum of 100 microns.	#			
C.6	State Pixel size. Smaller pixel sizes will receive a higher rating	1			
C.7	Auto grid retraction should be available for geometric magnification views and tomosynthesis	#			



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MAMMOGRAPHY UNIT WITH FULL FIELD DIGITAL DETECTOR WITH TOMOSYNTHESIS, INTEGRATED STEREOTACTIC TOMOSYNTHESIS BIOPSY DEVICE, COMPUTER AIDED DIAGNOSTICS SOFTWARE, CONTRAST MAMMOGRAPHY AND AUTOMATED BREAST DENSITY

C.8	The interface and acquisition for tomosynthesis must be an integral part of the Mammographic imaging system. No hardware upgrade will be acceptable only Licence Key Activation	#			
C.9	State the Gantry angle for Tomosynthesis	1			
D.	TECHNICAL REQUIREMENTS				
D.1	Gantry:				
D.1.1	The detector stand must be fully motorized and allow for height adjustment of the image detector	#			
D.1.2	Detector movements must be immediate, smooth, quiet and free from vibration	#			
D.1.3	Multiple controls should be on both sides and should be easily accessible on all views regardless of the Radiographer's positioning style (multiple controls on tube head and assembly are preferred). State location of controls for operator usage	#			
D.1.4	There must be an emergency stop button which controls gantry and compressor motion	#			
D.1.5	Interlocks must be present to prevent movement of the gantry while patient is under compression	#			
D.1.6	There must be an image marking system	#			
D.1.7	Specify detector focal distance	1			
D.1.8	State the lower and upper limit of the vertical range of the motorized column. Lower limit must be able to accommodate a patient in a wheel chair	1			
D.1.9	Specify vertical range of compression paddle in relation to the detector (minimum and maximum height from the detector to the compression paddle). Must be able to compress specimens	1			
D.1.10	State U-arm rotation range (tube position for a normal CC view is at 0 degrees). A wider u-arm rotation range will get a higher rating.	1			
D.1.11	How are the locking mechanisms supported (i.e. mechanical release/electro-mechanical)? Provide details	1			
D.1.12	The cables must be fully contained within the system	#			



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D.1.13	Compression must activate the light field.	#			
D.2	Compression System shall allow for:				
D.2.1	Powered compression with manual completion	#			
D.2.2	Automatic release after completion of exposure	#			
D.2.3	System must allow for manual release of compression, in the case of electrical fault or power failure	#			
D.2.4	Movement of compression paddle shall be smooth and quiet. Automatic release must be able to be turned off (for biopsy and testing)	#			
D.2.5	Maximum compression should not exceed 200 N	#			
D.2.6	Maximum compression should be adjustable	1			
D.2.7	Compression paddles must:				
D.2.7.1	Smooth surfaced	#			
D.2.7.2	Deliver maximum compression with minimum physical deformation with respect to the left/right breast (bowing) or the chest wall (tilting)	#			
D.2.7.3	State the sizes, description and indication of all the compression paddles included in the price.	1			
D.2.8	State any additional compression paddles offered as optional and state the price.	1			
D.2.9	Paddles must:				
D.2.9.1	Tolerate high volume usage without cracking or breaking	#			
D.2.9.2	Be easy to clean	#			
D.2.9.3	Be of a shatterproof material	#			
D.2.9.4	Be artifact free.	#			
D.2.9.5	All markings are on the paddle must be completely invisible at all possible exposure factors	#			
D.2.9.6	Be X-ray transparent for the full range of kVs available on the unit	#			
D.2.9.7	Be easy to mount and exchange	#			
D.2.10	The system should have grid localizing compression paddle	#			



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D.2.11	Two sets of foot switches shall be provided to allow operator to compress while hands are positioning breast	#			
D.3	Digital Image Detector:				
D.3.1	The detector must be a full field flat panel detector	#			
D.3.2	State whether the flat panel are making use of Direct digital (DDR) or indirect digital image production. DDR will receive a higher rating.	1			
D.3.3	State the composition of the converter in the flat panel detector e.g. cesium iodide, selenium, gadolinium etc. (selenium preferred)	1			
D.3.4	The detector must have a pixel size maximum of 100 microns.	#			
D.3.5	State the pixel size and spatial frequency in lp/mm. Smaller pixel size is an advantage	1			
D.3.6	State matrix size for 24x30 detector size. A larger matrix size will receive a higher rating.	1			
D.3.7	The detector should be at least 24 x 30. State detector size	1			
D.3.8	Detector to breast support edge-to-edge distance (chest wall gap) should be less than 5 mm.	#			
D.3.9	The detector must provide full beam-stop?	#			
D.3.10	The input plate to the detector should be X-ray transparent at all kV energies.	#			
D.3.11	There must be an algorithm that removes input plate and detector deformities ensuring a uniform and linear detector output.	#			
D.3.12	State the DQE value of the detector for a spatial frequency of 1 lp/mm (must be compliant with the IEC62220-1 standard)	1			
D.3.13	Is the digitization logarithmic or linear?	1			
D.3.14	State the digitization/imaging bit depth? (minimum of 14 bit). A higher bit depth is an advantage	1			
D.3.15	What is the gray scale depth in bits of the raw image? A minimum of 14 bit is required for mammography.	1			
D.3.16	State the gray scale depth in bits of the processed image?	1			
D.3.17	The native image format must be DICOM 3	#			



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D.3.18	State which image format is available for export (lossless JPEG,TIF)	1			
D.3.19	State spatial corrections performed to the image?	1			
D.3.20	Only lossless and no compression of data is accepted	#			
D.3.21	State the transfer time of 1 image between the aquisition workstation and diagnostic/reporting workstation. a shorter time will be an advantage.	1			
D.3.22	State any features which differentiates your digital detector from other manufacturers	1			
D.3.23	The unit must have ACR or equivalent accreditation?	#			
D.3.24	State details of all other accreditation.	1			
D.3.25	State dose reduction features of the sytem.	1			
D.3.26	State the average dose in mGy to a standard breast (4.5 cm PMMA)during tomosynthesis and mammogram (state both)	1			
D.4	X-Ray Generator and Tube:				
D.4.1	The unit shall have a visual indication of "Radiation On"	#			
D.4.2	The unit shall have an audio indication of "Radiation On"	#			
D.4.3	The X-ray tube focal spots (measured by NEMA/IEC standards) should be:				
D.4.3.1	Small focus: ≤ 0,15 mm	#			
D.4.3.2	Large focus: 0,3 mm	#			
D.4.4	Give Tube specifications detail as follow:				
D.4.4.1	State Anode material types available (Tungsten as one of the options is preferred)	1			
D.4.4.2	State Filter material types	1			
D.4.5	StateTarget/ filter combinations available	1			
D.4.6	State heat storage capacity of the anode	1			
D.4.7	State heat storage capacity of the tube housing	1			
D.4.8	State the minimum kV values	1			
D.4.9	State the maximum kV values (49kV is preferable)	1			
D.4.10	The system should have a backup timer, which will terminate exposure at a given predetermined level and should have appropriate visual and aural indications	#			



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D.4.11	The system must have a high frequency generator.	#			
D.4.12	State the kW rating of the X-ray tube	1			
D.4.13	State kW rating of the generator (> 5kW preferable)	1			
D.4.14	The tube must have a rotating anode. State speed (preferable ≥ 8800 RPM)	1			
D.4.15	State maximum mA with small and large focus	1			
D.4.16	Anatomical programming is essential. Give details	#			
D.5	Collimation System:				
D.5.1	When selecting magnification, there shall be either automatic collimation, or exposure should be locked out until the appropriate collimation diaphragm or plate is attached.	#			
D.5.2	The unit shall have a collimator light or visual field indication for patient positioning, and such light will provide no less than 100 lux at the table surface	#			
D.5.3	The X-ray field shall not extend beyond any edge of the image receptor at any SID except for the chest wall edge	#			
D.6	Grid:				
D.6.1	Describe the grid (specify ratio and grid lines/mm)	1			
D.6.2	The grid, shall be of high quality carbon-fibre material, or air-core construction	#			
D.6.3	Radiation safety: state any additional accessories or features designed to minimize the dose to operator and patient	1			
D.6.4	The system must have a radiation shield	#			
D.7	Acquisition Work Station:				
D.7.1	The acquisition system shall be configured with viewing abilities for the Radiographer to review positioning, anatomy, annotations, and post-exposure factors	#			
D.7.2	The acquisition system shall have the following characteristics:				
D.7.2.1	Minimum of 20" monitor screen	#			
D.7.2.2	Flicker-free monitor screen	#			
D.7.2.3	Non-interlaced 5 MP monitor	#			
D.7.2.4	Anti-glare screen	#			



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D.7.2.5	User calibration	#			
D.7.2.6	Contrast brightness adjustment	#			
D.7.2.7	Range of zoom factors	#			
D.7.2.8	Distance measurement and graphics	#			
D.7.2.9	User annotation	#			
D.7.2.10	2D localiser	#			
D.7.2.11	The workstation should allow for reception of worklist updates from a DICOM HIS/RIS system. State the DICOM norms that your systems accommodates	#			
D.7.2.12	Storage of images on the acquisition station image storage capacity ≥ 2000 images	1			
D.7.2.13	The transfer time between the end of X-ray and the processed image appearing on the workstation should be no longer than 10 seconds	1			
D.7.3	The acquisition station shall have both pre-and post-exposure display of the following parameters:				
D.7.4	The critical radiographic factors shall be displayed before irradiation can be initiated, and remain displayed for at least ten seconds beyond exposure termination:				
D.7.4.1	Patient name	#			
D.7.4.2	Patient sex	#			
D.7.4.3	Patient age	#			
D.7.4.4	Patient hospital number	#			
D.7.4.5	Patient study number	#			
D.7.4.6	Referring physician	#			
D.7.4.7	Radiologist	#			
D.7.4.8	Radiographer ID	#			
D.7.4.9	Date	#			
D.7.4.10	Time	#			
D.7.4.11	View (BIRADS/ACR) View Names e.g. LCC, RMLO	#			
D.7.4.12	kV	#			



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D.7.4.13	Filter selection	#			
D.7.4.14	Target selection	#			
D.7.4.15	Magnification factor	#			
D.7.4.16	Fully automated exposure techniques	#			
D.7.4.17	Compression pressure	#			
D.7.4.18	Compression thickness + CAD Program	#			
D.7.4.19	Field size	#			
D.7.4.20	An estimate of mean glandular dose at the termination of the exposure	#			
D.7.5	Reject / Repeat analysis Analysis Software to be provided and included in the tender price	#			
D.7.6	DVD/ CD writer facilities	#			
D.7.7	System must be able to export DICOM 3, TIF and lossless JPEG images to CD/DVD drive and USB port.	#			
D.8	Image Review Station (Radiology reporting station):				
D.8.1	The system must allow the Radiologist to to review positioning, anatomy, annotations and exposure factors	#			
D.8.2	The system must have at least two 21" high resolution (5MP), high brightness monitors with variable format image display. All monitors should be self-calibrating and have correction software to maintain uniform display intensity across the various workstations.	#			
D.8.3	The review workstation must at least have the following:				
D.8.3.1	Black & white high resolution (5MP) at least 2048 x 2560 monitor ? #	1			
D.8.3.2	Flicker-free	#			
D.8.3.3	Non-interlaced	#			
D.8.3.4	Ultra bright CRT or LCD (LCD preferred)	1			
D.8.3.5	Anti glare screens	#			
D.8.3.6	Auto calibration	#			
D.8.3.7	User calibration	#			



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D.8.3.8	Correct software to maintain all display functions (geometry, linearity, focus, brightness and contrast	#			
D.8.3.9	Display status for exams (e.g. sent to printer, sent to archive or to CD writer)	#			
D.8.3.10	State Image storage capacity ≥ 2000 images	1			
D.8.4	The system should include a dedicated one touch key pad for fast access to main review functions which enables fast reading throughput	#			
D.8.5	The system should include a mouse as optional navigation tool should the reviewer prefer to use a mouse instead of a keypad	#			
D.8.6	The review work station should provide a complete range of available hanging protocols allowing the radiologist to create a tailor-made review workflow	#			
D.8.7	Rotation of images must be possible	#			
D.8.8	Typical image display timings should be one second between images of the same patient and five seconds between different patients	#			
D.8.9	The review system shall enable the user to call up previous studies and automatically view them on the monitors using the available protocols as standard operation	#			
D.8.10	The review workstation must have post-processing tools, including:				
D.8.10.1	Windowing	#			
D.8.10.2	Zoom	#			
D.8.10.3	Magnifying glass size adjustable by user	#			
D.8.10.4	Inverting black and white	#			
D.8.10.5	Vertical and horizontal panning of single images	#			
D.8.10.6	Graphic user annotations	#			
D.8.10.7	Quadrant viewing	#			
D.8.10.8	Measuring rulers	#			
D.8.10.9	Exam reading status	#			
D.8.10.10	Sorting facility for patient review	#			
D.8.10.11	Visual indicator showing when part of the image is hidden from view	#			



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D.8.10.12	Password for individual readers to protect user reading preference setup	#			
D.8.11	The system must be supplied with a computer-aided detection package.	#			
D.8.12	What is the sustained throughput for the device (i.e. maximum number of fully reconstructed phantom images that may be taken in a two hour period? State number (the higher the better)	1			
D.8.13	Display of the selected patient must be almost immediate. state time from selection of patient to display of the images(the quicker the better)	1			
D.8.14	Data security precautions must be included	#			
D.8.15	What precautions does your system have for data security? Please describe in detail	1			
D.8.16	DVD/ CD writer facilities	#			
D.8.17	System must be able to export DICOM 3, TIF and lossless JPEG images to CD/DVD drive and USB port.	#			
D.9	Digital stereotaxy system:				
D.9.1	A digital stereotactic system for fine needle aspiration, core biopsy, vacuum assisted biopsy or hook wire placement in upright or recumbent positions must be provided. It must utilize a digital detector for consistent image quality in screening diagnostic and interventional applications.	#			
D.9.2	Stereotactic biopsy system should be available with the tomosynthesis and with the mammographic functions.	#			
D.9.2.1	If stereotactic guided biopsy is not available on Tomosynthesis. State whether it is likely in the near future (development in the pipeline) and when it will be available.	1			
D.9.2.2	If stereotactic guided biopsy is not available on Tomosynthesis would the machine offered here be upgradable to include it at a later stage? such upgrade must be included in the offer.	1			
D.9.3	State the positioning angle of the U-arm possible for stereotactic biopsy (this to accommodate recumbent patients):	1			
D.9.4	Stereotaxy angles: -15° and +15° with automatic stop at stereotaxy angles	#			



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D.9.5	Exposure parameters selection (track, filter, kV, mAs): Automatic and manual selection must be possible.	#			
D.9.6	Needle positioner accuracy: 1mm in all three axes is required. State accuracy	#			
D.9.7	The system must be able to take a range of needle lengths. State range:	1			
D.9.8	The needle length must be adjustable/programmable or needle tip must be confirmed manually with Z zero function.	#			
D.9.9	The needle stroke must be adjustable/programmable	#			
D.9.10	Image format:				
D.9.10.1	State available sizes of stereotactic compression paddles	1			
D.9.10.2	State size of scout views for each stereotactic compression paddle	1			
D.9.11	Needle positioning control:				
D.9.11.1	Automatic motor driven movement of needle must be available in X and Y directions	#			
D.9.11.2	Manual movement of needle must be available in X,Y and Z directions	#			
D.9.12	Digital display enables monitoring of needle position relative to target.	#			
D.9.13	Manual fine tuning must be possible with X, Y and Z knobs	#			
D.9.14	Needle approach: Vertical or lateral approach for better access to lesions close to the image receptor is required	#			
D.9.15	Results of the stereotactic system must be DICOM connected to enable transfer of data. State compliance and note DICOM formats.	#			
D.10	Image display on stereotactic system:				
D.10.1	Scout view and stereotaxy views for targeting displayed in full resolution must be possible	#			
D.10.2	It must be possible to magnify and invert the image, modify window width or window level and add notations or measurements	#			
D.10.3	Epipolar function: To enable easy correlation of the lesion on two stereotactic views to assist accurate targeting	#			
D.10.4	Check on stereo: Simultaneous display of pre-fire and post-fire must be possible	#			
D.10.5	Target management: Explain how your system can accomplish this	1			



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D.10.6	The following must be supplied:				
D.10.6.1	Base plate to hold the Magnum or similar biopsy system.	#			
D.10.6.2	Needle positioning system	#			
D.10.6.3	Lateral approach kit with dedicated paddle	#			
D.10.6.4	Phantom for quality control	#			
D.10.7	Please quote separately for the following options:				
D.10.7.1	Set of sterilizable bushings (6 pairs) diameter:8 G to 18 G	1			
D.10.7.2	Set of sterilizable bushings (5 pairs) diameter:0.9,1.0,1.2,1.4,1.8,2.25,2.9 and 3.3mm	1			
D.10.7.3	5 metal guides for lateral approach for mammotone ,MIBB	1			
D.10.7.4	5 metal guides for mammotone in vertical approach: 8G,11G,14G	1			
D.11	DICOM / PACS CONNECTIVITY:				
D.11.1	System must be DICOM/PACS ready/	#			
D.11.2	Aquisition station and radiolgy review station must be connected to the PACS	#			
D.11.3	DICOM Modality Worklist SCU	#			
D.11.4	DICOM Storage (Push) SCU/SCP (MG, SC objects)	#			
D.11.5	DICOM Storage Commitment (Push) SCU/SCP (MG, SC objects)	#			
D.11.6	DICOM Query/Retrieve SCU (MG, SC objects)	#			
D.11.7	DICOM Basic Grayscale Print SCU (MG object)	#			
D.11.8	DICOM Verification SCU/SCP	#			
D.11.9	Auto transfer	#			
D.11.10	CD-R Data interchange	#			
D.11.11	The vendor shall provide DICOM conformance statements for all major equipment	1			
D.11.12	The vendor shall assist in achieving complete interoperability with other DICOM equipment currently in the hospital that will be required to inter-operate with the FFDM	1			
D.11.13	Vendor staff shall assist with interfacing the new system to a Radiology Information System (RIS) and Hospital Information System (HIS) as required and selected by us	1			



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THE SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING AND MAINTENANCE OF IMAGING RADIOLOGY EQUIPMENT ITEMS TO THE VARIOUS INSTITUTIONS FOR A PERIOD OF THREE YEARS

ITEM 16:

MAMMOGRAPHY UNIT WITH FULL FIELD DIGITAL DETECTOR WITH TOMOSYNTHESIS, INTEGRATED STEREOTACTIC TOMOSYNTHESIS BIOPSY DEVICE, COMPUTER AIDED DIAGNOSTICS SOFTWARE, CONTRAST MAMMOGRAPHY AND AUTOMATED BREAST DENSITY

D.11.14	The manufacturer must provide a set of test tools and programmes to analyse resulting images to ensure consistent high-quality imaging. Tests such as: brightness uniformity, high frequency modulation, SNR uniformity, bad pixel verification, MTF, ACR phantom scoring etc. shall be performed regularly. A quality assurance program must be embedded into the system and quality assurance procedures and manuals must be provided	#			
E.	Vacuum breast biopsy system				
E.1	The latest model vacuum biopsy system must be included in the offer e.g Eviva or Encore Enspire. Nothing less than Encore or ATEC	#			
E.2	Give details of the offered vacuum biopsy system	1			
F.	Digital specimen radiography system				
F.1	A Digital specimen radiography system should be included in the offer. (e.g. Bioptics/ Faxitron	#			
F.2	Give details of the offered Digital specimen radiography system	1			
F.3	Mammography Chair to be supplied X 1	#			
F.4	Dedicated biopsy chair with recliner and brakes to be supplied	#			
G.	Back up archive				
G.1	Backup archive must be included e.g. external harddrive	#			
G.2	A mini-PACS covering mammography, steriotactic biopsies, and breast ultrasound should be included in the offer.	#			
G.3	Give details of Mini-PACS	1			
H.	Technical Compliance				
H.1	Please provide a list of mammography/ tomosynthesis machines from your company currently in the public health sector, with contact detail of the end user for verification of services delivered.	1			



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H.2	Give a total price and a breakdown of the price for each component offered: Tomosynthesis, Intravenous Contrast enhanced Mammography, Stereotactic breast biopsy on mammography and tomosynthesis, Automated (ACR) breast density measurement, Reconstructed virtual mammogram, CAD, Specimen X-ray machine, Vacuum assisted biopsy machine.	1			
H.3	Machine Should comply with AERB Guidelines March 2016 for radiation equipment.	1			
I.	Power Supply				
I.1	An Uninterrupted Power Supply System (UPS system) must be offered for all systems and sub-systems where stated. The UPS support time must be ≥ 30 minutes to enable proper shutdown of systems and subsystems. Details must be stated.	#			



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Note:

a. The rows and columns of the tender specification:

1) The rows:

The rows are the tender specifications (line items)

2) The columns:

b) The columns have the following headings:

o Item Number

o Tender Specification

o Weight

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

b. The rows and columns that the bidders must complete:

The bidders must complete the following columns in each row (each specification line item):

o Comply (Yes/No)

o Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)

o Reference to Brochure / Technical Data Sheet (verification) / Supporting Document

c. The scoring of the bids:

1) Weights:

Each specification will have a weight of 1, or a hash (#), which indicates the level of importance, as follows:

A specification (line item) with a weight of 1 is a specification with a standard level of importance that should be complied with.

A specification (line item) with a # weight is a specification with a mandatory level of importance, where the bid offer will be disqualified if the specification is not complied with.

The column for the score is not included in the tender specification. However, it shall be included in the scoring sheets during the evaluation of the bids by the Bid Evaluation Committee. Each specification (line item) shall have a score of 0 or 1, which indicates the level of compliance, as follows:

0 - The specification does not comply.

1 - The specification is fully compliant.

Note: If the bidder responds Yes in the Comply (Yes/No) column, the bidder must provide the Reference to the Brochure (the exact brochure and page number must be specified) / Technical Data Sheet (verification) / Supporting Document.

3) Weighted Score:

The score of 0 or 1 of each of the specifications (line items) will be multiplied with the weight of 1.

4) Total Score:

The weighted score of each of the specifications (line items) will be added up to obtain the total score. The total score is 40 points.

d. The required score to be considered for an award:

1) The bidders must comply with all the specifications (line items) with a # weight.

2) The bidders must all obtain a minimum score of 33 points or higher out of 40 points in respect of the specifications (line items) with a weight of 1.



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Item No.	Tender Specification	Weight	Comply Yes/no	Details of Bid Offer (Provide your answers in this Column. You are advised to be straight to the point)	Reference to Brochure / Technical Data Sheet and provide page numbers for verification
A.	Modality Details - Functionality:				
A.1	The system must be a Linear Scanning device.	#			
A.2	2D Fan beam Technology	#			
A.3	Motorized Table Top and Arm.	#			
A.4	Laser light for patient positioning	1			
A.5	Maximum patient weight of 200kg or above.	1			
A.6	Table lowest height range between 60cm - 72cm.	1			
A.7	A complete scan / exposure time for AP spine & femur and hip study should be completed within 40 seconds.	1			
A.8	Multi-element, high resolution, digital detector array. The details of the detector must be stated.	1			



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A.9	The maximum scanning area must be a maximum range of between 60-75 cm in width.	1			
A.10	The maximum scanning area must be a maximum range of between 190-210 cm in length.	1			
A.11	Dual Energy X-Ray Absorptiometry (DEXA) Dual pulse energy.	1			
A.12	The system must be able to generate a maximum kVp of 100 or above.	1			
A.13	Both Automatic and Manual selection of Region of Interest must be possible.	1			
A.14	Automatic and continuous calibration. Operator calibration not required.	#			
A.15	Automatic quality control program, including required phantoms.	#			
A.16	In addition to its normal operation, the system must be suited to the examination of paediatric patients.	1			



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B.	Software tools and functions				
B.1	The following Software Packages must be included in the offer:				
B.1.1	Bone Mineral Density (BMD), including hip and Lateral Spine BMD.	#			
B.1.2	Bone Mineral Content (BMC)	#			
B.1.3	Body Composition Analysis	#			
B.1.4	BMI Calculator	#			
B.1.5	Scan / analyze protocols for whole body, AP and lateral spine, proximal femur, dual hip, forearm, scoliotic spine for paediatric and adult patients.	1			
B.1.6	Digital vertebra assessment (IVA).	1			
B.1.7	The system must have reporting packages.	1			
B.1.8	The reporting packages must be DICOM compatible.	1			
B.1.9	Customizable reports.	1			



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B.1.10	The system must support multiple reports per patients, including comparison against earlier studies.	1			
B.1.11	The reporting software must be compliant with the International Society for Clinical Densitometry (ISCD).	1			
B.1.12	Integrated FRAX report to be included (fracture risk assessment).	1			
B.1.13	The system must include a compatible Colour Printer.	#			
C.	Computer				
C.1	Windows 10 or newer operating system.	1			
C.2	i5 or equivalent processor.	1			
C.3	4GB RAM	1			
C.4	250 or more GB hard disc.	1			
C.5	17 Inch or larger Flat Panel Monitor.	1			
C.6	Keyboard and mouse	1			



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C.7	CD DVD R/W drive	1			
C.8	Network ready	1			
C.9	DICOM compliant and enabled (HIS, RIS,PACS).	1			
D.	Operating Requirements				
D.1	Temperature: 15 - 32°Celsius	1			
D.2	Humidity: 20 - 80%	1			
D.3	Power: 220 - 240 V, 50 Hertz	#			
E.	IT Integration				
E.1	The system must have the following DICOM compatibility:				
E.1.1	DICOM print class	1			
E.1.2	DICOM storage class	1			



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E.1.3	DICOM query / retrieve	1			
E.1.4	DICOM work list	1			
F.	RADIATION PROTECTION				
F.1	The system must have dose reduction mechanisms including software. Details of dose reduction mechanisms and software are stated in supporting documents.	1			
F.2	Standard QC software packages and QC Tools must be provided as required. Details are stated in supporting documents	1			
F.3	An advanced Retake / Reject / Repeat analysis software package that includes analysis as well as calculations in percentages, must be provided for applicable systems.	1			
F.4	The applicable systems must have an integrated Dose Area Product (DAP) meter that includes skin dose equivalent measurement functions.	1			
F.5	A radiation report must be automatically generated and transferable via DICOM.	1			



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G.	POWER SUPPLY				
G.1	An Uninterrupted Power Supply System (UPS system) must be offered for all systems and sub-systems where stated. The UPS support time must range between 10 minutes - 30 minutes to enable proper shutdown of systems and subsystems. Details must	#			
H.	Optional Items				
H.1	Orthopaedics software for prosthesis.	1			

**SERVICE DESCRIPTION**

AGREEMENT ENTERED INTO BY AND BETWEEN THE GAUTENG PROVINCIAL GOVERNMENT IN ITS _____

**AND HEREIN REPRESENTED BY _____ IN HIS /
HER CAPACITY AS _____ AND AS SUCH DULY
AUTHORISED ("THE END USER")**

AND

**_____ A COMPANY WITH LIMITED
LIABILITY AND DULY INCORPORATED IN TERMS OF THE COMPANY
LAWS OF THE REPUBLIC SOUTH AFRICA, WITH COMPANY
REGISTRATION NO _____ AND PRINCIPAL PLACE
OF BUSINESS AT _____ AND HEREIN REPRESENTED
BY _____ IN HIS / HER CAPACITY AS
_____ AND AS SUCH DULY AUTHORISED
("THE SUPPLIER").**

AND WHEREAS

The Supplier is the preferred supplier for the supply, delivery, installation, commissioning and maintenance of office equipment and labour saving devices ("equipment") in terms of the contract.

AND WHEREAS

The End user is, from time to time, desirous of hiring from the supplier one or more equipment, and the Supplier is in turn desirous of renting such equipment to the End user

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1 NOW THEREFORE THE PARTIES AGREE AS FOLLOWS:

1.1 Rules of interpretation. In this Agreement:-

1.1.1 clause headings are for convenience and are not to be used in its interpretation;

1.1.2 unless the context indicates a contrary intention an expression which denotes:-

1.1.2.1 any gender shall include the other genders;

1.1.2.2 a natural person shall include a juristic person and vice versa;

1.1.2.3 the singular shall include the plural and vice versa; and

1.1.2.4 references to clauses, schedules, parts and sections are, unless otherwise provided, references to clauses, schedules, parts and sections of this Agreement.

1.2 Meanings of expressions and words. In this Agreement the following expressions and words have the meanings assigned to them below and derivative expressions and words will have a corresponding meaning: -

1.2.1 **Agreement** means this agreement read together with the General and Special Conditions of Contract of Contract RT3-2009R which form an integral part of this Agreement

1.2.2 **Copy Charges** means the consideration, where applicable, (or, as the context may require, part thereof) payable by the End-user to the Supplier for the maintenance to be provided by the Supplier in terms hereof, which is the amount payable for each black and white or colour copy (as the case may be) that is produced by the equipment at the rate as set out in Addendum 1 of this Agreement, and which is calculated by multiplying the total black and white or colour copies (as the case may be) so produced during a copy period by the charge payable for each black and white or colour copy (as the case may be) as stipulated in Addendum 1 of this Agreement.

1.2.3 **Copy Period** means a period of one calendar month, each month commencing on the 1st day of each month (except the first period, which will be the period from Commencement Date until the last day of that calendar month). Copy Period means the period during which copies are made, calculated by means of an opening and closing meter reading, on a monthly basis.

1.2.4 **End-user** means the government institution described on

page one hereof.

- 1.2.5 **Equipment** means all or any, as the context may require, of the equipment which is/are or will be the subject matter of this Agreement and which are more fully described in Addendum 1 of this Agreement.
- 1.2.6 **Initial Period** means the period of 36 (thirty six) months from the Commencement Date.
- 1.2.7 **Maintenance** means the obligation assumed by the Supplier to maintain the relevant equipment in proper and efficient operating condition on the terms as set out herein and in accordance with the specifications applicable to the relevant equipment.
- 1.2.8 **Rental** means the consideration payable by the End-user to the Supplier for the use of the equipment in the amounts as stipulated in Addendum 1 of this Agreement.
- 1.2.9 **Working day** means days on which business is generally conducted, i.e. Saturdays, Sundays and official public holidays excluded.
- 1.2.10 **Commencement date** means the date on which the installation and commissioning of equipment is completed.
- 1.2.11 **Material breach** means an event that goes to the root of this agreement.
- 1.2.12 **Month** means calendar month.
- 1.2.14 **Termination date** means 36 months after the commencement date.

2. DURATION AND TERMINATION

- 2.1 This agreement shall commence upon the commencement and shall endure for a period of 36 months and automatically terminate on the termination date by effluxion of time, unless terminated earlier or extended in terms of the provisions of this contract;
- 2.2 This agreement, may at the sole discretion of the End user, be extended in writing for a maximum period of twenty four months on the same terms and conditions except for the rental which shall be reduced by 75% (seventy five percent) of the rental specified herein.

3. OBLIGATIONS OF THE SUPPLIER

3.1 DELIVERY AND INSTALLATION

3.1.1 The Supplier undertakes to:

3.1.1.1 deliver the equipment conforming exactly to the description of the equipment as specified in addendum 1 of this agreement;

3.1.1.2 deliver and install new and unused equipment at the location selected by the End-user;

3.1.1.3 ensure that the equipment is delivered and installed in good condition and working order;

3.2 MAINTENANCE

The Supplier undertakes to:

3.2.1 ensure that the equipment performs in accordance with the manufacturer's specifications;

3.2.2 keep and maintain the equipment rented by the End-user in good and proper condition and working order and in such manner that the End-user will have the use thereof in an efficient operating condition, and to take such reasonable preventative action as may be necessary or open to it in order to limit the incidence and frequency of breakdowns of equipment to a minimum.

3.2.3 for this purpose The Supplier shall ensure that a qualified technician responds promptly to any notification of the End user of a breakdown or malfunction of any equipment.

The response time on such notification shall be as follows:

3.2.4 forthwith provide temporary loan equipment to the End-user if the fault in the equipment cannot be repaired, or is not expected to be reasonably repaired, within the period as set out in of this Agreement.

- 3.2.5 the availability of an adequate number of qualified technicians and personnel on a full-time basis to perform the maintenance required under this Agreement;
- 3.2.6 to make available the services of a fully qualified technician from 08h30 to 16h30 each working day to carry out preventative maintenance on the equipment;
- 3.2.7 to supply the quantities of spare parts, toner, developer, fuser oil and other consumables necessary to keep the equipment in proper operating condition;
- 3.2.8 to make available of full coverage maintenance, including preventive maintenance, all service calls and replacement all defectives or worn parts including expandable parts, and all consumable supplies. Should the Supplier fail to provide any of the consumables, or repair or replace with an equivalent unit, any equipment as required, then the Rental Copy Charges for the relevant month in respect of such equipment shall be forfeited by the Supplier and accordingly the End-user shall not be required to pay such rental and copy charges. Should the Supplier not have remedied the failure within 10 (ten) working days of notice from the Enduser then the End-user shall be entitled on written notice to the Supplier to immediately terminate the Agreement in respect of the relevant equipment at no additional cost or penalty to the End-user and the Supplier shall be obliged to remove the relevant equipment listed in the Agreement at is sole cost and expense;
- 3.2.9 remove the equipment from location of the End-user on termination of this Agreement at no additional charge;
- 3.2.10 perform all the services in terms of this contract with due care skill, efficiency and diligence in accordance with the best professional practice;

3.3 **PRODUCT SUPPORT**

- 3.3.1 The Supplier will from time to time and to the extent that is reasonably necessary or required by the End-user for the proper utilisation of the equipment, provide advice and assistance to the End-user and to provide such reports and data relevant to the usage of the equipment as may reasonably be required by the End-user.
- 3.3.2 Without limiting the generality of its obligations under clause
- 3.3.1 The Supplier hereby authorises the End-user to install access key control devices on the relevant equipment and will provide all necessary assistance to ensure the proper integration of the access key control devices with the equipment. The Supplier shall also assist the End-user in the installation of any copy control devices and copy management devices on the equipment as may be reasonably required by the End-user.
- 3.3.3 Where The Supplier or any of its employees, agents or independent contractors ("Representatives") accesses the premises of the End-

user, under or pursuant to, the terms of this Agreement, The Supplier and its representatives shall abide by and comply with the safety, health and environmental policies and procedures and other lawful directions of the End-user.

3.4 TRAINING

- 3.4.1 On installation of the equipment, The Supplier shall provide adequate training to the personnel of the End-user at no additional charge.
- 3.4.2 Instruction manuals shall also be provided by the Supplier free of charge for all equipment rented in terms of this agreement. The instruction manuals shall contain, but not be limited to, the following information:
 - 3.4.2.1 Defining the capabilities of the equipment (specification).
 - 3.4.2.2 Describing the technical operations of the equipment.
 - 3.4.2.3 Describing the use criteria of the equipment.
- 3.4.3 The Supplier shall also provide such further training may be required by the End User from time to time.

3.5 INDEMNITY AND INSURANCE

The Supplier hereby:

- 3.5.1 Undertakes, at its own expense, to indemnify, protect and defend the End User from and against all actions, claims, losses or damages arising from any negligent act or omission by the Supplier including but not limited to all damages or loss which may be payable or arise as a result of any claim or proceedings in respect of the death, injury to any person and the loss or damage to any property which may arise out of or in consequence of the execution of any obligations in terms of this agreement;
- 3.5.2 at its expense take out and keep in force in respect of the indemnity given by it in terms of this agreement a public liability insurance policy providing cover with a limit of not less than R 3 000 000-00 (three million rand) for any one occurrence of an insured peril in any year and unlimited as to cumulative amount in respect of more than one such occurrence in any year;

3.6 SUBCONTRACTING

It is recorded that:

- 3.6.1 The Supplier will be entitled to appoint suitably qualified subcontractors who satisfy the eligibility criteria applicable to the award of the contract to perform all or any of its obligations arising from this Agreement;

- 3.6.2 No sub-contract can create contractual relations between any subcontractor and End- User;
- 3.6.3 The Supplier shall be responsible for all the acts, defaults and negligence of its subcontractors and their experts, agents or employees as if they were acts, defaults or negligence of the Supplier shall not be absolved from its responsibility from under this clause on the basis that such person was acting outside the scope of its engagement by The Supplier.
- 3.6.4 The Supplier will provide the End user with a list (regularly updated for the duration of this agreement) of all the subcontractors that it intends using to perform all or any of its functions in terms of this agreement.

3.7 CONFIDENTIALITY

- 3.7.1 The Supplier shall treat all documents and information received in connection with this agreement as private and confidential, and shall not, save in so far as may be necessary for the purposes of performance thereof, publish or disclose any particulars without the prior written consent of the End user.

4. OBLIGATIONS OF THE END - USER

- 4.1 The End - user undertakes to:
 - 4.1.1 Use the equipment for the purpose that it is intended and in accordance with any reasonable manufacturers' instructions and user manual as to the use thereof;
 - 4.1.2 Keep the equipment in its possession and custody and control at its premises in accordance with the same policies and procedures that the End user applies in respect of its own assets and equipment;
 - 4.1.3 Advise the supplier prior to relocation equipment.
 - 4.1.4 Allow the supplier or its representatives reasonable access to the inspection of the equipment on prior written notice;
 - 4.1.5 Undertakes to ensure that the installation area, access ways, electrical supply and where relevant, the IT configuration of its premises and other equipment or any network are suitable for the installation, passage and electrical/or electronic connection of the equipment when it is delivered for installation and thereafter.

5. BREACH

- 5.1 Either party commits a breach of contract where it fails to discharge any of its obligations in terms of this agreement;
- 5.2 Should either party commit a material breach of this agreement ("the defaulting party") and fail to remedy such breach within ten (10) days of written demand from the other party ("the aggrieved party") then the aggrieved party may, in addition to any other rights and remedies that it may have, including the right to claim damages:-
 - 5.2.1 Claim specific performance ;

- 5.2.2 or Terminate this agreement, such termination to be effective immediately upon receipt by the defaulting party of written notice to that effect
- 5.3 In any case where the End – User is entitled to damages, then the End-user may claim such damages from the Supplier;
- 5.4 This agreement shall automatically and without notice terminate upon occurrence of the following events:
- 5.4.1 a receiver, liquidator or administrator is appointed over any of the property or assets of that the Supplier;
- 5.4.2 the Supplier makes any voluntary arrangement with its creditors by reason of financial difficulty or becomes subject to an administration order, or provisional or final liquidation or insolvency order;
- 5.4.3 the Supplier goes into liquidation or is declared insolvent;
- or
- 5.4.4 that the Supplier ceases, or threatens to cease, to carry on business.

6. PAYMENT

The End – User shall pay the Supplier:

- 6.1 the rental applicable to the contract at the time of signing this agreement which rental shall be fixed for the entire initial rental period of 36 months. In the event of the extension of the contract, the rental shall reduce by 75% of the original rental The first Rental Charge shall be paid after the Commencement Date of the Agreement, within 30 days of the date of the original copy of statement or tax invoice to the Enduser and shall thereafter be payable monthly in arrear within 30 days of the last day of the month in which The Supplier delivers an original copy of statement and tax invoice to the End-user.
- 6.2 Copy Charges, applicable on the contract at the time of signing this Agreement will apply and would thereafter be adjusted on the thirteenth month and twenty-fifth month of the contract period.
- 6.3 The first of the Copy Charges shall be paid within thirty (30) days in which the original copy of statement and tax invoice in respect thereof is rendered, and shall thereafter be payable monthly in arrears on the first day of the month following the month in respect whereof the Copy Charge has arisen or within 30 days of the last day of the month in which the original copy of statement and tax invoice is delivered to the End-user, whichever is the later.
- 6.4 Payment shall be paid by electronic means into bank account :
Name :
Bank :
Branch :
Account number :
- 6.5 No other charges other than those set out herein will be payable for any other service rendered unless specifically agreed to in writing by the parties

7. NOTICES AND DOMICILIA

7.1 The parties select as their respective domicile citandi et executandi the following addresses:

7.1.1 End User
Physical address
Postal Address
Telephone No.
Fax No.
Email
Contact person

7.1.2 Supplier
Physical address
Postal Address
Telephone no
Fax No
Email
Contact person

Or such other address, telefax or telephone number as may be substituted by notice as herein required

7.2 Any notice addressed to a party at its physical or postal address shall be sent by prepaid registered post or delivered by hand or sent by telefax.

7.3 Any notice shall be deemed to have been given:

7.3.1 if posted 14 calendar days after the date of posting;

7.3.2 if hand delivered, on the day of the delivery; The parties may communicate by electronic means.

7.4.3 if sent by telefax, on the date and time of sending, which telefax, is evidenced by a fax confirmation print out.

8. GENERAL

8.1 **Whole Agreement.** This Agreement constitutes the entire Agreement between the Parties in respect of the subject matter hereof and neither Party shall be bound by any undertakings, representations, warranties or promises not recorded in this Agreement.

8.2 **No Variation.** This agreement together with General Conditions of Contract, Special Conditions of the contract and all Standard Bidding Documents constitutes the entire agreement between the parties. No variation or consensual cancellation of this Agreement and no addition to this Agreement shall be of any force or effect unless reduced to writing and signed by the Parties or their duly authorised representatives.

8.3 **Waiver.** No waiver of any of the terms and conditions of this Agreement will be binding or effectual for any purpose unless expressed in writing and signed by the Party hereto giving the same, and any such waiver will be

effective only in the specific instance and for the purpose given. No failure or delay on the part of either Party hereto in exercising any right, power or privilege hereunder will operate as a waiver thereof, nor will any single or partial exercise of any right, power or privilege preclude any other or further exercise thereof or the exercise of any other right, power or privilege.

- 8.4 **Severability.** Should any of the terms and conditions of this Agreement be held to be invalid, unlawful or unenforceable, such terms and conditions will be severable from the remaining terms and conditions which will continue to be valid and enforceable. If any term or condition held to be invalid is capable of amendment to render it valid, the Parties agree to negotiate an amendment to remove the invalidity.
- 8.5 **Applicable Law.** This Agreement will be governed by and construed in accordance with the law of the Republic of South Africa and all disputes, actions and other matters relating thereto will be determined in accordance with such law.
- 8.6 **Jurisdiction.** The Parties hereto hereby consent and submit to the jurisdiction of such High Court of South Africa, in any dispute arising from or in connection with this Agreement.
- 8.7 **Survival.** Notwithstanding termination of this Agreement, any clause which, from the context, contemplates ongoing rights and obligations of the parties, shall survive such termination and continue to be of full force and effect.

SIGNED AT _____ ON THIS _____ DAY OF _____ 2022.

END USER

WITNESSES

1. _____

2. _____

SIGNED AT _____ ON THIS _____ DAY OF _____ 2022.

SUPPLIER

WITNESSES

1. _____

2. _____



GAUTENG PROVINCE
PROVINCIAL TREASURY
REPUBLIC OF SOUTH AFRICA

Provincial Supply Chain Management

Registered Supplier Confirmation

Page 1 of 1

THIS FORM IS TO BE COMPLETED BY REGISTERED SUPPLIERS ONLY

PLEASE NOTE:

SUPPLIERS ARE REQUIRED TO PROVIDE THEIR REGISTERED CENTRAL SUPPLIER DATABASE (CSD) NUMBER _____

For confirmation of your supplier number and/or any assistance please call the GPT Call Centre on **0860 011 000**.

Registered Suppliers to ensure that all details completed below are CURRENT.

MANDATORY SUPPLIER DETAILS			
GPT Supplier number			
Company name (Legal & Trade as)			
Company registration No.			
Tax Number			
VAT number (If applicable)			
COIDA certificate No.			
UIF reference No.			
Street Address		Postal Address	
CONTACT DETAILS			
Contact Person		Telephone Number	
Fax Number		Cell Number	
e-mail address		Principal's Id number	
BANKING DETAILS (in the name of the Company)			
Bank Name		Branch Code	
Account Number		Type of Account	

I HEREBY CERTIFY THAT THIS INFORMATION IS CORRECT.

Name(s) & Signature(s) of Bidder(s)

DATE:



GAUTENG PROVINCE
PROVINCIAL TREASURY
REPUBLIC OF SOUTH AFRICA

Provincial Supply Chain Management

Tax Clearance Requirements

Page 1 of 1

IT IS A CONDITION OF BIDDING THAT -

- 1.1 The taxes of the successful bidder **must** be in order, or that satisfactory arrangements have been made with the South African Revenue Service to meet his / her tax obligations.
- 1.2 The South African Revenue Service (SARS) from the 18 April 2016 has introduced an enhanced Tax Compliance Status System, whereby taxpayers will obtain their Tax Compliance Status (TCS) PIN instead of original Tax Clearance Certificate hard copies.
- 1.3 Bidders are required to submit their unique Personal Identification Number (PIN) issued by SARS to enable the organ of state to view the taxpayer's profile and Tax Status.
- 1.4 Application for Tax Compliance Status (TCS) or PIN may also be made via e-filing. In order to use this provision, taxpayers will need to register with SARS as e-filers through the website www.sars.gov.za.
- 1.5 In bids where Consortia / Joint Ventures / Sub-contractors are involved each party must submit a separate Tax Compliance Status (TCS) / PIN / CSD Number.
- 1.6 Where no TCS is available but the bidder is registered on the Central Supplier Database (CSD), a CSD Number must be provided.

QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

- | | | | | | |
|-----|---|-----|--------------------------|----|--------------------------|
| 2.1 | Is the bidder a resident of the Republic of South Africa (RSA)? | YES | ☐ | NO | ☐ |
| 2.2 | Does the bidder have a branch in RSA? | YES | ☐ | NO | ☐ |
| 2.3 | Does the bidder have a permanent establishment in the RSA? | YES | ☐ | NO | ☐ |
| 2.4 | Does the bidder have any source of income in the RSA? | YES | ☐ | NO | ☐ |

IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN, IT IS NOT A REQUIREMENT TO OBTAIN A TAX COMPLIANCE STATUS/TAX COMPLIANCE SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER ABOVE 1.4 ABOVE.



Provincial Supply Chain Management

Financial Statements

Page 1 of 1

Submission of Financial Statements

The latest financial statements for the last two years are required (except if it is a new or a dormant entity)

a) Financial statements must be signed by the auditor (in the case of companies) or the accounting officer (in the case of close corporations) the owner (in case of sole proprietors). Signatures must be on the accounting officer's / auditors report on the auditor's /accounting officer's letterhead.

b) Financial statements must be signed by the member/s (in the case of close corporations) or by the director/s (in the case of companies.)

c) In bids where consortia/joint ventures/sub-contractors and partnerships are involved, all bidders must submit their financial statements.

d) If it is a new or dormant entity an opening set of financial statements must be submitted with the tender document. A letter from the auditor (in the case of companies) or the accounting officer (in the case of close corporations) stating that the entity has not yet traded must be attached.

e) In cases where an entity has operated for a period less than a year the Management Accounts Report for the period in operation must be submitted signed accordingly as stated in paragraph (a) and (b) of this document.

f) In cases where the entity has operated for a period more than a year but less than two years, then the financial statement for the first year of operation signed accordingly as per paragraph (a) and (b) of this document must be submitted.

SBD 9**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

- 1 This Standard Bidding Document (SBD) must form part of all bids¹ invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
 - a. disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
 - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
- 4 This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

SBD 9**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Institution)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

SBD 9

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

SBD 9

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

Js914w 2

Annexure A

GOVERNMENT PROCUREMENT GENERAL CONDITIONS OF CONTRACT July 2010

NOTES

The purpose of this document is to:

- (i) Draw special attention to certain general conditions applicable to government bids, contracts and orders; and
- (ii) To ensure that clients be familiar with regard to the rights and obligations of all parties involved in doing business with government.

In this document words in the singular also mean in the plural and vice versa and words in the masculine also mean in the feminine and neuter.

- The General Conditions of Contract will form part of all bid documents and may not be amended.
- Special Conditions of Contract (SCC) relevant to a specific bid, should be compiled separately for every bid (if applicable) and will supplement the General Conditions of Contract. Whenever there is a conflict, the provisions in the SCC shall prevail.

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1. Definitions
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General Conditions of Contract

1. Definitions

1. The following terms shall be interpreted as indicated:
 - 1.1 “Closing time” means the date and hour specified in the bidding documents for the receipt of bids.
 - 1.2 “Contract” means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
 - 1.3 “Contract price” means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
 - 1.4 “Corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.
 - 1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
 - 1.6 “Country of origin” means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
 - 1.7 “Day” means calendar day.
 - 1.8 “Delivery” means delivery in compliance of the conditions of the contract or order.
 - 1.9 “Delivery ex stock” means immediate delivery directly from stock actually on hand.
 - 1.10 “Delivery into consignees store or to his site” means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
 - 1.11 "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.

- 1.12 "Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 1.13 "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.
- 1.14 "GCC" means the General Conditions of Contract.
- 1.15 "Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
- 1.16 "Imported content" means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.
- 1.17 "Local content" means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.
- 1.18 "Manufacture" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19 "Order" means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20 "Project site," where applicable, means the place indicated in bidding documents.
- 1.21 "Purchaser" means the organization purchasing the goods.
- 1.22 "Republic" means the Republic of South Africa.
- 1.23 "SCC" means the Special Conditions of Contract.
- 1.24 "Services" means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.

- 1.25 “Written” or “in writing” means handwritten in ink or any form of electronic or mechanical writing.
- 2. Application**
- 2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
- 2.2 Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.
- 2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.
- 3. General**
- 3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.
- 3.2 With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za
- 4. Standards**
- 4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.
- 5. Use of contract documents and information; inspection.**
- 5.1 The supplier shall not, without the purchaser’s prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 5.2 The supplier shall not, without the purchaser’s prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
- 5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier’s performance under the contract if so required by the purchaser.
- 5.4 The supplier shall permit the purchaser to inspect the supplier’s records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.
- 6. Patent rights**
- 6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.
- 7. Performance**
- 7.1 Within thirty (30) days of receipt of the notification of contract award,

security

the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.

- 7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
- 7.3 The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:
- (a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
 - (b) a cashier's or certified cheque
- 7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.

8. Inspections, tests and analyses

- 8.1 All pre-bidding testing will be for the account of the bidder.
- 8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organization acting on behalf of the Department.
- 8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
- 8.5 Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.
- 8.6 Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.
- 8.7 Any contract supplies may on or after delivery be inspected, tested or analyzed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the

cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies which do comply with the requirements of the contract. Failing such removal the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.

- 8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of GCC.

9. Packing

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
- 9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents

- 10.1 Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
- 10.2 Documents to be submitted by the supplier are specified in SCC.

11. Insurance

- 11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.

12. Transportation

- 12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.

13. Incidental services

- 13.1 The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:
- (a) performance or supervision of on-site assembly and/or commissioning of the supplied goods;
 - (b) furnishing of tools required for assembly and/or maintenance of the supplied goods;
 - (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
 - (d) performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties,

- provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
- (e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

14. Spare parts

14.1 As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

- (a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
- (b) in the event of termination of production of the spare parts:
- (i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
- (ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty

15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

15.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.

15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.

15.4 Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.

15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser

may have against the supplier under the contract.

16. Payment

- 16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC.
- 16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfillment of other obligations stipulated in the contract.
- 16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.
- 16.4 Payment will be made in Rand unless otherwise stipulated in SCC.

17. Prices

- 17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized in SCC or in the purchaser's request for bid validity extension, as the case may be.

18. Contract amendments

- 18.1 No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.

19. Assignment

- 19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

20. Subcontracts

- 20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contracts if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

21. Delays in the supplier's performance

- 21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.
- 21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.
- 21.3 No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.
- 21.4 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily

available.

21.5 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.

21.6 Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without canceling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

22. Penalties

22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

23. Termination for default

23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:

- (a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
- (b) if the Supplier fails to perform any other obligation(s) under the contract; or
- (c) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.

23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.

23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the

envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.

23.5 Any restriction imposed on any person by the Accounting Officer / Authority will, at the discretion of the Accounting Officer / Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer / Authority actively associated.

23.6 If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:

- (i) the name and address of the supplier and / or person restricted by the purchaser;
- (ii) the date of commencement of the restriction
- (iii) the period of restriction; and
- (iv) the reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

24. Anti-dumping and countervailing duties and rights

24.1 When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him

25. Force Majeure

- 25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.
- 25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

26. Termination for insolvency

- 26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

27. Settlement of Disputes

- 27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.
- 27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.
- 27.4 Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.
- 27.5 Notwithstanding any reference to mediation and/or court proceedings herein,
- (a) the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
 - (b) the purchaser shall pay the supplier any monies due the supplier.

28. Limitation of liability

- 28.1 Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 6;
- (a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and

- (b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.
- 29. Governing language** 29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.
- 30. Applicable law** 30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.
- 31. Notices** 31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice
- 31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.
- 32. Taxes and duties** 32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
- 32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
- 32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.
- 33. National Industrial Participation Programme (NIP)** 33.1 The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.
- 34. Prohibition of Restrictive practices** 34.1 In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder (s) is / are or a contractor(s) was / were involved in collusive bidding (or bid rigging).
- 34.2 If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act No. 89 of 1998.

- 34.3 If a bidder(s) or contractor(s), has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.

Js General Conditions of Contract (revised July 2010)