



International Organization for Migration (IOM)  
The UN Migration Agency

**INVITATION TO BID (ITB)**  
**for the**  
**ITB # 22-001HS\_Supply and Delivery of Digital X-ray Machine for IOM Pakistan**

**BID BULLETIN**  
**Addendum No. 1**

This Addendum No. 01 is issued to address inquiries and clarification from bidders and modify information provided in the Invitation to Bid and General Instructions to Suppliers for the Supply and Delivery of Digital X-ray Machine for IOM Pakistan posted in IOM and UNGM websites on 20 January 2022.

**A. On General Instructions to Bidders**

1. First Paragraph of Article 7 of the ITB should read as follows:  
“A prospective Bidder requiring any clarification of the bidding documents may notify IOM by electronic means STRICTLY to email address, [cmanongsong@iom.int](mailto:cmanongsong@iom.int) copying [mscuprocurement@iom.int](mailto:mscuprocurement@iom.int). IOM will respond by standard electronic means to any request for clarification of the bidding documents, which it receives from **20 January 2022 to 7 March 2022 1500H Manila Time**. IOM’s response (including an explanation of the query but without identifying the source of inquiry) will be sent to all prospective bidders that have received the bidding documents.”
2. Third Paragraph, item b of Article 13 of the ITB should read as follows:  
b.) Submit **any** of the following documents:  
b. 1. US-FDA Clearance, CE Certification, or WHO/SRA Certification.  
b. 2. If b.1 are not available, Certification from the regulatory authority of the country where the X-ray machine will be installed.  
b. 3. If b.1. and b.2. are not available, Certification from the regulatory authority of the country where the machine is manufactured and Declaration from company that the X-ray machine is allowed to be installed in Pakistan.  
  
IOM will give preference to companies who are able to provide a.) US FDA Clearance, b.) CE Certification, or c.) WHO/SRA Certification. Options b.2 and b.3 will only be considered if these certifications cannot be provided by the companies.
3. First Paragraph of Article 19 of the ITB should read as follows:  
Bids must be received by IOM via electronic means to STRICTLY to email address [mscubids@iom.int](mailto:mscubids@iom.int) **no later than 17 March 2022, 1500H Manila Time**.
4. Considering that submission of bids is **extended until 17 March 2022, 1500H Manila time**, IOM will no longer hold an online pre-bid conference.
5. Third paragraph of Section II Schedule of Requirements should read as follows:  
Bidders agree to ensure goods readiness for shipment within 60 days after receipt of Purchase Order from IOM. Bidders must declare this in the Schedule Requirements under Section III.
6. Annex A of the tender documents relating to the technical specifications is deleted and replaced with the attached revised Annex to address the clarifications received on the technical specifications.

## B. Inquiries from Bidders

### I. Commercial Inquiries

Question	Answer
1. Should the bidder be registered in Pakistan?	This bidding is open to local and global suppliers.
2. If we have understood correctly from your instructions, several emails must be sent. In particular: - an email called "ITB # 22-001HS - Company Name - Legal Eligibility" - an email called "ITB # 22-001HS - Company Name - Technical Eligibility" - an email called "ITB # 22-001HS - Company Name - Financial Eligibility" - an email called "ITB # 22-001HS - Company Name - Technical Offer" - an email called "ITB # 22-001HS - Company Name - Financial Offer" Is this sending method correct? If not, in which subdivision will we have to send the documents?	Yes. This is correct.
4. We saw some incoterms terms for your project but we couldn't understand which one is your choice and which ones are optional?	As per Article 25, under Financial Evaluation, the over-all total cost shall be calculated and ranked based on lowest cost selection criteria. The bids shall be ranked from lowest to highest according to the over-all total Bid cost for each Incoterm required. Bidder with the lowest bid for both Incoterms shall be selected.  This means both Incoterms are required to be quoted.
5. Regarding item 2 (Direct Digital Radiography (DR) Wireless Detector) in Schedule of Requirements, do you want to see these item 4 pcs additionally or do you want to see the price of this item separately?	Kindly indicate the unit cost and total cost. Bidders should fill in Annex D, Price Schedule Form under Standard Forms found in Section IV.
6. Where will the items be installed?	The machines will be installed in Islamabad, Karachi, Lahore and Mirpur, Pakistan

Thank you,



Mar 2, 2022

Niiara Abliamitova  
Head of Manila Supply Chain Unit

### ANNEX A: TECHNICAL SPECIFICATIONS FORM

PROJECT TITLE: *ITB#22-001HS Supply and Delivery of Digital X-ray Machine*

Manufacturer: \_\_\_\_\_

Origin: \_\_\_\_\_

	Parts of the machine	Technical Requirements	Recommended Parameters	Bidder's Specifications (Indicate complete specifications offered for each product)	Bidder to indicate  COMPLY OR NOT COMPLY
X-ray Machine	<b>X-ray Machine Generator</b>	Brand/Model			
		mA,	Min. of 500mA		
		KVP,	up to 150 KVP		
		Power (KW),	Min. 40KW		
		Automatic exposure control	Present		
	<b>X-ray tube</b>	Focal spot size of the tube,	0.6/1.2mm (dual)		
		Material	Tungsten-Rhenium		
		Movability	Multitrotating tube (capable to take decubitus view on the table), X-ray tube rotation: $\pm 120^\circ$		
		Heat capacity, cooling rate and thermal protection	Min. 200KHU		
	<b>Tube stand</b>	Floor /ceiling amounted tube,	Strong; Horizontal travel range ~ 140 cm; Vertical travel range ~150 cm; Rotation of tube around		

			vertical axis: $\pm 90^\circ$ ; Floor mounted		
	<b>Bucky</b>	Bucky (Chest Bucky)	Long movable , with automatic /semiautomatic cassette adjustment Strong Bucky stand, well fixed on the floor strong and automatic cassette adjustments and grid Highest vertical and rotation movement Distance from chin rest to active area of Bucky allows to fully include the chest x-ray image and avoid cutting of the apices		
		Bucky stand	Strong stand, floor fixed		
	<b>Grid</b>	Grid Included	Min. grid ratio of 8:1		
	<b>Console</b>	Image exposing Console ( If separate from the operator's work station)	Display automatic (Digital) with exposing button		
	<b>Collimator</b>	Automatic/Semiautomatic/manual, with light beam centering and timer	Automatic/Semiautomatic/manual, with light beam centering		
	<b>Electricity source requirement</b>	Electricity requirement of the x-ray room	Three phases electric capacity		
	<b>X-ray Room requirement</b> Should match the country's requirement and	Room size and x-ray arrangement allows lateral decubitus view	Should allow to do lateral decubitus Chest x-ray on the x-ray table for the following room size: •Mirpur =19 ft x 15ft •Karachi=15ft x 9.5ft		

	the machine requirement. If the room to be used is known, check if it can accommodate the machine without compromising the function.		<ul style="list-style-type: none"> <li>•Lahore=10ft x 8.5ft</li> <li>•Islamabad=20 ft x 11f</li> </ul>		
<b>Detector</b>	<b>Detector</b>	Brand/model	Vendor should specify the brand and model of the detector		
		One/double detector,	IOM will give preference to companies who can offer Option 1: Double for both table and Bucky instead of moving the detector between the Bucky and table However, if not available, vendor can offer Option 2: Single detector		
		Physical weight	Max. of 4kg		
		Physical size of detector	Min. 14X17"		
		Detector Material	Cesium Iodide (CsI), better than Gadolinium oxysulfide (Gadox)		
		Pixel number	Min. 3000 x 3,000		
		Pixel size/ pitch	Max. of 140 µm		
		DQE (Detective quantum efficiency): for increasing the image quality and reducing radiation dose	Min. of 60%		

		Image preview time	less than 10 secs		
		Time to be ready for next image taking	less than 10 secs		
		Charging method	IOM will give preference to companies who can offer Option 1: Direct electric charging However, if not available, vendor can offer Option 2: External battery charging with tethering option.		
		If Option 2: External battery charger, number of batteries	At least 3 batteries		
		If Option 2: External battery charger, number of chest x-ray it can take after full charge of the battery	after full charging: Min. of 200 CXRs or lasts for 8 hours of operation		
		If Option 1: Direct electric charging, is detector integrated (internal) / or movable (external)	If companies offer Option 1: Double detector for both chest and table Bucky separate, integrated fixed detector is required. However, if Option 2: Single detector is offered, vendor can offer external (movable) detector so that it can be moved between the chest Bucky and the table.		

		Image transfer method	Wired/wireless image transfer –or wireless through Wi-Fi router, the best specification and latest model of router.		
		Digital image output	Sample chest X-ray DICOM images is subject to checking and evaluation by the technical working group to ensure the acceptability of the image it produces.		
<b>Image Processing Workstation</b>	<b>Computer (hardware &amp; software)</b>	Operating system	windows 10		
		Memory	Min 8GB		
		Processor	Min. of i5		
		Image storage	500GB or higher		
		Image manipulating software (brand name)	with all parameters included		
		Radiographer monitor size	minimum 19”		
		DICOM 3 compatible & and IHE compliant, with ability to network to PACS	Yes		
		Ports for USB, DVD/CD burning	Yes		
		HIS/RIS included and enabled	Yes		
		Supports worklist modality, storage, printing and query and retrieve.	Yes		
		All biodata fields can be accessible on the display	Yes		
<b>Others</b>	<b>Validation</b>	The machine is approved by authorized regulatory bodies and manufacturer is legally registered,	Vendor to submit any of the following certification documents:		

		and agent/vendor is available in the country (Pakistan)	<p>1. US-FDA Clearance, CE Certification, or WHO/SRA certification.</p> <p>2. If 1 are not available, Certification from the regulatory authority of the country where the X-ray machine will be installed.</p> <p>3. If 1 and 2 are not available, Certification from the regulatory authority of the country where the machine is manufactured and Declaration from company that the X-ray machine is allowed to be installed in Pakistan.</p>		
<b>Accessories</b>	<b>Accessories included</b>	Lead aprons, skirts, gloves, dosimeters	1 set of accessories per package		
	<b>After sales service by the vendor</b>	Availability of local technical support	Yes		
		Technicians are able to fix any related issues	Yes		
		Accessible in regular and emergency cases	Yes		
	<b>Spare part availability</b>	Local availability of spare parts in stock	Yes		
		Unavailable spare part can be provided within a week	Yes		
	<b>Assistance to get approval</b>	Guide in completing the requirements	Yes		



	<b>for license to operate X-ray from the Government of Pakistan</b>				
	<b>Users opinion</b>	The vendor has installed the machine to other users, and can provide contact information to collect users opinion	Yes; Indicate contact information of at least three previous customers		
	<b>Sample images</b>	DICOM CXR images	Provide at least 5 DICOM (not JPEG) CXR images recently taken from similar machine installed elsewhere for image quality checking		
	<b>Warranty</b>	Duration of warranty	3 years		
		Parts and service	Replacement of parts such as X-ray machine tube and the detector and service should be included in the standard 3-year warranty		
	<b>Installation</b>	Included in the package	Yes		
	<b>Users training</b>	Included in the package	Yes		
	<b>Delivery time</b>	Duration of time needed for delivering the machine	60 days upon receipt of order		

Name of Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_