



धनगढीमःई नगरपालिका
Dhangadhimai Municipality
नगर कार्यपालिकाको कार्यालय
Office of The Municipal Executive
स्वास्थ्य तथा सामाजिक विकास शाखा
Health and social Development Division
धनगढी, सिराहा, सुपौल प्रदेश, नेपाल
Dhangadhimai, Siraaha, Madhes Province, Nepal

प.सं. (Letter No.): 2079/80
च.नं. (Ref.No.): 9669

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मिति:- २०८०/०१/१५

विषय :- दर रेट सम्बन्धमा ।

श्री सम्बन्धित सबैलाई ।

प्रस्तुत विषयमा धनगढीमाई नगरपालिकाको आ.व. २०७९/८० को आठौं नगरसभाबाट निसर्गत अनुदान तर्फ स्वीकृत वार्षिक कार्यक्रम अनुसार नगर स्तरमा सन्चालित नयनपुर अस्पतालको लागि Biomedical प्राविधिकवाट तयार भएको स्वीकृत Specification अनुसार 500MA को X-ray Machine र CR System खरिद गर्नु पर्ने देखिएकोले सो को Specification यसै साथ संगलन छ । स्वीकृत Specification अनुसारको उक्त दुई वटा Machine हरूको प्रति पिस/सेटको मुल्य तहको कार्यालयवाट एक हप्ता भित्र उपलब्ध गराईदिनुहुन् अनुरोध छ ।

निर्दिष्ट:-

गोपाल प्रसाद यगाले
प्रमुख प्रशाकीय अधिकृत

तपशिल

“समूह धनगढीमाई नगरपालिका हाम्रो शान, पूर्ण सरसफाईयुक्त नगरपालिका हाम्रो अभिय”

Technical Specifications of X- Ray machine

S.N.	Purchaser's Specifications	Bidders Offer	Page No.	Remarks
	X Ray machine, 500mA			
	Manufacturer			
	Brand			
	Type/Model			
	Country of Origin			
1	Description of Functions			
1.1	A general purpose 500mA X Ray machine			
2	Operational Requirements			
2.1	It shall operate on three phase line frequency electrical supply.			
3	System Configurations			
3.1	500mA X Ray imaging system, 1 unit.			
3.2	X-Ray High Voltage Tank, 1 unit			
3.3	Dual Focus Rotating X Ray Tube 500 mA , 1 unit			
3.4	Multi pose X Ray Table, 1 unit			
3.5	Floor to Ceiling Stand, 1 unit			
3.5	Chest stand, 1 unit			
4	Technical Specifications			
4.1	X Ray Generator: 500mA, 125KVP, 40kW full wave solid state silicon rectified x-ray generator for radiography suitable for single tube operation.			
4.2	Radiography: 40 to 125 KVP.			
4.3	Solid state electronic timer with timing ranges from 0.01 to 5 sec.			
4.4	Should have collimator, manually operated with light beam diaphragm from Console			
4.5	mAS range: 1-500 mA			
4.5	X Ray Tube: 1 No. Dual focus rotating anode X-Ray tube having following focal spots: Small focus: 1.0mm Large Focus: 2.0mm Anode Heat Storage Capacity: 120KHU.			
4.6	Collimator: One manual collimator is provided.			
4.7	One pair of high voltage cables of suitable length			
4.8	Floor to Ceiling Stand (FC Stand): Fixed Stand Floor To ceiling			
4.9	Multi-position table: Table having facilities of multiple position			
4.10	Chest Stand: Should be supplied with Floor mounted chest stand with Bucky and grid			

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S. N.	Purchaser's Specifications	Bidders Offer	Page No.	Remarks
4.11	It should have digital control panel with alphanumeric LCD			
4.12	Should have digital display of KV, mA & mAs			
4.13	Should have collimator, manually operated with light beam diaphragm from Console.			
4.14	Should have memory to retain last selected factor			
4.15	Should have self diagnostic Program facility			
4.16	Should have dual action hand switch			
4.17	Should have memory to retain last factor			
4.18	Should have self diagnostic program			
5	Accessories, Spare Parts and Consumables			
5.1	Spare fuse set - 1 No. Halogen lamp - 1 No. Operation manual - 1 No.			
6	Operating Environment			
6.1	Power supply: 220 - 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metres in length.			
6.2	Suitable Voltage Stabiliser should be supplied with the machine.			
7	Standards & Safety Requirements			
7.1	Must submit ISO 9001: 2008, ISO13485: 2012 for Medical			
7.2	Must submit AERB approved certificate OR Must submit BIS approved certificate			
7.3	CE (93/42 EEC Directives) or USFDA approved product certificate.			
8	User Training			
8.1	The training shall include the use of all operational functions of the equipment, as well as routine checks and maintenance expected by user.			
9	Warranty			
9.1	Comprehensive warranty for 2 years to be provided			
10	Maintenance Service During Warranty Period			
10.1	During the warranty period supplier must ensure preventive maintenance and corrective/breakdown maintenance whenever required.			
11	Installation and Commissioning			
11.1	Supplier must accomplish proper installation & commissioning of equipment onsite.			
12	Documentation			
12.1	User (Operating) manual in English.			
12.2	Service (Technical / Maintenance) manual in English must be provided.			
12.4	List of important spare parts and accessories with their part number and costing.			
12.5	Certificate of calibration and inspection from factory.			

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S. N.	Purchaser's Specifications	Bidders Offer	Page No.	Remarks
Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted. Failure in doing so may lead to rejection of bid from technical committee.				

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TSF

Computed Radiography (CR) System

S.N.	Purchaser's Technical Specifications	Yes	No	Page No. in Catalogue	Bidder's offer
	Computed Radiography (CR) System				
	Manufacturer				
	Brand				
	Type / Model				
	Country of Origin				
1.	Description of Function				
1.1	Radiography system to replace conventional Film/Screen based X-Ray processing techniques with Photostimulable Phosphor Plate technology to obtain digital X-ray images.				
2.	Operational Requirements				
2.1	The system shall be able to record X-Ray images on Imaging Plates (IP)				
2.2	Convert these images from the IP into digital values and transfer these values to an image evaluation computer with predefined Image Processing Parameters.				
2.3	Operationally and functionally equivalent to and better than the present film based system.				
3.	System Configuration				
3.1	Image Reader system: 01				
3.2	CR Workstation: 01				
3.3	RIS Interface: 01				
3.4	Remote ID and Preview station: 01				
3.5	Archiving System: 01				
3.6	Dry view imaging printer(film based), and double tray type :01				
4	Technical Specifications				

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4.1	Image Reader				
4.2	IP processing rate minimum 40 films/hr or more for 14 x 17 inches cassette.				
4.3	Scanning mechanism to read, erase and process the images from the imaging plate. (IP)				
4.4	Panel for indicating online status of the CR Reader in case of machine malfunction				
4.5	Emergency Mode for accepting exposed cassettes without patient demographics for casualty trauma workflow requirements				
4.6	Verification of the connectivity status of configured image destination				
4.7	Spatial resolution of digital image 6-10 pixels/mm.				
4.8	CR System should have data acquisition of 16 bits or more				
4.9	X-Ray Generator compatibility with reputed manufacturers.				
4.10	CR system should have the capability of processing the cassettes both in standard and high speed mode.				
4.11	Image matrix at standard resolution (14 x 17) - 3000 x 4000 Row x Column				
4.12	CR Workstation:				
4.13	Capable of Archiving and printing selected images to a standard DICOM destination in DICOM 3.0 format				
4.14	Storing images in the local disk for predefined period.				
4.15	Sorting of patient image based on name, date, exam etc.				
4.16	Using predefined parameters or user defined and stored image parameters				
4.17	Correcting typographical in patient demographic module, in case RIS connection was down and manual data entry was done.				

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4.18	Capability of changing R/L, Flipping, Rotating, Zooming, Collimating, annotating the incoming						
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	image.						
4.19	Multi-image and slide formats						
4.20	Capability of storing In CD/DVD.						
4.21	Software for Advance Image processing, applications, display and quality monitoring.						
4.22	Connectivity and compatibility to communicate to RIS/HIS and DICOM Compatible devices such as MR/CT/DSA Work station,						
4.23	Must provide for HL-7 compatible interface						
4.24	Scanning gray scale resolution- 16 bits/pixel.						
4.25	Console:						
4.26	Software should have graphic selection to allow quick and easy picking of body parts and views						
4.27	Software should have minimum 4 web enablement license for viewing of images to enhance productivity						
4.28	Multifunctional console having all image optimization and post processing software like zooming, annotation, flipping, windowing and centering.						
4.29	Dry view imaging printer(film based) 1unit:						
4.30	Print images from CR workstation, in DICOM 3 format.						
4.31	Printer should provide image depth of 14 bits or more						
4.32	Mechanism to print images to 14x17 and 8x10 film sizes simultaneously.						
4.33	Docked in processor.						
4.35	Resolution> 500 DPI.						
4.36	Processing capacity should be more than 40 films/hour or more for 14x17 inch film size						
4.37	Shall be able to switch between Receiver Mode and Processor mode.						

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4.38	Printer should have dry Laser imager Technology					
	IP/Cassettes size:					

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4.39	CR system should be provided with the following cassettes and imaging plates.				
4.40	14 x 17 in: 1 Pcs.				
4.41	10 x 12 in: 1 Pcs.				
4.42	8 x 10 in : 1 Pcs.				
5.	Accessories, spares and consumables				
5.1	Accessories: 500 pieces of any sizes of films				
5.2	Computer and Printer				
5.3	At least Latest model Computer having Intel i3 processor and 4 GB RAM and 19"LCD Monitor- 1 set				
5.4	Network switch - 1 set				
5.5	UPS Back Up System- 1set				
5.6	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer.				
6.	Operating Environment				
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.				
6.2	Power supply: 220 - 240 VAC, 50Hz fitted with appropriate plug.				
7	Standards and Safety Requirements				
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND				
7.2	CE (93/42 EEC Directives) and USFDA approved product certificate				

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7.3	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.					
8.	User Training					

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8.1.	Must provide user training (including how to use and maintain the equipment).				
9.0	Warranty				
9.1	Comprehensive warranty for 2 years after acceptance.				
10.	Maintenance Service During Warranty Period				
10.1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required				
11.	Installation and Commissioning				
11.1	The bidder must arrange for the equipment to be installed by certified or qualified personnel; any prerequisites for installation to be communicated to the purchaser in advance, in detail.				
12	Documentation				
12.1	User (Operating) manual in English				
12.2	Service (Technical / Maintenance) manual in English.				
12.3	Certificate of calibration and inspection from factory.				

Bidder must completely fill the Technical Specification Form (TSF). Only Yes/no/all complies should not be written. Page number in the catalogue of all the required parameters must be clearly mentioned and highlighted. Failure in doing so may lead to rejection of bid from technical committee.

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