

Terms of Reference (ToR)

Supply, Delivery, Installation, Commissioning and Testing of DEXA Scan Machine

Project Title	Health System Recovery Project, Nuwakot
Type of service	Supply, Delivery, Installation, Commissioning and testing of DEXA Scan Machine
Location	District (Trishuli) Hospital, Nuwakot
Name of the company/firm	External company/firm/supplier
Deadline of ITB submission	18 April, 2021
Anticipated completion of project	30 May, 2021

1. General Background

Good Neighbors International (GNI) Nepal has been working in Nepal since 2002 with the objective of improving lives of the poor people especially children through education, child protection, and income generating activities, health, WASH, and disaster risk reduction. GNI Nepal has been operating its interventions in 19 districts.

2. Project Description and Rationale

Good Neighbors International with funding from the Korea International Cooperation Agency (KOICA) is implementing Health System Recovery Project (HSRP) in Nuwakot District since December 2015 with an objective of improving the health status and psychosocial well-being of community members through post-disaster recovery. HSRP covers 2 municipalities and 5 rural municipalities. The Health System Recovery Project aims:

- a. To improve Maternal and Child Health (MCH) status in target communities
- b. To improve services of Adolescent Sexual and Reproductive Health (ASRH)
- c. To improve students, psycho-social status
- d. To improve Health Facility with Functional Equipment

One of the main objectives of HSRP project is to make functional health facilities equipped with necessary medical equipment. KOICA has constructed 10 health posts and a district hospital in Nuwakot district. GNI Nepal is planning to supply all the necessary medical equipment to hospital constructed by KOICA.

3. Supply of Medical Equipment

Most of the health facilities in Nuwakot district were destroyed by the 2015 earthquake. HSRP has been working to re-vitalize services at health facilities and district hospital. Therefore, this Project is committed to supply medical equipment to Trishuli District Hospital, Nuwakot as per the government standard.

4. Scope of the work

In this phase, District (Trishuli) Hospital will be supported with Medical Equipment. The list of medical equipment is mentioned in **Annex I**.

5. Quantity and specification of supply items

The quantity and technical specification of the required Medical Equipment is mentioned in technical specification form **Annex II**.

6. Expected Deliverables

Followings deliverables are the expected from the supplier;

- Supply of Medical Equipment as per the specification.
- Transportation of commodities in good condition to District (Trishuli) hospital in Nuwakot.
- Proper installation and commissioning of Medical Equipment in hospital.
- Orientation on operating/handling procedure and safety measures to concerned staffs.
- Maintenance or replacement of the Medical Equipment, in case of problems after sales as per warranty.
- Provide technical training to one doctor and one biomedical engineer of Trishuli district hospital Nuwakot.

7. Duration

After the signing of the agreement, it is expected that the delivery, installation, commissioning, testing and orientation should be executed within 21 days from receiving the purchase order.

The project shall be completed by May 30, 2021.

8. Budget and Payment Procedure

The supplier/firm should submit a complete budget with detailed breakdown including applicable taxes at the time of submission of **ITB**. The bidding form is given in the **Annex-III**. The budget covers

the price of the commodity, transportation cost, cost of installation of equipment and orientation to concerned staffs and any other applicable costs.

The supplier/firm shall bear all the tariffs, duties and applicable taxes or charges levied at any stage during the execution of the work. Any loss and/or damage of supplied commodity during packaging, transportation, and installation will be the responsibility of supplier/firm, no compensation will be provided by GNI regarding this loss/damage.

Mode of Payment

The payment shall be made in instalment basis.

1. **Advance 25% along with PO**
2. **Final payment 75%** after completion and verification of the tasks

9. Acceptance of Proposal

All rights to accept or reject the proposal without giving any notice and reason shall be reserved with GNI Nepal. If deemed necessary, the firm/supplier shall be asked for modification and presentation of the proposal before approval.

10. Management of the supply

The selected company/firm will be responsible to supply the commodity and be accountable for the timely delivery of the expected quality and quantity of commodities.

11. Bid Security

- The bidder shall furnish, as part of its bid, a bid security amounting 5% should be made through bank Guarantee letter in the name Good Neighbors International with six month's validity.
- Unsuccessful bidders' bid security will be discharged as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity. The successful bidder's bid security will be discharged after signing the agreement.

The bid security may be forfeited:

- (a) if the Bidder withdraws its bid during the period of bid validity specified by the Bidder in the Bid Form; or
- (b) in the case of a successful Bidder, if the Bidder fails to sign the contract

12. Late Bids

Any Bid received by the Purchaser after the deadline for submission of Bids prescribed by the Purchaser, will be declared "Late" or "Rejected" and returned unopened to the Bidder.

13. Modification and Withdrawal of Bids

The Bidder is not allowed to modify or withdraw its Bid after the Bid's submission.

14. Responsibilities

a. Supplier/firm

The supplier/firm will be responsible to accomplish the task outlined by this ToR and ensure the delivery of commodities stated above within the agreed budget and timeline.

b. GNI Nepal

- GNI Nepal guided by its policies and practices will assist the supplier/firm to achieve the objective of this ToR.
- Make physical verification and approve each equipment/ furniture by a person assigned by GNI before and after dispatching of commodities.

15. Termination of the contract

GNI Nepal will terminate the contract if the supplier/firm commits a breach in the performance or observance of its obligation under this ToR. The supplier/firm shall be notified in writing a week prior to the termination of the agreement.

16. Confidentiality

During the performance of the assignment or any time after expiry or termination of the agreement, the supplier/firm shall not disclose to any person or otherwise make use of any confidential information which the company/firm has obtained or may obtain in the course of the work relating to GNI Nepal and other stakeholders.

17. Documents to be submitted

The bid shall contain following documents:

- A. Detailed financial proposal: The proposal should include the price of commodities (including tax), transportation cost, installation cost, and any other applicable costs. Prices of commodities can be quoted for different qualities/standard of the same item mentioning specifications of each quality.

A complete list of proposed commodities with their clear photographs (colored)/ catalogue, technical datasheet, Quality and standard certificates Like: USFDA and CE valid authorization letter from the manufacturer should be included with the bid.

- B. In addition, the following documents shall be submitted by the bidder.
- a. Copy of company/firm registration
 - b. Profile of firm with relevant experiences

- c. A copy of Tax clearance certificate
- d. VAT/ PAN registration
- e. Audit report
- f. Any other relevant documents

18. How submit the bid

The EOI should reach the address below via courier or hand delivery by **17:00 hrs., 18 April, 2021**. Please, enclose the bid in an envelope, do seal and mark it with **"ITB to Supply Medical Equipment"**

and send to:

Good Neighbors International Nepal

Ekantakuna-13, Lalitpur
Kathmandu, Nepal

Annex-I

List of Equipment District (Trishuli) Hospital, Nuwakot

S.N.	Name of Equipment/ Furniture	Unit	Required Quantity
1.	Dexa scan Machine	Pcs	1

Annex -II
Technical Specification Form

1. Dexa Scan

Technical Specifications of Dexa Scan

S.N.	Technical Specification	Bidder's Proposed Specifications	Page no. in technical datasheet	Deviation (If any)
	Manufacturer			
	Brand			
	Type / Model			
	Country of Origin			
1.0	Description of Function			
1.1	Bone density scanning, also called dual energy x-ray absorptiometry (DXA or DEXA) or bone densitometry, is an enhanced form of x-ray technology that is used to measure bone loss. DEXA is today's established standard for measuring bone mineral density (BMD).			
2.0	Operational Requirements			
2.1	It must be a fan beam X-ray bone densitometer, which uses two different energy levels produced by X-ray tube to estimate bone mineral content (BMC) and bone mineral density (BMD). It must use a low level of X-rays.			
3.0	System Configuration			
3.1	Dual Energy X-Ray Absorptiometry Densitometer with complete accessories.			
4.0	Technical Specification			
A	Scanner Hardware X-ray Source			
i	X-ray System Switched pulse or continuous pulse dual energy for dual energy scanning.			
ii	Fan beam technology for faster acquisition: Should have Narrow Angle Fan beam technology and Pencil Beam Technology for faster acquisition and Low dose.			
iii	High frequency air and oil cooled X-ray Generator			
iv	Internal reference system for calibration. It must have automated internal calibration system with ability to store and analyse data.			

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v	Please mention the technology that results in low dose.			
B	Detector System			
i	Multi Detector Array Scanning Method			
ii	Min no of detector array= 16 or more			
iii	Multi element High resolution digital detector array			
iv	Please specify how scattered radiation is managed			
C	Scan Table			
i	Table dimensions: Please specify			
ii	Scan window size to be 195 cm * 65 cm or more			
iii	Table patient weight limit = Min 150 kg expected			
iv	Patient positioning : cross hair laser light			
v	Motorized scan table with integrated movable C Arm			
D	Patient Dose			
i	Estimated Skin Entrance Dose for AP Spine and Femur < 50μGy preferred.			
E	Scanning time			
i	Please mention time taken in the following scans: (Lower time duration will be preferred) Total Body = AP Spine / Femur = Hip =			
F	Quality Assurance			
i	Built in software based QC:			
ii	Automatic PASS/FAIL Quality Control.			
iii	Scan Display Capability should be available.			
iv	Window / level control for Image Optimization.			
v	Express Exam Work flow Management.			
vi	One time Auto Analysis with Histogram			
vii	Capability to draw outline of vertebrae automatically should be available.			
viii	Auto Hip Positioning capability.			
ix	Reposition/ Rescan Feature.			
x	Automatic Scan Comparison for Serial Exams.			
xi	Least Significant Change Configuration.			
xii	Automatic calibration using internal reference system			

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xiii	Automatic quality control program with multiple system checks.			
xiv	No additional need for Anthropomorphic phantom.			
G	Software required for clinical application			
i	AP Lumbar Spine with Automatic Low Density Analysis and Scoliosis.			
ii	Decubitus Lateral Spine with Baseline Compensation.			
iii	Proximal Femur, Automatic Low Density Analysis and Hip Structure Analysis (HAS) Feature.			
iv	Dual Hip Feature			
v	Forearm examination feature.			
vi	Whole Body BMD.			
vii	Advanced Body Composition Analysis with Inner core.			
viii	Visceral Fat Assessment.			
ix	IVA Imaging Capability.			
x	Fracture Assessment Capability.			
xi	Paediatric Analysis for Spine , Femur and Forearm.			
xii	Paediatric whole body with body composition assessment.			
xiii	Comparison to previous scan			
xiv	Vertebral Assessment Dual Vertebral assessment.			
xv	Hand application			
xvi	Orthopaedic knee application.			
xvii	Reverse Lateral view option.			
xviii	Hip Axis length with reference population			
xvix	System should have integrated TBS capacity and /or 3D DEXA: Integrated TBS must be Clearly mentioned in the Datasheet.			
Xx	Capability to scan small region of interest.			
Xxi	FRAX 10 years Fracture Assessment Feature			
xxii	Dual Hip report capability.			
H	Reference data:			
i	Reference Data m > 18000			
ii	Default NHANES III standardized database			
iii	Age Sex and Ethnic matched reference data			
5	Accessories, spares and consumables			

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5.1	Accessories: Table pad and positioning accessories.			
5.2	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. Bidders must specify the quantity of every item included in their offer (including items not specified above).			
6	Operating Environment			
6.1	The system offered shall be designed 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. The power cable must be at least 3 mere in length.			
7	Standards and safety requirements			
7.1	Must submit ISO 13485:2003/AC:2007 for Medical Devices AND			
7.2	European CE (93/42 EEC Directives) and USFDA approved product certificate. Compromise will not be done in certificates.			
7.3	Electrical safety confirms to standards for electrical safety IEC60601-1 (General requirement for Electrical safety of Medical Equipment).			
8	User and maintenance Training			
8.1	Must provide user training to the doctor at the country of origin of the equipment .			
8.2	Must provide application and maintenance training at the country of origin of the equipment to the in house biomedical engineer.			
8.3	On the site training to the hospital staffs until they are familiar with the system.			
9	Warranty			
9.1	Comprehensive warranty for 2 years from the date of installation and acceptance.			
10	Maintenance Service During Warranty Period			
10.1	During the warranty period supplier must ensue corrective / breakdown maintenance whenever required.			
11	Installation and Commissioning			

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11.1	The bidder must arrange for the equipment to be installed and commissioned 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	List of important spare parts and accessories with their part number and costing.			
12.4	Certificate of calibration and inspection from factory.			

Annex - III

Bid Submission Form (Medical Equipment)

SN	Name of Equipment/ Furniture	Unit	Quantity	Brand Name	Unit Rate Including VAT	Total Amount in Figure NRs.	Specification form filled? (Yes/No)	Detail catalog/manual of product attached?	Standard and safety related document attached?	Authorization document attached?
1.	Dexa scan Machine	Pcs	1							