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Caisse Nationale de Sécurité Sociale- CNSS

REFERENCE HOSPITAL PROJECT: SAINT PEREGRIN

Tender Specifications

ACQUISITION, INSTALLATION AND MAINTENANCE OF MATERNITY AND NEONATOLOGY EQUIPMENT

TECHNICAL SPECIFICATIONS

CONSTRUCTION PROJECT OF THE SAINT PEREGRIN REFERENCE HOSPITAL

MATERNITY AND NEONATOLOGY EQUIPMENT

DC N°_____/

Date:……

This scope statement takes place during the creation of the new Saint Pérégrin hospital in Lomé, Togo. This hospital will bring healthcare solutions of great quality at an affordable price for the local population. The ambition of this hospital is to become a reference in Togo with occidental standards of quality thanks to the best training of the medical team and the accreditation of the staff and equipment.
The hospital, which constructions have started, is in Lomé in the Agoenyive district at the intersection of the "nationale 1" road and the main ring road. Therefore, the road access is excellent from the harbour.
The healthcare offer of this new hospital of reference will be deployed on the whole Lomé agglomeration (1,500,000 inhabitants). It is estimated that there will be 12 deliveries per day including 20% of caesarean sections.
The maternity will take care of:

- low to moderate risk pregnancies,
- new-borns in need of medical supervision but no resuscitation care.

In that regard, this specifications document's goal is to present to the different suppliers of maternity and neonatology equipment the needs of the hospital and its expectations. As the opening of the hospital is planned to be during the first trimester of 2020, every supplier who will receive this document will have to emit an offer in the six (6) weeks following the receipt of these specifications.

This document presents the technical specifications of the expected solutions. This document will be attached to the administrative specifications document.

1. The needs

1.1. The different lots

Hereafter are the different lots included in this tender:

- two (2) neonatal transport incubators for new-borns in need of intensive care and who will be transferred in emergency to another hospital, primary care and respiratory assistance will be handled in this incubator;
- three (3) infant open radiant warmers for primary care and vital sign measurements on the new-borns,
- two (2) infant phototherapy lamps for jaundice treatment and two (2) bilirubin meters,
- two (2) infant ventilators,
- two (2) electric breast pumps.

Every lot described hereafter represent an **inseparable** lot. Every supplier will be able to apply for all or a part of the lots. Furthermore, each supplier will be able to make more than one offer for each need which will be evaluated separately. The lots are going to be described more in detail below.

1.2. Lot n°1: neonatal transport incubators

As listed above, this lot includes two (2) neonatal transport incubators with the necessary equipment to ensure:

- the new-born's temperature at 37°C with an integrated control and alarm system,
- a reliable protection against external threats,
- a hygrometry regulation system,
- the passage of tubing (ventilators, intravenous, …),
- the safe transport of the new-borns toward another hospital in an ambulance.

In each offer, the following parameters will be described:

- temperature range (minimum and maximum),
- temperature control device,
- temperature control precision,
- temperature uniformity,
- internal noise level (dB),
- alarms frequency and their nature (sound, visual),
- parameters of the alarms,
- the different alarms: temperature, failures, …;
- total weight of the device,
- working voltage,
- battery autonomy,
- sizes,
- other available parameters (oxygen control for example),
- available options.

The offer should also include the following elements:

- a ventilator (air and oxygen),
- a multiparameter monitor,
- a suction pump for the infant's secretions.

If a supplier cannot include in his offer the elements above, his solution should be at least compatible with most of the available devices of this kind on the market.

1.3. Lot n°2: open infant radiant warmers

As listed above, this lot includes three (3) open infant radiant warmers to ensure:

- primary care on the new-born,
- the new-born's temperature at 37°C with an integrated control and alarm system,
- vital sign measures (weight, …),
- tubing or intravenous.

The offer will at least include the following elements: the table, the radiant warmer and IV poles.
In each offer, the following parameters will be described:

- temperature range (minimum and maximum),
- temperature control device,
- temperature control precision,
- temperature uniformity,
- internal noise level (dB),
- alarms frequency and their nature (sound, visual),
- alarms frequency and their nature (sound, visual),
- parameters of the alarms,
- the different alarms: temperature, failures, …;
- total weight of the device,
- working voltage,
- sizes,
- available options.

1.4. Lot n°3: infant phototherapy lamps and bilirubin meters

As listed above, this lot includes two (2) infant phototherapy lamps and two (2) bilirubin meters to diagnose and treat jaundice. The infant phototherapy lamps of the offer can be either open or closed systems but, in any case, it will include the new-born's table/bed.
In each offer, the following parameters will be described:

- treatment durations,
- temperature controls during treatments,
- irradiance,
- light uniformity,
- light source spectra,
- exposition time,
- blue light tubes lifespan,
- temperature or energy controls,
- voltage,
- noise level,
- size and weight,
- available options.

Each device shall also include means of protection for the new-born's eyes. As for the bilirubin meters, their operating mode, precision and their eventual need of disposable will be described.

1.5. Lot n°4: infant ventilators

As listed above, this lot includes two (2) infant ventilators for new-born respiratory assistance. The device will include an air-oxygen mixer. **The ventilator must be able to use an oxygen concentrator as an oxygen source.** As a variant, the solution could be a neonatal ventilator which includes an oxygen concentrator.
In each offer, the following parameters will be described:

- maximum and minimum air flow,
- pressure control,
- oxygen concentration control,
- peak inspiratory pressure (PIP) and positive end-expiratory pressure (PEEP) controls,
- alarms system,
- voltage,
- battery autonomy (if any).

1.6. Lot n°5: electric breast pumps

As listed above, this lot includes two (2) electric breast pumps to make sure the mother can feed her new-born. All technical characteristics of the offered device shall be described.

2. Acquisition, implementation and maintenance

The handling, delivery and installation of the devices are part of this call for tender. Every chosen supplier will have to deliver, install and set-up its devices on-site.

2.1. Delivery modalities

For every device, the on-site delivery will be included in the offer and in the incoterm used (Incoterms® 2010 version), therefore, the supplier shall take care of it. This delivery will have to be made during the first trimester of 2020, the exact date will be determined with the architect in charge of this project. The supplier will give every information about the shipment process, the delivery time and the customs clearance modalities in Lomé, Togo. The reception modalities will also have to be described. It is important to remind that the Purchaser (CNSS of Togo) is exonerated of taxes and customs clearance thanks to its status.

2.1. Implementation

Every supplier is committed to give with each offer an implementation project of the equipment and will take care of the installation upon delivery of the devices. Every offer will include all the necessary devices for an optimal use of the solution, including the installation accessories.
It will be the supplier's missions to:

- receipt on-site the delivery, unload the equipment, check and install them;
- restore any goods deteriorated during the installation process,
- ensure the various informatic and electric interfaces between the newly installed devices and those already installed,
- coordinate the whole operation and manage the potential subcontractor working on behalf of the supplier.

The Purchaser's duty will be to:

- prepare the appropriate electrical alimentations,
- ensure that the site is ready to install the devices according to the supplier's information.

Every supplier will make an appointment with the hospital's biomedical engineer before the implementation date. During the implementation, the supplier will give a list of trials or quality controls which will have to be made and he will train the future users of the device(s). Each supplier will make a delivery, implementation and training planning.

2.1. Formation

The supplier will include in its offer the method, place and cost of the formation of two engineers or technicians, employed by the Purchaser, so they can be able to realise maintenance and repairs of first level. A formation on-site will be preferred. The intervention of an engineer or technician from the Purchaser's team does not exonerate the supplier from its duties.
The supplier shall also include an appropriate training of the devices to the future users in order to ensure their proper use.
A training on the appropriate cleaning and disinfection procedures will also be given to the hospital's staff.

2.1. Warranties and maintenance

Important point of evaluation of the different offers, hereafter is a non-exhaustive list of information that will have to be given in that regard:

- the warranty period,
- the existence of a hotline for the technical team and its availabilities,
- the amount of annual preventive maintenance,
- the amount of quality controls planned,
- the presentation of the potential subcontractors or technical partners that could intervene on behalf of the supplier,
- the location of the technical(s) team(s) and the **warranted** intervention time on-site,

- the details on where the spare parts will come from and the **warranted** delivery time (including shipment, delivery to Togo, customs clearance and delivery on-site),
- the warranted time to put back to work a device,
- the possibility to have a stock of usual spare parts on-site or some spare devices,
- the annual availability time **warranted** for each device,
- the potential warranty extension after a curative intervention.

For each device included in an offer, the supplier will include a warranty which will last at least one year, starting at the first use of the device. During this warranty period, the devices will be under a **total** warranty from the supplier and he will take care of everything if an intervention is needed (spare parts, workforce, travel, …). The preventive maintenance will also be included in the warranty.
A lending modality will have to be made in order to ensure the service continuity of the hospital in case of failure of one device. Eventually, spare devices can be stocked within the hospital for that purpose only.
The preventive maintenance frequency will also be specified for each device as well as the bacteriological controls. Every supplier will be responsible of the maintenance, whether he takes care of it himself or he delegates it to a subcontractor. After any intervention, the device will be able to accomplish the same initial functions in the same initial safety conditions.

2.1. Penalties if the commitments are not respected

If any of the commitments taken by the supplier is not respected (delivery time, intervention time, time to bring back to work, annual availability, …) then penalties shall be applied. These penalties will consider the loss of activity related to the impossibility to use the equipment and the impossibility to take care of patients in a critical situation. In that regard, every supplier will mention its usual penalty policy. These policies are going to be discussed independently for each device.

2.1. Presentation of local partners or distributors

If any of the missions described before were to be realised by one of the supplier's partner or distributor, he will be identified and presented in the offer. The supplier will prove that his partners/distributors have the necessary skills to complete their tasks and he is also responsible of the quality of their interventions. If it turns out that one of his partners/distributors were not qualified to complete their tasks, then the supplier is committed to complete those tasks and he will take care of any resulting extra costs.

3. Expected characteristics of the devices

3.1. Accreditations: CE, FDA, other

In order to ensure the quality of the devices and to ease the future accreditation strategy of the hospital, priority will be given to the devices which have recognized accreditations such as CE marking or the FDA approval. The suppliers will precise, for each device and each disposable in the offer, every marking, norms, agreements and certifications it has, and he will provide these documents in his answer.

3.2. Available interfaces and communication processes

3.2.1. User interface

In order to ensure an optimal use of the equipment, the following criteria must be considered:
- ergonomic interface,
- user manual in French or in English.

3.2.2. Electronic interfaces

It is agreed that all electronic interface and various ports should be listed:
- Ethernet (norm and output detailed), Wi-fi, Bluetooth, RS232, USB, etc.;
- electrical alimentation from solar panels and batteries through an inverter.

4. Evaluation criteria

Every offer submitted will be evaluated with the following criteria:
- the quality of the commitments taken for the maintenance and warranty,
- the global cost of the solution (devices, maintenance, disposables, …),
- the technical and functional characteristics of the solution,
- the user friendliness of the solutions,

- the available certifications,
- the supplier's presence in Western Africa and in Togo,
- the respect of the planning.

Every supplier who will emit an offer will receive an answer, whether it is a positive or negative one. The suppliers whose offer have been selected will be invited to present their solutions in front of the team in charge of implementing the hospital.

5. Expected answer

Every offer presented by a supplier shall contain:

- information about the supplier and the constructor (if different),
- the extend of the offer,
- **the total cost of the solution over 8 years including the equipment, the transport, the installation, the maintenance and the disposables;**
- a complete description of the associated software,
- the technical documentation of all devices included in the offer,
- the environmental limits (hygrometry, temperature, air treatment, …),
- the maintenance contract and the warranty,
- a list of spare parts which could be stocked on-site and their amount,
- references of similar project realised by the supplier in Africa and Western Africa with similar devices and possibility to contact those clients,
- general sell conditions,
- delivery and installation time of the solution,
- official document of CE mark, FDA accreditations and any other accreditations available;
- user manuals,
- cleaning and disinfection procedures,
- any other technical and commercial document the supplier wants to share.

By default, all these documents shall be given in French. If these documents are not available in that language or cannot be translated, they can be given in English. Any document in another language will not be considered.