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Commission

THE DIGITAL MALAWI PROGRAM PHASE I: DIGITAL FOUNDATIONS PROJECT

CREDIT NUMBER: 60500MW

MINUTES OF PRE-BID MEETING FOR THE DESIGN, INSTALLATION AND COMMISSIONING OF A DATA CENTRE IN MALAWI

DATE OF THE MEETING: THURSDAY, 24TH JUNE 2021

VENUE: BICC IN LILONGWE AND ALSO THROUGH
THROUGH ZOOM PLATFORM

TIME: 2:00PM

PRESENT:

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Minute DC1/06/2021: Opening Remarks

The Chairperson welcomed the members to the Pre-Bid meeting. The meeting commenced with the visit of the site for the proposed Data Centre in the morning hours from 9:00am. Bidders were reminded that the process stopped due to some challenges with the suitable building to house the Data Centre. The building has now been identified and the process will be finalized and have the Data Centre for the Government of Malawi.

It was communicated that the purpose of the meeting was to discuss the bid document which was issued on 14th October 2020. Bidders were advised to fully participate and having seen the building, ask questions so that all the clarifications are provided and work on the bid. The agenda was shared and invited members to introduce themselves.

Minute DC2/06/2021: Self Introductions

Introductions were made as above.

Minute DC3/06/2021: Bidding Procedures

Bidders were informed that only selected sections of the bidding document shall be discussed as the entire bidding document cannot be discussed within the available time. It is the duty of the bidders to go through the bidding document before preparing their bid. The need to adhere to bidding procedures was emphasized. The bid document provided guidance on what to do and information to provide. Bidders were requested to raise any issue within the recommended time as stipulated in the bidding document. Bidders were then taken through the bidding document and the sections were summarized as follows:

1. Section I: Instructions to Bidders
The section provides detailed instructions to bidders on the preparation of their bids. Bidders were advised to understand the instructions and follow them.

2. **Section II: Bid Data Sheet**
The section clarifies Section I. Bidders were advised to read Section II together with Section I
3. **Section III: Evaluation and Qualification Criteria**
The Section provides information on how the bids will be evaluated. Bidders were advised to understand the Section and provide necessary information that meet the evaluation criteria.
4. **Section IV: Bidding Forms**
Bidders were advised to complete the forms provided when preparing their bids. The forms were designed to simplify the bid preparation process and ensure that the bidders are providing the required information in the same format. It simplifies even the purchase's duty during evaluation.
5. **Section V: Eligible Countries**
The Section provides eligible source countries. ITB 4.8 and ITB 5.1 provides more details
6. **Fraud and Corruption**
Bidders were advised to take note of the section as any appearance of fraud and corruption will result in the disqualification of the bidder.
7. **Part II: Section VII – Employers Requirements**
Bidders were advised that the requirements of the proposed assignment were detailed in this Section. Bidders should prepare their bid in responding to the technical requirements presented in Part II.
 - a) **Part III: Conditions of the Contract and Contract Forms**
Bidders were advised that this part provided General Conditions and Special Conditions of the Contract. The Special Conditions of the Contract should be read together with the General Conditions of the Contract. The Special Conditions will be finalized after identifying the successful bidder. Contract forms are also provided for the bidders' information.

Bidders were advised to focus on the dates indicated in the bidding document. It was also recommended that associations or joint ventures could be vital as they assist in enhancing the capacity of the bidder. Where necessary, bidders were advised to consider taking such an approach to enhance their capacities.

Bid submission should be done on or before the 17th of August 2021 at or before 2:00pm local time. Late bids will not be accepted. Bidders intending to submit their bids through emails as provided for in the bidding document were advised to submit on time. Failure to receive their bids before the closing date and time shall also lead to rejection of the bid.

Minute DC4/06/2021: Technical Issues in the Bidding Document.

Bidders were advised to consider simplified management system. The solution to be provided should be able to undertake automatic monitoring as well as easy upgrading. The request for bid indicated that the Primary Data Centre should have 7 nodes, this should also be the same with the backup. During configuration, 2 nodes can be used for monitoring on the Primary Data Centre and 2 nodes on the backup site. The solution should therefore provide for easy expansion by just adding the nodes up to for example 24 nodes or 64 nodes.

Bidders were also informed that the expectation of the Government is the agility. The system to be offered should be flexible to changes, bidders were then reminded that there are a lot of Hyper-Converged Infrastructure (HCI) and it was the intention of the purchaser not to be vendor specific. Bidders are therefore expected to try as much as possible to comply with the requirements. The document includes cloud friendly infrastructure, bidders were advised to consider hybrid cloud and should be environmentally friendly.

Bidders were also requested to focus on data protection considering that most of the HCI vendors have all kinds of data protection. Some of them have security information event management system which prevents people. Bidders were advised to consider low cost system because a solution with high cost may not be considered.

Minute DC5/06/2021: Environmental and Social Management Plans.

The Government of Malawi and the World Bank have legal and policy instruments which are used when considering the environmental and social impacts of project activities. The Digital Malawi Project has an obligation to comply with these policy instruments during the implementation of its sub-components. The world Bank and EIA guidelines categorized the project as having moderate reversible impacts. It is therefore a requirement to undertake environmental assessments to identify the impacts that the Project may have during implementation and come up with mitigation measures. Following the assessments, safeguards instruments namely the Environmental and Social Management Plans (ESMPs) are developed to provide the guidance on the measures for mitigation of impacts, the required resources to implement the measures and the responsibilities for implementation of the same. The Data Centre - Equipment Design, Supply and Installation ESMP was developed and approved by the World Bank and Malawi Environmental Protection Authority.

The bidding document has an appendix containing an ESMP and various sections that have some environmental and social requirements as well as the documentation that bidders require to provide when submitting their bids. Bidders were advised to complete the contractors code of conduct, sign it and include it in their bids. The code of conduct stipulates behaviours that are not allowed on the project sites.

Bidders were also encouraged to provide a plan that will stipulate how they will respond to the requirements in the Environmental and Social Management Plans. It is a requirement that the successful bidder should provide a work plan for the implementation of the ESMP and for the development of environmental and social policies including HIV and AIDS, Gender management, Safety and Health plans and policies as well as non-discrimination and equal opportunity policies before execution of the assignment.

The ESMP provides indicative costs to guide the bidders in coming up with costs that are required for the implement of the ESMP and all the mitigation measures. Bidders will be required to provide a qualified and experienced environmental/ social safeguards personnel who will undertake implementation of the ESMPs.

Minute DC6/06/2021: Architectural Set-Up

The proposed building to house the Data Centre has three storeys. The Data Centre will use two floors. The ground floor will have the call centre, conference office space, meeting rooms, utility room which will have power suppression system and batteries. The Data Centre shall be located in the first floor. The floor shall be partitioned used aluminum glazed materials.

The partitions shall include the two NOC room, Data Centre equipment room, PKI - Root CA Room, Gov CA Room, Network and WAS Room, Test Room and a few office spaces. The type of material to be used are antistatic full proof and fire proof. Bidders were informed that the building is already enclosed in a perimeter fence, however, the Data Centre shall have its own perimeter fence to enhance security considering that there are about four buildings within the existing perimeter fence.

Minute DC7/06/2021: Questions and Answers

Question 1

We just want to find out about back up power. Will all the back up power stored outside or have additional backup power on the first and second floors?

Response 1

We will have a generator outside the building and in the first floor, we will have secondary power like invertors and rectifiers (UPS with batteries) in the utility room ground floor

Question 2

If there would be any battery stands in the first floor and second floor, was there any study on the capacity of the floors?

Response 2

Bidders were advised that the batteries will be on the ground floor and would be designed to accommodate a good rate of the batteries.

Question 3

What is the number of racks and the sort of IT Load?

Response 3

Bidders are advised to refer to the request for bid (RFB) for rack specifications

Question 4

Bidders wanted to know if the birated boards assemblies, doors and others will be part of the contractor?

Response 4

It was clarified that these will be part of the Civil Works contractor and bidders were assured that the contractors will use the required boards.

Question 5

It is suggested that the Data Centre will be on the second floor. Will the floor have the capacity of the load for the equipment?

Response 5

The building has been designed to accommodate Tier 3 Data Centre. It should be able to carry a number of racks.

Question 6

Not only that, the building contractor shall be required to consider load requirements at the second floor. When can we receive the drawings of the building?

Response 6

The layout drawings are ready, and the link can be accessed in the revised bidding document (ITB 7.4)

Question 7

Bidders believed that a UPS with 72 hours backup requirement is huge and will have a large battery backup. A 45 minutes to 1-hour backup could be ideal.

Response 7

This was noted. It is however the Government's requirement to have a 72-hour power autonomy based on the power load of the equipment supplied . Bidders were therefore advised to adhere to the current requirement. Any change shall be communicated to bidders.

Question 8

Between DC and DR, there is a distance of 300Kms and dark fiber need to be provided. Is the Dark Fiber part of the scope?

Response 8

Bidders were informed that the Dark Fiber between the DC and DR will not be part of the scope and should not be included in the quote.

Question 9

Who will ensure that the Civil Works contractor is using the right boards?

Response 9

Bidders were informed that the Government will commence the recruitment process for the Civil Works Contractor. The successful bidder who will be working on the building will therefore be working together to ensure the successful implementation of the Project.

Question 10

When we visited the site, there was an issue of a generator. We want to understand in terms of the scope, what are the things included in the Data Centre Project?

It was also indicated that aluminium partitions are going to be used, looking at aluminium and efficiency in terms of cooling, these may not work unless insulation is included to improve on the efficiency of the Data Centre. Will the actual works be conducted by the bidders of the Data Centre or it is the Contractor?

It would be ideal for the designers of the Data Centre to provide the specifications to the Civil Works Contractor to make sure that they conform to the standards of the Data Centre to avoid the repetition of work.

There was also an issue to do with some of the drawings which showed the energy room which was just one single room. According to the requirements of Tier 3 Data Centre, there should be separation of power and the like, we only saw one room and the drawings did not show separation of rooms. It was suggested that the design of the building should come from Data Centre designers.

The access floor should also meet specific requirements as far as the spacing in relation to the type of equipment.

72-hour power autonomy should also be considered. Battery power is not sufficient to run the Data Centre in the absence of Power. In a Data Centre, if power is lost for more than 30 minutes and it is highly populated and getting to an hour, it is going to overheat, and the equipment is going to shut down. In the absence of cooling in the Data Centre, the 72-hour power battery autonomy will become useless. Bidders requested for consideration. Bidders were of the opinion that the generator will have the same type of rating with the equipment in the Data Centre in terms of power capacity. The 72-hour power autonomy can be reduced

Bidders also wanted to know if the generator will be part of their scope and who will provide the specifications for the generator in relation to power loading of the Data Centre. Once the room requirements are provided, it means that the design of the Data Centre has to take into consideration the number of power plants, cooling plants and how much power will they draw. These have to be factored in in relation with the other aspects of the Data Centre. Bidders requested that these should be clearly specified

Regarding the Hyper-Converged Infrastructure (HCI), it was mentioned that the RFB has been vendor neutral but going through the document, it is found that there is VmWare and VSphere mentioned as part of the requirements. These are vendor specific requirements. Should we ignore as we will be designing the HCI or take them into consideration?

The solution should be able to scale out, is the back up appliance be part of HCI or separate as an appliance?

Responses 10

Data centre equipment contractor/designers will be required to work with data civil works contractor to provide further inputs to the layout of ancillary equipment in accordance with the Tier 3 standard.

Generator will be provided by Civil Works contractor but the rating in terms of load requirements should be specified by the data centre equipment contractor/designer.

All functional, architectural and performance requirements as set in the bid documents must be satisfied by the bidders. The backup site should be part of the HCI as specified in the bidding document

Question 11

Bidders wanted to know if each of the MDAs is going to have its own switch or routers. Is there an estimate of the number of switches and routers?

Response 11

Not necessary as we are looking at SDN with physical and/or virtual fabric with distributed switching, distributed routing, and distributed security policy capabilities that can easily be extended to multiple physical locations and public clouds.

Question 12

Bidders wanted to know the mode of communication to reach to all the bidders in responding to the questions

Response 12

Bidders were advised to check the Website as indicated in the Invitation to Bid. The minutes of the meeting shall also be e-mailed to bidders who provide their e-mail addresses.

Question 13

The concern is on the utility room. The spaces and requirements that are supposed to support from power backup to suppression systems. It is found to be very small looking at the number of batteries to support the whole infrastructure. There is need to include the cylinders for the power suppression system based on the system to be employed and the cooling system. The designer of the structure should include or advise where to put or what ought to be there on the ground floor in terms of equipment for specific use.

It is noted in the drawings that there could be a Call Centre, bidders wanted to know if the business line of the Call Centre is going to be part of the assignment. The technology of the Call Centre to be clearly specified

Response 13

Bidders were advised that Call Centre/Service desk is not part of this assignment. Data Centre equipment contractor will provide input the Civil works contractor on the layout requirement for the ancillary equipment's

Question 14

Bidders requested that the business engineering process of the infrastructure should be clearly defined. As a Government Data Centre, there are a lot of stakeholders that will be using the facility such as Malawi Revenue Authority and this will determine on the type of hardware to host their line of business.

Response 14

Bidder should focus on the requirements as set in the bid document.

Minute DC8/06/2021: Closing Remarks.

The Chairperson thanked the bidders for their active participation and advised them to seek clarification where necessary. Bidders were advised to compile all the outstanding questions and send them fourteen (14) days before date of bis submission which the 17th August 2021 for clarifications. All the questions which were deferred will be responded to and be part of the minutes.

Bidders were advised to visit the PPPC Website as most of the communications shall be posted on the Website including the minutes of pre-bid meeting.



Victor Funsani
Chairperson



Isaac Chimutu
Secretary