

All communications should be addressed  
To The Permanent Secretary  
Telephone: 021-6-221279 / 221228  
Telegraphic address: PERMSEC, CHIPATA  
Fax: 021-6-221720



In reply please quote

No:.....

**REPUBLIC OF ZAMBIA**  
**OFFICE OF THE PRESIDENT**

**PROVINCIAL ADMINISTRATION  
EASTERN PROVINCE  
P.O. Box 510019  
CHIPATA  
ZAMBIA**

**TO ALL POTENTIAL BIDDERS**

**RE: REQUEST FOR CLARIFICATIONS: TENDER NO. MNDP/ZIFLP/GO/002B/2021 -TENDER FOR THE SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF TWENTY-ONE (21) CONTAINERIZED SOLAR POWERED COLD STORAGE FACILITIES FOR FARMER LED IRRIGATION SCHEMES UNDER THE ZAMBIA INTEGRATED FOREST LANDSCAPE PROJECT (ZIFLP).**

Reference is made to the above-mentioned tender which is due to close on Friday 8<sup>th</sup> December, 2021 at 10:00 hours local time.

Please be informed that Provincial Administration has received requests for clarifications with regard to the above mentioned tender and would like to respond as follows:

1. **Question:** We are a foreign Company and can supply the required cold storage. Please confirm that International Bidder can participate in this tender or not.  
**Response:** The international company can participate as long as they meet the eligibility requirements in terms of documentation or its equivalent.
2. **Question:** If International companies can participate in this tender:
  - i) Whether they should quote the price on CIP Lusaka, Zambia? Answer: The CIP will be Chipata not Lusaka
  - ii) Can international bidders quote in USD / EURO? Answer: The Company can quote in any currency which shall be converted at the date of evaluation using the prevailing Bank of Zambia rate.
  - iii) What will be the payment terms - 10 % advance + 80 % by Letter of credit on shipment of goods + 10% after getting completion certificate from purchaser?

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**Response:** The payment terms are as follows: 10% advance if the bidder requests supported with a bank guarantee, 80% on actual delivery, supply, installation and Commissioning at the site and 10% after issuance of completion certificate.

3. **Question:** It is mentioned on page 45 that 40mm PUR panels to be used for reception/administrative areas and 100mm for cold storage. We require a Layout showing these areas, complete with quantity and size of doors, to calculate the quantities

**Response**

The task requested in this tender is the supply, delivery, installation and commissioning of containerized solar powered cold storage facilities. The assumption is that the prospective bidders are either manufacturers or is authorized dealers. Therefore, the products are standardized systems built of a 20 foot container and they should be supplied and installed as per manufacturer's design but meeting the minimum required specifications.

4. **Question:** Refrigeration equipment has been described as a "proprietary wet cooling machine" (page 43). We need to know exactly what this is, as per our assumption, this seems to be an adiabatic cooling system. This type of system will require continuous supply of clean water to work. Is there a provision for this continuous supply in all the sites.

**Response**

Each of the proposed FLIS sites shall be equipped with a water source. If the installation of containerized solar powered cold storage systems will need to be connected to a water source, a provision shall be made accordingly.

5. **Question:** We need to know whether there is any product load to be considered during calculation of equipment capacity. If yes, will it require the type of product incoming load per day, incoming product temperature, final desired product temperature, and pull-down time in hrs,

**Response:**

The product of not exceeding 10000Kg/cycle shall be expected to fill the cold storage facility. Basically, vegetables and horticultural products fresh from the fields will be stored for quality control and maintaining freshness. Generally the in-coming product temperature shall be the atmospheric temperature in the area, but for quality preservation and meeting market demand, products shall be



stored at recommended temperature (depending on the product). Therefore, the envisaged cold storage shall provide for switching temperature (0°C to 10°C) for various horticultural and vegetable products storability.

6. **Question 4:** Location of condensing unit need to be specified, some of the floor area of container may be taken up by condensing unit.

**RESPONSE:**

The condensing unit can be placed according to the manufacturer's specifications, provided the supplied storage facility/s meet all the minimum specified requirements.

7. **Question:** You have asked for RA19010 color for insulated panels (page 45), M19010 sheet can be ordered only in bulk quantities, and hence might not be commercially viable, Is there a way to that even ML9002 can be considered as it is more viable.

**Response**

The assumption is that the prospective bidder is either a manufacturer or is an authorized dealer. Therefore, any alternative and improved systems shall be acceptable provided the facility is able to meet the desired purpose of the solar powered cold storage and meets the minimum specifications.

8. **Question:** Apart from cooling unit, what is the value of electrical energy needed in the entire facility? Solar24 (6.5 Kwp with power storages capacity of 16,100 Wh) - Can the values of solar panels and power storage be redesigned as per the cooling + facility load or the tender requirement is stringent on this particular value.

If the compressor has capability to directly run on the DC power, the power storage capacity required in the form of lead acid batteries is very low. The power storage will then be designed to only power the auxiliary cooling equipment and the remaining devices in the entire facility.

**Response**

The improved designs or brands are acceptable as long as the facility shall be able to meet the desired purpose and quality is not compromised, and does not lead to extra costs.

9. **Question 7:** To decide the cooling load for the system design, following values are needed

1. maximum amount of fresh produce incoming in a day

2. Incoming temperature of fresh produce
3. Storage temperature inside the cold storage.

What is the duration of cycle in 10,000 kg/cycle throughput? If 10,000 kg of produce is to be stored inside the cold storage at once, what is the internal storage volume required inside the cold storage.

**Response**

Refer to Question 5 response

10. **Question 8:** Is it compulsory to have 2 air speed control? Maximum speed is the most advantageous in the cold storage unit as faster cooling results in better shelf life of the produce. Lower speed of fan will reduce the cooling speed and will negate the advantages of the cold storage.

**Response**

The proposed speed is a minimum requested standard, higher cooling speeds are welcome, provided there shall not be any compromise in equipment performance and desired outcome

11. **Question:** Introducing a filter with the air fan will reduce the air flow and thus reduce the cooling rates inside the cold storage. Since the cooling required should be as fast as possible for the better shelf life of the produce, can a separate unit be used for air filtration, humidification and ethylene removal whereas the cooling unit will only be used to transfer the cooling from the ice chilled water to the cold storage?

**Response**

If the manufacturer decides to use a separate unit for filtration purpose that shall be acceptable as long as it does not result in increased cost.

12. **Question:** What is the recharge levels which are to be attained in 4.5 hours of compressor runtime? Is all the functionality required in one box or can it be provided through separate box of hardware?

**Response**

It is not a strict requirement that the functionality is provided in one box, a separate box of hardware can be used provided the purpose and quality of the envisaged solar powered cold storage facilities is not compromised, and does not lead to extra costs.

13. **Question:** Can a swing type door be used instead of sliding? Since the maximum height of container is limited to 2.59m, can door height be limited to 1.8m?



**Response**

The swing door can be used

**14. Question:** Can supplier choose a different brand/type of solar panels, inverter, control and switchboard as per the design specifications?

**Response**

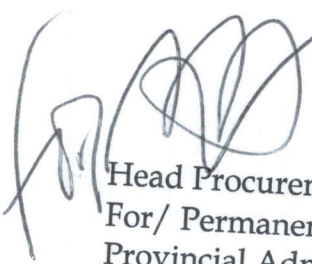
The improved designs or brands are acceptable as long as the facility shall be able to meet the desired purpose and minimum specifications, and does not lead to extra costs.

**15. Question:** Operation temperature of cold storage for horticulture/floriculture is in the range of 2°C to 15°C. Freezing issue inside the cold storage at a temperature value of 0°C will result in degradation of the crop quality and may result in lower shelf life.

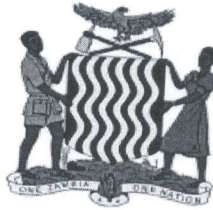
**Response**

As the cold storage facilities are being actuated, careful consideration of crop optimum survival temperature is adhered to. This will be done through a capacity building training that the supplier will undertake with the Technical Officer in the beneficiary district/s.

Please find attached the pre-bidding meeting minutes.



Head Procurement and Supplies Unit  
For/ Permanent Secretary  
Provincial Administration, Eastern Province



**REPUBLIC OF ZAMBIA**  
**PROVINCIAL ADMINISTRATION**  
**ZAMBIA INTEGRATED FOREST LANDSCAPE PROJECT**

**1.0 OPENING REMARKS**

The pre-bid meeting was conducted between Provincial Administration and the prospective bidders. The meeting commenced at 10:05 hours and was chaired by Mr. Mike Bhoonko Senior Procurement Officer, Provincial Administration. He welcomed the all persons present and thanked the bidder's representatives for coming to attend the meeting. The chairperson highlighted the importance of the assignment that it's the supply, delivery and installation of Solar powered containers for the Farmers which will be used to preserve the quality of the produce before the buyer gets them to transport to the final market and this is being supported by the ZIFLP.

**2.0 IN-ATTENDANCE**

2.1 In attendance were the bidder's and Client's representative as follows:

- |      |                      |  |
|------|----------------------|--|
| i.   | Mr. Mike Bhoonko     | -Senior Procurement Officer, EPPA      |
| ii.  | Mr. Bernard Chungu   | - Provincial Irrigation Engineer, MoA  |
| iii. | Mr. Joseph Cheelo    | - Acting Principal Agriculture Officer |
| iv.  | Mr. Aaron C. Ng'onga | -Procurement Officer-ZIFLP             |
- See attached list for bidders representative

**3. Deliberations**

The chairperson invited the Provincial Irrigation Engineer to explain to the Bidders the technical aspects of the required containers and later the prospective bidders would ask questions and sought clarifications if at all there were any.

**Concern**

The bidders indicated that there was a Mismatch between the cooling system and the proposed 10 ton output required. Further, the bidders expressed a concern on the Thermal cooling being a disconnect on power proposed and the output and System size and storage size. The bidders wanted to know where the extra power will come from.

### **Response**

The members were informed that the bidders were free to provide a solution if it was cost efficient as the assumption of the client is that what is being required is a minimum and the bidders who are the best suited in the industry must provide a solution.

Improved and New technology can be adopted if it is cost effective and an improvement to what is being requested for. This shall be acceptable, as long as it does not compromise the purpose of the envisaged facility and does not compromise on quality. Further it should not lead to increased costs.

### **Concern**

Bidders wanted to know about the water filter working on 1lt per second, and if water was to be provided in all the sites.

### **Response**

The bidders were informed that the market must fill the needs of the client. Of course there shall be water provision at each of the 21 FLIS sites.

It is for this reason why the project comes with a warranty for 1 year to ensure that the colling system works and meets the needs of the beneficiary community.

### **Concern**

The bidders wanted to know whether the delivery period will be adjusted: there was an indication that on average the works would take 4 months and 90 days for importation.

### **Response**

The members were informed that the submission was noted and if there will be a need for an extension, this will be communicated to them through an addendum. In the mean time the bidders to work within the proposed duration of works in the bidding document.

### **Concern**

The bidders wanted to know whether there will be an extension to the date of submission.

### **Response**

The members were informed that the concern was noted however there was still 3 weeks to tender submission deadline which was still sufficient for them to make their offers. In addition members were informed that they should not divert too much from the provided specifications in the bidding document.

Importance of the duration of works to be completed within the project life was highlighted that the project was behind as it is re-tendered and there is need to complete the works within the ZIFLP project life.



**Concern**

The bidders wanted to know what will happen in winter season since the use of solar battery is being proposed.

**Response**

The bidders were informed the improvement on the design was welcome as long as it was the most cost-effective option. Further, the bidders were informed that in winter the assumption was that there would be less need of the solar system. The battery also being proposed should have the capacity to keep a bit of energy to continue running when there is less supply of light

**Concern**

The bidders wanted to know what was reduced in the scope of works from the cancelled tender and how far should the bidders go in terms of providing an alternative option.

**Response**

The bidders were informed that the scope that was reduced was the size from 40ft to 20 ft container and that led to reduction in terms of through <sup>pur</sup> from 20tons to 10tons.

Bidders were further encouraged not to divert much from the minimum requirements of the client as long as the new technology improvement proposed are cost effective.

**6.0 Conclusion.**

The representatives were encouraged to review the document before buying and can access a soft copy document on the ZIFLP website and can be shared through email on request.

The members were informed further, that the Clarifications and minutes will be shared with them once finalized.

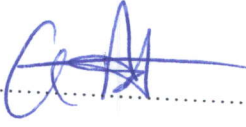
**7.0 A.O.B**

Members wanted to know whether the tender document can be bought immediately after the meeting.

The members were informed that those who were ready can deposit the funds and collect the document.

There being no other business the Chairperson thanked everyone in attendance and declared the meeting closed at 10:51 hours.

SIGN:..........DATE: 22.11.21  
Mike Bhoonko  
**CHAIRPERSON**

SIGN:..........DATE: 22-11-21  
Aaron C Ng'onga  
**SECRETARY**



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ATTENDANCE SHEET FOR THE PRE-BID MEETING FOR THE TENDER FOR THE SUPPLY AND INSTALLATION OF CONTAINERIZED SOLAR POWERED COLD STORAGE FACILITIES FOR FARMER LED IRRIGATION SCHEMES UNDER THE ZAMBIA INTEGRATED FOREST LANDSCAPE PROJECT (ZIFLP). TENDER NO. MNDP/ZIFLP/GO/002B/2021 HELD AT PROVINCIAL ADMINISTRATION ON 18<sup>TH</sup> NOVEMBER, 2021 AT 10:00HRS

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ATTENDANCE SHEET FOR THE PRE-BID MEETING FOR THE TENDER FOR THE SUPPLY AND INSTALLATION OF CONTAINERIZED SOLAR POWERED COLD STORAGE FACILITIES FOR FARMER LED IRRIGATION SCHEMES UNDER THE ZAMBIA INTEGRATED FOREST LANDSCAPE PROJECT (ZIFLP). TENDER NO. MNDP/ZIFLP/GO/002B/2021 HELD AT PROVINCIAL ADMINISTRATION ON 18<sup>TH</sup> NOVEMBER, 2021 AT 10:00HRS

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