

**Tender No. 91144759**

**Response to the query (in blue font)**

1. FAQ 1

a) Whether you need readymade container with base frame etc.(liftable type)container or whether the panels etc will be brought to site and erect it on a civil platform.

**Ready-made containers are recommended and solar panels to be on the top of structure.**

b) Whether size of 40ft x 8ft x 8ft hight can be considered. (External Dimension).

**Possible**

2. FAQ 2 – Pluss (1 Question & 4 Suggestions)

Certainly not focusing on one technology / service provider

**Test certification from MNRE is mandatory.**

3. FAQ 3

**Not eligible if there is no earlier experience with solar powered cold storage.**

4. FAQ 4

<b>S.No.</b>	<b>Request for change</b>	<b>Recommendation from project</b>
1	Minimum external dimensions of 40ft (L) x 8ft (W) x 9ft 6inch (H) External body of Mild steel with minimum 0.8mm thickness Pre-painted galvanized iron (PPGI)	<b>Possible</b>
2	1000 kg/day daily from 20 to 4 °C 3000 kg/day occasionally from 20 to 4 °C, when thermal storage is fully charged.	<b>Possible</b>
3	4 – 20 °C	<b>Possible</b>
4	Fixed PVC curtains before the door to reduce heat infiltration on door opening	<b>Possible</b>
5	As per motor drive and should have P.F not less than 0.85*P.F – Power Factor	<b>Possible</b>
6	PLC/ Microcontroller based control systems for overall control of various parameters	<b>Possible</b>
7	Copper conductors for main power lines for various electrical circuits & equipment lines, lighting, control wiring etc.	<b>Possible</b>
8	Average annual turnover for the last three financial years {last- but- four financial can be included in case of invitation to tender held within six months of end of last financial year} must be at least EUR 250,000.	<b>Possible</b>
9	The agency / company must possess a valid PAN, TIN, and GST Number with minimum client list of 05 Small/ medium / large size companies. NGO/ Trust/ Society/ Government/ non-Gov Government)	<b>Possible</b>

10	The company must have a minimum experience of 03 years in supply of Solar Powered Cold Storage. At least 1 years of experience working in Agriculture Sector. Also, 2 different projects implemented with a volume of 10 MT and 5MT capacity of Solar Powered Cold Storage.	Possible
11	Due to the complexity of the project and site conditions which are behold our control, we request that the payment to be considered based on the supply, delivery and commissioning of each unit.	Can be discussed on case to case basis and agreed upon accordingly.
12	50% Advance without BG, 40% on Delivery, 10% after successful commissioning and handover	Any Payment against bank guarantee only.

#### 5. FAQ 5

S.No.	Observations	Recommendations
1	<b>The solar powered cold storage unit must have a valid test certification in the name of the bidder from MNRE/NABL/BIS accredited test laboratory. Adequate protection must be provided as per the requirement of the site by taking lightening and other climatic conditions</b> : What should the certification be? For safety/energy efficiency/power rating?Are there specific codes to certify for?	<b>The certification should be for energy efficiency by MNRE.</b>
2	<b>Type Pre-painted Modular Container External dimensions in feet 40 ft ISO Marine Container</b> In addition to a containerized solution we request you to kindly also accept a pre-fab modular structure solution also, which will be more cost effective and would be easy to dismantle & relocate to other locations without the need of heavy lifting equipment etc.	<b>Agreeable</b>
3	<b>Storage capacity Minimum 10 MT (As per MIDH standards of 120 CFT / 1 MT: A typical 10 MT storage won't need 40 ft container or 1870 CU FT volume. Can we design the solution suited to the capacity and provide the size? This would need lesser land also</b>	<b>Suitable design is acceptable.</b>
4	<b>Thermal storage medium Storage medium should be economical and energy efficient. For example: Phase change materials, Polyalkylene glycol etc. Water / other</b> We request you to also accept appropriate electrical battery + grid back-up as an option . As these are already being considered for Auxiliary loads in your specs. This would reduce the spare inventory as well . Kindly do not make having thermal backup as a mandatory requirement. We shall also give a cost comparison with Lithium ion Battery based backup as an additional option as stipulated	<b>Acceptable</b>

5	<b>System design parameters viz self leakage, charging duration , storage capacity indication etc</b> These parameters would be designed as required for the produce being stored , which is potatoes in this case, and as such we would request you to also accept the technical justification of the system design basis from respective bidders.	Acceptable
6	<b>Product stacking details On racks (to be provided by supplier)</b> :Are these metal shelf racks or plastic crate units would also be acceptable?	Plastic crate is acceptable
7	<b>Average annual turnover for the last three financial years {last- but- four financial can be included in case of invitation to tender held within six months of end of last financial year} must be at least EUR 300,000</b> : We request you to consider accepting the last 3 year average, as most of the companies in this space are Startups that have come into existence recently in the last 3 years .Many Government of India tenders also recognise this give special concessions to startups including waiving Pre Q turnover criteria, EMD /Performance Bank Guarantee waivers etc. A letter of support from the startup incubator , funding agency may be please be accepted as a confidence building mechanism	Acceptable
8	<b>The company must have a minimum experience of 05 years in supply of Solar Powered Cold Storage. At least 3 years of experience working in the Agriculture Sector. Also, 2 different projects implemented with a volume of 10 MT capacity of Solar Powered Cold Storage.</b> : Same as above , credentials and experience of the Solar + Thermal / Electrical Battery Equipment Supplier may be be jointly treated for this purpose both in technical & monetary value terms.	Acceptable
9	<b>Minimum no. of 8 employees as on 31.12 of the previous year</b> : The combined strength of the bidder may kindly be considered	Acceptable
10	<b>GIZ Prefer direct bids from the company and not from individuals/franchise. In case of bid from dealer/franchise the same shall be validated by company in its letterhead</b> : A collaborative bid with Solar PV or Energy Services company may also be accepted as long as the turnover criteria is met. You may also insist Solar PV panels only from reliable Tier 1 Suppliers with local service capability and presence in Maharashtra/Karnataka	Accepted. But tender norms to be followed.
11	<b>The agency / company must possess a valid PAN, TIN, and GST Number with a minimum client list of 05 medium / large size companies.</b> The combined capabilities & reference lists of the bidding entity (Cold Storage unit +Solar	The bidding agency need to have the basic document in their name.

	PV system+ Thermal/Electrical Battery may please be considered for this purpose )	
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## 6. FAQ

- Container required is new one or old one.

### **New one**

- Required PUF panel lamination.

### **Yes**

- It is mentioned as pre cooler in tender but pulldown mentioned is 18 hrs, kindly check whether it is long time storage or not.

### **It's a long time storage.**

- Product incoming rate per day is mentioned 3000 kg and 2000 kg , kindly provide the exact quantity.

### **3000Kg**

- If per day product incoming rate is 3000 kg, it requires 10 kW/hr ,for 6 hrs running 60kW is needed but in tender it is mentioned 45.6kW (7.6 kW x 6hrs) , kindly check .

### **Please follow the 7.6kW x 6hrs of operation**

- Kindly check whether the Evaporator is normal fin and tube type or eutectic plate type system.

### **Please use the appropriate evaporator system to achieve desired temperature range mentioned in the ToR**

- Where will the solar panels be fixed (it is difficult to fix the solar panels on the top if the required capacity is more).

### **We proposed to have rooftop-based fix solar panel (with seasonal variation) however, any innovative and appropriate ideas from bidder(s) would be good and welcome.**

- Purpose of Air purger. Because we are considering one to one system only.

### **The thought process was to use an air purger system used to flush electrical control equipment with clean air before it is turned on. Nevertheless, if bidder(s) consider one to one system then please ignore this item.**

- VFD is mentioned in the tender specification, kindly confirm which are the items requiring the VFD.

### **VFDs to control compressors, evaporator and condenser fans, and pumps in cold storage applications to provides maximum flexibility, full control, and maximum energy efficiency.**

- Room temperature is mentioned 3 to 20 Deg C Condensing unit for -5°C evaporating temperature is mentioned in the tender if we consider eutectic plate type system we will get (+)5 Deg C only , if 3 Deg C room temp is required then SST will be (-) 8 Deg C approx, kindly check and confirm.

**Please use the appropriate evaporator system to achieve desired temperature range mentioned in the ToR.**