

Minutes of meeting on Conversion of 30 MT cold Storage into Solar Operated Cold Storage chaired by Registrar, Co-operative Societies, Jharkhand, Ranchi held on 19-07-2023.

In Attendance

Shri Mrityunjay Kumar Baranwal, (IAS), Registrar, Co-operative Societies, Jharkhand

Shri Rakesh Kumar Singh, Deputy Registrar, Co-operative Societies, Jharkhand

Shri Kumod Kumar, Assistant Registrar, Co-operative Societies, Jharkhand

Representatives of the Prospective Bidders

- A meeting cum presentation post site visit to the existing 30 MT Cold Storage by the prospective bidders to seek their suggestion on the REOI for Conversion of 30 MT Cold Storage into Solar Operated Cold Storage was held under the chairmanship of Registrar, Co-operative Societies, Jharkhand. [Request for Expression of Interest (REOI) Ref. No.: 1516, dated 27-06-2023 (Tender Id 2023_ORCS_72886_1)]
- At the onset feedback from the participants was taken on their site visit to the existing 30 MT Cold Storage.
- Presentation by the participants about their proposed models for implementation of the project was given. Based on their feedback and request it was decided to make following amendments in the REOI:

S. N.	Existing Provision	Proposed Revision / Amendment
1	3. Criteria for evaluation 3.2. Technical Qualification Criteria i) Bidders who meet the pre-qualifications / eligibility requirements would be considered as qualified to move to the next stage of Technical Presentation and Financial evaluations.	3. Criteria for evaluation 3.2. Technical Qualification Criteria i) Bidders who meet the pre-qualifications / eligibility requirements would be considered as qualified to move to the next stage of Financial evaluation.
2	3. Criteria for evaluation 3.2. Technical Qualification Criteria v) Technical Presentation: Bidder(s) qualifying the pre-qualification / minimum eligibility criteria will be called for technical presentation at Office of the Registrar, Cooperative Societies, 3rd Floor, Pashupalan and Sahkarita Bhawan, Hesag, Hatia, Ranchi, Jharkhand-834003.	Removed

S. N.	Existing Provision	Proposed Revision / Amendment																												
3	<p>3. Criteria for evaluation 3.2. Technical Qualification Criteria vi) On the basis of technical bid submitted and technical presentation Bidders fulfilling the minimum eligibility criteria will be technically evaluated on following criteria.</p> <table border="1" data-bbox="252 344 858 878"> <thead> <tr> <th>Sl. N.</th> <th>Technical Evaluation Criteria</th> <th>Marking scale</th> <th>Max. Marks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Annual average Turnover of the bidders for last three financial years (FY 2019-20, FY 2020-21, FY 2021-22) should have a minimum of ₹ 1 Crores from supply, installation, commissioning and maintenance of Solar based cold storages/cold room/ cold chain system</td> <td>5 Marks for minimum Rs. 1 crore. 1 Marks for each additional Rs. 1 crore.</td> <td>10</td> </tr> <tr> <td>2</td> <td>Experience of establishing solar based cold storage / cold room specifically in agriculture /horticulture sector with Government / Public Sector / Private Sector enterprises and project details in form 8 for each project undertaken with project value of minimum Rs. 1 crores must be submitted</td> <td>5 Marks for minimum 3 projects undertaken. 2 Marks for each additional Project.</td> <td>20</td> </tr> <tr> <td>3</td> <td>Experience with government Experience of establishing solar based cold storage / cold room specifically in agriculture /horticulture sector with Government Departments / Universities / ICAR Research institutes / KVKs. Copy of work order with completion / performance certificate and project details in form 8 for each project undertaken with project value of minimum Rs. 1 crores must be submitted</td> <td>5 Marks for minimum 2 project undertaken. 2 Marks for each additional Project.</td> <td>20</td> </tr> <tr> <td rowspan="3">4</td> <td>Technical Presentation</td> <td>10</td> <td rowspan="3">50</td> </tr> <tr> <td>Technical capability for undertaking the project (key projects undertaken of similar nature, technology, technical & quality certifications)</td> <td>15</td> </tr> <tr> <td>Project implementation mechanism, technical specification for operational excellence, the use of technology, working schedules, monitoring mechanism, understanding of the regulations involved, key requisites for the execution of the project.</td> <td>25</td> </tr> <tr> <td colspan="2" style="text-align: center;">Total</td> <td colspan="2" style="text-align: center;">100</td> </tr> </tbody> </table> <p>Bidder's secured minimum 60% marks in the technical presentation will be called for submission of Financial bid.</p>	Sl. N.	Technical Evaluation Criteria	Marking scale	Max. Marks	1	Annual average Turnover of the bidders for last three financial years (FY 2019-20, FY 2020-21, FY 2021-22) should have a minimum of ₹ 1 Crores from supply, installation, commissioning and maintenance of Solar based cold storages/cold room/ cold chain system	5 Marks for minimum Rs. 1 crore. 1 Marks for each additional Rs. 1 crore.	10	2	Experience of establishing solar based cold storage / cold room specifically in agriculture /horticulture sector with Government / Public Sector / Private Sector enterprises and project details in form 8 for each project undertaken with project value of minimum Rs. 1 crores must be submitted	5 Marks for minimum 3 projects undertaken. 2 Marks for each additional Project.	20	3	Experience with government Experience of establishing solar based cold storage / cold room specifically in agriculture /horticulture sector with Government Departments / Universities / ICAR Research institutes / KVKs. Copy of work order with completion / performance certificate and project details in form 8 for each project undertaken with project value of minimum Rs. 1 crores must be submitted	5 Marks for minimum 2 project undertaken. 2 Marks for each additional Project.	20	4	Technical Presentation	10	50	Technical capability for undertaking the project (key projects undertaken of similar nature, technology, technical & quality certifications)	15	Project implementation mechanism, technical specification for operational excellence, the use of technology, working schedules, monitoring mechanism, understanding of the regulations involved, key requisites for the execution of the project.	25	Total		100		<p>Removed</p>
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4	<p>Addition of New clause (Addendum)</p>	<p>4. Award of Contractor/Supplier 4.7. Execution of the project on Pilot basis Based on the financial quote each of the top three bidders (L1, L2, and L3) will be allotted one cold storage to execute the project on pilot basis at L1 rate which shall be completed within 60 days of award.</p> <p>After successful execution of the pilot exercise rest of the cold storages will be allotted to the bidders for execution on L1 rate in the following ratio, L1 Bidder : 50 % L2 Bidder : 30 % L3 Bidder : 20 %</p> <p>If L2 Bidder and L3 Bidder are not agreed to execute the project, all the cold storage will be allotted to L1 Bidder.</p> <p>If the execution of the pilot project found to be unsatisfactory the REOI inviting authority can take decision for any appropriate action which may include cancellation of the EOI, revision of terms of the EOI before award of rest of the cold storages to bidders etc.</p>																												

S. N.	Existing Provision	Proposed Revision / Amendment
5	8. Scope of Work 8.1. i) System: Solar Cold Storage with Thermal Energy Storage Backup System which runs on SPV with Thermal Storage Backup for chilling of commodities up to zero degree Celsius .	8. Scope of Work 8.1. i) System: The existing 30 MT Cold Storage shall be partitioned in to two chambers. One chamber will be converted into 10 MT Solar Cold Storage with Thermal Energy Storage Backup System which runs on SPV with Thermal Storage Backup for chilling of commodities from 4°C to 10° C. The other chamber with 20 MT Cold Storage Capacity shall run on electricity.
6	8. Scope of Work 8.1. i) System: The system would comprise mainly of the following components and equipment: Cold Room, SPV System, Solar Controller, Refrigeration System, Thermal Energy Storage (TES) System, Batteries for Auxiliary Load. Combination of all these components shall be unique. Any change in combination will be treated as different model of Solar Cold Storage System.	8. Scope of Work 8.1. i) System: The system would comprise mainly of the following components and equipment: Cold Room, SPV System, Solar Controller, Refrigeration System, Thermal Energy Storage (TES) System, Batteries for Auxiliary Load. Remote Monitoring through IOT shall be enabled for both Solar Cold Storage as well as Electric Cold Storage, which should be GPRS based, viewable on Desktop and Smart Phones / Tabs. Combination of all these components shall be unique. Any change in combination will be treated as different model of Solar Cold Storage System.
7	8. Scope of Work 8.1. i) System: (a) Cold Room: The cold room would be a PUF (100 mm thick) insulated room that maintains desired temperature and humidity for storage of commodities.	8. Scope of Work 8.1. i) System: (a) Cold Room: The 10 MT Solar Cold Storage Room would be a PUF (150 mm thick) insulated room that maintains desired temperature and humidity for storage of commodities.
8	8. Scope of Work 8.1.(i) System: (d) Refrigeration System Refrigeration system would consist of condensing unit and evaporating unit working on vapor compression cycle. The condensing unit generates cooling energy which can be used for charging the thermal energy storage system and to provide cooling to the cold storage depending upon design of Solar Cold Storage system.	8. Scope of Work 8.1.(i) System: (d) Refrigeration System Refrigeration system would consist of condensing unit and evaporating unit working on vapor compression cycle. The condensing unit generates cooling energy which can be used for charging the thermal energy storage system and to provide cooling to the cold storage depending upon design of Solar Cold Storage system. Refrigerant used should be Zero ODP.
9	8. Scope of Work 8.1. i) System: (e) Thermal Energy Storage (TES) System In Thermal Energy Storage (TES) system the cold energy is stored in phase change material such as water or water salt eutectic mixture and transferred to the cold storage unit depending on the usage needs. During non-solar hours, the cooling needs of cold storage unit are met through the stored cooling in the Thermal Energy Storage (TES) system.	8. Scope of Work 8.1. i) System: (e) Thermal Energy Storage (TES) System In Thermal Energy Storage (TES) system the cold energy is stored in phase change material such as water or water salt eutectic mixture and transferred to the cold storage unit depending on the usage needs. During non-solar hours the cooling needs of cold storage unit should be met for 24-30 hours through the stored cooling in the Thermal Energy Storage (TES) system. The capacity of the Solar Power Back should be 7 KWP for 10 MT Cold Storage Chamber.

(Akhtar Ali)
Assitant Engineer

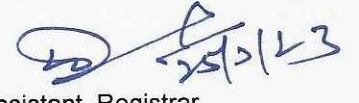
(Premjeet Kumar)
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(Rakesh Kumar Singh)
Deputy Registrar
Co-operative Societies, Jharkhand

(Mrityunjay Kumar Baranwal)
Registrar
Co-operative Societies, Jharkhand

Memo No. 1749 / Ranchi, Dated 25.07.2023
5/नो बजट (उप0)-30 MT COLD ROOM - 24 / 2023-24



Assistant Registrar
Co-operative Societies
Jharkhand, Ranchi