



**कृषि अभियांत्रिकी संभाग**  
**Division of Agricultural Engineering**  
**भा. कृ. अनु. प. भारतीय कृषि अनुसंधान संस्थान**  
**ICAR-INDIAN AGRICULTURAL RESEARCH INSTITUTE**  
पूसा नई दिल्ली 110012 PUSA, NEW DELHI-110012



मिसिल संख्या **FileNo.253/TSP/2022-23/AE**

दिनांक **Dated:16-04-2022**

**निविदा-सूचना/Tender Notice**

निदेशक भा. कृ. अनु. प.-भारतीय कृषि अनुसंधान संस्थान नई दिल्ली द्वारा निम्नलिखित वैज्ञानिक उपकरण / वस्तु की आपूर्ति एवं कार्य हेतु प्रतिष्ठित निर्माताओं/ अधिकृत डीलरों / आपूर्तिकर्ताओं से **दो बोली** प्रणाली/ (तकनीकी एवं वित्त बोली) के अन्तर्गत आनलाईन कोटेशन Supply and Installation of Pusa Farm Sun Fridge in Bhitarli Gaon Near Kimadi, Dehradun, Uttarakhand(As per Pusa design) के लिये आमंत्रित की जाती है। Online bids are invited from reputed Manufacture/Dealer/Supplier in **Two Bid** system (Technical bid & Financial bid) for Supply and Installation of Pusa Farm Sun Fridge in Bhitarli Gaon Near Kimadi, Dehradun, Uttarakhand(As per Pusa design) of following Scientific Equipment/Items on behalf of Director ICAR-Indian Agricultural Research Institute, New Delhi. Details of Supply and Installation of Pusa Farm Sun Fridge in Bhitarli Gaon Near Kimadi, Dehradun, Uttarakhand are given in the **compliance report**.

**Schedule of tender**

Name of Organisationसंस्थान का नाम	Indian Agricultural Research Institute, New Delhi-12 भा. कृ. अनु. प.-भारतीय कृषि अनुसंधान संस्थान नई दिल्ली-12
Tender Typeनिविदा प्रकार (Open/Limited/EOI/Auction/Single/Global)	Open
Tender Categoryनिविदा श्रेणी (Services/Goods/works)	Goods / Works
Type/Form of Contract कार्य विवरण (Work/Supply/ Auction/ Service/ Buy/ Empanelment/ Sell)	Buy / Works
Product Categoryवस्तु/ कार्य का प्रकार (Civil Works/Electrical Works/Fleet Management/ Computer Systems)	Civil Works/Electrical Works/Mechanical Works/Electronics
Source of Fund (Institute/Project)	TSP(2022-23)
Is Multi Currency Allowed	<b>No</b>
Date of Issue/Publishing प्रकाशन तिथि	<b>16/04/2022 /(18:00 Hrs)</b>
Document Download/Sale Start Date डाउनलोड खुलने की तिथि	<b>16/04/2022 /(18:00 Hrs)</b>
Pre-Bid Meeting/Conferenceबोली-पूर्व बैठक/सम्मेलन	<b>30/04/2022 at 11: 00 AM(Committee Room, Division of Agricultural Engineering, IARI, Pusa Campus, New Delhi-12)</b>
Document Download/Sale End Date डाउनलोड बंद की तिथि	<b>06/05/2022 /(15:00 Hrs)</b>
Last Date and Time for Uploading of Bids अपलोड के लिए अन्तिम तिथि	<b>06/05/2022 /(15:00 Hrs)</b>
Date and Time of Opening of Technical Bids निविदा खुलने की तिथि	<b>07/05/2022 /(15:00 Hrs)</b>
EMD(Rs.)for itemई एम डीकी राशि	<b>Rs. 20,000/-(Rupees. Twenty Thousand Only)</b> EMD should be in the form of Demand Draft/Pay Order/Fixed Deposit Receipt/Bank Guaranty from the Commercial Bank in favors of the Director, IARI on any Nationalized Bank, without which the tender will not be entertained. The EMD shall be refunded to the unsuccessful tenderer after finalization of the tender. In case of successful bidder, it can be adjusted towards security deposit as per rule.

Bid Validity days (180/120/90/60/30) बोली की वैधता सीमा	180 Days (From last date of opening of tender)
Address for Communication पता	Division of Agricultural Engineering ICAR-IARI New Delhi Pusa Campus, New Delhi-110012, Delhi, India
Contact No. संपर्क सूत्र	011-25842294
Email Address ईमेल पता	dhingra.sangeeta@gmail.com

विस्तृत नियम व शर्तों को भा. कृ.अनु.सं. की वेबसाईट [www.iari.res.in](http://www.iari.res.in) पर देखे एवं आनलाईन के लिए [www.eprocure.gov.in](http://www.eprocure.gov.in) देखा जा सकता है। Please visit [www.iari.res.in](http://www.iari.res.in) for Details Rules and Regulation and Log on [www.eprcure.gov.in](http://www.eprcure.gov.in) for online.

**बोली लगाने के निर्देश और नियम एवं निविदा की शर्तें Instruction to the bidder and terms & conditions of tender:**

1. बोलीदाता कृपया ध्यान दें कि वाणिज्य और उद्योग मंत्रालय, उद्योग और आंतरिक व्यापार को बढ़ावा देने के विभाग, सरकार के आदेश के अनुसार वरीयता "मेक इन इंडिया" को दी जाएगी। उत्पाद की तकनीकी उपयुक्तता के अधीन। Bidders may please note that Preference will be given to "Make in India" as per order of Ministry of Commerce and Industry, Department of promotion of Industry and Internal Trade, Govt. of India subject to technical suitability of the product.
2. उद्धृत करें किमाड़ी के पास भितरली गांव देहरादून, उत्तराखंड में मुफ्त डिलीवरी और स्थापना के लिए होंगी। ये जगह पहाड़ी के ऊपर है एवं वहाँ तक जाने के लिए किमाड़ी से कच्चा रास्ता है। हालांकि, विदेशी मुद्रा में उद्धृत उपकरण को एफओबी पर उद्धृत किया जाना चाहिए। The rates quoted shall be free of cost delivery, construction, installation at end of a path on a hill top in Bhitarli Gaon Near Kimadi, Dehradun, Uttarakhand (photos of site attached). However, equipment quoted in foreign currency must be quoted on FOB.
3. हमारे संस्थान को सीमा शुल्क से छूट प्राप्त है। इसलिए, यदि मांग की जाती है, तो फर्म को सीमा शुल्क छूट प्रमाणपत्र (सीडीईसी) प्रदान किया जाएगा। Our Institute is exempted from Custom Duty. Hence Custom Duty Exemption Certificate (CDEC) will be provided to the firm, if demanded.
4. उपरोक्त दिए गए दर में यदि किसी भी प्रकार का अतिरिक्त कर / टैक्स/ड्यूटी लगाया जाना है तो उसका संकेत स्पष्ट रूप से दिया जाना चाहिए। If taxes duties or any other charges over and above the rates quoted leviable, actual percentage of such taxes/duties/other charges should be clearly indicated.
5. इस संस्थान द्वारा निविदाकर्ता को किसी भी सुरक्षा जमा राशि पर ब्याज नहीं दिया जाएगा। No interest on security deposit shall be paid by the Institute to tenderer.
6. कोटेशन प्रक्रिया पूरी होने के पश्चात सफलतम बोलीदाता के मामले में सुरक्षा जमा राशि के रूप में, जो कि आर्डर के रशि की 3% होगी और यह डिमांड माँग ड्राफ्ट / भुक्तान आदेश / मियादी जामा रसीद / बैंक गारंटी, निदेशक, भा. कृ. अ. स. नई दिल्ली 110012 के नाम किसी भी राष्ट्रीय बैंक में देय हो, जिसकी वैधता सभी कार्य को पूरा करने के दिनों 60, उपकरण की एक वर्ष की गारंटी के साथ उपकरण / सामान / जिसकी कीमत रु. 1.00 लाख या इससे अधिक की गारंटी होगी। हालांकि जो उपकरण रु. 1.00 लाख या एक लाख से कम है उस परिस्थिति में किसी भी प्रकार का निष्पादन जमा राशि नहीं दी जाएगी। In case of the successful bidder after completion of the quotation process, in the form of security deposit amount which will be 3% of the order amount D.D/Pay Order/Fixed Deposit Receipt/Bank Guarantee from commercial bank drawn in favour of Director, IARI, payable at New Delhi and shall remain valid for 60 days beyond the date of completion of all contractual obligation of supplier including warranty obligation for the equipment/goods costing Rs. 1.00 lakhs (Rs. One Lakh) or more. Here would however, be no performance security deposit for equipment/goods costing less than Rs. 1.00 lakh (One lakh).
7. फर्म द्वारा एक वर्ष की वारंटी प्रदान की जाएगी। यदि सामान/ उपकरण के विवरण में वारंटी की अवधि में किसी भी प्रकार परिवर्तन है तो उस वारंटी को अंतिम माना जयेगा। One year warranty has to be invariable provided by the firm. In case, there is any variation in the warranty period given in the specification of the item/equipment, the warranty period shall be the final as given in the specification.

8. कार्य के पूरा होने के बाद फर्म / पूर्तिकता को तीन पूर्व रसीद बिल प्राप्त होने के बाद भुगतान e-payment के माध्यम से किया जाएगा।Payment will be made by mode of e-payment to the supplier/firm after satisfactory completion of work and receipt of pre-receipt bill triplicate.
9. निदेशक भारतीय कृषि अनुसंधान संस्थाननई दिल्ली110012 के पास बिना कारण बताये सभी कोटेशनो को पूर्ण या आंशिक रूप से स्वीकार या अस्वीकार करने के अधिकार रहेगा।The Director IARI, New Delhi reserves the right to accept or reject any or all the quotations either in full or in parts without assigning any reason.
10. उपरोक्त शर्तों का पालन न करने वाली क्यूटेपनों को अस्वीकार कर दिए जा सकते हैं।Quotations not complying with the above conditions are liable to be rejected.
11. PAN/GST Nos.के स्कैन कापी को कोटेशन के साथ में संलग्न किया जाए।Scanned copy of PAN/GST Nos may be attached with the bid.
12. किसी कारण अनुबंध में कोई विवाद उत्पन्न होने पर भारतीय कानून और न्यायालयनई दिल्ली की अधिकारिता के अधीन होगा। सचिवभारतीय कृषि अनुसंधान परिषद द्वारा एकमात्र मध्यस्थ नियुक्त किया गया हैजिसका निर्णय दोनों पार्टियों (Supplier and Purchaser) पर अंतिम माना जाएगा।In case, any dispute arising out of this contract shall be subject to the jurisdiction of Indian laws & Court at New Delhi. Sole arbitrator is appointed by the Secretary, ICAR, New Delhi. His decision will be final and binding on both parties (Supplier and Purchaser).
13. सफलबोलीदाताकोइसकार्यालयद्वारादिएगएआपूर्तिआदेशमेंदीर्घनिर्धारितअवधिकेभीतरउनकेसाथआपूर्तिआदेशस्थानमेंउल्लिखितइंडेंटजॉब / कार्यकोनिष्पादितकरनाहोगा, प्रतिसप्ताह 2% औरपरिसमाप्तक्षतिशुल्ककेरूपमेंअधिकतम 10% कटौतीकेसाथ।निर्धारितअवधिमेंकार्यपूर्णनहींहोनेपरबिलसेकीजायेगी।The successful bidder has to execute the indented Job/Work as mentioned in the supply order place with them within the stipulated period as given in the supply order placed by this office failing with 2% per week and maximum of 10% deduction as liquidated damage charges will be made from the bill in case the job is not completed within the given stipulated period
14. Full specification of the article quoted for sale be given in the quotation. Also provide the literature/pamphlet/drawing etc (if possible). User list of the quoted document may also be additionally provided for reference.
15. In Case, LC is open for purchase of Foreign equipment all charges outside India will be borne by the firm.
16. As per CVC's guidelines No.12-2-6CTE-SPJ(1)-2/161730 (circular No.3/1/12) dated 13/1/2012, in a tender either the Indian Agent on behalf of the Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender. Further, if an agent submits bid on behalf of the Principal/OEM the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
17. The equipment is to purchase for Research purpose and therefore shall be purchased at concessional GST Rate of 5%. The required certificate shall be issued to the successful bidder for availing concessional GST Rate.
18. **Rates should be quoted as per BOQ 1 on-line.**
19. **Document to be uploaded should be signed by company/firm seal in all pages by the firm**

**The following documents must be uploaded with the technical bid failing which tender will not be accepted at all.**

1. GST Number (scan copy)
2. Pan CardNumber (scan copy)
3. EMD(scan copy)
4. The tender documents duly signed by the concerned firm accepting the same should be attached with technical bid.
5. Compliance Report in accordance with the tender technical specification.(Annexure I)
6. Certificate declaring that the firm has not been debarred/Black listed by the Govt. Deptt./Court of law for doing any business in India.(Annexure II)
7. Firm Details Document(Annexure III)
8. Check List(Annexure IV)

Sl. No. Description/ SpecificationoftheItems: -

Specification

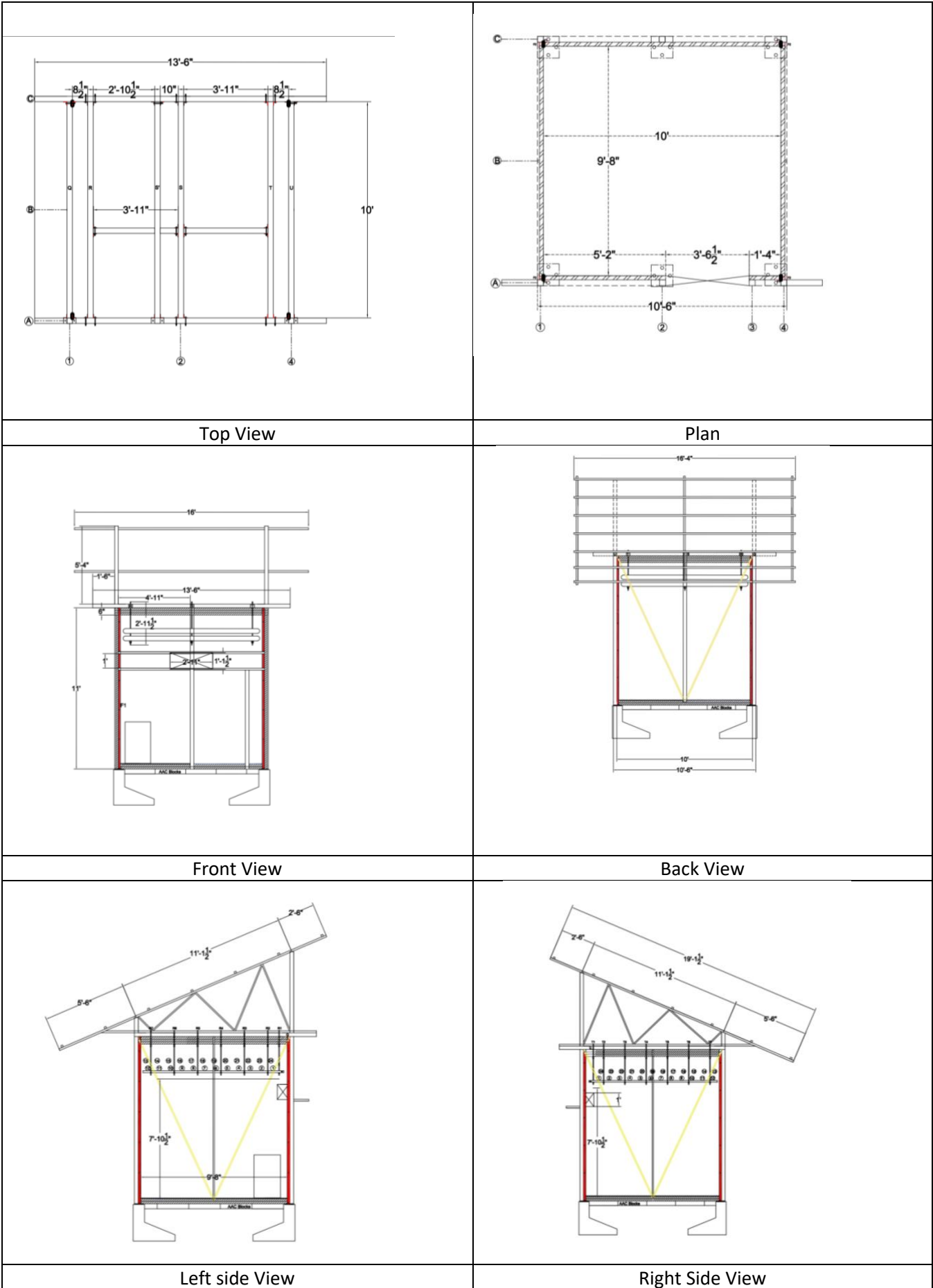
Quantity

**Specification for Pusa Farm Sun Fridge (As per Pusa Design, Photos attached)  
(One) No**

No	Description	Quantity
1.	Site preparation, levelling of hilltop, cutting of bushes, shifting stay wires of electric poles nearby.	As per site requirements
2.	Structure specification: Foundation surrounded by level ground of 20'x20' area (for structure and floor), AAC Blocks (25"x8"x4"): 100 nos.; J bolts: 8 nos., MS plates (11"x 11"x 10mm thick): 8 nos., Mild Steel (MS) Frame:950 kg; Aramid needle felt fabric, 450GSM:~40 m <sup>2</sup> Steel mesh2"x2"x 2 mm thick: ~40 m <sup>2</sup> Mylar (heat resistant) sheet:~40 m <sup>2</sup> Metal roofing sheets, 3.28'x15'x 1mm thick: 6 nos. Fiber sheets, 5mm thick, 11 m <sup>2</sup> : 2 nos. Insulated door with hinges and handle: 1 no. Painting of all surfaces	Approx. quantity as indicated under specifications
3.	Water battery (underneath roof) of PVCand PVC fittings (elbows, reducers)suspended from roof using MS support, including electric pump (105 W, 5000 LPH) and steel drum(250 Litres) (as per photo attached)	4" dia. Pipe (IS 498-2000):60 m, 4" dia. Elbows (IS 7834): 50 nos., 4" dia. T (As per ISI stds):2 nos. 4" dia. end caps: 2 nos., (4"/2") reducers: 2 nos. (63/50 mm) bush: 2 nos. 2" PVC pipe: 60', 2" half sets: 2nos., 0.75" CPVC pipe: 5', 1 valve, 2 elbow, 1 union, 1 socket (@0.75")
4.	Overhead water tank PVC, 5 ply and insulated, (1000 liters), OH stand of MS frame, pipeline, and sump	One tank, pump, stand, pipeline, underground tank
5.	Insulation (wall, ceiling, and floor), PUF sheets/ panels (for 40 m <sup>2</sup> walls) and thermocol sheets for floor and roof	As per requirement
6.	Indoor paneling (PVC to give clean look to the walls on the interior).	
7.	Control panel including DC/ AC surge suppressors, DC/ AC MCBs and changeover switches, bus bars, DC/ AC panel voltmeters and ammeters, MC4 connectors for solar panels wiring, 4 mm <sup>2</sup> DC wire, 6 mm <sup>2</sup> AC wire	

8.	Solar adaptive controller (SAC) including light amplifier, pyranometer and its connection with Inverter Aircon. It is microcontroller based and programmed to work according to Pusa Farm SunFridge design	1
9.	1.5-ton Split Inverter refrigeration system, GREE including modification (splitting and extension of evaporator coil with 0.5" copper tube, 50' length), charging extra refrigerant upto 1.5 kg, coiling and submerging additional copper evaporator coil in the drum for water battery) involves brazing and sealing of refrigerant pipes	1
10.	Solar Inverter, Hybrid, off-grid programmable (MPPT technology); 5kW and connection to the system. It should be able to work without any batteries and without electric supply from grid	1
11.	Solar panels, 425 W each (425 Wx12), Fixing of 12 solar panels on MS frame to be inclined as per latitude of the place	12 nos.

Drawing of Pusa Farm Sunfridge:-





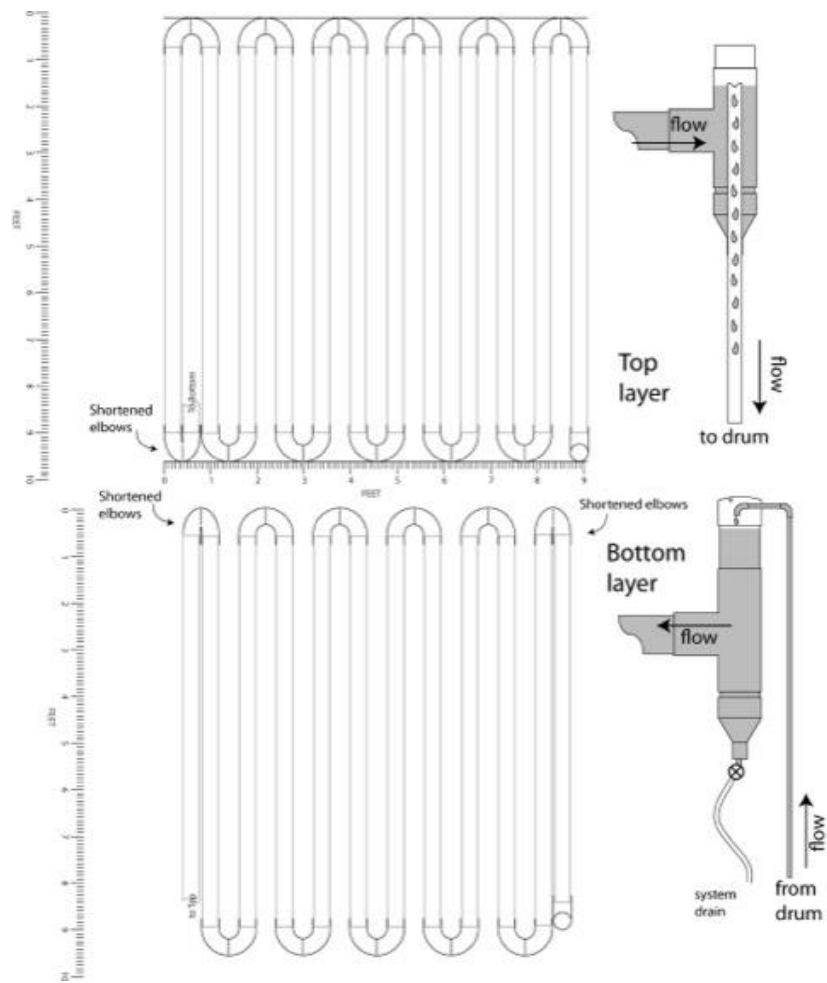
Pusa Farm SunFridge at IARI Exhibition Ground



Water battery design

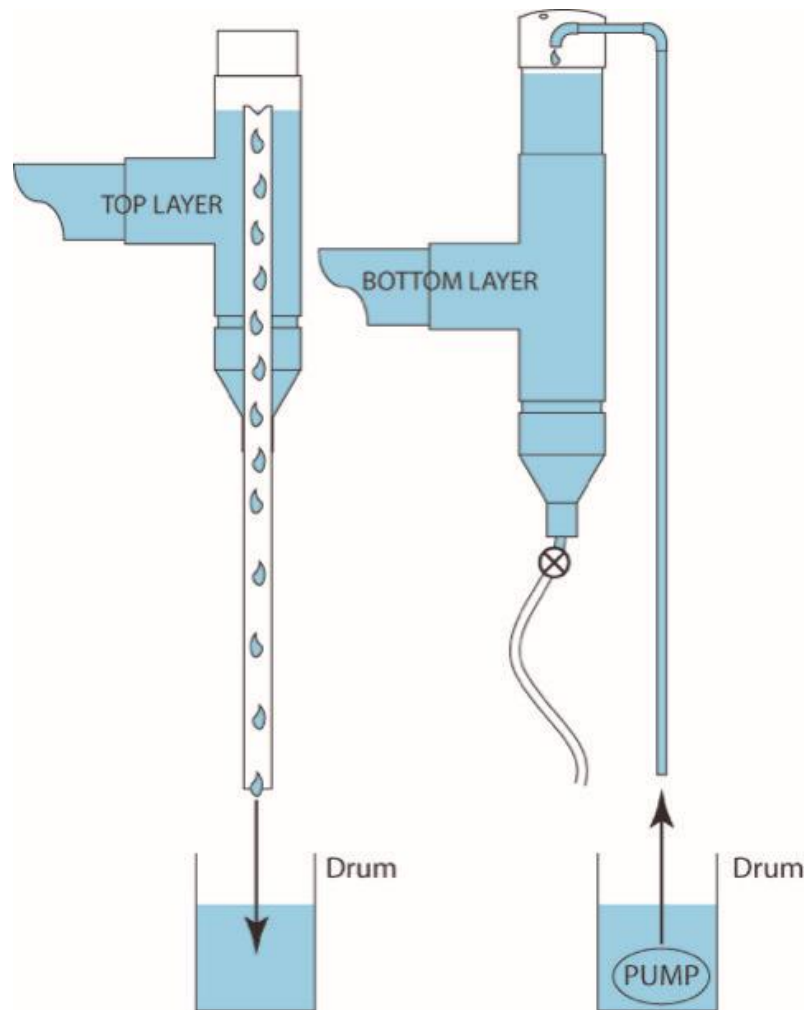


Site for construction of Farm SunFridge in village



Water battery design





Drain and overflow design of water battery

सहायक प्रशासनिक अधिकारी  
Asstt. Admn. Officer

## Annexure I

### Compliance Report

M/s.....agree to supply the items of following specifications

#### Technical Specification of Item/वस्तु का तकनीकी विवरण

No	Description	Quantity
1.	Site preparation, levelling of hilltop, cutting of bushes, shifting stay wires of electric poles nearby.	As per site requirements
2.	Structure specification: Foundation surrounded by level ground of 20'x20' area (for structure and floor), AAC Blocks (25"x8"x4"): 100 nos.; J bolts: 8 nos., MS plates (11"x 11"x 10mm thick): 8 nos., Mild Steel (MS) Frame: 950 kg; Aramid needle felt fabric, 450GSM: ~40 m <sup>2</sup> Steel mesh 2"x2"x 2 mm thick: ~40 m <sup>2</sup> Mylar (heat resistant) sheet: ~40 m <sup>2</sup> Metal roofing sheets, 3.28'x15'x 1mm thick: 6 nos. Fiber sheets, 5mm thick, 11 m <sup>2</sup> : 2 nos. Insulated door with hinges and handle: 1 no. Painting of all surfaces	Approx. quantity as indicated under specifications
3.	Water battery (underneath roof) of PVC and PVC fittings (elbows, reducers) suspended from roof using MS support, including electric pump (105 W, 5000 LPH) and steel drum (250 Litres) (as per photo attached)	4" dia. Pipe (IS 498-2000): 60 m, 4" dia. Elbows (IS 7834): 50 nos., 4" dia. T (As per ISI stds): 2 nos. 4" dia. end caps: 2 nos., (4"/2") reducers: 2 nos. (63/50 mm) bush: 2 nos. 2" PVC pipe: 60', 2" half sets: 2 nos., 0.75" CPVC pipe: 5', 1 valve, 2 elbow, 1 union, 1 socket (@0.75")
4.	Overhead water tank PVC, 5 ply and insulated, (1000 liters), OH stand of MS frame, pipeline, and sump	One tank, pump, stand, pipeline, underground tank
5.	Insulation (wall, ceiling, and floor), PUF sheets/panels (for 40 m <sup>2</sup> walls) and thermocol sheets for floor and roof	As per requirement
6.	Indoor paneling (PVC to give clean look to the walls on the interior).	

7.	Control panel including DC/AC surge suppressors, DC/AC MCBs and changeover switches, bus bars, DC/AC panel voltmeters and ammeters, MC4 connectors for solar panels wiring, 4 mm <sup>2</sup> DC wire, 6 mm <sup>2</sup> AC wire	
8.	Solar adaptive controller (SAC) including light amplifier, pyranometer and its connection with Inverter Aircon. It is microcontroller based and programmed to work according to Pusa Farm SunFridge design	1
9.	1.5-ton Split Inverter refrigeration system, GREE including modification (splitting and extension of evaporator coil with 0.5" copper tube, 50' length), charging extra refrigerant upto 1.5 kg, coiling and submerging additional copper evaporator coil in the drum for water battery) involves brazing and sealing of refrigerant pipes	1
10.	Solar Inverter, Hybrid, off-grid programmable (MPPT technology); 5kW and connection to the system. It should be able to work without any batteries and without electric supply from grid	1
11.	Solar panels, 425 W each (425 Wx12), Fixing of 12 solar panels on MS frame to be inclined as per latitude of the place	12 nos.

Stamp & Signature

Name of the Authorized Signatory

(To be furnished on company letter head)

**Declaration**

This is to confirm that our firm .....  
.....has never been  
blacklisted/debarred by any state Govt./Central Govt./ Department of Public undertaking enterprises.

Date:  
Place:

Stamp & Signature

Name of the Authorized Signatory

## फर्म का विवरण Firm Details

(To be furnished on company letter head)

Name of the Firm-----

Registered/Postal Address-----

1.	Permanent Account Number (PAN)	
2.	GST, Registration No., if applicable	
3.	Bank Details	
4.	Bank Name	
5.	Branch Address	
6.	Account Number	
7.	Type of account (current/saving)	
8.	MICR No.	
9.	RTGS/NEFT code	

Date:

Place:

Stamp & Signature

Name of the Authorized Signatory

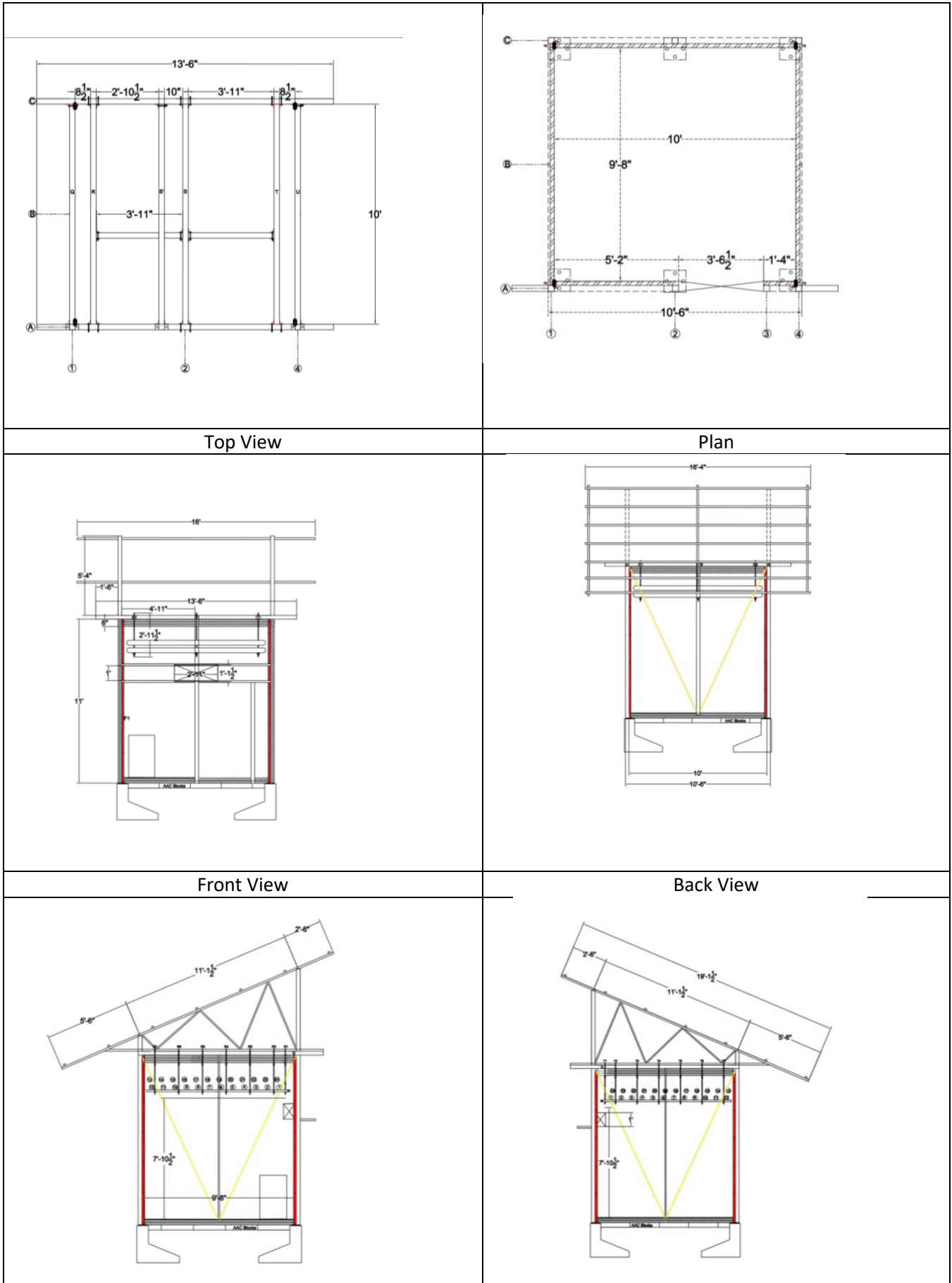
## Check List जांच सूची

Other Condition		
SN	Particular	Write (Yes/No)
1.	GST Number (scan copy)	
2.	Pan Card Number (scan copy)	
3.	EMD(scan copy)	
4.	The tender documents duly signed by the concerned firm accepting the same should be attached with technical bid.	
5.	Compliance Report in accordance with the tender technical specification.(Annexure I)	
6.	Certificate declaring that the firm has not been debarred/Black listed by the Govt. Deptt./Court of law for doing any business in India. (Annexure II)	
7.	Firm Details Document (Annexure III)	
8.	Check List (Annexure IV)	

Signature with Seal

Name of authorized signatory

### Drawing of Pusa Farm Sunfridge:-





Pusa Farm SunFridge at IARI Exhibition Ground

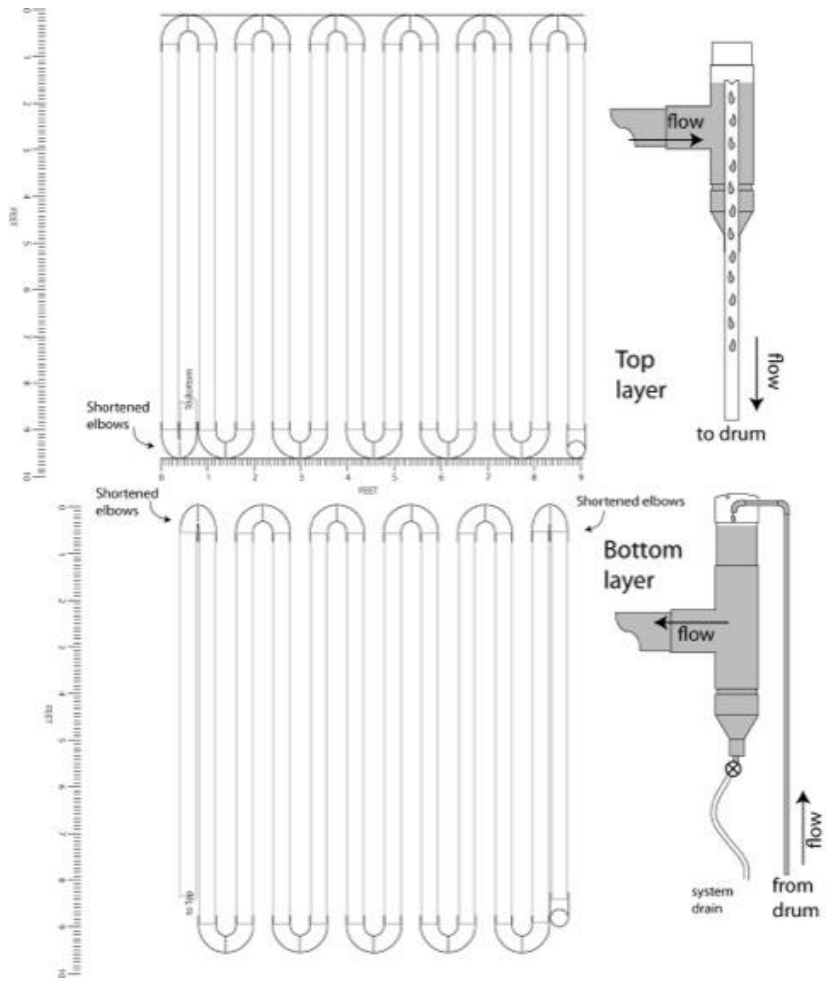


Water battery design

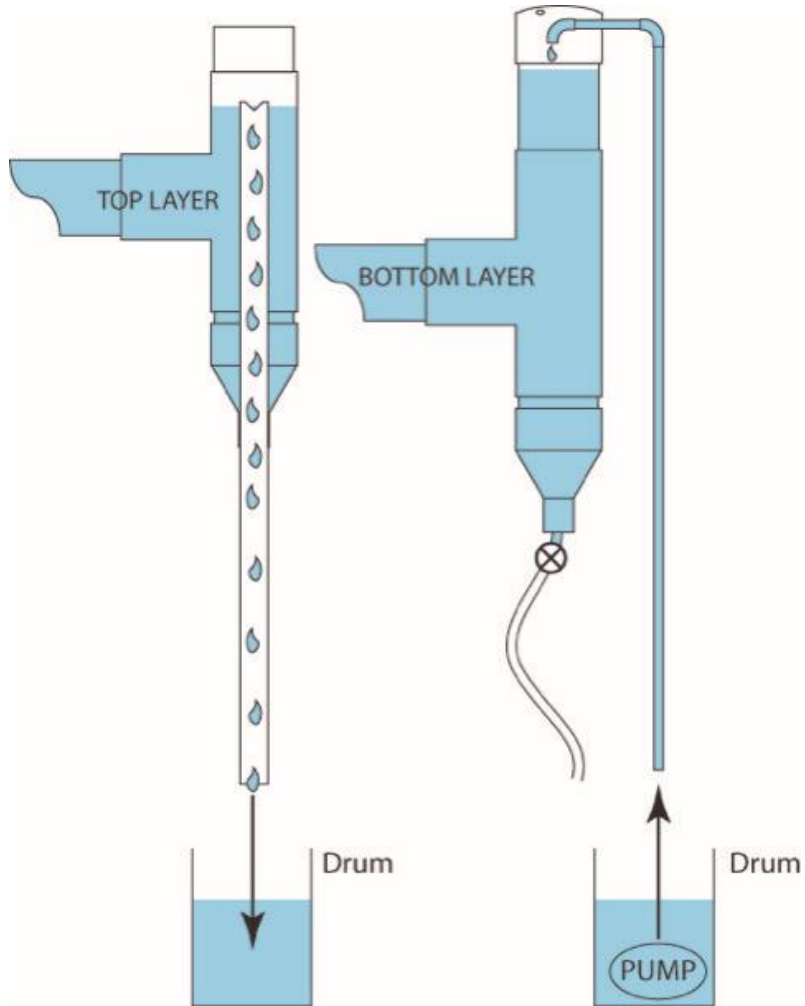




Site for construction of Farm SunFridge in village



Water battery design



Drain and overflow design of water battery