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E-mail: dir-neriwalm@gov.in
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Ph No.(03712)291069



दोलाबारी, कालियाभोमोरा
Dolabari, P.O. Kaliabhomora
तेजपुर-784027, असम (भारत)
Tezpur-784027, Assam (India)



पूर्वोत्तर क्षेत्रीय जल और भूमि प्रबंधन संस्थान
NORTH EASTERN REGIONAL INSTITUTE OF WATER AND LAND MANAGEMENT
(जल संसाधन, नदी विकास और गंगा कायाकल्प विभाग, जल शक्ति मंत्रालय, भारत सरकार के अधीन एक संस्थान)
(An Institute under the Department of Water Resources, River Development and Ganga Rejuvenation,
Ministry of Jal Shakti, Govt. of India)

No. NRWM/RF/19/2021-22/

Date: 21/10/2021

NOTICE INVITING e-TENDER

e-Tender are invited (Technical & Financial Bid) by the **Director, NERIWALM, Dolabari, Tezpur-784027(Assam)** from appropriate registered Firms/Contractors/Company/Individuals having extensive experience in supply and installation of solar street light and solar heater

Name of the works:

- (1) "Establishment of Green House with Automatic Irrigation System for demonstration purpose in NERIWALM, Dolabari, Tezpur, Assam,(Pin-784027)."

The tender along with terms and conditions may be viewed and downloaded from the institute's website www.neriwalm.gov.in. Interested bidder may visit CPP Portal for participating in the Tender.



Deputy Director
21/10/2021
Deputy Director (Admin)
NERIWALM



पूर्वोत्तर क्षेत्रीय जल और भूमि प्रबंधन संस्थान

NORTH EASTERN REGIONAL INSTITUTE OF WATER AND LAND MANAGEMENT

(जल संसाधन, नदी विकास और गंगा कायाकल्प विभाग, जल शक्ति मंत्रालय, भारत सरकार के अधीन एक संस्थान)

(An Institute under the Department of Water Resources, River Development and Ganga Rejuvenation,
Ministry of Jal Shakti, Govt. of India)

No. NRWM/RF/19/2021-22/ 4329

Date: 21/10/2021

NOTICE INVITING e-TENDER

e-Tender (Technical and Financial) are invited by the Director, NERIWALM, Dolabari, Tezpur-784027(Assam) from registered contractor/Firm/ Company/ Authorised dealer or Representatives having valid documents and experience in similar nature of work as given below. The tenders will be opened in the conference hall of the institute in presence of the tenderer or their authorized representatives, if any.

Tenders will be opened on working days only

The tender along with terms and conditions may be viewed and downloaded from the institute's website www.neriwalm.gov.in

Sl no	Name of the work	Estimated value (Rs)	Earnest Money	Tender Fee	Completion period	Last date of submission of Tender(Technical & Financial)	Date of opening the tender
01	Establishment of Green House with Automatic Irrigation System for demonstration purpose in NERIWALM, Dolabari, Tezpur, Assam,(Pin-784027), Dolabari, Tezpur, Assam (Pin-784027)	20,00,000.00	2 % of the total quoted amount	Rs 1000.00	45(Forty five) from the date of signing the agreement	16/11/2021 (5.00PM)	18/11/2021 (11.00AM)
			EMD and Tender Fee is payable in the form of Demand Draft/ Banker's Cheque/ Pay Order in favour of "NERIWALM REVENUE ACCOUNT" from any scheduled bank of India payable at Tezpur, Assam				

The price Offers of only the qualifying parties shall be opened at the same day OR date to be notified/informed separately. Director, NERIWALM reserves the right to accept or reject any or all the tenders without assigning any reason thereof. The Section-2 of the tender documents may please be read thoroughly before filling the Tender.

Signature
21/10/2021
Deputy Director (Admin)
NERIWALM

Copy to:

1. PS to Director for Director's kind information
2. Chief Vigilance Officer(CVO), NERIWALM
3. Assistant Director(Civil), NERIWALM for information and necessary action
4. Accounts Officer, NERIWALM for information and necessary action.
5. Assistant Engineer(Civil) NERIWALM for information and necessary action
6. Assistant Library & Information Officer, NERIWALM for information and he is requested to maintain the record of the advertisement published in the Assam tribune
7. Notice Board, NERIWALM for wide circulation
8. NERIWALM WEBSITE: www.neriwalm.gov.in & CPP Portal for publishing and tendering process.



Tender Notice No. NRWM/RF/19/2021-22/..... Dtd:21/10/2021

TENDER(E-Tender) FOR DESIGNING, CONSTRUCTION , INSTALLATION OF GREEN HOUSE WITH IRRIGATION SYSTEM IN NERIWALM

Name of the work/works:

: "ESTABLISHMENT OF A GREEN HOUSE WITH AUTOMATIC IRRIGATION SYSTEM FOR DEMONSTRATION PURPOSE IN NERIWALM, DOLABARI, TEZPUR, ASSAM (PIN-784027)"

Invited by



**NORTH EASTERN REGIONAL INSTITUTE OF WATER AND LAND MANAGEMENT
(NERIWALM)**

Department of Water Resources, River Development & Ganga Rejuvenation,
Ministry of Jal Shakti, Govt. of India
(Registered under the Societies Registration Act, 1860)
Dolabari, P.O Kaliabhomora
Tezpur-784027, Assam (India)
Website: www.neriwalm.gov.in
Phones: 03712-291069



NOTICE INVITING E-TENDER

Tender No.: Mentioned at First Page of the Tender documents

E-tenders are invited from Registered contractor/Firm/Company/Individual/Authorised dealer/representative/Channel Partner for “ESTABLISHMENT OF A GREEN HOUSE WITH AUTOMATIC IRRIGATION SYSTEM FOR DEMONSTRATION PURPOSE IN NERIWALM, DOLABARI, TEZPUR, ASSAM (PIN-784027)”

ONLINE submission of Bids is mandatory for this Tender. Detailed instructions are given in Section-2 of this Tender Document.

Important Dates: Please refer the Quotation/Tender Notice

Tender Fee (non -refundable) amounting to Rs. 1000.00 (Rupees One thousand) by Demand Draft in favour of “NERIWALM REVENUE A/C” payable at Tezpur.

Earnest Money amounting to 2% of the total quoted amount by Demand Draft in favour of “NERIWALM REVENUE A/C” payable at Tezpur from a Scheduled Bank shall be submitted along with the tender.

• **Tender fee and EMD is exempted for NSIC/MSME units. Subject to submission of valid NSIC / MSME certificate.**

Objective : The selected bidder/party/ agency shall be responsible for preparation of Concept Drawing, Structural Designing, Drawing and Layout, Execution, installation of necessary equipment/key implements and handing over the work after satisfactory completion to NERIWALM within the stipulated time.

1.1: Eligibility Criteria

1. Firms having experience in the relevant field, and having the requisite competence / capacity to do / handle such jobs effectively are eligible to participate in the tender process.
3. The bidder should have valid Registration Certificate/Trade Licence/Dealership certificate/Authorization Certificate and Labour License issued by appropriate authority (attested copies to be submitted with the tender)
4. The Bidder should be registered for GST and PAN no (attested copies of to be submitted with the tender)
5. The Bidder should not have been barred / black listed by any PSU/Govt. Deptt. in doing business with them (Please submit undertaking as per **FORMAT** attached).
6. The bidder should have minimum 02(two) years of experience in the field or similar nature of works
5. Make and quality, warranty period of the equipments/ materials to be used for the work should be clearly mentioned where ever possible. Samples should be got approved before using the same at work. If the party wishes they can inspect the site before submission of tender.



6. The rates should be legibly written both in figure and in words. Any correction should be properly authenticated with proper initials. GST weather exclusive or inclusive should be shown clearly

7. No request for change of rates will be entertained after opening of the tender.

8. The work should be completed within the stipulated time mentioned in the Tender/Work order. Extension may be considered only if a valid and tenable reason is given and accepted by the Competent Authority.

9. The Contractor should provide necessary risk to the labours from any type of accident that may arise at the work site or within the campus. Necessary Labour Rules will be applicable on the contractor.

10. Payment will be made as per actual quantity of the work/supply executed.

11. Any other clause not covered under GCC, SCC and above, the party will be liable to abide by the direction/instruction of the Director, NERIWALM in the interest of the work.

12. The Director, NERIWALM reserves the right to accept/reject any or all tenders without assigning reasons thereof and there is no binding on the Director to accept the lowest rate.

Note: Bidder must provide necessary supporting documents as proof in respect of the eligibility criteria mentioned above.

WARRANTY: The minimum warranty period should be 02(two) years from the date of supply of the item or as per company's guide lines in case of equipment.

DELIVERY: Execution period is 45(forty five) days from the date issue of work order

PAYMENT : 100 % after satisfactory completion of the Supply, Installation, Testing and Commissioning

BID PRICE : Should be inclusive GST, Installation, Transportation, Excise, Levies, all other charges, etc.

CONDITIONAL BID: Conditional Tender may not be considered.

LATE RECEIPT OF TENDERS: Bids received after the deadline for submission of the same, as mentioned in the NIT or published time to time , shall be rejected.

2.1: INTRODUCTION (DEFINITIONS)

2.1.1 "Employer/Purchaser" means North Eastern Regional Institute of Water and Land Management (NERIWALM), Dolabari, Tezpur – 784027 (Assam).

2.1.2 "Bidder" means the individual or firm or corporate body who participates in the tender and submits its bid.

2.1.3 "Goods/Products" means all the hardware equipments, instruments, tools, machinery, works etc., and/or other materials like components/parts/spares including consumables which the contractor is required to supply to the Employer under the Work Order.



- 2.1.4 "Letter of Intent (LOI)" means the communication of the intention of the Employer to the Bidder to place the Work Order for the former's offered goods/services.
- 2.1.5 "Purchase/Work Order (PO)" means the order placed by the Employer on the Contractor duly signed by the Employer's authorized representative to purchase certain goods & services from the vendor/contractor.
- 2.1.6 "Contract Price" means considerations payable to the supplier/contractor as stipulated in the Purchase or Work Order for performance of specified contractual obligations.

2.2 BIDDER TO BEAR COST OF PURCHASE OF TENDER

The Bidder shall bear all costs associated with the preparation and submission of the bid. The Purchaser in any case will not be responsible or liable for these costs regardless of the conduct of the bidding process.

2.3: EXTENSION OF TIME

In order to give prospective bidders required time in which to take the amendments into action in preparing their bid, the Employer may at its discretion extend the deadline for submission of bid suitably.

2.5: BIDDERS ELIGIBILITY AND QUALIFICATIONS

Bidder shall furnish as a part of bid documents establishing the bidder's eligibility to execute the contract work. The bidder shall also submit documentary evidence in the form of literature, drawing, data on the good and service office

2.6: VALIDITY PERIOD OF BID

Bid shall remain valid for 90 days after the date of bid opening. The bid valid for a shorter period shall be rejected by the Employer as non-responsive.

In exceptional circumstances, the Employer may request the consent of the bidder for an extension to the period of bid validity. The bid security provided shall also be suitably extended. A bidder accepting the request and granting extension will not be permitted to modify his bid.

2.7: EVALUATION OF BID

2.7.1 The Employer shall evaluate the bids in respect to the substantive responsiveness of the bid or otherwise. The Employer shall carry out detailed evaluation of the substantially responsive bids. The Employer shall check the bid to determine whether they are complete, whether any computational errors have been made or required sureties have been furnished.

2.7.2 Arithmetical error shall be rectified on the following basis:

a) If there is a discrepancy between the unit price and total price that is obtained multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected by the Employer

b) In case of discrepancy between words and figures, the amount in words shall prevail.

2.7.3 A bid determined as substantially non-responsive shall be rejected by the Employer.

2.7.4 The Employer may waive any minor infirmity or non-conformity or irregularity in the bid which does not constitute a material deviation.

2.7.5 The Employer shall evaluate in detail and compare the bids which are substantially responsive.

2.7.6 The evaluation of the ranking shall be carried out on the landed price of goods offered inclusive of all taxes.

2.7.7 The distribution of tendered quantity amongst the technically and commercially complied bidders shall be based on merits of each case.

2.7.8 NERIWALM shall have the sole discretion in deciding the number of parties on whom the orders shall be finally placed.



2.8: SUBMISSION OF BID

Only the following shall be accepted in physical form (OFF-LINE):

- Tender Fee in the form of Demand Draft -
- EMD in the form of Demand Draft/Bank Cheque -
- NSIC / MSME registration certificate –
- Pass Phrase –(If any)

ONLINE SUBMISSION:

The following will comprise the **ONLINE** quotation.

1. The entire Tender paper duly signed by the bidder
2. **UNDERTAKING** and the **BID SUBMISSION FORM** duly signed by the bidder
3. Copy of particulars of EMD & Tender Fee (If any)
4. Financial Bid after quoting the rates and duly signed by the bidder
5. NSIC / MSME registration certificate (If any)

2.9: Bidding Methodology:

Single-stage One-Bid System. Technical Bid & Financial bid shall be opened same day “OR” date to be notified after opening and evaluation of the Technical Bid.

3.0: PRICE APPLICABILITY

Prices in the Work Order shall remain valid for the 06 (six) months from the date of signing of formal agreement.

3.1: STANDARDS

The Work executed under the contract shall conform to the standards mentioned in the Technical Specifications.

3.2: PATENT RIGHTS

The Contractor shall indemnify the Employer against all third party actions/claims of infringement of patent, trademark or industrial design rights arising from the use of goods or any part thereof.

3.3: PERFORMANCE SECURITY

3.3.1 Within 15 days from the date of receipt of **Letter of Intent (LOI)/W.O.**, the Contractor/Party shall furnish a Performance Security of the value of 10% (five percent) of the Contract Amount in the form of A/C Payee DD/FDR/Banker's Cheque or Bank Guarantee issued by a Schedule Bank from its branch situated anywhere in India in standard format. The proceeds of the Performance Security shall be payable to the Employer as compensation for any loss resulting from the Contractor's failure to complete its obligations under the contract.

3.3.3 The Performance Security in the Form of DD/BC/BG/FD shall be in favour of **The Director, NERIWALM**, Tezpur (Assam) with validity for 01(one) year plus 02 months in case of BG/FD.

3.3.4 The Performance Security will be discharged by the Employer after satisfactory completion of the 01(one) year of maintenance liability period from the date final handing over the work in all respect.

3.4: ARBITRATION

The procedure for arbitration will be as follows:

a) In case of dispute or difference arising between the Employer and the Contractor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996.

c) Arbitration proceedings shall be held in Tezpur/Guwahati, and the language of the Arbitration proceedings and that of all documents and communications between the parties shall be in English.

3.5: APPLICABLE LAWS

This contract shall be interpreted, construed and governed by the laws of the Republic of India and the parties hereby submit to the exclusive jurisdiction of the Court at Tezpur and Guwahati having



jurisdiction in appeal there from. Any dispute in relation to the contract shall be submitted to the appropriate Court of the Republic of India for determination. The parties to the contract shall continue to fulfill their respective obligations under the contract during the currency of the contract pending the final decision of the Court.

3.6 :BASIC TERMS & CONDITIONS :

1. The Bidder should not have been barred/ black listed by any PSU/Govt. Department in doing business with them. An undertaking in this respect is to be submitted to NERIWALM as per format stated below:
2. The contractor will have to sign the formal agreement on Non-Judicial Stamp paper of appropriate value **for the work** . The cost of the Non-Judicial Stamp paper will be the liability of the contractor.
3. (A) Submission of one set of signed copies up-to-date Contractor's Registration Certificate/Trade Licence/Dealership certificate/Authorization Certificate, Labour License, PAN Card, GST and MSME/NSIC (if any) are to be submitted with the Technical Bid by online
(B) Submission of one set of above mentioned documents at the time of signing the agreement **for each work**.
4. The selected bidder should have to deposit **Performance Security** for an amount of 10(ten) Percent of the Contract Value/awarded value in the form of A/C Payee DD/FDR/BG for each work. The earnest money deposited with tender document will be released only after deposit of the Performance Security and signing & acceptance the formal agreement. The Performance Security will be released after satisfactory completion of the maintenance/defect liability period of 01(one) year
5. The selected bidder/party shall be responsible for complete designing, preparation of concept and working drawing, setting layout, complete execution including installation, testing of equipment, key implement and final handing over the work to NERIWALM. NERIWALM will pay only the awarded amount and bear no other liability of materials, labour, transportation, payment etc . Payment shall be made as per actual measurement and satisfactory completion of the work to the selected bidder/party only
6. The selected bidder/party is responsible for obtaining approval of drawing, designing etc, maintaining prevailing Rules etc.
7. Minimum warranty period of 02(two) years **OR** as per OEM/company's policy may be given for equipment.
8. Training for operation, maintenance and production shall be given by the executing party.
9. No request for change of rates will be entertained after opening the tender. The offered rates are inclusive of GST, carriage, loading & unloading, all charges, etc.
10. The work should be completed within the stipulated time. No extension will be considered except a valid and tenable reason is given and accepted by the Competent Authority.
11. The contractor should provide necessary risk to the labours from any type of accident that may arise at the work site or within the campus. Necessary Labour Rules will be applicable on the contractor.



12. The materials to be used by the contractor for the work should be got approved from the authority before using the same.
13. Any item of work executed as extra item which is beyond the schedule order, the rate will be fixed as per **latest APWD SOR/CPWD SOR(for items of work)/Company's specification(For equipment related items)** with prior approval of Director.
14. **Tests:** For carrying out mandatory tests as prescribed in the Specifications, the contractor shall be solely responsible for :
 - (a) Carrying out mandatory tests as per Specification during construction or defect liability period, and
 - (b) For correctness of the test results, whether performed in his own Laboratory or elsewhere.
 - (c) All plastic materials used for the work shall be tested in CIPET for quality assurance
 - (d) all the Testing shall be the liability of the contractor at his own cost and risk .
15. **Defects Liability:**
 - (a) The Defect Liability period is 01(one) year from the date of final handing over the work in all respect to NERIWALM. The Defect Liability period shall automatically extend for as long as the defects remain to be rectified.
 - (b) Any authorized official shall check the work and notify the contractor of any defects, poor workmanship, quality of materials or testing during construction or Defect Liability period. The contractor shall correct the notified defect/defects with immediate effect. ©The contractor shall do the routine maintenance of the work during the Defects Liability period
16. Make , company's warranty period, name& address of the local authorized service center etc may be clearly mentioned in case of equipment (Please refer the Bid Submission Form below)
17. **Training :** The contractor shall provide necessary training for operation and maintenance at the cost and risk of the contractor. Providing training on production for a period of 01(one) year shall be liability of the contractor.
18. Any other clause not covered under GCC, SCC and above, the contractor will be liable to abide by the directions/instruction of the Director, NERIWALM in the interest of the



4.0 : SUBMISSION OF UNDERTAKING

(UNDERTAKING -A)

To,

The Director,
NERIWALM,
Dolabari, Tezpur, Assam (Pin-784027)

Name of the work: "ESTABLISHMENT OF A GREEN HOUSE WITH AUTOMATIC IRRIGATION SYSTEM FOR DEMONSTRATION PURPOSE IN NERIWALM, DOLABARI, TEZPUR, ASSAM (PIN-784027)"

I do hereby declare that I/We have not been barred/black listed by any PSU/Government Department/Organization/institution in doing business with them. I/We have submitted the information/documents to the best of my/your knowledge.

Signature with date of Authorized Signatory.....

Name of the signatory(**In block letters**)

Name of the party/Firm/Company/Contractor:.....

Address

Date:..... Place :.....



5.0: (BID SUBMISSION FORM)

Tender Notice No: (As mentioned in the first page above)

To

The Director,
North Eastern Regional Institute of Water and Land Management (NERIWALM)
Dolabari, P.O.: Kaliabhomora
Tezpur – 784027 (Assam)

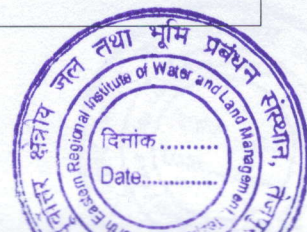
Dear Sir,

In response to your Tender Notice(mentioned below) dtd:13/10/2021.for the work/works of NERIWALM (mentioned below),We hereby submit our PARTICULARS/OFFER for necessary consideration:

A	Tender Notice No & Date	NO. NRW/RF/19/2021-22/..... Dtd-
B	Name of the Work :	“ESTABLISHMENT OF A GREEN HOUSE WITH AUTOMATIC IRRIGATION SYSTEM FOR DEMONSTRATION PURPOSE IN NERIWALM, DOLABARI, TEZPUR, ASSAM (PIN-784027)”
1	Bidder's Name :	
2	Web site Address:	
3	E-Mail Address:	
4	Actual Address of the Bidder as per record:	
5	Postal Address:	
6	Contact No:	
7	Authorized Person's -Name	
	Designation :	
	Contact No:	
8	PAN No :	
9	GST Reg No:	
10	Particular of EMD (Copy to be submitted with Technical Bid also)	
	Amount(Rs)	
	DD/BC/PO No & Date:	



	Bank :			
11	Particular of Tender Fee (Copy to be submitted with Technical Bid also)*			
	Amount(Rs)			
	DD/BC/PO No & Date:			
	Bank :			
12	Details of Bank Accounts for release of EMD/Performance Security/Bill etc.			
	Bank A/C No.			
	Name of the Bank			
	Name of the Branch			
	IFC Code.			
	Name of the Bank Account Holder(As per record in the Bank Account)			
13	Average Turn over of the bidder during last three years ending 31 st March,2021 (copy to be submitted)			
	Financial Year	Financial Turn over(As below):		
14	Experience in the relevant work(s) (copy to be submitted)			
	Duration of experience	Description	Deptt/Organization	Work valu(Rs)
15	Particulars of Registration Certificate/Trade Licence/ Dealership Certificate/Authorisation Certificate in support of the eligibility , etc (Copy to be submitted) :			
	Category of Registration	Issuing Authority	Nature & type of product	Valid upto :



16(a)	Make & Warranty period (for equipments)			
	Equipment			
	Make of the item:			
	Warranty period of the item			
	Name & Address of local Service center			
16(b)	Make & Warranty period (for equipments)			
	Equipment			
	Make of the item:			
	Warranty period of the item			
16©	Make & Warranty period (for equipments)			
	Equipment	Equipment		
	Make of the item:	Make of the item:		
	Warranty period of the item	Warranty period of the item		
17	Details of MSME/NSIC Registration(If any, not mandatory)			
18	Particulars of Labour License			
	Name of the Licensee			
	Name of the issuing authority			
	Nos of Labours :			
	Validity			

DECLARATION

1) We have read and understood the terms & conditions of the above mentioned tender and comply with all Terms & Conditions of your Tender.



(In case of any deviation the Bidder must attach a separate sheet clearly mentioning the Clause No. of the Tender and Deviation thereto)

2) We certify that the information mentioned above are true and correct to best of our knowledge.

3) In case of receipt of order we confirm that payment shall be received through e-Banking / Electronics Transfer.

4) This offer contains _____ No. of pages including all Annexures and Enclosures.

(Signature of the bidder with seal).....

Name of the Signatory (In Block Letters) :.....

Name of the party:

Address

Seal:

The proposals shall be addressed to:
The Director, NERIWAL
Dakshin, P.O. Kalitthanda,
781012 Assam

Website: www.neriwal.gov.in



6.0 : (B.O.Q & SPECIFICATIO)

Name of the work: "ESTABLISHMENT OF A GREEN HOUSE WITH AUTOMATIC IRRIGATION SYSTEM FOR DEMONSTRATION PURPOSE IN NERIWALM, DOLABARI, TEZPUR, ASSAM (PIN-784027)"

For **Technical Specification** : May refer the following :

(A) : Code of Specification (Annexure -I)

(B) : Financial Bid (Annexure-II)

Note : For **Financial Bid(Price Bid Schedule)**: Please refer the **Annexure-II** attached separately. (**Annexure -II** is for quoting rates in all respect of all the items of the workt)

Signature of the bidder:

Name of the bidder:

The proposals shall be addressed to:

The Director, NERIWALM
Dolabari, P.O- Kaliabhomora,
Tezpur-784027, Assam

Website:www.neriwalm.gov.in



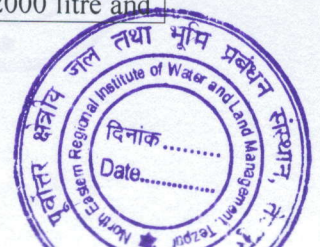
TECHNICAL SPECIFICATION : (Annexure-I)

Name of the Work : "ESTABLISHMENT OF A GREEN HOUSE WITH AUTOMATIC IRRIGATION SYSTEM FOR DEMONSTRATION PURPOSE IN NERIWALM, DOLABARI, TEZPUR, ASSAM (PIN-784027)"

Sl. No.	Broad Items	Description/Specifications
1.	Product	Greenhouse with Fan & Pad Cooling
2.	Size	500 m ² (20m x 25m), Shape: Arch
3.	Bay Size	8m x 4m, Width of greenhouse should be at least 35 % of the desired length.
4.	Ridge height	5 m to 5.5 m
5.	Ridge vent	80-90 cm opening fixed with 40 mesh nylon insect screens
6.	Gutter height	4 m to 4.5 m from floor area
7.	Gutter slope	2% slope need to be provided in civil foundation work/structure
8.	Gutter material	20 gauge or 1 mm thick GI sheet with perimeter of 500 mm or more preferably of single length without joint
9.	Structural design	The structural design needs to be sound enough to withstand wind speed minimum 150 km/hr and minimum load of 25 kg/m ² . There should be provision for opening one portion at either side for entry of small tractor/power tiller for intercultural practices. The firm needs to high design features and list of greenhouse clients.
10.	Structure	Complete structure made of galvanized steel tubular pipes or equivalent section conforming Indian Standards having wall thickness 2mm, structural member should be joined with fasteners properly.
11.	Columns	76 mm OD, 2mm thick
	Trusses	Bottom & top cord 60 mm OD, 2 mm thick
	Trusses member	48 mm OD, 2mm thick
	Purlin	42 mm OD, 2mm thick
	Purlin member & others	33/25 mm, 2 mm thick
	Foundations	Insert GI pipes of minimum 60 mm OD or more to have foundation depth of 75 cm or more depending upon soil type and prevailing wind condition, grouted with cement concrete mixture of 1:2:4 using telescopic insertion of column.
	Fasteners	All nuts & bolts must be of high tensile strength and galvanized.
	Entrance room & Door	One entrance room of size 3m x 3m x 3m (L x W x H) need to be provided and covered with 200-micron UV stabilized transparent plastic film. Two hinge doors of size 2m width & 2.5 m height double leaf made in plastic/FRP sheets mounted in suitable strong frame.
	Buffer Room	Buffer entry of size 5' x 5' x 8' covered with UV stabilized 200-micron poly film. *All the control system, switching unit etc inside the room with pacca flooring of the Buffer room.
	Working Bench	Rust free working bench in the house. Size of the bench is 1 mtr x 18 mtr
12.	Cladding material	UV stabilized 200-micron transparent Plastics films conforming Indian



		Standards (IS 15827; 2009), multi-layered, anti-drip, anti-fog, anti-sulphur, diffused, clear and having minimum 85 % level of light transmittance.
13.	Fixing of cladding materials	All ends/joints of plastic film need to be fixed with two-way aluminium profiles with suitable locking arrangement along with curtain top. Wooden batons or PVC grippers need to be used.
14.	Spring Insert	Zigzag high carbon steel with spring action wire of 2-3 mm diameter must be inserted to fix shade net into Aluminum profile.
15.	Co-axial fan	Co axial fan (ISI mark) of minimum 1200 mm diameter containing 6 numbers of GI sheet blades, frame is of GI sheet materials followed by aluminum louver.
16.	Cellulose pad for cooling	Cellulose pad of thickness 4" – 6" thick, height : 5', width as desired equipped with anodized Aluminum frame. Cooling pad complete with all necessary framing material (aluminum) as required for distribution and return, gutter, down spout cap and return, gutter down spout cap and drip pan, plumbing kit, pump 220 Volt single phase, 50 cycle, drilled PVC piping cap, pad retainer, all suspension hardware, metal flashing required to seal pad for vent opening over flow 20mm PVC & 40 mm standard sink drain.
17.	Circular pump with accessories for cooling pad	Circular pump with required capacity & accessories to be provided for wetting & circulating the pad area.
18.	Digital controller with sensory devices	The necessary digital controller with sensory device & accessories of standard quality (at least two units for 500 sqm area) should be provided to operate the fan & pad system to control temperature & humidity inside the Greenhouse.
	Humidity sensor	The proposed chamber will be equipped with humidifier (as desired up to 80 %) or de humidification fan.
	Electrical Panel	Electrical items such as pump. Lighting voltmeter, amp-meter etc will have electrical panel (push Button) which comply with CPRI guideline.
	Control panel (Light & temperature control system)	The complete proposed facility with a programmable control system (PLC) should be equipped with the following facility: * Programmable photoperiodic timer.
19.	Electric wiring inside greenhouse	Use copper wire to withstand desired load of required electrical gadgets/appliances with ISI mark.
20.	Shade net & Internal Shading system	UV stabilized 50% shading net with motor/manually operated mechanism for expanding and retracting. Size of net should be equal to the floor area of green house.
21.	Drip Irrigation System with fogging & misting facility including over head tank & sprinkler /fogging system.	Drip irrigation system under greenhouse need to be selected on the basis of crop spacing (design on spacing 45cm x 45 cm) along with fogging and misting facilities. The spacing considered for calculation. The suggested bill of materials are sand Filter 5m ³ /hr, Screen Filter 10m ³ /hr, Control Valve 63mm, Control Valve 50 mm, By-pass Assembly 1.5", Air Release Valve 1", Non Return Valve 1.5", Throttle Valve 1.5" , Flush Valve 50mm, Venturi 1.5" Assembly with manifold, PVC pipe 6.mm/6 Kg cm ² , PVC pipe 50mm/6 Kg/cm ² , PE plane lateral 16 mm, Emitting pipe lateral 16 mm-@0.45 m spacing hanging type micro sprinkler nozzle (four way take of assembly) for very fine water particles (froggers & mister) to be fixed in PE pipe of diameter 16mm, Water tank of capacity 2000 litre and



		fittings & accessories.
22.	Footpath	1 m wide and 10 cm thick footpaths should be provided in the centre (length x width) & made of cement concrete ration of 1:2:4.
23.	Curtain wall/Apron	22 cm brick wall of 1m height (24 cm below and 80 cm above ground level on all the four sides. The wall needs to be plastered and water proofing cement with 1:6 ratio.
Note: Optional items – provisions to be made for opening & closing of ventilation system in case of power failures.		
24.	Curtains and insect screen including fitting and fixing charge and Transportation of material	Roll up UV stabilized 200-micron transparent plastic film as curtains need to be provided up to 3.0 m height on all sides having automatic type motor operated crack mechanism. However, provision for manual opening and closing of curtains need also be provided. 40 mesh nylon insect proof nets (UV stabilized) of equivalent size need to be fixed inside the curtains. Anti-flapping strips is suggested to ensure smooth functioning of the curtain.
25.	Warranty	Free maintenance for one year from the date of installation.
26.	Training	Free training for operation, maintenance & production for one year.
27.	Testing	All plastic materials used in green house should be tested by the CIPET for quality assurance (If necessary).
(End of Technical Specification)		

Signature:

Name of the signatory:

Name of the bidder:

Address:



FINANCIAL BID(PRICED BID SCHEDULE)

(Annexure- II)

Bidders may use the "Financial Bid format" in Excel Sheet given in CPP Portal for quoting rates

Name of the Work : Eshtablishment of a Green House with automatic Irrigation System for demonsration purpose in NERIWALM, Dolabari, Tezpur, Assam(Pin-784027)"

A		Description/Specifications
: For Construction of Green House including Supply, Installation, Testing of necessary Equipment/Implement and materials , Providing Automatic Irrigation System in NERIWALM		
(a)	Product	Greenhouse with Fan & Pad Cooling
(b)	Size	500 m2 (20m x 25m), Shape: Arch
©	Bay Size	8m x 4m, Width of greenhouse should be at least 35 % of the desired length.
(d)	Ridge height	5 m to 5.5 m
(e)	Ridge vent	80-90 cm opening fixed with 40 mesh nylon insect screens
(f)	Gutter height	4 m to 4.5 m from floor area
(g)	Gutter slope	2% slope need to be provided in civil foundation work/structure

B		BROAD ITEMS OF THE WORK & DESCRIPTION FOR EXECUTION :	Total jobs of the work : 09(Nine)			
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Job No	Broad Items of work	Description	Unit	Qty	Rate (Including GST, all other charges, etc)	Amount (Rs.P)
1	(i) Gutter material	20 gauge or 1 mm thick GI sheet with perimeter of 500 mm or more preferably of single length without joint	Job	1.00		
	(ii) Structural design	The structural design needs to be sound enough to withstand wind speed minimum 150 km/hr and minimum load of 25 kg/m ² . There should be provision for opening one portion at either side for entry of small tractor/power tiller for intercultural practices. The firm needs to hight design features and list of greenhouse clients.				
	(iii) Structure	Complete structure made of galvanized steel tubular pipes or equivalent section conforming Indian Standards having wall thickness 2mm, structural member should be joined with fasteners properly.				
	(iv) Columns	76 mm OD, 2mm thick				
	(v) Trusses	Bottom & top cord 60 mm OD, 2 mm thick				
	(vi) Trusses member	48 mm OD, 2mm thick				
	(vii) Purlin	42 mm OD, 2mm thick				
	(viii)Purlin member & others	33/25 mm, 2 mm thick				
	(ix) Foundations	Insert GI pipes of minimum 60 mm OD or more to have foundation depth of 75 cm or more depending upon soil type and prevailing wind condition, grouted with cement concrete mixture of 1:2:4 using telescopic insertion of column.				
	(x) Fasteners	All nuts & bolts must be of high tensile strength and galvanized.				
	(xi) Entrance room & Door	One entrance room of size 3m x 3m x 3m (L x W x H) need to be provided and covered with 200-micron UV stabilized transparent plastic film. Two hinge doors of size 2m width & 2.5 m height double leaf made in plastic/FRP sheets mounted in suitable strong frame.				



Job No	Broad Items of work	Description	Unit	Qty	Rate (Including GST, all other charges, etc)	Amount (Rs.P)
	(xii) Buffer Room	Buffer entry of size 5 ft x 5 ft x 8 ft covered with UV stabilized 200-micron poly film. *All the control system, switching unit etc inside the room with pacca flooring of the Buffer room.				
2	(i) Working Bench	Rust free working bench in the house. Size of the bench is 1 mtr x 18 mtr	Job	1.00		
3	(i) Cladding material	UV stabilized 200-micron transparent Plastics films conforming Indian Standards (IS 15827; 2009), multi-layered, anti-drip, anti-fog, anti-sulphur, diffused, clear and having minimum 85 % level of light transmittance.	Job	1.00		
	(ii) Fixing of cladding materials	All ends/joints of plastic film need to be fixed with two-way aluminium profiles with suitable locking arrangement along with curtain top. Wooden batons or PVC grippers need to be used.				
	(iii) Spring Insert	Zigzag high carbon steel with spring action wire of 2-3 mm diameter must be inserted to fix shade net into Aluminum profile.				
4	(i) Co-axial fan	Co axial fan (ISI mark) of minimum 1200 mm diameter containing 6 numbers of GI sheet blades, frame is of GI sheet materials followed by aluminum louver.	Job	1.00		
	(ii) Cellulose pad for cooling	Cellulose pad of thickness 4 inch -6 inch thick, height : 5 inch, width as desired equipped with anodized Aluminum frame. Cooling pad complete with all necessary framing material (aluminum) as required for distribution and return, gutter, down spout cap and return, gutter down spout cap and drip pan, plumbing kit, pump 220 Volt single phase, 50 cycle, drilled PVC piping cap, pad retainer, all suspension hardware, metal flashing required to seal pad for vent opening over flow 20mm PVC & 40 mm standard sink drain.				
	(iii) Circular pump with accessories for cooling pad	Circular pump with required capacity & accessories to be provided for wetting & circulating the pad area.				
	(iv) Digital controller with sensory devices	The necessary digital controller with sensory device & accessories of standard quality (at least two units for 500 sqm area) should be provided to operate the fan & pad system to control temperature & humidity inside the Greenhouse.				
	(v) Humidity sensor	The proposed chamber will be equipped with humidifier (as desired up to 80 %) or de humidification fan.				
	(vi) Electrical Panel	Electrical items such as pump. Lighting voltmeter, amp-meter etc will have electrical panel (push Button) which comply with CPRI guideline.				
	(vii) Control panel (Light & temperature control system)	The complete proposed facility with a programmable control system (PLC) should be equipped with the following facility: * Programmable photoperiodic timer.				
	(viii) Electric wiring inside greenhouse	Use copper wire to withstand desired load of required electrical gadgets/appliances with ISI mark.				



Job No	Broad Items of work	Description	Unit	Qty	Rate (Including GST, all other charges, etc)	Amount (Rs.P)
5	(i) Shade net& Internal Shading system	UV stabilized 50% shading net with motor/manually operated mechanism for expanding and retracting. Size of net should be equal to the floor area of green house.	Job	1.00		
6	(i) Drip irrigation System with fogging and misting facility including overhead tank & sprinkler/fogging system.	Drip irrigation System under green house need to be selected on the basis of crop spacing(design on spacing 45 cm x 45 cm) along with gogging and misting facilities. The spacing considered for calculation. The suggested bill of materials are Sand Filter 5 Cum/hr, Screen Filter 10 Cum/hr, Control Valve 63 mm, Control Valve 50 mm, By-pass Assembly 1.5 Inch, Air Release Valve 1.00 inch, Non-Return Valve 1.5 inch,Throttle Valve 1.5 inch, Flush Valve 50 mm , Venturi 1.5 inch Assembly with manifold , PVC pipe 63 mm/6 kg/Square cm, PVC pipe 50 mm /6kg/Sqcm, PE plane lateral 16 mm , Emitting pipe lateral 16 mm @ 0.45 m spacing , hanging type micro sprinkler nozzle (four way take off assembly) for very fine water particles(foggers & mister) to be fixed in PE pipe of diameter 16 mm, Water Tank capacity 2000 Liters and fittings & accessories	Job	1.00		
7	(i) Footpath	1 m wide and 10 cm thick footpaths should be provided in the centre (length x width) & made of cement concrete ration of 1:2:4.	Job	1.00		
8	(i) Curtain wall/Apron	22 cm brick wall of 1m height (24 cm below and 80 cm above ground level on all the four sides. The wall needs to be plastered and water proofing cement with 1:6 ratio.	Job	1.00		
Note: Optional items – provisions to be made for opening & closing of ventilation system in case of power failures.						
9	(i) Curtains and insect screen including fitting and fixing charge and Transportation of material	Roll up UV stabilized 200-micron transparent plastic film as curtains need to be provided up to 3.0 m height on all sides having automatic type motor operated crack mechanism. However, provision for manual opening and closing of curtains need also be provided. 40 mesh nylon insect proof nets (UV stabilized) of equivalent size need to be fixed inside the curtains. Anti-flapping strips is suggested to ensure smooth functioning of the curtain.	Job	1.00		
Total(Including GST, all other charges, etc) :						
Say, (Rs)						

(Rupees)only

Signature:

Name of the suignatory :

Name of the bidder:

Address:

Date :

