Tender Document

ICAR-NATIONAL BUREAU OF PLANT GENETIC RESOURCES
PUSA CAMPUS, NEW DELHI-110012

[File No. 5(50)/Purchase/2017]

Up-Gradation/Modernization of Existing National Gene Bank Facilities at NBPGR, New Delhi

e-TENDER DOCUMENT

ICAR-NATIONAL BUREAU OF PLANT GENETIC RESOURCES
PUSA CAMPUS, NEW DELHI-110012

Phone:011-25841022 email:nbpgr.aaopurchase@icar.gov.in
web: www.nbpgr.ernet.in https://eprocure.gov.in/eprocure/app

E-PROCUREMENT TENDER NOTICE

ICAR-National Bureau of Plant Genetic Resources, Pusa, New Delhi-12 invites tenders under Two Bids System (Technical and Financial) from reputed & eligible agencies through e-procurement for **Upgradation/Modernization of National Gene Bank Facilities at NBPGR, New Delhi that includes:-**

- Retrofitting of refrigeration system of 12 Long-Term Storage (LTS) and 5 Medium Term Storage (MTS) modules.
- Providing Module Control System
- Providing Central Management System (CMS)
- Security and Safety
- Humidity system for retrofit for MTS Modules
- Maintenance of upgraded facility through trained personnel
- Related Civil and Electrical Works

Item	**Details/Date**
Bid Document Download Start Date Bid Submission Start Date	15.07.2017 at 11.00 AM 17.07.2017 at 11.00 AM
Pre-Bid Conference	29.07.2017 at 10.30 AM
Bid Submission End Date	21.08.2017 at 2.30 PM
Technical Bid Opening Date	22.08.2017 at 11.00 AM

Background Information about Upgradation/Modernization of National Genebank.

The ICAR-National Bureau of Plant Genetic Resources (ICAR-NBPGR) was established in 1976. Since its inception, ICAR-NBPGR was solely entrusted with the responsibility of collection and conservation of plant genetic resources to make these available nationally and internationally for crop improvement programmes. It played a vital role in crop improvement and diversification of agriculture in India through acquisition and distribution of various plant genetic resources (PGR). ICAR-NBPGR plays a key role in the overall management of PGR. These comprise activities of PGR exploration, collection, exchange, quarantine, characterization, evaluation, conservation and documentation. For conservation of vast genetic resources, the National Genebank (NGB) was established in 1986 and further expanded in 1996 at the ICAR-NBPGR headquarters, with a network of 10 regional stations/base centres covering different agro-climatic zones. The NGB collections are conserved as base collections (long-term storage) in storage modules maintained at -18°C and active/working collections (short-to medium-term storage) in modules maintained at 4-8°C and 35-40% relative humidity. The NGB facility is one of the largest in the world with a capacity to hold more than 0.8 million base collections. The present germplasm holding of around 0.43 million belonging to nearly 1,800 species, is the largest genetic wealth conserved as *ex situ* after USA. The state-of-the-art facility, the pride of nation, that conserves the PGR to cater to the needs of plant to breeders for developing the new climate resilient varieties. Since the machinery part of NGB in now about 21 years old, requires the upgradation/ modernization with the latest technology so that it will run smoothly for next about 20-25 years in the service of the nation. ICAR-NBPGR invites the competent bidders to place the e-tenders on competitive rates for

upgradation/modernization of NGB with complete compatibility with the existing facility. The rough sketch plan of National Genebank is enclosed at Annexure-XI.

Notes:

1. All details regarding the subject tender are available on our websites www.nbpgr.ernet.in and https://eprocure.gov.in/eprocure/app. Bidders are therefore, requested to visit our websites regularly to keep themselves updated.

2. **Manual bids shall not be accepted.**
3. For submission of E-Bids, bidders are required to get themselves registered with http://eprocure.gov.in/eprocure/app.

4. Tender document's cost and EMD should reach The Assistant Administrative Officer (Purchase), ICAR-National Bureau of Plant Genetic Resources, New Delhi, before the submission end date and time of the bid, **failing which the offer will be liable for rejection. Bidders, however have to attach scanned copies of tender cost and EMD along with their e-tender.**

5. Clarifications/ queries, if any, can be addressed to The Assistant Administrative Officer, Purchase, ICAR-National Bureau of Plant Genetic Resources, New Delhi, on phone:011-25841022 and email:nbpgr.aaopurchase@icar.gov.in.

(U.C. Sharma)
Administrative Officer

INFORMATION & INSTRUCTIONS FOR BIDDERS

Earnest Money Deposit	**₹ 1.00 crore (Rupees One Crore only)** in the form of Account Payee Demand Draft, Fixed Deposit receipt , Banker's Cheque or Bank Guarantee from any of the Commercial Bank in favour of ICAR-NBPGR, New Delhi Payable at New Delhi. The bid security is normally to remain valid for a period of forty five days beyond the final bid validity period. EMD should reach The Assistant Admn. Officer (Purchase), ICAR-National Bureau of Plant Genetic Resources, New Delhi-12 before the end date and time of bid submission. Bidders, however have to attach scanned copies of EMD documents along with the e-tender (technical bid).
Cost of Tender Form (Non-Refundable	₹ 5000/- (Rupees Five Thousand Only) through DD/Bank Guarantee/FDR in favour of Director, ICAR-National Bureau of Plant Genetic Resources, New Delhi-12, Payable at Delhi. Tender cost should reach the Assistant Admn. Officer (Purchase), NBPGR, New Delhi-110012 before the end date and time of bid submission. Bidders, however have to attach scanned copies of tender cost document along with the e-tender (technical bid)
Issue of Tender Document	Tender Document may be down- loaded from the NBPGR website www.nbpgr.ernet.in and CPP portal https://eprocure.gov.in/eprocure/app as per the following schedule.
Bid Document Download Start Date	15.07.2017 at 11.00 AM
Bid Submission Start Date	17.07.2017 at 11.00 AM
Bid Submission End Date	21.08.2017 at 2.30 PM
Technical Bid Opening Date	22.08.2017 at 11.00 AM

THE FIRM IS REQUESTED TO SUBMIT THE FOLLOWING CHECK LIST AT THE TIME OF SUBMISSION OF TENDER DOCUMENT. PLEASE NOTE THAT WITHOUT the CHECK LIST, THE OFFER will be summarily REJECTED.

Check List

1. Name of the firm		
2. Complete Postal Address together with e-mail, website, phone numbers		
3. Nature of activities carried out by the firm		
4. Name and designation of the Authorised Signatory (a copy of authorization need to be attached)		
5. Is the firm participating on behalf of foreign principals, also if so name of the principals with full address, their website details may be provided. (Copy of authorization certificate should be invariably attached).		
6. EMD Deposit Details		
7. Tender Fees Deposit Details		
8. Has the firm executed at least three reference sites for construction of GeneBank and maintenance of the GeneBank that should be running without failures for a minimum period of five years. (details of the reference sites may be provided in a separate sheet)		Yes/No
9. Has the firm been involved in core business of dealing with construction of GeneBank and maintenance of the GeneBank for atleast three years with not less than INR 600 million per annum or equivalent foreign currency constantly. (In support of this, copies of annual financial statements/tax returns need to be appended.)		Yes/No
10. Is the firm having equipment conforming to CE (European Conformity) or higher certification on all components and the entire system as a completed assembly.		Yes/No

11. Is the firm having ISO9001 certified facility		Yes/No
12. Is the firm willing to provide on-site training for the technical personnel of the Genebank for minimum six months		Yes/No
13. Will the firm provide one trained and experienced personnel/engineer on site of National Genebank (NGB) at ICAR-NBPGR		Yes/No
14. Will the upgraded facility meeting the BEE prescribed standards w.r.t Energy-Efficiency and also be Environment-friendly.		Yes/No
15. Has the firm been involved in any litigations relating to their work in other organisations? If yes, provide full details.		Yes/ No
16. Has the firm defaulted by late delivery/supply/installations in any of the organisations during past 5 years? If yes, details need to be enclosed		Yes/No
17. Will the firm complete the work in 18 months as indicated in the tender document?		
18. Any other remarks:		

Signature of Authorized Signatory:

Name : ----------

(Seal)

Enclosure:

1. Annexure –I (Compulsory Documents)
2. Annexure-II (General Tender Terms & Conditions)
3. Annexure –III (Special Tender Terms & Conditions)
4. Annexure –IV (Tender Application Form)
5. Annexure –V (Schedule/ Specifications of items/ equipment)
6. Annexure –VI (Technical Bid)
7. Annexure-VII (Price Bid)
8. Annexure –VIII (Evaluation Criteria)
9. Annexure –IX Instructions For Online Bid Submission
10. Annexure –X (Bank Guarantee)
11. Rough sketch plan of NGB

ANNEXURE-I

To,

The Director,
NBPGR, Pusa Campus,
New Delhi -110012

COMPULSORY DOCUMENTS: (Scanned Copies of following documents may be uploaded)
[Without which the offer is liable to be rejected)

1. Tender Document Fee: Rs._____ DD No._____ dated_____
2. EMD Value: Rs._____ in the form of Account Payee Demand Draft, Fixed Deposit receipt , Banker's Cheque or Bank Guarantee from any of the Commercial Bank.
3. Satisfactory completion certificates for construction of GeneBank and maintenance of the GeneBank at minimum three site for a minimum period of five years.
4. Financial Statements for three years (2014 to 2017).
5. Warranty Certificate for 5 years.
6. Original tender document signing all the pages
7. Details of IFSC Code, Account No. and Name of Bank and its Branch for local and import payment through LC. [Yes/No]
8. Copy of authorisation certificate issued by the Principal firm
9. Authorisation in respect of authorised signatory

Date:-

Signature of the tenderer:-

Place:-

Full Name:-
Designation:-
(Official seal of the tenderer)

Annexure-II

General Terms & Conditions

1. Bid Submission

Bids shall be submitted online only at CPP portal: https://eprocure.gov.in/eprocure/app. Tenderer/contractor are advised to follow the instructions provided in the 'Instructions to the Contractor/Tenderer' for the e-submission of the bids online through the Central Public Procurement Portal for e-procurement at https://eprocure.gov.in/eprocure/app.
Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
Tenderer who has downloaded the tender from the Institute website www.nbpgr.ernet.in and Central Public Procurement Portal (CPPP) https://eprocure.gov.in/eprocure/app, shall not tamper/modify the tender form including downloaded price bid template in any manner. **In case the same is found to be tempered/modified in any manner, tender will be summarily rejected and EMD would be forfeited and tenderer is liable to be banned from doing business with ICAR-NBPGR.**
Intending tenderers are advised to visit again Institute website www.nbpgr.ernet.in and CPP Portal https://eprocure.gov.in/eprocure/app at least 3 days prior to closing date of submission of tender for any corrigendum / addendum/ amendment.

2. OPENING OF FINANCIAL BID AND EVALUATION

Financial bids of eligible and technically qualified bidder will be opened. The lowest financial bid in respect of **Upgradation/Modernization of National Gene Bank Facilities at NBPGR, New Delhi** will be considered for award.

The Cost of Tender of **₹ 5000/-** (Rupees Five Thousand Only) must reach **The Assistant Admn. Officer, (Purchase), ICAR-National Bureau of Plant Genetic Resources, New Delhi-110012,** before the end date of bid submission. Bidders, however have to attach scanned copies of tender cost along with the e-tender.

Tenders with no earnest money deposit and cost of tender document will be summarily rejected. In case of successful bidder of the financial bids, the earnest money deposit will be returned on submission of performance Bank Guarantee.

In the case of unsuccessful bidders, the Earnest Money Deposit will be refunded without any interest.

3. **THIS TENDER DOCUMENT IS NON-TRANSFERABLE**

4. **PERIOD FOR WHICH THE OFFER WILL REMAIN OPEN AND PERIOD OF VALIDITY:**
Financial bid should be valid for one year (365 days) from the date of opening of the tender.

5. **OPENING OF TENDER:**

I. The **Technical bids** will be opened on the specified date and time as mentioned.

II. The **Price (Financial) bids** of the bidders whose Technical Bids are found technically suitable (after the evaluation/demonstration if required) only will be opened later. **The decision of the committee on technical suitability shall be final and shall not be opened for discussion.**

7. **Prices:-**

a) Prices are to be quoted in Indian Rupees, In case of a quote in currency other than India Rupees, exchange rate prevalent on the date of opening on FOB/FCA value will apply for comparison.

b) Prices quoted in the Price (Financial Bid) must be meaningful and measurable in the context.

c) **The prices quoted must be per unit shown in the schedule inclusive of installation and maintenance for 5 years. Price must be clearly shown in figures and words.**

d) **Tenderers should clearly specify whether prices quoted are inclusive of all taxes. Where no specific mention in made to the taxes, prices quoted shall be deemed to be inclusive of all taxes and charges.**

e) The Director, NBPGR, is not authorized to issue 'C/D' forms.

f) **The cost of items for goods i.e. F, G & H in the financial bid as per annexure - VII will be paid in INR and not to be part of LC in case of foreign companies. However, the L/C will be established only for those Component/Equipment which are to be imported.**

8. **BID SECURITY/EARNEST MONEY:-**

i. The EMD bid security may be submitted with appropriate value separately in the form of Account Payee Demand Draft, Fixed Deposit receipt , Banker's Cheque or Bank Guarantee from any of the Commercial Bank. The bid security is normally to remain valid for a period of forty-five days beyond the final bid validity period.

9. **SECURITY DEPOSIT / PERFORMANCE SECURITY:**

On acceptance of the tender, within the period specified by the Director, NBPGR, the successful tenderer / contractor shall deposit a sum equivalent to **10 % (Ten Percentages) of the contract value, rounded off to the nearest Rupee valid upto five years after the date of completion of all contractual obligations by the supplier**. This has to be in the form of a Bank Draft / Bank Guarantee, drawn in any of the commercial bank, in favour of **the Director, NBPGR, New Delhi**. On due performance and successful completion of the contract in all respect including warranty period, the security money deposit shall be returned to the contractor without any interest. Also, non-performance/unsatisfactory performance or violation of terms and conditions of the contract

will make the contractor liable for forfeiture of security deposit. The decision of the NBPGR shall be final and binding on this count.

10. EXECUTION TERMS:

a) **Time and date of delivery**: The time and the date of execution of work as stipulated in the schedule shall be deemed to be the essence of contract and execution must be completed not later than the date(s) specified. The execution of work / providing the services etc. are required to be completed within a period as specified in the purchase order and at the place mentioned therein. The time allowed for execution of order shall be governed by the stipulated time mentioned on the purchase order of Delivery of equipment / Items.

b) Erection/installation and commissioning are to be completed within 18 months after placing the order.

c) Training is to be imparted as given in the specifications schedule.

d) In case execution is not completed by due date the firm can seek extension giving full justification therefor before completion of prescribed date, failing which Liquidate Damage clause will be invoked.

e) **The successful bidder has to enter into a separate agreement with ICAR-NBPGR for completion of the scope of work.**

11. PAYMENT TERMS:

a) Payment will be released to the firm as per provision laid down in GFR-2017 and only after execution, inspection and satisfactory demonstration of performance (including supply of all accessories) subject to deposition of a sum equivalent to 10 % (Ten Percentages) of the contract Value as mentioned under Security Deposit / Performance Security Clause mentioned above or submission of Performance Bank Guarantee for 10% value of the order valid for a period of 5 years after satisfactory execution from any Commercial Bank.

b) Payment shall be made through **Electronic Clearing System/RTGS/Letter of Credit (on FOB/FCA value)**. The payment may be made in two installments subject to availability of funds, maximum two financial year period after satisfactory inspection, installation and performance subject to submission of appropriate and correct invoice, Challans and other documents as deemed fit.

12 EVALUATION CRITERIA

Evaluation of bids will be based upon scores earned by the responsive bids as per the criteria laid out for evaluation in Annexure VIII. Point numbers **(A)** 1-8 relates to the technical aspects of the job and adds to 75 marks. Point numbers **(B)** 1-5 relates to the terms and conditions of the tender and adds to 75 marks.

For qualifying as a successful bidder, the firm will have to score minimum 80% (60 marks out of 75) for the technical aspects and minimum 60% (45 marks out of 75) for the terms and conditions of the tender.

13. **Other Terms**

a) Dispute Resolution Mechanism (Arbitration): If any dispute or difference arises between the purchaser and the supplier relating to any matter connected with the contract, the parties shall make every effort to resolve the same amicably by mutual discussions. However, if the parties fail to resolve the dispute or difference by such mutual discussion within 30 days, either the purchaser or the supplier may give notice to the other party of its intention to refer the same to arbitration. The arbitration shall commence thereafter. The arbitration shall be conducted by a sole arbitrator, who will be appointed by Secretary, ICAR and the procedure to be followed in this respect will be as per the Indian Arbitration and Conciliation Act, 1996. The venue of the arbitration shall be at Delhi.

b) **Right to accept / reject:** The NBPGR authority reserves the right to reject any or all tender without assigning any reason whatsoever. Also, the NBPGR authority reserves the right to award any contract to any successful agency at its discretion and this will be binding on the tenderer.

c) Courts within the territory of Delhi shall have jurisdiction on any disputes between the parties.

d) Indian Laws shall be the governing law for any disputes arising between the parties.

14. **Liquidated Damage Clause :**

If any time during the performance of the contract, the supplier encounters conditions hindering timely execution, the supplier shall promptly inform the purchaser in writing the fact of the delay and likely duration of the same. After receipt of suppliers communications, the purchaser shall decide as to whether to cancel the contract for the un-supplied portion after the existing delivery period, or to extend the delivery period suitably by issuing the amendment to the contract. If the supplier fails to deliver the goods and /or perform the service within the contractual delivery period for reasons other than circumstances beyond supplier's control (which will be determined by the purchaser) and the purchaser extends the delivery period, the purchaser will also deduct from the contract price, as liquidated damages, a sum equivalent to 2% (two percent) per week of the delivered price of the delayed goods or unperformed services for per week of delay or part thereof until actual delivery of performance. The maximum limit of such deduction will however, be 10% (ten per cent) of the contract price of the delayed goods or services.

Further, during such delayed period of supply and / or performance, the supplier shall not be entitled to any increase in price and cost, whatsoever, or any ground. However, the purchaser shall be entitled to the benefit of any decrease in price and cost of any ground, whatsoever, of the goods & services, supplied during the period of delay.

The purchaser's letter (to the supplier, with copies endorsed to others concerned) extending the delivery period will be subject to the above conditions.

Administrative Officer

ANNEXURE-III

SPECIAL TERMS AND CONDITIONS

The following special terms and conditions shall apply:

Terms and conditions for tender documents

1. The bidder should have experience in construction, operation and maintenance of GeneBank/Seed bank for five years in India or elsewhere.
2. The firm should be involved in core business to deal with construction of GeneBank and maintenance of the GeneBank with not less than INR 60 crores per annum or equivalent foreign currency constantly for last three years. In support of this, copies of annual financial statements/tax returns need to be appended.
3. The vendors will also disclose any litigations relating to their work in other organisations during past 5 years with full details.
4. The vendors will also disclose if they had defaulted by late delivery/supply/installations in any of the organisations during past 5 years. If any, details need to be enclosed.
5. The vendors may visit the site with prior appointment with ICAR-NBPGR authorities.
6. Tentative specification and scope of the work is being provided to the bidder. A pre bid Conference will be held on a date specified and informed to all vendors willing to participate in Expression of Interest. This is to enable the vendors to clarify the issues, if any relating to the scope of work, specifications and terms and conditions to ensure it to be fair and transparent for one and all.
7. During technical evaluation process, bidders may be required to make presentations before the Committee constituted for the purpose.
8. CE (European Conformity) or higher certification on all components and the entire system as a completed assembly.
9. Retrofit designed and manufactured ISO9001 certified facility.
10. Defect Liability Period (DLP) should be One Year including testing and commissioning during summer, winter and rainy season. Apart from that, the bidder should have technical expertise in Supply , Testing, Installation and commissioning in construction, operation and maintenance of Genebank of any size for last five years in India and elsewhere (Sr. No. 1, Terms and Conditions for tender document, Annexure-III).
11. Vendor should include the backup spare parts for minimum five years at his cost and the Genebank staff have to be sufficiently trained in handling and maintenance of modernized/updated Genebank modules.
12. There should be provision for on-site training of the technical personnel of the Genebank for minimum six months by the firm that shall be undertaking the modernization work.
13. The bidder will be required to deposit EMD to the tune of INR 1 crore in the form of Demand Draft/Bank Guarantee/Fixed Deposit Receipt as per provision of GFR-2017.
14. Once the vender is selected and contract awarding process started, the EMD will be returned on receipt of a performance guarantee equivalent to 10% of the contract value which will be held until completion of the warranty period.
15. Maximum estimated time of completion of the work after the award should be mentioned.

16. The vendor will be bound to complete the assigned work order within the stipulated date. In case of delay, a penalty of 2% of the project work per week (with a maximum of 10%) will be levied.
17. One trained and experienced personnel/engineer should be deputed at the cost of the vendor on site of National Genebank (NGB) at ICAR-NBPGR during working hours and available on call in case of emergency to attend the work within 3 hours in NGB for 5 years. The vendor will ensure that in absence of regular engineer posted, alternate arrangements are made so that the system is continued to be looked after and managed. In case of non availability of the engineer, **a penalty of ₹ 10,000/- per day will be levied**. If because of absence of the engineer, any loss is incurred, Director NBPGR will be at its discretion to levy the penalty as may deem fit.
18. Vendors are responsible to store the required materials for modules upgradation on their own at their own site.
19. Comprehensive schedule of work completion needs to be provided
20. **Single source supply and execution by the vendor needs to be ensured.**
21. **The work must be compatible with integrated components of existing genebank system.**
22. The upgraded facility should meet the BEE prescribed standards w.r.t. Energy-Efficiency and also be Environment-friendly.
23. Except where otherwise provided in the clauses of this contract or the execution of the same arriving during the progress of work after the completion, abandonment there of all disputes shall be referred to the sole arbitration of a person nominated by the Secretary, Indian Council of Agricultural Research, New Delhi. The decision of the sole Arbitrator so appointed shall be final and binding on the parties. Arbitration proceedings shall be governed by the arbitration & Conciliation act, 1996.
24. Disputes, if any, will be subject to Courts in New Delhi Jurisdiction only.
25. Director, ICAR-NBPGR reserves the right to vary as well as to reject the work order/ quantity of refrigeration systems, as per the actual requirements and availability of funds.

Administrative Officer

ANNEXURE - IV

TENDER APPLICATION/DECLARATION FORM

1.	Name of firm:	
2.	Full Postal Address:-	
	Cell Phone No. of authorized person:-	
	Telephone No.	
	Fax No.	
	E-mail address:	
3.	Name and Address of your Bankers stating the name in which the Account stands/Bank Details:-	
4.	Any other information which you consider necessary to furnish:	

UNDERTAKING:

a. I, the undersigned certify that I have gone through the terms and conditions mentioned in the tender document and undertake to comply with them.

b. The rates quoted by me are valid and binding upon me for the entire period of the contract and it is certified that the rates quoted are the lowest quoted for any other institution in India.

c. The earnest money of Rs._____ to be deposited by me has been enclosed herewith vide Demand Draft no._____, Dt._____, drawn on bank_____, Branch _____.

d. I hereby undertake to supply the items as per directions given in the tender document / supply order within stipulated period.

e. I/We give the rights to Director, NBPGR to forfeit the Performance Security deposited by me/us if any delay occur on my/agent's part or failed to supply the articles within the appointed time or the items of desired quality.

There is no vigilance/CBI case or court case pending against the firm.

Signature of the tenderer:-

Full Name:-

Designation:-

(Official seal of the tenderer)

Date :

Place:

Specification for Retrofit/Upgradation of the existing National Genebank facilities at ICAR-NBPGR, New Delhi

Clause/Item
A. Module Control System
1. Full logic control using PID (Proportional-Integral-Derivative) Control System. 2. Programmable alarms for multiple module functions and components. 3. Intelligent alarm system with multiple communication methods. 4. All data stored in module controller and uploaded to central management system. 5. Remote viewing and diagnostics of control parameters and module components from engineering staff work station. 6. Internet- compatible and access by supplier via ICAR-NBPGR's building LAN as and when required. 7. Fully independent control for each module with power supply board, input module and appropriate number of input and output boards for control of temperature. 8. Controller to have automatic switch over to secondary controller in the event of failure. 9. Aspirator: Non-rusting ABS aspirator to house controller sensors. Should include piping to connect. 10. Local Data: The data available at the local display screen should include main module variables. All Parameters to be logged automatically every 15-20 seconds and could be viewed in the form of Trend graphs. Trend graphs could be viewed, with up to five days of history, directly on the local display screen for both 'set-point' and 'actual' values. Zoom and Pan functions to provide additional visualization tools allowing the user to precisely and accurately view and access the data. All refrigeration pressures and coil temperatures are to be viewable at controller screen and log both into control memory and set to main computerized control station. 11. The data available remotely should include every input and output parameter being monitored and controlled. Data needs to be automatically logged every 15-20 seconds regardless of the number of parameters. It should provide adequate data resolution for the user and to the service personnel. 12. Alarms: Audible and color coded visual alarms should be provided at module controller for user-settable absolute alarms for all controlled processes and user-settable process tracking alarms for temperature. In addition, there should be "built in" alarms available for module component monitoring. Provision needs to be made for alarm history logged to daily text files which could be easily retrievable from any Ethernet connected computer (either with or without a Central Management) or through the local control screen. 13. Programmable 'ECONOMICAL' mode as per Clause/Item No. IV, para number 12 (refrigeration system specifications). 14. Password- protected levels reserved for users (three), administrator (one), technicians and vendor service personnel. 15. Start-Up Delay: Modules to be programmed with staggard restart should there be a power failure at facility to ensure the backup generators are not overloaded o when electrical systems come back on line. 16. Central Alarm Contacts for connection to the Genebank –Central Management System.

17. Surge protection and uninterrupted power supply, on controller only, for continuous operation of the controller during power interruptions, duration of the UPS to be approximately 5 hours.
18. Full remote capabilities from a central computer station to provide remote control, diagnostics and independent controls switch over. Ethernet backbone within the area housing the modules by contractor.
19. Central computer system to be capable to email intelligent alarms and SMS in event of system malfunction to multiple email accounts of the authorised users.
20. Entire assembly as a whole including all the above components must be of European Conformity (CE) or higher certification standards to be compatible to the existing facility.
21. In order to maintain hassle-free, safe and uninterrupted working of the Genebank modules, there should be smart fault detection system and IT level message so that with the advance knowledge of any anticipated fault, necessary correction measures can be taken by the concerned staff.
22. All supporting documentation must be supplied with technical tender.

B. Genebank - Central Management System (Genebank - CMS)

Genebank - Central Management System must have the following features:

1. Ability to programme each room control system independently for Central Management Screen.
2. A supervisory dashboard to provide a quick overview of all operational modules with quick links to separate full screen and should record each modules management details.
3. Logged data files in secured and light file format like Comma Separated Value (CSV) file format, with duration of each file representing 24 hours period.
4. Alarm logging must maintain individual module alarm data file in secured and light file format like CSV format.
5. Genebank - CMS should have multiple alarm notification through connection to building services from a central point, autodialed voice messaging from a central point, internal audible alarm, global and individual email alert messages from client-configured alarms.
6. Digital compilation of Genebank - CMS archives which allows access to service history information.
7. Reporting of opening and closing of the module and running/stopping of the machinery fitted with the modules.
8. There should be provision of editing of the module properties data e. g. name of the crop, name of the module, purpose etc. or any other relevant details.
9. There should be provision of Web reporting from Genebank - CMS in a Web server which allows viewing of alarm, data log, trend graphs and service history from any web browser, and should also facilitate data downloading.
10. Hardware must include latest Windows 10 Professional Operating System workstation computer or better/latest version for smooth and efficient operation of Genebank - CMS and should be able to send web reports to intended users through existing LAN system of ICAR-NBPGR.
11. Communication from the module to Genebank – CMS should be secure and compatible with the existing LAN system of ICAR-NBPGR.

C. Security and safety

1. Levels of passwords which allow for different access for the varying levels of the control system.
2. LTS and MTS doors of 6ft. 7in. x 3ft. 2in. to be replaced with suitable aluminium skinned polyurethane cored, low temperature design. Should consist of magnetic seals, heat jams and heated dual pan observation window of 14in. x 14in. size. Doors must include biometric entry lock and internal emergency opener and emergency alarm system.
3. Exterior mount panic alarm with strobe light and quick release interior panic button to unlock door, also connected to building security system.
4. Security lighting to be automatically switched on in event of power failure.
5. The best technology for Safety and Security System of machinery and human beings should be incorporated in the modernization design and 3 levels of password should be followed, which allow for different access to the varying levels of the control system and biometric entry passage lock.

D. Refrigeration System

A total number of existing 17 (seventeen) Long-Term Storage (LTS) and Medium-Term Storage (MTS) modules (puff panels thickness 50mm) in ICAR-NBPGR New and Old Building Campus to be updated/modernized.

a. 12 (twelve) LTS modules in ICAR-NBPGR New Building maintained at – $20^0 \pm 2^0$C temperature in peak ambient conditions of temperature and relative humidity at its location with size/dimension measuring 11.5 m x 4.5 m x 2.6 m.

b. 1 (one) MTS module in ICAR-NBPGR New Building maintained at $4^0 \pm 2^0$C of temperature and 30-35% Relative Humidity in peak ambient conditions of temperature and relative humidity at its location with size/dimension measuring 11.5m x 4.5m x 2.6 m.

c. 4(four) MTS modules in ICAR-NBPGR Old Building maintained at $4^0 \pm 2^0$C temperature and 30-35 % Relative Humidity in peak ambient conditions of temperature and relative humidity at its location, out of which 2 (two) MTS modules have size/dimension measuring 11M x 3Mx 3M and remaining 2 (two) MTS modules have size /dimension measuring 12.2m x 5.8m x 3.2m.

The seed storage capacity for each LTS and MTS is about 17,000 KG.

For refrigeration system, Vendors have to quote for individual units for a, b and c respectively for the scope of work as enunciated in para 2 to 12 given below. Competent Authority has the discretion to vary number of units according to the actual requirement.

1. Vendor has to provide replacement of redundant refrigeration system including compressor, remote condensing systems and evaporators with R404A or R 410A system. Full redundancy control of switch over through controller in case of system failure.

2. Vendor must supply two fully independent refrigeration systems at each module with adequate capacity which is capable of maintaining -20^0±2^{0}C in LTS and 4^0±2^{0}C in MTS, constantly with a maximum temperature variation of ± 0.5^{0}C at sensor location. The compressor must have a minimum warranty period of five years and to be of preferably scroll or rotary type. The compressor may be equipped with VFD (variable Frequency Drive) for capacity control.
3. Refrigeration system must be continuous running to maintain temperature uniformly throughout the module and equipped with hot gas bypass defrosting system.
4. High and low pressure regulators must be able to trigger not only alarms but also the secondary control system to allow for automatic switch over in event of failure. Pressure to be displayed and logged at module controller as well as at Genebank - CMS.
5. All systems must have pressure transducers on both high (discharge) and low sides (suction). Information must be displayed through module control system.
6. Evaporator coil temperature sensors must be readable through control system.
7. Compressors and receivers must be in the corridor behind the modules to allow for easy maintenance and all weather condensers must be exterior to the building. Vendor should be responsible for all inter connection refrigeration and control line.
8. Anti-vibration Mechanism for Machinery: To ensure proper functioning and enhanced durability, the machinery should be well balanced and vibration tolerant.
9. Ensure working of module uninterruptedly.
10. The remote defrosting on cooling units should be automated with inherent need based on on/off mechanism. Every Long Term Storage (LTS) and Medium Term Storage (MTS) door's opening should be ice free and have peeping windows.
11. Programmable 'ECONOMICAL' mode. Hot gas system should automatically shut down and the system should be capable of running in ON/OFF mode with a maximum of 1^{0}C temperature variation at sensor location.

E. Humidity system Retrofit for MTS Module

1. Vendor to Provide replacement of additive dehumidification components.
2. All components to be 100% redundant by supply of secondary system.
3. Dehumidification must be by chemical drier and not by refrigeration.
4. Each chemical drier must have a minimum process air flow rate of 300cfm.
5. Chemical driers should be of shaft drive wheel type, and capable of maintaining the module at a minimum value of a 30 to 35% Relative Humidity round the year.
6. Chemical drier must be certified by European Conformity or higher certification agency.

F. Decommissioning, Material Handling, Installation and Commissioning

1. Vendor should facilitate and cooperate so that all seed material must be transported and stored by the staff of ICAR-NBPGR at a location maintained in current environment conditions and return back in the exact location inside the modules after completion of the module work in a phased manner.
2. No damage of any kind will be acceptable in the given plan.
3. All works must be completed by the authorized trained personnel of the vendor.
4. All work must be done with all sanitary precautions with safety precautions and on condition that the work site will not be contaminated in any way.
5. All functional components must be logged and given back to ICAR-NBPGR and even non-usable components should be inventoried and deposited to ICAR-NBPGR by the vendor.

6. All excess materials and refuse must be removed from site and disposed on a daily basis by the vendor to keep the site clean and workable. 7. Complete and comprehensive project plan and scope along with design etc, if any, must be provided at time of tender. 8. All existing equipments/material shall be dismantled by the bidder and stacked as indicated by the institute authorities.
G. Maintenance of Upgraded facility by vendor through trained personnel/ engineer
One trained and experienced personnel/engineer should be deputed at the cost of vendor on site of National Genebank (NGB) at ICAR-NBPGR during working hours and available on call in case of emergency to attend the work within 3 hours in NGB for 5 (five) years.
H. Civil/Electrical work
1. The modernization/upgradation of National Genebank will also include all synchronized civil and electrical work. 2. Vitrified tiling including skirting and Silicate False ceiling with adequate provision of LED lighting, AC outlet, CC TV outlet and conduiting of the White Gallery measuring 800 sq. ft. (± 20 sq. ft.), matching with the existing aesthetics of the Genebank. Colour and design of the tiles and ceiling should be approved by the Competent Authority of ICAR-NBPGR. 3. Armstrong metallic false ceiling with adequate provision of LED lighting and conduiting of the Genebank galleries measuring 1800 sq. ft. (± 50 sq. ft.). Colour and design of the Armstrong metallic false ceiling should be approved by the Competent Authority of ICAR-NBPGR. 4. Plastic Emulsion painting of the walls of the Genebank corridors measuring 29,000 sq. ft. (± 300 sq. ft.) matching with the existing aesthetics of the Genebank. Colour of the Plastic Emulsion paint should be approved by the Competent Authority of ICAR-NBPGR after removing colour and making good surface for painting. 5. Civil work to control seepages on wall (Cryo-bank gallery) in front of Cryo-bank in Genebank basement, Size= L x H=60 feet x 12.5 feet= 750 Sq. feets. 6. Green color matte finish ceramic roof tiles are fixed on the roof of Genebank, Size= L x B=155 feet x 90 feet= 13950 Sq. feets. 7. Vendors should provide 32 KVA servo stabilizers for the LTS modules and 48 KVA servo stabilizers for MTS modules and the stabilizers should be compatible with the existing modules and hooked to LTS and MTS modules, with specification of input voltage range 300-460 V, 50 Hz, three phase AC supply and output voltage of 380V ±1%.

Annexure – VI

ICAR - National Bureau of Plant Genetic Resources
(Indian Council of Agricultural Research, New Delhi)
New Delhi - 110012

PROFORMA FOR TECHNICAL BID

Scope of Work	Specification of the Execution Modalities of the equipment offered
A. Module Control System 1. Full logic control using PID (Proportional-Integral-Derivative) Control System. 2. Programmable alarms for multiple module functions and components. 3. Intelligent alarm system with multiple communication methods. 4. All data stored in module controller and uploaded to central management system. 5. Remote viewing and diagnostics of control parameters and module components from engineering staff work station. 6. Internet- compatible and access by supplier via ICAR-NBPGR's building LAN as and when required. 7. Fully independent control for each module with power supply board, input module and appropriate number of input and output boards for control of temperature. 8. Controller to have automatic switch over to secondary controller in the event of failure. 9. Aspirator: Non-rusting ABS aspirator to house controller sensors. Should include piping to connect. 10. Local Data: The data available at the local display screen should include main module variables. All Parameters to be logged automatically every 15-20 seconds and could be viewed in the form of Trend graphs. Trend graphs could be viewed, with up to five days of history, directly on the local display screen for both 'set-point' and 'actual' values. Zoom and Pan functions to provide additional visualization tools allowing the user to precisely and accurately view and access the data. All refrigeration pressures and coil temperatures are to	

be viewable at controller screen and log both into control memory and set to main computerized control station. 11. The data available remotely should include every input and output parameter being monitored and controlled. Data needs to be automatically logged every 15-20 seconds regardless of the number of parameters. It should provide adequate data resolution for the user and to the service personnel. 12. Alarms: Audible and color coded visual alarms should be provided at module controller for user-settable absolute alarms for all controlled processes and user-settable process tracking alarms for temperature. In addition, there should be "built in" alarms available for module component monitoring. Provision needs to be made for alarm history logged to daily text files which could be easily retrievable from any Ethernet connected computer (either with or without a Central Management) or through the local control screen. 13. Programmable 'ECONOMICAL' mode as per Clause/Item No. IV, para number 12 (refrigeration system specifications). 14. Password- protected levels reserved for users (three), administrator (one), technicians and vendor service personnel. 15. Start-Up Delay: Modules to be programmed with staggard restart should there be a power failure at facility to ensure the backup generators are not overloaded o when electrical systems come back on line. 16. Central Alarm Contacts for connection to the Genebank –Central Management System. 17. Surge protection and uninterrupted power supply, on controller only, for continuous operation of the controller during power interruptions, duration of the UPS to be approximately 5 hours. 18. Full remote capabilities from a central computer station to provide remote control, diagnostics and independent controls switch over. Ethernet backbone within the area housing the modules by contractor. 19. Central computer system to be capable to email intelligent alarms and SMS in event of system malfunction to multiple email accounts of the authorised users.	

20. Entire assembly as a whole including all the above components must be of European Conformity (CE) or higher certification standards. 21. In order to maintain hassle-free, safe and uninterrupted working of the Genebank modules, there should be smart fault detection system and IT level message so that with the advance knowledge of any anticipated fault, necessary correction measures can be taken by the concerned staff. 22. All supporting documentation must be supplied with technical tender.	
B. Genebank - Central Management System (Genebank CMS) 1. Ability to programme each room control system independently for Central Management Screen. 2. A supervisory dashboard to provide a quick overview of all operational modules with quick links to separate full screen and should record each modules management details. 3. Logged data files in secured and light file format like Comma Separated Value (CSV) file format, with duration of each file representing 24 hours period. 4. Alarm logging must maintain individual module alarm data file in secured and light file format like CSV format. 5. Genebank - CMS should have multiple alarm notification through connection to building services from a central point, autodialed voice messaging from a central point, internal audible alarm, global and individual email alert messages from client-configured alarms. 6. Digital compilation of Genebank - CMS archives which allows access to service history information. 7. Reporting of opening and closing of the module and running/stopping of the machinery fitted with the modules. 8. There should be provision of editing of the module properties data e. g. name of the crop, name of the module, purpose etc. or any other relevant details. 9. There should be provision of Web reporting from Genebank - CMS in a Web server which allows viewing of alarm, data log, trend graphs and service history from any web browser, and should also facilitate data downloading. 10. Hardware must include latest Windows 10 Professional Operating System workstation	

computer or better/latest version for smooth and efficient operation of Genebank - CMS and should be able to send web reports to intended users through existing LAN system of ICAR-NBPGR. 11. Communication from the module to Genebank – CMS should be secure and compatible with the existing LAN system of ICAR-NBPGR.	
C. Security and Safety 1. Levels of passwords which allow for different access for the varying levels of the control system. 2. LTS and MTS doors of 6ft. 7in. x 3ft. 2in. to be replaced with suitable aluminium skinned polyurethane cored, low temperature design. Should consist of magnetic seals, heat jams and heated dual pan observation window of 14in. x 14in. size. Doors must include biometric entry lock and internal emergency opener and emergency alarm system. 3. Exterior mount panic alarm with strobe light and quick release interior panic button to unlock door, also connected to building security system. 4. Security lighting to be automatically switched on in event of power failure. 5. The best technology for Safety and Security System of machinery and human beings should be incorporated in the modernization design and 3 levels of password should be followed, which allow for different access to the varying levels of the control system and biometric entry passage lock.	
D. Refrigeration System. A total number of existing 17 (seventeen) Long-Term Storage (LTS) and Medium-Term Storage (MTS) modules (puff panels thickness 50mm) in ICAR-NBPGR New and Old Building Campus to be updated/modernized. a. 12 (twelve) LTS modules in ICAR-NBPGR New Building maintained at – $20^0 \pm 2^0$C temperature in peak ambient conditions of temperature and relative humidity at its location with size/dimension measuring 11.5 m x 4.5 m x 2.6 m. b. 1 (one) MTS module in ICAR-NBPGR New Building maintained at $4^0 \pm 2^0$C of temperature	

and 30-35% Relative Humidity in peak ambient conditions of temperature and relative humidity at its location with size/dimension measuring 11.5m x 4.5m x 2.6 m. c. 4(four) MTS modules in ICAR-NBPGR Old Building maintained at $4^0 \pm 2^0$C temperature and 30-35 % Relative Humidity in peak ambient conditions of temperature and relative humidity at its location, out of which 2 (two) MTS modules have size/dimension measuring 11M x 3Mx 3M and remaining 2 (two) MTS modules have size /dimension measuring 12.2m x 5.8m x 3.2m. **The seed storage capacity for each LTS and MTS is about 17,000 KG.** **For refrigeration system, Vendors have to quote for individual units for a, b and c respectively for the scope of work as enunciated in para 2 to 12 given below. Competent Authority has the discretion to vary number of units according to the actual requirement.** 1. Vendor has to provide replacement of redundant refrigeration system including compressor, remote condensing systems and evaporators with R404A or R 410A system. Full redundancy control of switch over through controller in case of system failure. 2. Vendor must supply two fully independent refrigeration systems at each module with adequate capacity which is capable of maintaining $-20^0 \pm 2^0$C in LTS and $4^0 \pm 2^0$C in MTS, constantly with a maximum temperature variation of $\pm$ 0.5^0C at sensor location. The compressor must have a minimum warranty period of five years and to be of preferably scroll or rotary type. The compressor may be equipped with VFD (variable Frequency Drive) for capacity control. 3. Refrigeration system must be continuous running to maintain temperature uniformly throughout the module and equipped with hot gas bypass defrosting system. 4. High and low pressure regulators must be able to trigger not only alarms but also the secondary control system to allow for automatic switch over in event of failure. Pressure to be displayed and	

logged at module controller as well as at Genebank - CMS. 5. All systems must have pressure transducers on both high (discharge) and low sides (suction). Information must be displayed through module control system. 6. Evaporator coil temperature sensors must be readable through control system. 7. Compressors and receivers must be in the corridor behind the modules to allow for easy maintenance and all weather condensers must be exterior to the building. Vendor should be responsible for all inter connection refrigeration and control line. 8. Anti-vibration Mechanism for Machinery: To ensure proper functioning and enhanced durability, the machinery should be well balanced and vibration tolerant. 9. Ensure working of module uninterruptedly. 10. The remote defrosting on cooling units should be automated with inherent need based on on/off mechanism. Every Long Term Storage (LTS) and Medium Term Storage (MTS) door's opening should be ice free and have peeping windows. 11. Programmable 'ECONOMICAL' mode. Hot gas system should automatically shut down and the system should be capable of running in ON/OFF mode with a maximum of 1^0C temperature variation at sensor location.	
E. Humidity system Retrofit for MTS Module 1. Vendor to Provide replacement of additive dehumidification components. 2. All components to be 100% redundant by supply of secondary system. 3. Dehumidification must be by chemical drier and not by refrigeration. 4. Each chemical drier must have a minimum process air flow rate of 300cfm. 5. Chemical driers should be of shaft drive wheel type, and capable of maintaining the module at a minimum value of a 30 to 35% Relative Humidity round the year. 6. Chemical drier must be certified by European Conformity or higher certification agency	
F. Decommissioning, Material Handling, Installation and Commissioning	

1. Vendor should facilitate and cooperate so that all seed material must be transported and stored by the staff of ICAR-NBPGR at a location maintained in current environment conditions and return back in the exact location inside the modules after completion of the module work in a phased manner. 2. No damage of any kind will be acceptable in the given plan. 3. All works must be completed by the authorized trained personnel of the vendor. 4. All work must be done with all sanitary precautions with safety precautions and on condition that the work site will not be contaminated in any way. 5. All functional components must be logged and given back to ICAR-NBPGR and even non-usable components should be inventoried and deposited to ICAR-NBPGR by the vendor. 6. All excess materials and refuse must be removed from site and disposed on a daily basis by the vendor to keep the site clean and workable. 7. Complete and comprehensive project plan and scope along with design etc, if any, must be provided at time of tender. 8. All existing equipments/material shall be dismantled by the bidder and stacked as indicated by the institute authorities.	
G. Maintenance of Upgraded facility by vendor through trained personnel/ engineer 1. One trained and experienced personnel/engineer should be deputed at the cost of vendor on site of National Genebank (NGB) at ICAR-NBPGR during working hours and available on call in case of emergency to attend the work within 3 hours in NGB for 5 years.	
H. Civil/ Electrical Work 1. The modernization/upgradation of National Genebank will also include all synchronized civil and electrical work. 2. Vitrified tiling including skirting and False ceiling with adequate provision of LED lighting, AC outlet, CC TV outlet and conduiting of the White Gallery measuring 800 sq. ft. (± 20 sq. ft.), matching with the existing aesthetics of the Genebank. Colour and	

design of the tiles and ceiling should be approved by the Competent Authority of ICAR-NBPGR. 3. Armstrong metallic false ceiling with adequate provision of LED lighting and conduiting of the Genebank galleries measuring 1800 sq. ft. (± 50 sq. ft.). Colour and design of the Armstrong metallic false ceiling should be approved by the Competent Authority of ICAR-NBPGR. 4. Plastic Emulsion painting of the walls of the Genebank corridors measuring 29,000 sq. ft. (± 300 sq. ft.) matching with the existing aesthetics of the Genebank. Colour of the Plastic Emulsion paint should be approved by the Competent Authority of ICAR-NBPGR after removing colour and making good surface for painting. 5. Civil work to control seepages on wall (Cryo-bank gallery) in front of Cryo-bank in Genebank basement, Size= L x H=60 feet x 12.5 feet= 750 Sq. feets. 6. Green color matte finish ceramic roof tiles are fixed on the roof of Genebank, Size= L x B=155 feet x 90 feet= 13950 Sq. feets. 7. Vendors should provide 32 KVA servo stabilizers for the LTS modules and 48 KVA servo stabilizers for MTS modules and the stabilizers should be compatible with the existing modules and hooked to LTS and MTS modules, with specification of input voltage range 300-460 V, 50 Hz, three phase AC supply and output voltage of 380V ±1%.	

Date:- **Signature of the tenderer:-**

Place:-

Full Name:-
Designation:-

(Official seal of the tenderer)

Annexure – VII

ICAR - National Bureau of Plant Genetic Resources
(Indian Council of Agricultural Research, New Delhi)
New Delhi - 110012

PROFORMA FOR PRICE BID

Scope of Work	Price Quoted (inclusive of all taxes and any other charges)	
	In Figures	In Words
A. Module Control System *(As per detailed specification /scope of work- (Annexure-VI)*		
B. GeneBank –Central Management System (Gene Bank-CMS) *(As per detailed specification /scope of work- (Annexure-VI)*		
C. Security and Safety *(As per detailed specification /scope of work- (Annexure-VI)*		
D. Refrigeration System a. 12 (twelve) LTS modules in ICAR-NBPGR New Building maintained at – $20^0 \pm 2^0$C temperature in peak ambient conditions of temperature and relative humidity at its location with size/dimension measuring 11.5 m x 4.5 m x 2.6 m. b. 1 (one) MTS module in ICAR-NBPGR New Building maintained at $4^0 \pm 2^0$C of temperature and 30-35% Relative Humidity in peak ambient conditions of temperature and relative humidity at its location with size/dimension measuring 11.5m x 4.5m x 2.6 m. c. 4(four) MTS modules in ICAR-NBPGR Old Building maintained at $4^0 \pm 2^0$C temperature and 30-35 % Relative Humidity in peak ambient conditions of temperature and relative humidity at its location, out of which 2 (two) MTS modules have size/dimension measuring 11M x 3Mx 3M and remaining 2		

(two) MTS modules have size /dimension measuring 12.2m x 5.8m x 3.2m. **The seed storage capacity for each LTS and MTS is about 17,000 KG.** (As per detailed specifications/scope of work – Annexure VI) **For refrigeration system, Vendors have to quote for individual units, for a, b and C respectively.**		
E. Humidity System Retrofit for MTS Module (As per detailed specifications/scope of work – Annexure VI)		
F. Decommissioning, Material Handling, Installation and Commissioning (As per detailed specifications/scope of work – Annexure VI)		
G. Maintenance of Upgraded facility by vendor through trained personnel/engineer (As per detailed specifications/scope of work – Annexure VI)		
H. Civil/Electrical Work (As per detailed specifications/scope of work – Annexure VI)		

Date:- **Signature of the tenderer:-**

Place:-

Full Name:-
Designation:-

(Official seal of the tenderer)

Annexure - VIII

Evaluation Criteria for Technical Bids for upgradation/modernization/retrofit of National Genebank. (Total Score = 150 Marks)

Sl. No.	Category/Criteria *	Max Score
A.	**Technical Aspects**	
1	**Module control system**	**12**
2	**Genebank- Central management system**	**12**
3	**Security and safety**	**5**
4	**Refrigeration system**	**22**
5	**Humidity system retrofit for MTS module**	**6**
6	**Decommissioning, material handling, installation and commissioning**	**8**
7	**Maintenance of upgraded facility by vendor through trained personal/engineer**	**5**
8	**Civil/Electrical work**	**5**
	TOTAL	**75**
B.	**Terms and Condition Aspects**	
1	**Technical competence for completing the work**	**30**
i	*(a) Three references for construction of GeneBank and maintenance of the GeneBank work done and running without failure for a minimum of 5 years*	*10*
ii	*(b) Experience of developing/ modernizing the genebank*	*5*
iii	*(c) Technical approach and methodology*	*5*
iv	*(d) Work plan*	*5*
v	*(e) Key professional staff qualification and their competence for the assignment*	*5*
2	**Presentation**	**15**
i	*(a) Comprehensive work plan*	*5*
ii	*(b) Estimated time to complete work*	*5*
iii	*(c) Details of approach and methodology for completing the work*	*5*
3	**Certification standards**	**10**
i	*(a) European Conformity (EC) or higher certification of all component*	*4*
ii	*(b) Retrofit designing and manufacturing by ISO 9001 certified firm*	*3*
iii	*(c) Upgraded facility should meet BEE prescribed standards w.r.t. Energy Efficiency and Environment Friendly*	*3*
4	**Reputation of Firm**	**10**
i	*(a) Genebank developed/upgraded at International level*	*3*
ii	*(b) Genebank developed/upgraded at national level*	*3*
iii	*(c) Single source supply and execution*	*4*
5	**Financial Credibility**	**10**
i	*Core business not less than INR 60 crores/ annum*	*10*
	TOTAL	**75**
	GRAND TOTAL	**150**

*** Each criteria will be evaluated by a Technical committee. The basis for awarding marks will be pramently specifications of the components, details of the components presented, response to the enquries of the committee.**

Annexure-IX

INSTRUCTIONS FOR ONLINE BID SUBMISSION:

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: https://eprocure.gov.in/eprocure/app.

REGISTRATION

1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: https://eprocure.gov.in/eprocure/app) by clicking on the link "**Online bidder Enrolment**" on the CPP Portal which is free of charge.
2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy etc.) has been provided to the bidders. Bidders can use "My Space" or ''Other Important Documents'' area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.

3) Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.

4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.

5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable.

6) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 125 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

9) Upon the successful and timely submission of bids (ie after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

10) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

11) The rates for quoted shall be valid for a minimum period of 180 days from the last date fixed for submission of bid.
12) The rates quoted shall be free of cost delivery and installation at the Division/Unit of NBPGR, New Delhi. However quoted in foreign currency must be quoted on FOB/FCA.
13) The Director, NBPGR, New Delhi reserves the right to accept or reject any or all the quotations either in full or in parts without assigning any reason.
14) Quotations not complying with the above conditions are liable to be rejected.
15) 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).

ASSISTANCE TO BIDDERS

1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

Annexure – X

BANK GUARANTEE FORM FOR BID SECURITY

Whereas..... ..... (Name of bidder) (herein after called "the bidder") has submitted his bid dated ..... (date) for the supply of ..... (brief description of the relevant goods and services) hereinafter called "the bid").

KNOW ALL PEOPLE by these presents that WE ..... (name of the bank) having registered office at ..... (full address) (hereinafter called "the bank") are bound unto ..... (Name of the purchaser) (hereinafter called "the purchaser") in the sum of ..... (amount in figures and in worlds) for which payment well and truly to be, made to the said purchaser, the bank binds itself, its successors and assigns by these presents.

Sealed with the Common Seal of the said bank this ..... Day of ..... 20.....

THE CONDITIONS of this obligations are:

1. If the bidder
   (i) Withdraws its bid during the period of bid validity specified by the bidder on the bid form; or
   (ii) Does not accept the correction of errors in accordance with the Instruction to Bidders

OR

2. If the bidder, having been notified of the acceptance of its bid by the purchaser during the period of bid validity :

(i) Fails or refuses to execute the contract form, if required; or

(ii) Fails or refuses to furnish the performance security, in accordance with the Instruction to Bidders.

We undertake to pay to the purchaser up to the above amount upon receipt of its first written demand, without the purchaser having to substantiate its demand, provided that in its demand the purchaser will note that the amount claimed by its is due to it, owing to the occurrence of one or both of the above mentioned two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including 60 (sixty) days after the period of bid validity and any demand in respect thereof should reach the bank not later than the above date.

.....

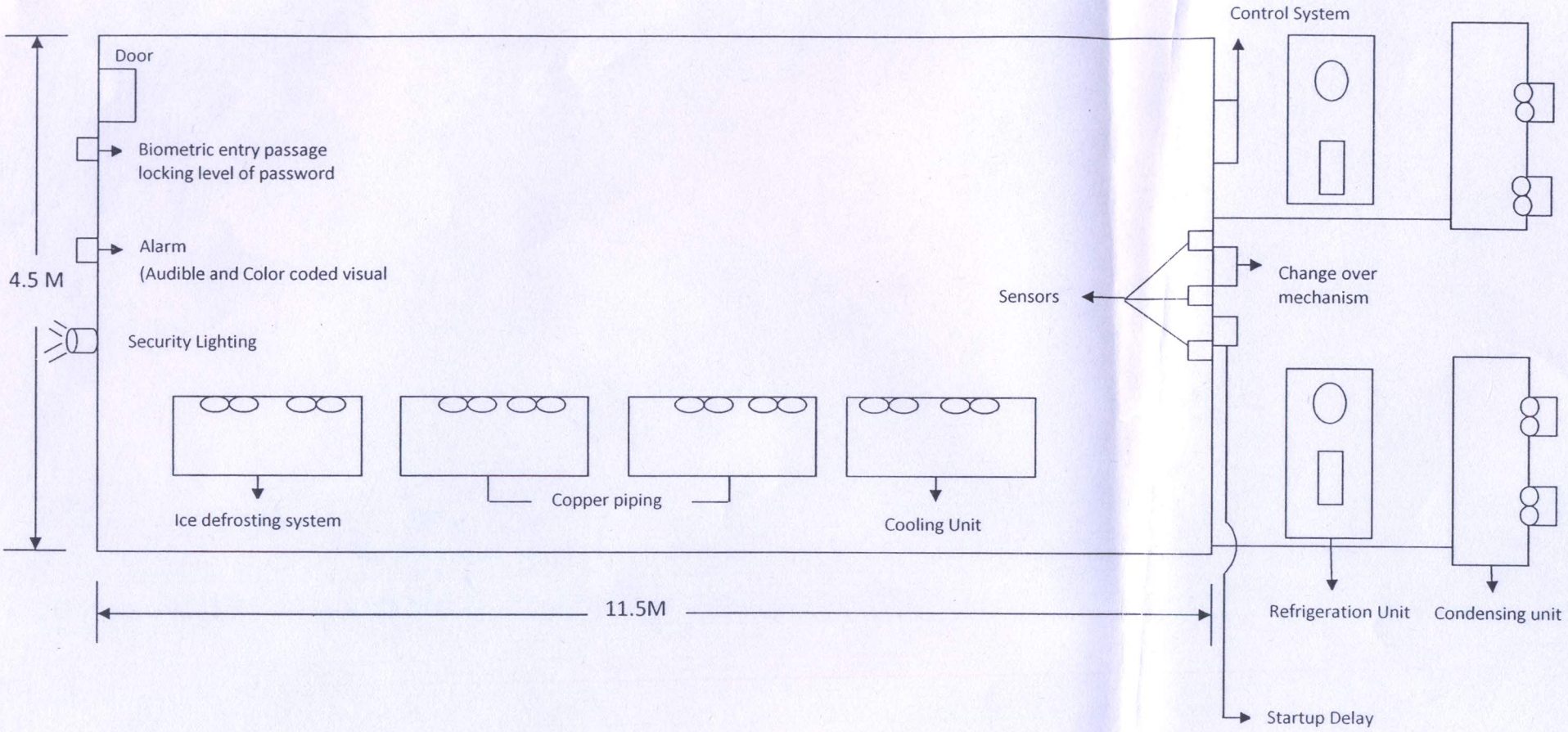
Signature of the Bank
SEAL of the Bank

Date : .....

Place : .....

ANNEXURE- XI

Retrofit Sketch Long Term Storage (LTS) Module



Size L – 11.5 M
W – 4.5 M
H – 2.6 M

CMS
(Central Management System)

Declaration

We (the company) hereby certify that the information furnished above are full and correct to the best of our knowledge. We understand that in case any deviation is found in the above statement at any stage, the company will be black-listed and will not have any deal with the Organizations in future.

Authorized
Signature with Seal
of Company

Signature Not Verified
Digitally signed by SANJAY DANGWAL
Date: 2017.07.15 12:32:58 IST
Location: eProcure