



TROPICAL FOREST RESEARCH INSTITUTE

उष्णकटिबंधीय वन अनुसंधान संस्थान

(Indian Council of Forestry Research & Education)

(भारतीय वानिकी अनुसंधान एवं शिक्षा परिषद्)

(An Autonomous Council under the Ministry of Environment & Forests, Govt. of India)

(पर्यावरण एवं वन मंत्रालय, भारत सरकार की एक स्वायत्त परिषद्)

P.O. – R.F.R.C, Mandla Road, JABALPUR – 482 021 (M.P)

डाकघर - आर०एफ०आर०सी०, मण्डला रोड, जबलपुर - 482 021

F No 15-1(I)/2017-18/MR-236./E-PROCUREMENT/Tender-I/Pur/TFRI/JBP/

Dated: / /2017

NOTICE INVITING TENDER NO: ID-236,240& CAPITAL ASSET/17-18/TFRI/JBP/01

Tropical Forest Research Institute invites tenders for the “ Supply & Installation of Sap flow meter, Gel Documentation System & Gradient PCR” from eligible bidders on line. Details may be obtained online at CPPP web site <http://eprocure.gov.in/eprocure/app> and <http://tfri.icfre.org>. Last date for submission of bids is **27/06/2017**. Bids shall be submitted online only at CPPP web site. Manual bids shall not be accepted.

Director TFRI, Jabalpur

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F No 15-1(I)/2017-18/MR-236./E-PROCUREMENT/Tender-I/Pur/TFRI/JBP/

Dated: / /2017

Chapter-1

NOTICE INVITING TENDER NO: ID-236,240 & CAPITAL ASSET/17-18/TFRI/JBP/01

Tropical Forest Research Institute invites online bids (Technical & Financial) from eligible bidders which are valid for a minimum period of 120 days from the date of opening (i.e. 28/06/2017) for “ Supply & Installation of Sap flow meter, Gel Documentation System & Gradient PCR ”

Tender documents may be downloaded from TFRI web site <http://tfri.icfre.gov.in/>. (for reference only) and CPPP site <http://eprocure.gov.in/eprocure/app> as per the schedule as given in CRITICAL DATE SHEET as under:

SNO	Activity	Date	Time
1.	Date of Publishing	31/05/2017	17.00 hrs.
2.	Last date for receipt of bids	27/06/2017	17.00 hrs.
3.	Date of Opening of Technical bids at TFRI Jabalpur	29/06/2017	15.00 hrs.
4.	Date of Opening of Financial bids at TFRI Jabalpur	07/07/2017	15.30hrs.

Bids shall be submitted **online only** at CPPP web site <http://eprocure.gov.in/eprocure/app>. Manual bids shall not be accepted. Tenderer are advised to follow the instructions provided in the “instructions to the Tenderer for the e- submission of the bids online through the Central Public Procurement Portal for e-Procurement at <http://eprocure.gov.in/eprocure/app>.

Intending tenderers are advised to visit again at CPPP web site <http://eprocure.gov.in/eprocure/app> frequently prior to closing date of submission of tender for any corrigendum/addendum/amendment.

Bids will be opened as per date/Time as mentioned in the tender critical date sheet. After on line opening of Technical bid the results their qualification as well as price bid opening will be intimated on line only.

e-PROCUREMENT/ID-236&240/17-18/Tender-1/2

Director TFRI, Jabalpur

TENDERS FOR SAP FLOW METER, GEL DOCUMENTATION SYSTEM & GRADIENT PCR SUPPLY & INSTALLATION

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Chapter-2
Conditions of Contract

**2(a)The proposals must consist two bid systems as follows:
“QUALIFYING DOCUMENTS & EMD”**

Sl. No.	Document
1.	Scanned copy of original catalogue of the instrument, Vender should have sufficient capacity to give application support,
2.	Scanned copy of users' list and satisfactory report of quoted model from reputed institute preferably Government institute,
3.	Scanned copy of supportive documents from the users for the satisfactory performance and after sales service. Manufacturer quoted by vender should have own office in India for better after sales and service support.
4.	Information about suitably trained technical staff, Information about well established service network
5.	Certificate from principle for availability of spares/parts for next five years
6.	On site comprehensive warranty certificate for 36 months
7.	Performance certificates for the quoted model (atleast 3)
8.	Online Receipt in respect of Tender Form Fee and EMD/Exemption document/CSPO registration certificate.
9.	Proof of registration of firm & PAN
10.	Valid Income tax certificate of unit till the date of tender.
11.	Sale tax clearance/exemption certificate till March/2017
12.	The bidding firm must process an experience of at least five (05) years, in the field of supply, support and maintenance of the equipment. (Enclose copies of the supportive documents or supply orders.

EMD/Tender fee will be as follows (liable to be forfeited if wrong information is furnished)

Sl.	Name of equipment	Tender No.	EMD Rs.	TENDER FEE Rs.
1.	SAP FLOW METER	F No 15-1(I)/2017-18/ID-236./E-PROCUREMENT/Tender-I/Pur/TFRI/JBP/	17,500/-	250/-
2.	GEL DOCUMENTATION SYSTEM	F No 15-1(VI)/2017-18/ID-240./E-PROCUREMENT/Tender-I/Pur/TFRI/JBP/	40,000/-	250/-
3.	GRADIENT PCR	F No 15-4/Capital Asset/2017-18/E-PROCUREMENT/Tender-I/Pur/TFRI/JBP/	15,000/-	250/-

Two bid systems TECHNICAL & FINANCIAL PROPOSAL”.

(2b) TECHNICAL PROPOSAL

During the preparation of technical proposal, in addition to technical details of the equipment along with **original catalogue**, the tenderer must give particular attention to the following:

- i) Users list and supportive documents from the users for the satisfactory performance and after sales service.
- ii) Information about suitably trained technical staff along with well established service network must be furnished.

iii) All specifications should be self certified

iv) Availability of spares/parts for next five years to be ensured.

- v) In absence of original catalogue the tender would be considered as invalid.

(2c) FINANCIAL PROPOSAL

The financial proposal must be submitted in the format as per the price schedule . Full details of business terms and conditions, e.g. packing and forwarding, delivery period, VAT/Sales Tax/Trade Tax (whether provincial or Central), other Taxes/Charges, if any, the validity period of quotation, discount, free delivery, packing or any other information relevant to the items may please be indicated clearly. Prices must be quoted F.O.R. at T.F.R.I. Jabalpur in Indian Rupees.(INR) only. The bid shall be inclusive of all duties and levies except for excise duty/customs and sales tax at the prevailing concessional rates, applicable against declaration of form 13. In case of imported equipment, if the bidder is the authorized dealer/distributor of foreign company and wants the order to be placed upon the parent company through the bidding firm for custom purposes, the same should be clearly mentioned in the bid along with an authorization from the parent company to this extent. TFRI would in any case be liable to pay to the Indian bidder only to the extent of the bid amount in Indian Rupees or its equivalent foreign currency as per official exchange rate prevailing as on the date of bid opening i.e. 29/06/2017 TFRI, Jabalpur would not be liable for increase or any variation in foreign exchange rate and differences if any, should be borne by the bidder. However, the payment would be effected only after satisfactory commissioning of the equipment in TFRI, Jabalpur and no request for any advance payment would be entertained.

(2d) SUBMISSION OF PROPOSAL

Financial and Technical Proposals containing the qualifying documents and EMD self attested scanned copy should attached.

(2e) PROPOSAL EVALUATION

Two bid systems procedure will be adopted in evaluating the proposals

(i) Checking of qualifying documents. This will be the documents, which shall be checked, and disqualification amongst these documents will lead to rejection of the proposal *in toto*,

(ii) A technical evaluation of the qualified firm on the basis of the qualifying documents will be carried out prior to opening the financial proposal,

(iii) A financial evaluation. Firms will be ranked using a combined technical / financial score as indicated below.

(2f) Technical Proposal

The evaluation committee appointed by the client will carry out its evaluation applying the evaluation criteria and point system as specified below. Each responsive proposal will be attributed a technical score (St.).

The points given to technical evaluation criteria are as under:-

i) Firms relevant experience (including similar jobs in hand) 15

Trained technical staff - 5

Established service network - 5

On hand training proposal for staff - 5

ii) Technical specifications of the equipment 70

iii) After sales Service /spares availability 15

Users' list - 5

Supporting documents from users

for the satisfactory performance - 5

Availability of spare parts for next 5 years - 5

Total 100

The technical proposal should score at least 70 points out of 100 to be considered for financial evaluation.

(2g) Financial Proposal

The evaluation committee will determine if the financial proposals are complete and without computational errors. The lowest financial proposals (F_m) will be given a financial score (S_f) of 100 points. The financial scores of other proposals will be computed as follows $S_f = 100 \times F_m / F$ (Where F is amount of financial proposal).

Proposal will finally be ranked according to their combined technical (S_t) and financial (S_f) scores using the formula $S = S_t \times T\% + S_f \times F\%$.

The weight ($T\%$) given to the Technical Proposal is 60%

The weight ($F\%$) given to the Financial Proposal is 40%

General Terms & Conditions

The offer will be subject to the following terms and conditions: -

1. Please note that TFRI, Jabalpur has Custom Duty Exemption and Excise Duty Exemption Certificate. This may be kept in consideration while quoting the rates.
2. The stores are required to be delivered in full and within 90 days after acceptance of the offer.
3. The offer should be firm and open for acceptance till 120 days from the stipulated date of opening. Price escalation will not be allowed.
4. Full details of business terms and conditions, e.g. packing and forwarding, delivery period, VAT/Sales Tax/Trade Tax (whether provincial or Central), other Taxes/Charges, if any, the validity period of quotation, discount, free delivery, packing or any other information relevant to the items may please be indicated clearly.
5. Full specifications, details and information regarding the articles to be supplied, such as make, size, etc. along with **original catalogue**, etc. to be furnished with the offer. The list of users of goods of similar or same nature in the country should also be enclosed.
6. Normal terms of payment will be 100% payment within 30 days after receipt and acceptance of goods in satisfactory working condition after installation.
7. The tender should accompany a DEMAND DRAFT/FDR of **value as specified in Clause of Chapter 2 (EMD)** as Earnest Money, payable to the Director, Tropical Forest Research Institute, Jabalpur , which will be refunded, without interest, if the offer is not accepted. In case the offer is accepted but not honoured by the tendered; the Earnest Money will be forfeited. The Earnest Money will also be forfeited, if wrong information is given in the tender to influence the tender cost . To the successful bidder, the EMD will be released only after satisfactory installation of the equipments and submission of performance bank guarantee.
8. The tenderer should also specify regarding Dealership/Proprietary item.
9. Freight, forwarding charges, if any, should be mentioned in the offer.
10. The stores are required to be delivered to the consignee concerned and the consignee will do inspection and verification of the goods.
11. The tenderer should quote on their printed letter-head paper, indicating thereon Sales Tax/Trade Tax No., Registration No., Fax No., Telex No., Telephone No., E-mail, etc.
12. **Three year on site comprehensive WARRANTY** for all the items and works to be given OR (**as specified in specifications**)
13. **Performance Bank Guarantee:** The supplier will have to submit a PBG or Performance security in the form of Bank Guarantee or FDR @ 10% of total order value from a commercial bank in an acceptable form within 21 days of issue of supply order. Performance security should remain valid for a period of 24 months beyond the date of completion of all contractual obligations of the supplier including the warranty obligations. Failure to abide by the contractual obligation including that of warranty, is liable to result in forfeiture of Performance Bank Guarantee.
14. Any or all tenders can be rejected by the Director, TFRI without assigning any reason. It cannot be challenged in any court.
15. Disputes, if any, will be under the jurisdiction of Jabalpur Court, M.P., India.

DIRECTOR
TFRI, JABALPUR

(I) SUPPLY AND INSTALLATION OF SAP FLOW METER-

Specifications:-

- Heat Ratio Method
- Portable, required for field operation
- to measure sap flow of tree species(≥ 25 cm dbh) in sub-tropical, semi-arid forest
- sensors ≥ 30 mm long
- Should be able to record flow in extreme water shortage and water excess seasons
- Digital data logging, with tools and softwares configured
- Drill machine
- Data storage up to 8 GB
- USB and Wireless data retrieval
- Battery operated plus solar charging system
- Water/lightening proof enclosure

DETAILED EVALUATION OF SAP FLOW METER

Sl. No.	Specification:	Total Score
Mark's distribution for Technical Specifications		
1	Portable instrument for outdoor use (field conditions)	10
2	Principle: Heat Ratio Method	10
3	Capable of measuring sap flow in woody trees	10
4	Digital data logging	10
5	Memory upto 8 GB	5
6	USB and Wireless mode of data retrieval	5
7	Battery operated & Solar recharging system	10
8	Water proof enclosure	5
9	Drill Machine for inserting probes	5
Total Score (A)		70
Marks distribution for Technical Specifications		
10	For experience of execution of similar works in other reputed organization (with proof of satisfactory execution)	10
11	After sale service through local service center and availability of spare parts	10
12	Manufacturer/Distributor/Dealer	10
Total Score (B)		30
Total Score (A+B)		100

**(II) SUPPLY AND INSTALLATION OF GEL DOCUMENTATION SYSTEM
SPECIFICATIONS FOR GEL DOCUMENTATION & ANALYSIS SYSTEM**

1	Applications	:	<ol style="list-style-type: none"> 1. Nucleic Acid Electrophoresis (EtBr, SYBR[®] Safe, SYBR[®] Green, SYBR[®] Gold and other florescent gel stains) 2. Protein Gel Electrophoresis (Stain Free technology, Coomassie Blue, SYPRO Ruby, Silver, Flamingo, Oriole, Coomassie Fluor orange) 3. Blotting: Colorimetric, Qdot
2	Camera	:	Scientific CCD 4 Megapixels
3	Sample size (L x W)	:	28 X 36 cm
4	Image area (L x W):	:	Minimum 19 X 26 cm
5	Excitation Source	:	Trans UV, Epi-White and Trans white
6	Illumination control:	:	3 modes (trans-UV, trans-white, epi-white)
7	Pixel size (H x V):	:	4.65 x 4.65 μ m
8	Filter holder:	:	Minimum 3 positions
9	Emission Filters:	:	EtBr, SYBR [®] Safe, SYPRO Ruby and others as mentioned in Application.
10	Pixel density (grey levels):	:	Minimum 4096
11	Automation Capabilities	:	<ul style="list-style-type: none"> ➤ Workflow automated selection (application driven, user selected, recalled by a protocol) and execution (image area, illumination source, filter, analysis and reporting) ➤ Autofocus ➤ Image flat fielding ➤ Auto-exposure
12	Software	:	<ul style="list-style-type: none"> ➤ Function: Acquisition, enhancement, editing, annotation, archiving, simultaneous display of multiple gels. ➤ Analysis: should performs analysis including features like 1-D multilane densitometry, 2-D spot densitometry, MW, Rf analysis, Microtiter plate, Eli-spot, Array & Dot Blot Analysis, Colony, Zymogram gel analysis, Gel Scoring, Band matching, RFLP, RAPD, Fingerprinting, Dendrogram creation, options for Dice, Jacard, Pearson, Frequency, Similarity Coefficients, & Cluster analysis with multiple methods including Neighbor joining, UPGMA, WPGMA, Simple linkage, complete linkage, ward, median, centroid etc ➤ Validity: All softwares should be supplied with a lifelong license & support and should free upgrades as and they are introduced. Also, in the event of softwares being accidentally corrupted/deleted from the PC, they should be supplied free of charge.
13	Data processing unit (Desktop): Desktop Intel [®] Pentium [®] Core i3/ i5 Processor, Windows 10 Home, 4GB DDR3 RAM , 500GB/1 TB HDD, DVD RW, 18.5" or above LED monitor, Keyboard, Mouse along with 800VA offline UPS.		
14	Warranty: 3 years warranty.		
15	Installation, training and commissioning should be free of cost.		
General requirements to be enclosed with quotation: Firms should quote complete specifications supported with original technical catalogue printed by manufacturer.			

SCORING SHEET FOR GEL DOCUMENTATION & ANALYSIS SYSTEM

1	Applications	:	<p>1. Nucleic Acid Electrophoresis (EtBr, SYBR[®]Safe, SYBR[®]Green, SYBR[®]Gold and other florescent gel stains)</p> <p>2. Protein Gel Electrophoresis (Stain Free technology, Coomassie Blue, SYPRO Ruby, Silver, Flamingo, Oriole, Coomassie Fluor orange)</p> <p>3. Blotting: Colorimetric, Qdot</p>	10 Points
2	Camera	:	Scientific CCD 4 Megapixels	10 Points
3	Sample size (L x W)	:	28 X 36 cm	05 Points
4	Image area (L x W):	:	Minimum 19 X 26 cm	10 points
5	Excitation Source	:	Trans UV, Epi-White and Trans white	10 points
6	Illumination control:	:	3 modes (trans-UV, trans-white, epi-white)	05 points
7	Pixel size (H x V):	:	4.65 x 4.65 μ m	10 points
8	Filter holder:	:	Minimum 3 positions	05 points
9	Emission Filters:	:	EtBr, SYBR [®] Safe, SYPRO Ruby and others as mentioned in Application.	05 points
10	Pixel density (grey levels):	:	Minimum 4096	07 points
11	Automation Capabilities	:	<ul style="list-style-type: none"> ➤ Workflow automated selection (application driven, user selected, recalled by a protocol) and execution (image area, illumination source, filter, analysis and reporting) ➤ Autofocus ➤ Image flat fielding ➤ Auto-exposure 	08 points
12	Software	:	<ul style="list-style-type: none"> ➤ Function: Acquisition, enhancement, editing, annotation, archiving, simultaneous display of multiple gels. ➤ Analysis: should performs analysis including features like 1-D multilane densitometry, 2-D spot densitometry, MW, Rf analysis, Microtiter plate, Eli-spot, Array & Dot Blot Analysis, Colony, Zymogram gel analysis, Gel Scoring, Band matching, RFLP, RAPD, Fingerprinting, Dendrogram creation, options for Dice, Jacard, Pearson, Frequency, Similarity Coefficients, & Cluster analysis with multiple methods including Neighbor joining, UPGMA, WPGMA, Simple linkage, complete linkage, ward, median, centroid etc ➤ Validity: All softwares should be supplied with a lifelong license & support and should free upgrades as and they are introduced. Also, in the event of softwares being accidently corrupted/deleted from the PC, they should be supplied free of charge. 	10 points
13	Data processing unit (Desktop):		Desktop Intel [®] Pentium [®] Core i3/ i5 Processor, Windows 10 Home, 4GB DDR3 RAM , 500GB/1 TB HDD, DVD RW, 18.5" or above LED monitor, Keyboard, Mouse along with 800VA offline UPS.	05 points
14	Warranty:		3 years warranty.	-
15	Installation, training and commissioning		should be free of cost.	-
General requirements to be enclosed with quotation: Firms should quote complete specifications supported with original technical catalogue printed by manufacturer.				-

(III) SUPPLY AND INSTALLATION OF GRADIENT PCR SYSTEM

Specification for gradient PCR

Thermal block Capacity:	96 x 0.1/0.2 ml tubes, 1 x 96-well plate,
Heating cooling system	Peltier element
Peak Block Ramp Rate:	5.0°C/sec
Sample Ramp Rate:	± 4.25°C/sec
Temperature Accuracy:	±0.25°C (35°C to 99.9°C)
Temperature Range	4.0-99.9 °C
High Throughput Compatibility:	High Throughput-Compatible
Temperature Uniformity:	<0.5 °C (20 sec after reaching 95 °C) or better
Gradient range	1 – 20 °C
Temperature control mode	Fast, Standard, Safe
Instrument Memory:	USB and On-board Up to 200 protocols on board; unlimited with a USB drive
Program Features:	Auto re-start (after power outages), Program overwrite protection Possibility to set time and temperature increments in PCR programming (Touchdown PCR)
Tm Calculator	Menu driven through touch screen
Display Interface:	Graphical touch screen/LCD panel and keypad
Green Features:	Energy efficient, Fewer resources used, Less waste
warranty	3 years
System must meet directives of “Restriction of Hazardous Substances (RoHS)” compliant, CE & ISO certified. Certificate should be attached.	

General requirements should be enclosed with the quotations:

1. Firms should quote complete specifications supported with original technical catalogue printed by the manufactures.
2. Installation, Training and commissioning should be done free of cost.
3. The after sales service should be available preferably within 48 hours and with trained service personnel from locations nearer to Jabalpur.
4. Supplier should enclose authorization certificate for supply of the quoted items from the manufactures
5. System should have installations in reputed colleges/ government/ public sector institutes. Performance certificates from customers and details like Name & Address, Department, Contact Person Name, Mobile, Email etc., using the Gradient PCR for last at least 3 – 4 years to be enclosed.

Scoring Sheet for Gradient PCR

		Allotted Points
Thermal block Capacity:	96 x 0.1/0.2 ml tubes, 1 x 96-well plate,	05
Heating cooling system	Peltier element	05
Peak Block Ramp Rate:	5.0°C/sec	10
Sample Ramp Rate:	± 4.25°C/sec	10
Temperature Accuracy:	±0.25°C (35°C to 99.9°C)	10
Temperature Range	4.0-99.9 °C	05
High Throughput Compatibility:	High Throughput-Compatible	05
Temperature Uniformity:	<0.5 °C (20 sec after reaching 95 °C) or better	10
Gradient range	1 – 20 °C	10
Temperature control mode	Fast, Standard, Safe	05
Instrument Memory:	USB and On-board Up to 200 protocols on board; unlimited with a USB drive	05
Program Features:	Auto re-start (after power outages), Program overwrite protection Possibility to set time and temperature increments in PCR programming (Touchdown PCR)	05
Tm Calculator	Menu driven through touch screen	-
Display Interface:	Graphical touch screen/LCD panel and keypad	-
Green Features:	Energy efficient, Fewer resources used, Less waste	-
warranty	3 years	10
System must meet directives of “Restriction of Hazardous Substances (RoHS)” compliant, CE & ISO certified. Certificate should be attached.		05

Agreement

The Supplier _____ agrees to accept the terms and conditions of this bidding document in letter and spirit.

Name/Seal of the Tenderer

Format for Bank Guarantee

To

Tropical Forest Research Institute
P.O. R.F.R.C., Mandla Road,
Jabalpur.

Your Order No. _____ for the supply and delivery of _____ has been accepted by M/s _____.

In accordance with the terms of payment of the said order, we have agreed to pay the balance of 5% of the contract price of the supplier, furnishing you with an acceptable Performance Bank Guarantee for 10% of the total contract value, viz Rs. _____ for the due performance by the Supplier of all its contractual obligations and to be valid for a period of 24 months for the date of bank guarantee for this purpose you have agreed to accept our guarantee.

In consideration thereof, we hereby guarantee payment of and undertake to pay Rs. ___ and remit to you on demand and without demur the sum of Rs. _____ being 10% of the total value of the contract on receipt of your intimation that the Supplier has committed a breach of any of its contractual obligations. This guarantee shall be valid for a period of 24 months from the date of Installation of the equipment in satisfactory condition or 27 months from the date of dispatch of the last lot of consignment whichever is earlier, and in any event shall expire on _____, you shall have the right to file/make your claim on us under the guarantee for a period of sixty days from the said date of expiry.

This guarantee shall not be revoked without your express consent and shall not be affected by your granting time or any other indulgence to the supplies or by any change in the constitution of the Bank or the supplies or for any other reason whatsoever.

Not with standing anything, contained herein above our liability under this guarantee is restricted to Rs. _____ and this guarantee will remain in force up to and inclusive of _____ - unless an action to enforce a claim under the guarantee is filed against us within sixty days from the date of expiry i.e. on or before _____, all rights under the guarantee shall be forfeited and we shall be relieved and discharged from all liabilities there under.

Signatory Bank with Seal