पादप कार्यिकी संभाग DIVISION OF PLANTPHYSIOLOGY भा.कृ.अ.प.—भारतीय कृषि अनुसंघान संस्थान, पूसा, नई दिल्ली—110012 ICAR-Indian Agricultural Research Institute, Pusa, New Delhi-110012

मिसिल संख्या File No. 21-2/RTPCR/20-21/DBT(24/716)

दिनांक Dated: 15/06/2020

निविदा-सूचना

निदेशक भा.कृ.अ.प.—भारतीय कृषि अनुसंधान संस्थान नई दिल्ली द्वारा निम्नलिखित वैज्ञानिक उपकरण / वस्तु की आपूर्ति एवं कार्य हेतु प्रतिष्ठित निर्माताओं / अधिकृत डीलरों / आपूर्तिकर्ताओं से दो बोली प्रणाली (तकनीकी एवं वित्त बोली) के अन्तर्गत सील बंद <u>ऑनलाईन क्यूटेशन</u> आमंत्रित की जाती है। क्यूटेशन / निविदा प्रस्तुत करने की <u>अंतिम तिथि 07.07.2020 समय 1.00 बजे दोपहर तक। क्यूटेशन / निविदा को दिनांक 08.07.2020 को समय 02.30 बजे निर्धारित समिति के समक्ष खोली जाएगी। <u>Online quotations</u> are invited from reputed Manufacture/Dealer/Supplier in two bid system (Technical bid & Financial bid) for purchase of following Scientific Equipment/Items on behalf of Director ICAR-Indian Agricultural Research Institute, New Delhi. The <u>last date for submission of Bid 07.07.2020 at 1.00 PM</u>. The <u>bid will be opened on 08.07.2020 at 02.30 PM</u> by the prescribed committee.</u>

विस्तृत नियम व शर्तों को भा.कृ.अ.सं. की वेबसाईट www.iari.res.in पर देखें एवं ऑनलाईन के लिए www.eprocure.gov.in देखा जा सकता है। Please visit www.iari.res.in for Details Rules and Regulation and Log on www.eprocure.gov.in for online.

क्रम संख्या	वैज्ञानिक उपकरण/ वस्तु का नाम	मात्रा
Sl. No.	Name of Scientific Equipment/Item	Quantity
1.	Real-Time PCR Machine with Accessories	One

बोली लगाने के निर्देश और नियम एवं निविदा की शर्ते Instructions to the bidder and terms & conditions of tender:

- 1. आपके द्वारा दी गयी मूल्य दर क्यूटेशन प्राप्ति हेतु निर्धारित अन्तिम दिन से कम से कम 180 दिनों तक मान्य होगी। यदि आपूर्तिकर्ता द्वारा 180 दिनों की न्यूनतम अविध की वैधता के संबंध में कोई अन्तर हो तो उसका विशेष रूप से उल्लेख होना चाहिए। The rates quoted shall be valid for a minimum period of 180 days from the last date fixed for submission of bid.
- 2. क्यूटेशन में दर्शायी गई वरों में भा.कृ.अ.सं. नई दिल्ली के संभाग / ईकाई पादप कार्यिकी संभाग, मा.कृ.अनु.संस्थान, नई दिल्ली—110012 में सामान / सामग्री की निःशुल्क आपूर्ति अथवा स्थापन शामिल होगा। हांलांकि विदेशी मुद्रा में दर्शाए गए उपकरण को एफ.ओ.बी. / सी.आई.पी. आधार पर दर्शाया जाए। The rates quoted shall be free of cost delivery and installation at the Division/Unit of Plant Physiology, IARI, New Delhi 110012. However, equipment quoted in foreign currency must be quoted on FOB/ CIP basis
- 3. यदि सामान विदेश—निर्मित है और दर विदेशी मुद्रा में दिया गया है तो ऐसी परिस्थिति में कस्टम डयूटी छूट प्रमाणपत्र (सी. डी.र्ड. सी.) जारी किया जाएगा जो कि केवल भा.कृ.अ.सं. के लिए ही मान्य होगा । Custom Duty Exemption Certificate (CDEC) will be issued only when the bid is quoted in foreign currency in case of foreign made items only and meant for IARI
- 4. क्यूटेशन में संबंधित सामान का पूरा विवरण दिया जाएगा | Full specifications of the item/article quoted for shall be given in the quotation.
- 5. उपरोक्त दिए गए दर में यदि किसी भी प्रकार का अतिरिक्त कर/टैक्स/डयूटी लगाया जाना है तो उसका संकेत स्पष्ट रूप से दिया जाना चाहिए If taxes, duties or any other charges over and above the rates quoted leviable, actual percentage of such taxes/duties/other charges should be clearly indicated.
- 6. बोली के साथ बतौर बयाना राशि <u>रू. 50000 / ं(रूपये पचास हजार मात्र)</u> का डिमांड ड्राफ्ट / मुगतान आदेश / मियादी जमा रसीद / बैंक गारंटी को निदेशक, मा. कृ. अनु. संस्थान, नई दिल्ली 110012 के नाम किसी भी राष्ट्रीयकृत बैंक में देय हो, अवश्य संलग्न होना चाहिए। जिसके बिना, क्यूटेशन पर बिचार नहीं किया जायेगा। बयाना राशि की मूल प्रति सीधे तौर पर संबंधित निविदा आमंत्रित अधिकारी को आखिरी तारीख तक या ऑफलाईन दर जमा करने से पहले पहुंच जानी चाहिए। डिमांड ड्राफ्ट / मुगतान आदेश / मियादी जमा रसीद / बैंक गारंटी से संबंधित सभी जानकारी व्यक्तिगत रूप से भेजी जानी चाहिए, इस संबंध में प्राप्त स्कैन कॉपी / या जो डाटा आपूर्तिकता द्वारा दर जमा करने के दौरान दिया गया है उससे मिलान किया जाएगा अन्यथा इस क्यूटेशन को रदद माना जाएगा। EMD of Rs.50,000/- Rupees Fifty Thousand only) should be in the form of D.D./Pay Order/Fixed

Deposit Receipt/Bank Guarantee from commercial bank drawn in favour of Director, IARI payable at New Delhi. The original EMD should be submitted to the Tender Inviting Authority on or before the last date and time of offline bid submission. The details of D.D./Pay Order/Fixed Deposit Receipt/Bank Guarantee physically sent, should tally with the details available in the scan copy and the data enter during the bid submission time otherwise the uploaded bid will be rejected.

- 7. इस संस्थान द्वारा निविदाकर्ता को किसी भी सुरक्षा जमा राशि और बयाना राशि पर ब्याज नहीं दिया जाएगा। No interest on security deposit and earnest money deposit shall be paid by the Institute to tenderer.
- 8. क्यूटेशन प्रक्रिया पूरी होने के पश्चात असफल बोलीदाताओं को उनकी जमा की गयी बयाने की राशि वापस कर दी, जायेगी जबिक सफलतम बोलीदाता के मामले में यह राशि नियम के अनुसार सुरक्षा जमा के रूप में समायोजित की जा सकती हैं, गारंटी निदेशक, मा. कृ. अनु. संरथान,नई दिल्ली— 110012 के नाम किसी भी राष्ट्रीयकृत बैंक में देय हो, जिसकी वैधता सभी कार्य को पूरा करने के 60 दिनों, साथ के साथ उपकरण / सामान जिसकी कीमत (रू1.00 लाख या इससे अधिक) की गांरटी भी शामिल होगी । हालांकि जो उपकरण रू1.00 एक लाख से कम है उस परिस्थिति में किसी भी प्रकार का निष्पादन जमा राशि नहीं दी जाएगी । The EMD shall be refunded to the unsuccessful bidders after finalization of the quotation. In case of successful bidder, it can be adjusted towards security deposit which is 5-10% of the order value in the form of D.D./Pay Order/Fixed Deposit Receipt/Bank Guarantee from commercial bank drawn in favour of Director, IARI payable at New Delhi and shall remain valid for 60 days beyond the date of completion of all contractual obligation of supplier including warranty obligation for the equipment/goods costing Rs.1.00 lakhs (Rs. One Lakh) or than Rs. 1.00 lakh (Rs. One Lakh).
- 9. फर्म द्वारा एक वर्ष की वारंटी प्रदान की जाएगी। यदि सामान/उपकरण के विवरण में वारंटी की अविध में किसी भी प्रकार परिवर्तन है, तो उस वारंटी को अंतिम माना जाएगा । One year warranty has to be invariable provided by the firm. In case, there is any variation in the warranty period given in the specification of the item/equipment, the warranty period shall be the final as given in the specification.
- 10. कार्य के पूरा होने के बाद फर्म / पूर्तिकता को तीन पूर्व रसीद बिल प्राप्त होने के बाद भुगतान e-payment के माध्यम से किया जाएगा। Payment will be made by mode of e-payment to the supplier/firm after satisfactory completion of work and receipt of pre-receipt bills triplicate.
- 11. निदेशक, भा. कृ. अनु, संस्थान, नई दिल्ली के पास बिना कारण बताये सभी क्यूटेशनओं को पूर्ण या आंशिक रूप से स्वीकार या अस्वीकार करने के अधिकार प्राप्त हैं। The Director IARI, New Delhi reserves the right to accept or reject any or all the quotations either in full or in parts without assigning any reason.
- 12. उपरोक्त शर्तों का पालन न करने वाली क्यूटेशनों को अस्वीकार करने के लिये उत्तरदायी होंगी। Quotations not complying with the above conditions are liable to be rejected.
- 13. GST/TIN/VAT/PAN/C.S.T. Nos. के स्कैन कॉपी को क्यूटेशन के साथ में संलग्न किया जाए। Scanned copy of GST/TIN/VAT/PAN/C.S.T. Nos may be attached with the bid.
- 14. किसी कारण अनुबंध में कोई विवाद उत्पन्न होने पर भारतीय कानून और न्यायालय, नई दिल्ली की अधिकारिता के अधीन होगा । सचिव, भारतीय कृषि अनुसंधान परिषद द्वारा एकमात्र मध्यस्थ नियुक्त किया गया है, जिसका निर्णय दोनों पार्टियों (Supplier और Purchaser) पर अंतिम माना जाएगा। In case, any dispute arising out of this contract shall be subject to the jurisdiction of Indian laws & Court at New Delhi. Sole arbitrator is appointed by the Secretary, ICAR, New Delhi. His decision will be final and binding on both parties (Supplier and Purchaser)
- 15. सफल बोलीदाता को सौंपे गए कार्य को निर्धारित आपूर्ति आदेश के भीतर कार्य करना होगा जैसा आपूर्ति आदेश में दर्शाया गया होगा यदि ऐसा नहीं किया जाता तो कम से कम 2% तथा अधिकतम 10% की क्षति नष्ट कटौती के रूप में उनके बिल से काटी जाएगी। The successful bidder has to execute the indented Job/Work as mentioned in the supply order placed with them within the stipulated period as given in the supply order placed by this office failing which 2% per week and maximum of 10% deduction as liquidated damage charges will be made from the bill in case the job is not completed within the given stipulated period.
- 16. फर्म को इस कार्य/क्षेत्र में 3 वर्ष के अनुभव का प्रमाण पत्र संलग्न करना चाहिए । Firms should 3 years experience in this line, proof should be enclosed.

क्रम संख्या	विवरण / उपकरण मद की विशिष्टता
Sl. No.	Description / Specification of the Equipment/ Item
1.	Name of Equipment: Real-Time PCR Machine with Accessories Specification: As per Annexure -A

Name of the Capital item with brief description: Real-Time PCRMachine with Accessories

Technical Specifications:

- 1. The Real-time PCR machine should be Stand-alone operation, PC/Laptop connected, LAN connected and external devices/USB connected
- 2. The hardware must offer Peltier based thermal cycling for fast PCR. Atypical program of 40 cycles should take 45 minutes or less.
- 3. Machine should be a high-throughput with touch screen with thermal block of 96 wells to accommodate 96-well plate or 0.2 ml tubes or 8 tube strips.
- 4. The excitation source should be LED/CCD and detection should be photodiodefor a range of 400-750nm/visible range.
- 5. Temperature range of thermal block should be at least 25 to 99°C or better and temperature accuracy should be about ± 0.2 °C and uniformity of ± 0.4 °C or better.
- 6. The system should have block ramp rate of 5°C/sec or better and average ramp rate of 3-4°C/sec.
- 7. The system should support a minimum reaction volume of 10 μl.
- 8. Scan speed should be 3 seconds or less.
- 9. The system should be standardized for running different detection chemistries such as SYBR GREEN, HRM, Probe etc.
- 10. The system should offer FIVEor more TRUE COLOUR multiplexingcapability and should be upgradable to six colour multiplexing system.
- 11. The instrument software must be capable of carrying out wide array of optimized analysis and algorithms including absolute and relative quantification, ddCT method, PCR efficiency, detecting and analysing a different gene, allelic discrimination with HRM, SNP genotyping, end point detection, miRNA analysis and genetic mapping.
- 12. The software must enable export of raw data in multiple file formats.
- 13. The instrument should be pre-calibrated for at least 5 dyes of any make including the following during installation at the customer site: FAM/SYBR Green, VIC/JOE/HEX/TET, NED/TAMRA/ABY/Cy3,Cy5 and ROX/Texas Red. The user should be able to use any of these dyes in an experiment without needing to recalibrate the instrument.
- 14. The system should be capable of generating MIQE compliant RDML formatted data.
- 15. The instrument should be factory calibrated and repeated calibration should not be required or else the consumable/calibration reagents should be part of the instrument for at least 2 years.
- 16. Dynamic range of 9 orders of magnitude or more.
- 17. RT-PCR system should have easy multiplexing and TaqMan/Molecular beacons on probed assays.
- 18. The system should be an OPEN PLATFORM, that is, consumables from other companies can be used on the same system.
- 19. The instrument should be CE and 21CFR compliant.
- 20. System should be supplied along with ready to use branded All-in-one desktop with minimum configuration of i7 Processor, 8GB RAM, 1TB HDD, 2 GB Graphic card, 512 GB SSD Monitor, Keyboard, Mouse and licensed Software Windows 10 and compatible with latest MS Office.

- 21. Suitable 2.0 kVA online UPS with one-hour back-up should be supplied along with the system to support the instrument.
- 22. Consumables to be supplied with Real-time PCR system: SYBR GREEN for 5,000 reactions or more, cDNA kits 3 or more, plastic wares (plates and sealers), pipette tips for each range of Research plus 6-pack should also be quoted.
- 23. The system should come with at least2 years' comprehensive warranty.
- 24. The vendor must provide at least 10 Government users satisfaction certificates with their contact list and order copy of each user.
- 25. The vendor supplying the instrument should have own application support laboratory in Delhi/NCR for service support.
- 26. Installation, testing, validation, demonstration/technical presentation should be conducted. The vendor should provide comprehensive training on the operation of the instrument, chemistry options and software.
- 27. If agreed, in the T&C for payment, 100% payment can be made through Wire Transfer/sight draftafter receiving and installation of the equipment.

The Real-Time PCR system should be supplied with following items as bundle-pack:

A. Gradient PCR machine: Technical Specifications

- 1) Maximum block ramp rate should be 5°C/sec or better
- 2) Block temperature range 4°C to 99°C
- 3) Temperature accuracy of ±0.2°C at 95°C
- 4) Temperature uniformity of ±0.4°C at 95°C
- 5) Should have gradient function with 8 or more rows of Gradient facility
- 6) Gradient temperature range between 30°C to 99°C
- 7) Maximum gradient of 30°C
- 8) Sample volume capacity of 10 to 100 μL
- 9) Block format 96-well (0.2 mL)
- 10) Full touch display type
- 11) Memory capacity 1,000 protocols or more; unlimited with USB drive
- 12) Standard warranty for two years

B. Electroporator: Technical Specifications

- 1) The Electroporator must enable safe and reproducible transformation of both EUKARYOTIC and PROKARYOTIC cells.
- 2) The Electroporator should have 'Open' system which enables the user to configure all settings, such as the pulse length, pulse intensity, waveform etc.
- 3) System should have capability of voltage adjustment in 100-2500 V range or better
- 4) Instrument should be powered by a universal input of 100-240V, 50/60Hz
- 5) The instrument should come with 10 or more sterile electroporation cuvettes of 0.1 cm and 0.2 cm electrode gap width.
- 6) The instrument must be compact in design
- 7) Standard warranty for two years

C. Incubator Shaker: Technical Specifications

- 1) Orbital shaking incubator, bench top compact model to save space.
- 2) Shaking orbit 25 mm or better
- 3) The shaker should have a capacity of approximately 45 L or more.

- 4) It should have microprocessor-controlled system capable of running between range of +5 degree to 70 degree or better.
- 5) Shaker should have AC brushless motor and precise speed control from 20 to 250 rpm or better.
- 6) Temperature accuracy should be $\pm 0.1^{\circ}$ C and uniformity C should be $\pm 0.5^{\circ}$ C with increment of 0.1°C.
- 7) Should have digital display
- 8) Timer range from 0-99 minutes and option for continuous mode.
- 9) The interior body should be stainless steel and the door should be magnetically gasketed.
- 10) The shaker should have minimum noise and no vibration.
- 11) Automatic stop of shaking when the door is opened
- 12) Auto restart after power failure.
- 13) It should be provided with clamps to accommodate flasks of capacity 500 mL x 5, 250 mL x 9, 125 mL x 15 or better and test-tubes holder.
- 14) Standard warranty for two years
- **D.** Research plus 6-pack pipette (with different volumes 0.5 μ L, 2-20 μ L, 10-100 μ L, 20-200 μ L, 100-1000 μ L, 0.5- 5mL)
