EXPRESSION OF INTEREST FOR PROCUREMENT OF AUTOMATED DNA SEQUENCING SYSTEM OF CSIR-NEIST, JORHAT

CSIR-North East Institute of Science and Technology (NEIST) is a National Laboratory engaged in R&D under the aegis of Ministry of Science & Technology, Govt. of India. CSIR-NEIST, Jorhat is interested to Procure AUTOMATED DNA SEQUENCING SYSTEM.

The vendors/dealers/authorized agents are requested to submit their EOI **through mail to spo@neist.res.in, up to 15.02.2021 at 5:00 PM and the EOI will be opened on 16.02.2021 at 11:00 AM**. The draft/tentative requirement details are attached.

1. The manufacturer or their dealer/authorized agent are requested to participate in this EOI. However, the dealer/authorized agent have to submit the Manufacturer Authorization Form **as per attached format A** declaring country of origin.

2. Technical offer with related technical literature/brochure

3. Documents relating to previous orders, if any, may be provided

4. Declaration on Land Border Sharing Countries with India **in the given format B** (on letter head)

5. Vendors may give comparison sheet of their offered products with other products available in the market.

6. Vendor must provide list of users for the quoted system in India along with documentary proof.

7. Vendor must provide customer satisfactory report for the quoted system.

The offers will be evaluated first on the basis of the technical credential of the party, if required presentation will be taken from the parties.

On the basis of their presentation, technical submission and other aspects, it may be decided to ask the price quotation from the selected parties,

Or

This may be given for Open/Global tender for other vendors' participation also as per decision of the competent authority. CSIR-NEIST, Jorhat authority reserves the right to take decision on the above.

भंडार एवं क्रय अधिकारी
Stores & Purchase Officer
For and On Behalf of the Council of Scientific & Industrial Research
Tel: 91 – 0376 – 2372710, E-mail: spo@neist.res.in

FORMAT A

MANUFACTURERS' AUTHORIZATION FORM (MAF)

[1] This is to be filled up by the Manufacturer Only and NOT by any distributor/dealer.

[2] The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper

Date: .....*[.....insert date (as day, month and year) of Bid Submission....]*

EOI Notice No.:..... *[....insert number from Invitation For Bids....]*

To:.....*[...insert complete name and address of Purchaser....]*

We .....*[insert complete name of Manufacturer]*, who are official manufacturer of **Automated DNA Sequencing System**, having factories at..... [insert full address of Manufacturer's factories], do hereby authorize..... *[insert complete name of Bidder]* to submit EOI/Bid for the purpose of which is to provide the above said goods, manufactured by us and to subsequently submit the Bid, negotiate and sign the Contract.

Country of Origin of the product:.....

Signed: *[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name: *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title: *[insert title]*

Duly authorized to sign this Authorization on behalf of: *[insert complete name of Bidder]*

Dated on _____ day of _____, _____ *[insert date of signing]*

FORMAT B

Declaration regarding Land Border Sharing Countries

(On Letter Head)

"I have read the tender document no. ……. Along with clause regarding restriction on procurement from a bidder of a country which shares a land border with India in accordance with the Govt. of India notification no. 6/18/2019-PPD (Public Procurement No.1) dated: 23.07.2020 and no. 6/18/2019-PPD (Public Procurement No.2) dated: 23.07.2020 by Ministry of Finance. Accordingly, I hereby certify that

"this bidder is not from such a country and is eligible to be considered"	

Or

"this bidder is from such a country but is registered with the competent authority and the related document is attached and thus eligible to be considered"	

Or

"this bidder is from such a country but to this country, Govt. of India extended lines of credit notified by Ministry of External Affairs and the related document is attached and thus eligible to be considered"	

[Tick or write 'YES' in the appropriate box]

(Bidder for the purpose of this order (including the term 'tenderer', 'consultant', 'vendor' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial judicial person not falling in any of the descriptions of bidders started herein before, including any agency, branch or office controlled by such persons, participating in a procurement process.)

Authorized signatory

Name:

Designation:

Contact No:

Email Id:

Other details:

STATEMENT OF REQUIREMENTS FOR PROCUREMENT OF

AUTOMATED DNA SEQUENCING SYSTEM

Automated DNA Sequencing System

Detailed specification:

1. System must occupy minimal lab footprint and must be offered as an integrated system with automated template amplification, library preparation, sequencing, and data analysis.
2. Number of capillaries: 8 capillaries (option to upgrade to 24 capillaries) operating in parallel to meet through put employ capillary array that use bare silica capillary with a useful life that exceeds 160 runs
3. Fully automated capillary-based DNA Sequencer, licensed version of the system to be quoted along with user license to perform the sequencing by Sanger-method
4. Excitation source single 505nm solid state long life laser utilizing a standard power supply and without heat removed ducting. Dye detection, cooled CCD detection technology and spectrograph for color separation. System must be able to detect and analyse up to 6 fluorescent dyes simultaneously for DNA fragment analysis.
5. Capillary illumination: Simultaneous dual-side illumination detection to maximize and signal uniformity and sensitivity that in reduces the requirements
6. Tracking of consumable, radio frequency identification technology to track key consumables data. 96 well plate option. Sequencing throughput>80-100 samples/ day having >500bp read length.
7. Software: The vendor must supply software that are optimized for the instrument in area of *denovo* re-sequencing. Fragment analysis application like SSR, ISSR & microbial finger printing, microsatellite long sizing SSCP, SNP validation and screening linkage analyses.
8. System must be capable of performing wide range of applications such as microbial whole genome sequencing of plants, viruses, bacteria and fungi, amplicon-based metagenomics, whole metagenome sequencing, targeted resequencing of small to large gene panels, medium to large genome sequencing, whole exome sequencing, transcriptome sequencing, viral metagenomics.
9. The sequencing chemistry must be robust and globally proven.
10. The complete workflow from library preparation to sequencingmust be fullyautomatedwithwalk-away operation for unattended operation and minimal user intervention.
11. Scalability of the system should be such that it generates >600 megabases (Mb) of output data on the downside and <25 gigabases (Gb) of output data on the upside in an independent single run.
12. System must have flexibility of generating high-quality sequence data passing quality filter in the range of 2 – 130 million readsfrom a single sequencing run.
13. The system must be able to parallelly sequence millions of DNA fragments from multiple sample sources and must offer sample multiplexingcapability of up to 96 samples per sequencing run to reduce per sample cost.
14. The sequencing chemistry employed by the system must be able to support different read lengths in the range of 200 - 600 bp for accommodating different types of applications.
15. System must have open-end flexibility to use kits, reagents and other consumables from 3rd party manufacturers/suppliers for the sequencing workflow.

16. System must offer flexibility that fits varied throughput requirement as per application need. Versatility should enable user to run both small and large-scale projects on a same platform without any requirement of up-gradation or change in platforms.

17. The sequencing output should generate accurate base calls and high error free reads with greater than 80% bases with high quality Q30 score/more then 99.5% of Raw base accuracy.

18. System must offer user-friendly sequencing experience, such as, intuitive touchscreen user interface, radio frequency identification (RFID) tracking and pre-mixed/pre-filled integrated reagent cartridge for minimal user intervention.

19. System must be supplied with automated, electrophoresis-based sequencing library QC instrument for fast and reliable separation, sizing and quantification of RNA and DNA libraries. It should allow walk-away operation and be able to perform QC of upto 16 libraries per single run.

20. The System must be supplied with all the accessory equipment's that may be essential to make the platform fully functional.

21. System must be supplied with kits, reagents, dyes and other consumables as starter materials for library preparation, library QC, template preparation and sequencing for running 25 reactions for the metagenomics, Whole genome sequencing and transcriptomics applications, and 400 reactions for Sanger sequencing.
22. System must have an-instrument or standalone computer hardware with 128GB RAM and usable storage capacity of 24TB or more for data processing and analysis.

23. System must have easy-to-use, intuitive software for instrument control, base calling, data processing and analysis without the need for ancillary equipment. The software must allow generating output data in various sequence file formats for maximum compatibility with 3rd party downstream software packages.

24. Vibration free table must be supplied along with the system with suitable capacity online UPS with 2hr back-up and suitable capacity voltage stabilizer must be supplied along with the system.

25. Vendor must have established facility in India to provide support fortroubleshootingand training services.

26. System must have a comprehensive 5 year warranty.

27. A qualified technical person must be provided from the firm for operation, maintenance and training for 18 months.

Additional terms and conditions:

a) Vendor must provide list of users for the quoted system in India along with documentary proof.

b) Vendor must provide customer satisfactory report for the quoted system.