TATA INSTITUTE OF FUNDAMENTAL RESEARCH Homi Bhabha Road, Navy Nagar, Colaba, Mumbai – 400 005. A Deemed University

Website : www.tifr.res.in purchasequeries@tifr.res.in

Date: 08.09.2016

Notice Inviting Tender (Two Part Global Tender) for the following items:

400 Teraflops HPC Server - **Qty. 1 No**.

As per our technical specifications

Global Tender No. : TFR/PD/IC16-11/Global

Published on : 08/09/2016

Tender Fee : For Indian Supplier - Rs. 1,000/-

: For Foreign Supplier - USD 200/-

EMD : For Indian Supplier - Rs.5,00,000/-

: For Foreign Supplier -USD 7,500/-

Estimated Cost : **Rs. 30 Crore**

Type of Tender : Two Part Global Tender Last date for Submission of Tender: 10/11/2016 till 2.00 pm Date of Opening Bids : 10/11/2016 at 03.00 pm

Both <u>Technical Bid (Part A)</u> and <u>Financial Bid (Part B)</u> to be submitted within the due date and time in separate envelopes and marked on top as Part A and Part B. These two sealed envelopes should be further put in one Master Envelope superscribed with the Tender No., Due Date in Bold Letters.

Please see attached sheet for conditions of tender.

ADMINISTRATIVE OFFICER (PURCHASE SECTION) TIFR, MUMBAI

High Performance Computational System (ILGTI)

The Indian Lattice Gauge Theory Initiative, at the Tata Institute of Fundamental Research, seeks a high performance compute server for Lattice Quantum Chromodynamics simulations.

Bids will only be entertained from OEMs who have supplied 100-Teraflops (or higher) systems within India in the last three years. Bids should be accompanied by a list and documentary proof of installations of such systems within India, along with contact details of the corresponding system managers. The OEM must have support engineers in India.

The complete delivery, commissioning, installation and support of the system will be the sole responsibility of the OEM. We require post-installation support calls to be directly raised with the OEM.

The server should deliver sustained performance of 400 Teraflops or more, as measured on the industry standard test bench of LINPACK using double precision arithmetic. OEMs must have installations of at least one 400 Tflops installation or more in the TOP500 list. Any architecture is acceptable provided they pass our criteria for selection. These criteria will be based on, but not limited to, the following:

- 1. Performance on benchmark codes supplied by us. The vendor is free to modify these codes in order to obtain the best performance on their hardware, while continuing to give correct results. The original and vendor-modified codes will remain the property of TIFR. Benchmarks and details of the benchmarking process will be available on the TIFR website, and its address will be given to OEMs and/or their representatives.
- 2. Ease of portability of codes. This will be judged by examination of the vendor-modified code. Vendors are required to document the reasons for modifications. These will be taken into account in the examination of the code.
- 3. Total IT power consumption. Maximum IT power consumption must not be more than 200 KW. Any surges during powering on or off the system must be very small, and not exceeding 300 KW in any case.
- 4. The proposed solution should use chilled water for cooling, with inlet water at 12 Celsius or higher.
- 5. Total space requirements, including the foot-print for the complete IT solution with system, disks, front-end, backup devices, cooling, power distribution racks, service clearance, etc. must not require floor space more than 10 m X 6 m.

- 6. The Service Level Agreement (SLA) by the OEM, which must be submitted along with the technical part of the tender. SLA must specify committed uptime, process for reporting problems, complete escalation matrix, and penalties for not meeting these agreements.
- 7. Terms of support for system administrators and user training, open source third party software, and code development.
- 8. Previous record of service and support for system administrators and users in India (user-satisfaction certificates must be submitted).

Other requirements are the following:

- 1. 2 GB of memory (or more) per CPU core is preferable. If this is not the default, then quote for options separately.
- 2. 2 Petabyte of usable PFS shared disk space, RAID 6 configured, with option for tape backup devices for 500 Terabytes. Quote for options separately.
- 3. Warranty for at least 3 years from the date of acceptance of the full hardware.
- 4. Bidder must offer for the comprehensive annual maintenance charges separately for 04 year [i.e. The AMC period will be effective for the period from 4th year to 7th year after expiry of warranty period of initial 3 year]. The 04 year AMC charges + applicable taxes will be computed along with the cost of main system for determining L1- lowest bidder.
 - The AMC order shall be finalized & released separately after expiry of 03 year warranty period, while AMC amount offered now by bidder will have to be frozen and remain unchanged till next 04 years from the date of expiry of warranty period.
- 5. Software, including appropriate professional queue and load managers, compilers, debuggers for high performance Fortran, C, C++, performance monitoring tools, etc., are included within the scope of the bid. All floating licences must be for at least 2 users. The software has to manage and run a large number of high performance jobs at a level equal to the benchmark performance.
- 6. Support, including training for 2-3 system managers, and for user code optimization, is included in the scope of the tender.

Criteria for technical elimination are the following:

- 1. The bid will be disqualified if all documentation required, including MAF (if the bid is made by a representative of the OEM), is not given.
- 2. The bid will be disqualified if all options stated in this tender document are not quoted.
- 3. The bid will be disqualified if the OEM has no presence in the TOP500 list with installations of 400 Teraflops or more.

- 4. The bid will be disqualified if the OEM has not supplied any single system delivering more than 100 Teraflops within India in the last three years.
- 5. The bid will be disqualified if the hardware delivers less than 400 Teraflops on publicly available benchmarks such as LINPACK.
- 6. The bid will be disqualified if the maximum IT power consumption is more than 200 KiloWatts.
- 7. The bid will be disqualified if there is a power surge of over 300 KiloWatts on switching on the machine.
- 8. The bid will be disqualified if the cooling system does not accept chilled water at inlet temperature of 12 Celsius or more.

The following figures of merit will be used to evaluate and further short-list the remaining bids:

- 1. TIFR benchmark performance: the scoring system will be explained in the web page which contains the user benchmark codes. (maximum possible score 80, minimum possible score 0)
- 2. Operational cost computed for LINPACK [Score = 20 for peak consumption of 150 KW or less; from peak power consumption of 150 KW to 200 KW, score will decrease by 1 for every 2.5 KW increase in power consumption] (maximum possible score 20, minimum possible score 0).

Solutions with score of 50 or more will be shortlisted. The Technical Committee reserves the right to fine-tune the cutoff score for shortlisting if it deems that doing so will bring nearly comparable solutions into the competition.



TATA INSTITUTE OF FUNDAMENTAL RESEARCH

(Deemed University) HOMI BHABHA ROAD, NAVY NAGAR, COLABA, MUMBAI – 400 005

(PURCHASE SECTION) Terms and Conditions

1. PART "A" (Technical Bid) consisting of Technical Bid with Commercial Terms and PART "B" (Financial Bid) consisting of only Price shall be submitted in separate sealed envelopes duly superscribed with the tender enquiry number, and the due date in bold letters, addressed to the Purchase Officer, Tata Institute of Fundamental Research, Homi Bhabha Road, Colaba, Mumbai – 400 005. The envelopes should be clearly marked on top as either PART "A" or PART "B".

The two sealed covers should be further put in a master cover superscribed with the Tender Enquiry No., Due Date in bold letters, addressed to the Purchase Officer, Tata Institute of Fundamental Research, Homi Bhabha Road, Colaba, Mumbai – 400 005. The sealed master envelop has to be delivered by hand/courier at the security Gate Officer of TIFR on or before 14.00 hrs on the due date specified. The technical bid will be opened in the presence of attending tenderers at 15.00 hrs on the due date at Purchase Section, TIFR Mumbai. Tenders submitted after 14.00 hrs. on due date will not be considered.

2. In case the PART 'A' and Part 'B' bids are not sealed in separate envelopes the tender will be rejected.

- 3. The technical bid should not contain any indication of the price. The bidder should take special care not to mention anything related to pricing and costing aspect of whatsoever nature. The technical bid should include/contain only technical specifications, technical literature, drawing, quantity, manufacturing and delivery schedule, mode and terms of payment, mode of despatch, the quantum and percentage of statutory levies payable by the purchaser as extra and all related commercial terms and conditions for the supply and for the services like erection and commissioning to be rendered by the tenderer. The details of the validity of the tender should also be indicated along with the commercial details.
- 4. After scrutiny of Technical Bids, Financial bids of only those bidders who are shortlisted on technical basis will be opened at on later date. The opening date, time and venue will be intimated to the technically successful bidder.

5. Tender Document Fee:

- **a) For Indian Supplier:** Tender fee for **Rs. 1,000/-** (Non-refundable) in the form of D.D. in favour of "Registrar, Tata Institute of Fundamental Research, Mumbai" to be enclosed with the Technical Bid(Part A).
- **b) For Foreign Supplier:** Tender fee of **USD 200** (Non-refundable) in the form of advance cheque in favour of "Registrar, Tata Institute of Fundamental Research, Mumbai" to be enclosed with the Technical Bid (Part A).

6. EMD:

- **a) For Indian Supplier:** Earnest Money (EMD) for **Rs. 5,00,000/-** in the form of D.D. in favour of "Registrar, Tata Institute of Fundamental Research, Mumbai" to be enclosed along with the technical Bid (Part A).
- **b) For Foreign Supplier**: Earnest Money (EMD) for **USD 7,500/-** in the form of advance cheque in favour of "Registrar, Tata Institute of Fundamental Research, Mumbai" to be enclosed with the Technical Bid (Part A).

EMD shall be interest free and it will be refunded to the unsuccessful bidder without any interest. EMD will be forfeited if the bidder withdraws or amend impairs or derogates from the tender in any respect.

- 7. Bidders who have not accepted the job/order awarded to them or withdrawn from the tender process OR whose EMD/Security deposit has been forfeited in the past their bids will not be considered and treated as ineligible / disqualified.
- 8. After downloading the documents please inform your company details such as name, address, telephone nos., contact person and email address etc. by email to us. (purchasequeries@tifr.res.in) to enable us to inform prospective bidder for any corrigendum/changes if any; in the Tender document before due date.

Any Technical queries/clarification should be address to Purchase Officer at this address: purchasequeries@tifr.res.in. Such queries will be publicly announced on the specified Benchmark URL: http://www.ilgti.tifr.res.in/BechMark2016/

- 9. Quotations must be valid for a period of 180 days from the due date.
- 10. Tenders containing correction, overwriting will not be considered. Late or delayed/Unsolicited quotations/offers shall not be considered at all. These will be returned to the firms as it is. Post tender revisions/corrections shall also not be considered.
- 11. Tenderer should sign on all the pages of the technical bid and the price bid.
- 12. The price quoted for Import item must be on following basis:
 - **a)** Ex-Work/factory duly packed airworthy/seaworthy and of international standard.
 - b) FOB/FCA
 - **C)** CIF, Indian Port, Hyderabad (all inclusive i.e. Cost of Goods, Packing, Inland transportation, freight, insurance upto Indian Port etc.

For local item /supply, offer should be on FOR basis (i.e. total landed cost for delivery at TIFR Balloon Facility, Hyderabad).

The dimension of the item (viz. H, W, L, weight etc.) shall be specifically stated and also mention whether the mode of shipping the item is Airworthiness / Seaworthiness or both. Accordingly the mode of shipment will be decided by TIFR.

Price must be quoted in the Price Bid Format attached herewith as "Part - B" (Financial Bid).

- 13. If equipment offered is to be imported, arrangements for import will be made by us.
- 14. Tenders who do not comply with any of the condition are liable to be rejected.
- 15. The Institute shall be under no obligation to accept the lowest or any other tender received in response to this tender notice and shall be entitled to reject any tender without assigning any reason whatsoever.
- 16.TIFR reserves the right to place the order for part/reduced quantity than what is specified in the tender.

17. PAYMENT TERMS: The payment shall be as follows:

- I. **50%** of the order value shall be released on presentation of complete and clear shipping documents provided entire shipment is made at one go. if any, part shipment is made by the supplier, then the payment will be made after the last/final shipment.
- II. **30%** of the order value through wire transfer on receipt of the complete equipment / item (including all accessories, small part if any) but not on partial receipt of items.
- III. **10%** of the order value through wire transfer on installation, commissioning, demonstration of the equipment at site and on furnishing of "Acceptance Test Report" from the concerned authority at TIFR.
- IV. **10%** of the order value will be released through wire transfer against furnishing of "**Performance Bank Guarantee**" for an equivalent amount. The PBG shall be valid for a period of **60 days** beyond the date of warranty period.

17. For Import cases: No Agency commission will be paid as per Govt. of India rules.

- 18.As on now TIFR is exempted from paying of **Custom Duty** under the notification No.51/96 dated 23.07.1996, **Excise Duty** under the notification No.10/97 dated 01.03.1997, for all procurements/supply meant exclusively for Educational, scientific and research purpose. Whenever the exemption certificate not honored by the authorities, the applicable duty will have to be paid. Hence Excise & Custom duties, if any, should be shown separately.
- 19. SALES TAX: TIFR does not have any exemption/concession on payment of Sales Tax/VAT and we are not authorized to issue any Sales Tax Form 'C' & 'D'
- 20. The delivery period should be specifically stated and earlier delivery may be preferred.
- 21. The Supplier shall arrange to ship the ordered materials within the mutually agreed delivery period mentioned in the order unless extended with/without penalty.

- a. In case of delay in supply on part of the supplier, a penalty @0.5% per week of order value will be charged for delayed period subject to a maximum of 10% order value.
- b. If the delay in the shipment of the ordered materials attributable to the supplier exceeds agreed time period from the date of original agreed upon date of shipment and extended with/without penalty, the TIFR, Mumbai shall have the right to cancel the contract / purchase order and recover the liquidated damages from other dues of the party or by legal means. It will also affect the other/future business dealings with such suppliers.
- c. The same rate of penalty shall be applicable for late installation of the equipment/instrument also.
- 22. Acceptance of the order will be contingent on receiving all the material in good condition, and the OEM reproducing all benchmarks on the site after installation of the machine.
- 23. **WARRANTY**: The system must have warranty of 03 years. The warranty period of the system will commence from the date of acceptance.
- 24. Specifications are basic essence of the product. It must be ensured that the offers must be strictly as per our specifications. At the same time it must be kept in mind that merely copying our specifications in the quotation shall not make the parties eligible for consideration of the quotation. A quotation has to be supported with the printed technical leaflet/literature of the quoted model of the item by the quoting party/manufacturer.
- 25.OBSERVANCE OF LOCAL LAWS: Wherever applicable (particularly for Local vendors), the vendor / contractor shall comply with all law, statutory rules & regulations etc. The vendor/ contractor shall obtain all necessary permits / approval from the local Governing Body, Police, and other concerned Authorities as may be required under law. The vendor /contractor shall pay all types of taxes, fees, license charges, deposits, duties, tolls, royalty or other charges that may be leviable on account of any the operations connected with the execution of this work/ contract.
- 26.In case of any interpretational issues arises in this tender, the interpretation/decision of TIFR shall be final and binding on the bidder.
- 27.It is the responsibility of the vendor to make sure that the system being proposed can be exported to India with TIFR as the end user. All clarificatory documentation must be submitted with the Bid.
- 28. TIFR reserve the right to ask for or to provide any clarification, changes after the release of this tender. Any changes or clarifications provided by TIFR may be checked at TIFR website www.tifr.res.in/tenders

The system shall be delivered and installed at:

Tata Institute of Fundamental Research, Balloon Facility, P.B. NO. 5, ECIL, P.O., Hyderabad 500 762,India

TIFR Tender No & Date:	
Due date:	Part 'B'
Bidder's Quotation Ref No. & Date:	Financial Bid
Financial Bid (Bidders must quote their rates using this Format)	

Sr. no.	Item Description as per the Tender/Inquiry	Make/Brand/ Type	Rate per unit	Qty	Basic Cost of main item (In Currency)
А					
В	Ex-Works cost (Duly packed Airworthy/Seaworthy of international standard)				
С	FOB /FCA Cost (Name of Airport)				
D	CIP/CIF Cost (Upto Mumbai Airport)(all inclusive i.e. Cost of Goods, Packing, Insurance, Inland transportation, freight etc.)				
E	Comprehensive AMC charges for 04 years [AMC will be effective from 4th year to 7th year i.e. after expiry of warranty period of 3 years]				

Note:

- 1. All the column should be appropriately filled and not left blank.
- 2. Do not include any other charges, taxes, duties etc. in the Basic Cost of the item.
- 3. All optional items & AMC should be shown separately.
- 4. Use separate sheet for detail description, specification of the item, but prices should be quoted in same format.
- 5. Prices quoted in Indian Currency should be on F.O.R. basis and mentioned separately using different table format showing all the applicable taxes/Duties like Excise, VAT, service Tax, Freight & Transportation charges and installation charges etc
- 6. TIFR being educational & research institute, discounted price shall be offered.

	Signature of the Bidder
Name, Address, contact no & Email id of the	
Bidder/Company with company's stamp or seal	
Date: Place:	