CORRIGENDUM-II TO THE TENDER NOTICE NO. IACS/RCAMOS/AP/2016-17/59

PLEASE NOTE REVISED/CORRECTED SECTIONS (HEADINGS) ARE MARKED IN GREEN. IN BRIEF THE TECHNICAL SPECIFICATIONS HAVE BEEN CHANGED ALONG WITH VENDOR ELIGIBILITY.

Also all changes made have a label 

attached adjacent to them.

Total 8 pages PDF File

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

2A & 2B, RAJA S C MULLICK ROAD, JADAVPUR, KOLKATA 700032

Tender Notice

NIT No. : IACS/RCAMOS/AP/2016-17/59 Date : 16/11/2016

Sub : Invitation for Tender for Supply of "High Performance Computing Servers under WTI"

Indian Association for the Cultivation of Science invites Sealed Tenders for purchase of a **High Performance Computing Nodes with Intel processors along with a GP-GPU system under the aegis of WTI:DST**. The bids are to be submitted in **Two-Bid pattern i.e. Technical Bid and Price Bid** in two separate sealed covers distinctly marked accordingly and both to be put inside another envelope, which should be sealed and super scribed with **"High Performance Computing Servers Tender under WTI , IACS"** Tender Notice No., Due date and time of opening.Two bids i.e. Technical Bid and Price Bid should be identical in all respects except that the Technical Bid should have blank space at the places where prices have been quoted in the Price Bid. The bidders may submit bids duly signed in their own letterheads. In case the scheduled date of opening of tender is declared as holiday, the tender will be opened on the next working day at 3.00 P.M. The technical bids will be opened first to evaluate the technical specifications of the equipment and the price bids of the technically qualified companies only will be opened thereafter. Complete tender bids should reach the **RCAMOS office, Indian Association for the Cultivation of Science, 2A & 2B, Raja S C Mullick Road, Jadavpur, Kolkata700032, West Bengal, India**, on or before the scheduled date & time specified below :

Tender Notice No.	**IACS/RCAMOS/AP/2016-17/59 Date : 16/11/2016**
Last date and time of submitting tender	28/12/2016 **BEFORE 17.00 hrs.** ! Revised
Pre-bid meeting to discuss technical specification	**30/11/2016 at 4 PM (Venue will be declared on Website)**
Date and time of opening tender (Technical Bids)	29/12/2016 at 5.00PM at Ray Chaudhuri Hall ! Revised
Date and time of opening of Price Bid	**The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.**
Place of opening tender	**Ray Chaudhuri Hall, IACS**
Contact	Dr. Ankan Paul , e-mail: rcap@iacs.res.in

2. PRICE BID : The financial bid indicating item-wise price for the items mentioned in the technical bid should be kept in a separate sealed envelope duly super scribed as "PRICE BID" on the outer cover of the envelope as already detailed above. (a) **The price of the equipment should be quoted in Dollars on CIF basis.**(b) **The price bid of only technically qualified bidders will be opened and they will be intimated of the date and time of opening to their respective email ids.**

Rest of the bids will stand rejected (c) **Payment Terms:** payment would be made through LC for the dollar component of a nationalized BANK by IACS

BID SECURITY:

1. An Account Payee Demand Draft/ Pay Or der for Rs.75,000/- (Rupees Seventy FiveThousand only) drawn in favor of "Indian Association for the Cultivation of Science" is to be furnished along with Technical Bid as Bid Security money (or EMD). Bidders registered with the Central Purchase Organizations, National Small Industries Corporation etc. may be exempted from paying EMD subject to their submission of a copy of valid registration certificate with their Technical Bids, failing which their
bids will be rejected.

2. The Demand Draft/ Pay Order for the Bid-Security money should have at least 60 (sixty) days validity period after the opening of the Bids.

3. In case of non-award of the work, the Bid Security money would be returned to the bidders.

PERFORMANCE SECRITY:

1.An Account Payee Demand Draft/Bank Guarantee of Rs.1.5 lakhs (Rupees one lakh and fifty thousand only) drawn in favor of "Indian Association for the Cultivation of Science" is to be furnished by the successful bidder to be awarded the contract, as "Performance Security" money.

2. Performance Security should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the supplier including warranty obligations.

3. Bid Security would be refunded to the successful bidder on receipt of Performance
Security.

3. TECHNICAL SPECIFICATIONS: (REVISED)

PLEASE NOTE (IMPORTANT):

Either Option 1 or Option 2 or Option 3 would be procured depending on the availability of the funds.

OPTION 1:

(i) The High Performance Computing Cluster would comprise of the following components:

Technical Specifications:

(a) (i) Six Server Nodes and (ii) one GPU node

(1) Server Quantity: 6	
Processor	2 X Intel Twelve core 2.2GHz E5-2650 V4 processors (DUAL CPU CAPABLE)
Memory	64 GB DDR4-2400 ECC RDIMM per node
Storage	4 TB SATA Enterprise class per node
Chipset	Compatible Industry Standard Intel Chipset
Chassis	Each node not exceeding 1U Rackmountable
Power Supply	Industry Standard Platinum Level (Single or Redundant)
Interconnect	Standard Ethernet

(iii) GPU NODE Quantity: 1	
Processor	Single Twelve core 2.2GHz E5-2650 V4 processors
Memory	128 GB DDR4-2400 ECC RDIMM
Storage	4 TB SATA Enterprise class
Chipset	Compatible Industry Standard Intel Chipset
GPU CARDS	**One NVIDIA® Tesla K80 GPU Computing Accelerator - 24GB GDDR5 - GPU**
PCI 3.0 Slots	Three or more
Chassis	Within 2U Rackmountable
Power Supply	Industry Standard Platinum Level (Single or Redundant)
Interconnect	Standard Ethernet

! Revised

TECHNICAL SPEC. (CONTINUED)

OPTION 2:

(i) The High Performance Cluster would comprise of the following components:

Technical Specifications:

(a) (i) Four Server Nodes and (ii) one GPU node

(1) Server Quantity: 4	
Processor	2 X Intel Eighteen core 2.3GHz E5-2697 V4 processors **(DUAL CPU CAPABLE)**
Memory	128 GB DDR4-2400 ECC RDIMM per node
Storage	4 TB SATA Enterprise class per node
Chipset	Compatible Industry Standard Intel Chipset
Chassis	Each node maximum 1U Rackmountable
Power Supply	Industry Standard Platinum Level (Single or Redundant)
Interconnect	Standard Ethernet

(iii) GPU NODE Quantity: 1	
Processor	2 X Intel Eighteen core 2.3GHz E5-2697 V4 processors **(DUAL CPU CAPABLE)**
Memory	128 GB DDR4-2400 ECC RDIMM
Storage	4 TB SATA Enterprise class
Chipset	Compatible Industry Standard Intel Chipset
GPU CARDS	**One NVIDIA® Tesla K80 GPU Computing Accelerator - 24GB GDDR5 - GPU**
PCI 3.0 Slots	Three or more
Chassis	Within 2U Rackmountable
Power Supply	Industry Standard Platinum Level (Single or Redundant)
Interconnect	Standard Ethernet

! Revised

TECHNICAL SPEC. (CONTINUED)

OPTION 3

(i) The High Performance Cluster would comprise of the following components: Technical Specifications:

(a) (i) Five Server Nodes and (ii) one GPU node

(1) Server Quantity: 5	
Processor	2 X Intel Sixteen core 2.1 GHz E5-2683 V4 processors (DUAL CPU CAPABLE)
Memory	64 GB DDR4-2400 ECC RDIMM per node
Storage	4 TB SATA Enterprise class per node
Chipset	Compatible Industry Standard Intel Chipset
Chassis	Each node not exceeding 1U Rackmountable
Power Supply	Industry Standard Platinum Level (Single or Redundant)
Interconnect	Standard Ethernet

(iii) GPU NODE Quantity: 1	
Processor	Single Sixteen core 2.1GHz E5-2683 V4 processors
Memory	64 GB DDR4-2400 ECC RDIMM
Storage	4 TB SATA Enterprise class
Chipset	Compatible Industry Standard Intel Chipset
GPU CARDS	**One NVIDIA® Tesla K80 GPU Computing Accelerator - 24GB GDDR5 - GPU**
PCI 3.0 Slots	Three or more
Chassis	Within 2U Rackmountable
Power Supply	Industry Standard Platinum Level (Single or Redundant)
Interconnect	Standard Ethernet

! Revised

OTHER TECHNICAL REQUIREMENTS

(f) **Operating System:** Open-Source stable Linux distribution (latest CENTOS stable version or equivalent) with standard Fortran and C compilers for **(i) and (ii) and (iii). CUDA for (iii).**

(g) **Warranty**: Three (3) years on-site OEM warranty for all components and parts and labor. The warranty period will commence from the date of certification of successful installation of the equipment.

(h) **Installation and Commissioning:** Free of cost at IACS, Kolkata. The vendors are required to give an estimate of the time required for installation fine-tuning of the cluster and hand-holding/training of the principal users in the technical bid. The vendor shall be responsible for setting up of High Performance Linux Cluster using open source Linux distribution (preferably CENTOS) or equivalent (to be provided by vendor) for Options **1,2 & 3** The GPU based server **(iii)** must have latest version of CUDA and can run programs like PETACHEM and LAMMPS

Vendor and OEM Eligibility:

(I) The bids must be submitted by OEMs or OEM supported single vendors (one vendor one OEM and each OEM can only authorize a single vendor) only with original authorization certificates from the OEMs. OEM supported vendors should have proven experience in setting up of a minimum of three 1 TFLOPS or higher HPCC in the last three years in India. Vendors/OEMS should have proven experience in setting up a HPCC of minimum of **one 30 TFLOPS** in the last three years in India and a minimum of 3 installations of at least 1 TFLOPS in Kolkata and adjacent region(e.g. IIT Kharagpur, IISER Mohanpur). A brief proof for such experience (copies of orders/installation certificate) should be included in the technical bid.

(II) Vendor\OEM should be responsible in providing support (software and hardware) for the machine during the warranty period. Both Vendor and OEM would be responsible in ensuring the smooth functioning of the HPC cluster during the warranty period. It is binding on the OEM to choose a vendor who can provide adequate support for proper running of the aforementioned HPC cluster. OEM must have a minimum of three entries in the current (June 2016) top 500 list of supercomputers (as per top 500.org). If the OEM does not have the requisite no. of entries in the top 500 list they may still qualify for bidding. However, such OEMs have to provide extra supporting recommendation/s from Academic Institutions (like IITs or IISERs) of repute, where they have installed at least 200 TFLOPs or more of similar equipment. Additionally they have to provide benchmark results of standard quantum chemistry program runs on their platforms to prove their technical competence. The technical committee would inform them about any additional requirements for proving technical competence. The decision by technical committee regarding such issues would be final and binding on all bidders.

! Revised

(III) Vendor/OEM should have service engineers stationed at Kolkata and should respond to service calls within 24 hours of receiving a notice from IACS. Additionally, the vendor (service provider)/OEM should have an office in Kolkata. The vendor/OEM has to provide contact details of service engineers and its office in Kolkata. Service call resolution including replacement of parts should occur within 5 business days of receiving the service call. (IV) It will be highly desirable if the vendor/OEM has proven capability to install some commonly used academic software packages like Gaussian, ADF, Gamess, Polyrate, NWChem, Molpro, DeMon2K, NAMD, VASP, Quantum Expresso. Parallelized installation of academic codes like Gaussian 09 TCP Linda is highly desirable. Vendor/OEM also should have adequate experience in installing and setting up NAMD, GROMACS, LAMPPS and other popular academic codes.

Additional Information to be furnished by the vendor:

(i) **UPS back up**: The vendor should furnish information regarding UPS and associated battery requirements for operating the HPC cluster in a stable fashion.

(ii) **Power, Heating and Cooling**: Power consumption and heat dissipation estimate for the total cluster should be mentioned clearly.

Additional Requirements:

(i) **Compliance List:** The vendor must submit a table indicating the compliance of the features of the model of the components being quoted with those given in the indent. In case of non- compliance against a particular item, the vendor should justify that.

(ii) **Training:** Free basic training on operation, maintenance and troubleshooting of the whole HPCC Solution should be imparted to at least a person for a period of two days at the site of installation. This can be done during the course of installation.
(iv)**Delivery & Installation:** Equipment should be delivered from 6-8 weeks after the order is formally placed with the vendor. Installation should be done by the vendor/OEM within two weeks after the equipment reaches IACS and a proper site with requisite arrangements are made available at installation site.
****Please Note: The decision of the Technical Committee on technical competence and eligibility of any technical bid submitted by any vendor would be final and cannot be contested.**

3. GENERAL INSTRUCTIONS:
(i) **Submitting Tender:** The Tender must contain materials related to these specifications and should not contain materials that can overtly or covertly try to canvass for the vendor. The vendors are allowed to deviate from the specifications given below only when such deviations are demonstrated to be technically superior. Additional features in the quoted items which are better than those in the indent – may be highlighted. The technical bid should not have any mention
of pricing. The commercial bid should have the pricing for each option separately. Prices should be inclusive of all charges (taxes/duties as applicable, shipping charges, delivery at site, installation etc.) with clearly indicated break- ups. Fax, e-mail Tender will not be accepted. Duplicate Bid document must be submitted in Separate closed cover.

(ii) **Post-sale service:** The vendor must submit the names of the service engineers employed by them who are competent to serve the HPCC installation along with their contact details in India.

(iii)**Tender updates**: Prospective bidders may please refer to our website http://www. iacs.res.in, occasionally for any update on the tender which may appear from time to time either in respect of pre-bid meeting or otherwise.

(iv)**Ineligible Tenders**: Incomplete and conditional tenders and tenders received after the due date will be summarily rejected without assigning any reasons thereof. Tender Notice and tender for '**High Performance Computing Servers Tender under WTI, IACS**' should clearly be written on the envelope. The technical committee holds the sole right to declare any submitted tender ineligible based on technical grounds. In such cases decisions taken by tender committee would be final and incontrovertible. Technical committee may
ask for additional document

(v) In case of any dispute, the decision of the Institute authority shall be final and binding on the bidders.

(vi)**Legal:** The courts of Calcutta would have jurisdiction over any legal issue arising out of this tender notice.