

INDIAN INSTITUTE OF SCIENCE

BANGALORE-560012

NCCRD HPC Datacenter

TENDER NOTICE

Tender No. ICER/SH/2015-16/1003

Dated: 8th February, 2016

The Indian Institute of science, Bangalore, invites sealed competitive tenders from the authorized dealers and bonafide Integrators for supply of server racks, cooling system and uninterruptible power supply (UPS) system as well as, all necessary civil, plumbing and electrical works for integrating these systems in order to realize a server room to house a high performance computing cluster for use by the National Center for Combustion Research and Development (NCCRD).

The tenders shall consist of two parts

- (i) Technical bid comprised of the following items
 - a. Technical specifications of the proposed system,
 - b. Earnest Money Deposit (EMD) of Rs. 5,00,000/- as an a/c payee demanddraft drawn in favour of Registrar, Indian Institute of Science, Bangalore from any Nationalized Bank, and payable in Bangalore.
 - c. Tender document fee of Rs. 500/- as an a/c payee demand draft drawn in favour of Registrar, Indian Institute of Science, Bangalore from any Nationalized Bank, and payable in Bangalore. **Bids without the tender document fee are liable to be rejected.**
- (ii) Commercial bid giving item wise rate, discount, commercial terms and conditions etc.

Submission of tender documents

The tender documents have to be dropped in a box kept for the purpose in the office of the Interdisciplinary Center for Energy Research (ICER), Indian Institute of Science, Bangalore-560012.

Dates for submitting complete tender documents:

23rd February, 2016 to 7th March, 2016, on or before 4.00 pm.

Mandatory site visit

A **mandatory site visit** must be carried out by all interested bidders. The purpose of the visit is for vendors to familiarize themselves with the site of the server room as well as take all necessary measurements needed for making estimates of material quantities. **Acknowledgements (in original) issued after the site visit must be included by the bidders in their technical bids for the bids to be considered eligible.** Appointments for the site visit may be made by contacting Ms. Kalashekar (+91-80-2293 2069) at ICER.

Dates and times for mandatory site visit:

8th February, 2016 to 19th, February, 2016 (both days inclusive) between 10:30 am and 12:00 noon and/or between 2:00pm and 4:00pm only.

Prebid meeting

A pre-bid meeting with potential bidders who have completed the site visit will be conducted in ICER, IISc. The aim of this meeting is to clarify any questions on the site and/or technical specifications that the potential bidders may have before the bids are submitted.

Date of prebid meeting

22nd, February, 2016, 11:30am at ICER, IISc.

Opening of technical bids

The technical bids will be opened in ICER, IISc, at a date and time to be communicated by e-mail to all vendors who have submitted bids. The bidders can have their representatives present at the time of opening of technical bids. Contact information (e-mail, cell phone numbers) of bidder representatives must be clearly indicated on the outermost covering envelope containing sealed technical and commercial bids.

After this, the commercial bids of only those who qualify in the technical bids will be opened in ICER at a date and time that will be communicated by e-mail to successful bidders. These parties can have their representatives present at the time of opening commercial bids.

1. Eligibility Criteria (to be supported with documentary proof)

A) Bidders should be authorized dealer or Integrator for constructing server rooms/datacenters to house High Performance Computing (HPC) cluster systems. The requirements for authorized dealers and integrators are:

a. For branded products:

- i. The bidding vendor should be authorized reseller or dealer of the product manufacturer.
- ii. The terms of on-site service should be made clear as to whether it is undertaken by the manufacturer or by the bidder and should be made clear as to how the “on-site” comprehensive warranty would be managed.
- iii. Complete hardware details pertaining to the model quoted should be clearly provided in the technical bid against the line items mentioned in the specification table/Bill of materials.

b. For OEMs and Integrators:

- i. The bidder should have good technical and commercial track record in building and deploying server rooms/datacenters for HPC clusters as demonstrated by having executed prior datacenter orders of similar size.
- ii. If the bidder is an integrator they should meet the following additional requirement:
 1. If successful in the bidding process, the bidder should first deliver the components of integration at the Institute, with the component level factory seals for authentication and then integrate them at the Institute.

B) The bidder should have executed at least one installation of a server room/datacenter for HPC systems involving racks, cooling system, UPS and all associated electrical/plumbing/civil works worth Rs. 50 Lakhs or higher within the last three financial years (2012-13, 2013-14 and 2014-15) for Government Institutions or Corporate/s. Supporting documents / certificates in this regard along with their contact details should be produced with the technical bid.

C) A list of major clients along with installation size at each place with full address, telephone number, FAX No. and contact person details in [Annexure-I](#) is to be enclosed.

D) The bidder should have an annual turnover of at least Rs.1.5 Crores for the past three financial years (2012-13, 2013-14 and 2014-15). The audited financial documents are to be enclosed along with technical bid, to qualify for the eligibility.

2. Details of items

The technical specifications for the server room to be commissioned under this tender are given separately in [Annexure-II](#).

3. Important Information

- a. The Systems quoted could be branded products from MNCs such as Rittal, APC, Emerson or from OEMs or from Integrators meeting specified conditions mentioned at appropriate places in the document.
- b. Delivery will be considered validated when the actual fully assembled system is compliant with all conditions mentioned in section 7.0 of the technical specification (Annexure II).

4. Instruction to bidders

- a) Please go through the tender document completely and thoroughly.
- b) The vendors interested in bidding for this project ***must*** complete a ***site visit*** during the period mentioned on page 1 ***and include the acknowledgement (in original) issued by the ICER office*** for the same with the ***technical bid***.
- c) Interested bidders may submit their offers to Ms. Kalashekar in ICER during the period mentioned on page 1. ***A valid e-mail address for communication of the date and time of technical bid opening meeting should be clearly mentioned on the outermost envelope of the tender.***
- d) Bidders or their authorized representatives can be present when technical and commercial bids are opened.
- e) In case the offer deviates from our requirement and terms and conditions in any manner, these deviations must be clearly indicated in the technical bid failing which IISc terms & conditions will be binding on the bidder. The IISc reserves the right to accept or reject any of the deviations.
- f) The bidder shall clearly mention the period of warranty in the technical bid. Minimum period required is three years for all equipment. The bidders shall also submit a list of their major clients in India with copies of orders supplied to them.
- g) The responsibility of the bidder is not only to ensure supply of full ordered quantity within the stipulated time in the purchase order but also proper installation/placement within specified period after delivery of the items to the Institute and also to ensure that no damage or defective supply of HPC datacenter systems are made.
- h) The items indicated in the purchase order have to be ***delivered and the server room must be commissioned within 8 weeks*** from the date of issue of the purchase order. A penalty of 0.5% of the order value per week of delay would be levied, up to limit of 2% (four weeks of delay) and beyond this period, the PO would be cancelled. An undertaking to accept these terms is one of the criteria for accepting the commercial bid.

5. Site visit

All interested vendors must complete a site visit between the dates mentioned on page 1 of this document. Bids from vendors who have not completed their site visits on the date of opening of technical bids will not be considered. Acknowledgements (in original) issued by the ICER office after the vendor has completed their site visit must be included by the vendor along with their technical

bids. Bids will be deemed incomplete if this acknowledgement is not included and will not be considered until the same is provided by the vendor.

6. Pre-bid technical meeting

A pre-bid technical meeting with potential vendors will be held on the date and time given on page 2 at ICER, IISc. This is to give the vendors an opportunity to clarify any doubts about the technical specification **only**. Please contact Ms. Kalashekar (+91-80-2293 2069) at ICER for directions on how to reach the ICER building on the IISc campus.

The purchase committee will also make a short presentation on the technical specification for the vendors' benefit at this time. Further clarifications on the technical specification alone, prior to bid submission but after the pre-bid technical meeting may be sought by seeking an appointment for meeting with a designated purchase committee member from the ICER office (contact: Ms. Kalashekar 91-80-2293 2069).

7. Documents comprising the bid

All pages of the tender document shall be invariably signed by the authorized personnel and company's rubber stamp affixed. Photocopies of all certificates shall be self-attested by the authorized personnel. There shall be no corrections or overwriting in the tender document. Corrections, if any, should be made clearly and countersigned.

Technical Bid

- a) Provide clear and detailed information (model nos. and manufacturer when applicable) for all the components described in the technical bid.
- b) If there is any claim for enhanced capability of any components quoted, in comparison to the specified requirement, it has to be explicitly mentioned by the bidder. It will have no extra bearing on the consideration of the bid. However, the Technical Committee would take a view on such claims and it reserves the right to accept or otherwise.
- c) The quote shall be valid atleast for 6 months from the date of opening of the technical bid.
- d) **Bank guarantee or other instruments are strictly not acceptable for EMD and tender document fee.**

Commercial Bid

The Commercial Bid shall contain rates of the items and commercial terms & conditions. The price quoted should be all inclusive and it should show clearly both price per unit and the total price for the units specified under each of the system categories along with applicable tax components.

All the prices offered should be the landed cost at all-inclusive price to the Institute on **CIF Bangalore International Airport** basis for items that will be imported and **FOR IISc Bangalore** for items that will be sourced within India.

8. Submission of Bids

The Technical Bid complete in all respects should be sealed in one cover and super-scribed as Technical Bid. Similarly, Commercial Bid complete in all respects should be sealed in one cover and super-scribed as Commercial Bid. Both the covers should be put into another big cover and sealed. This cover should be super-scribed as “Tender for NCCRD HPC datacenter” and Tender **No. ICER/SH/2015-16/1003** Dated: **8th February, 2016**, should be indicated.

The bidders e-mail address and contact phone number should be clearly indicated on the outside of all the covers in order for us to intimate them about the date and time at which the technical bids will be opened. The cover shall be addressed to the Deputy Registrar (Purchase), Indian Institute of Science, Bangalore-560012. The bids should be put into the box placed for the purpose at the ICER office, IISc.

The bidder is expected to ensure compliance of all instructions, specifications, signing of the documents, fixing official rubber stamp, enclosing DD/s, etc. Failure to submit all information required by the bidding documents will make the bid liable for rejection.

In case of any discrepancy in the rates indicated in the Commercial bid either in figures or words, the rates in words will be considered for evaluation.

9. Opening of Bids

Technical Bids will be opened in ICER, IISc at the date and time that will be indicated. Commercial bids of only those vendors whose technical bids are found suitable will be opened.

Representatives of all bidders may be present when technical bids are opened for any clarifications that may be needed.

The Institute reserves the right to accept or reject any bid in part or full without assigning any reason whatsoever. The Institute also reserves the right not to accept the lowest rates quoted by bidder. The bids will be evaluated on the basis of the total bid value.

10. Earnest Money Deposit (EMD)

- a) EMD is refundable but without interest.
- b) EMD shall be liable to be forfeited, if any bidder withdraws his bid offer after opening and within the validity period of the 3 months from the opening of the technical bid or any extended period of validity. Also, if the successful bidder fails to accept the Order / remit security deposit / supply the HPC datacentre system after issue of purchase order, the EMD will be forfeited.
- c) Unsuccessful Bidder's EMD will be discharged / returned as promptly as possible after proper identification/verification, on receipt of application.

9. Security Deposit

The successful bidder will have to deposit an amount equivalent to 2.5% of bid value as Security deposit of order value in the form of Demand Draft / Bank Guarantee from any Nationalized Bank as per the format enclosed at [Annexure-III](#). Security Deposit will be returned to the bidder after successful execution of the contract. Like EMD, Security Deposit would also be non-interest bearing. EMD of the successful bidder will be adjusted against the Security Deposit payable. Non-performance of the contract will result in forfeiture of security deposit with application of risk purchase clauses as appropriate.

10. Warranty

- a) The bidder shall provide warranty at least for 3 years for all of the datacenter system components.
- b) A performance guarantee of an amount equivalent to 10% of the Purchase Order value in a prescribed format enclosed at [Annexure-IV](#) has to be submitted.
- c) The supplier shall confirm that the supplied items under this contract are new. The supplier shall further warrant that all components supplied under this contract shall have no defect arising from any act or omissions of the supplier that may arise under normal use of the supplied Systems in the conditions prevailing in the Institute.
- d) In the event of any correction of defects or replacement of defective material during the warranty period, the warranty for the corrected/replaced material shall be extended to a further period of at least 6 months.
- e) All charges with regard to supply of spare components, labour, travel, per diem and accommodation to supplier's staff, etc. shall be borne by the supplier during the period of warranty. The Institute shall not pay any additional expenditure for services rendered during the warranty period.
- f) All service requests must be attended to on-site by the bidder within 24 hrs of being raised.

11. Defect Liability clause

- a) In case any loss, breakage / damage and manufacturing defects are detected in the supply; it should be replaced / compensated by the supplier free of cost and without any charges whatsoever.
- b) The supplier will remain responsible for any defect arising out of defective or improper materials for a period of 3 years from the date of installation and they shall be bound to make good the same at their own cost or in default, the Institute may cause the same to be made good by other agency and deduct the expense from any sum that may be there and any time thereafter may become due to the supplier or from the security deposit.

13. Enhancement in Rates

The tender rates shall be taken to be firm and the supplier shall not be entitled to any price variation or escalation.

14. Payment Terms/Security Deposit

Payment will be after satisfactory supply and installation.

15. Liquidated Damages for Delayed Supply and Installation

The items indicated in the purchase order have to be **delivered and the server room must be commissioned within 8 weeks** from the date of issue of the purchase order. A penalty of 0.5% of the order value per week of delay would be levied, up to limit of 2% (four weeks of delay) and beyond this period, the PO would be cancelled. An undertaking to accept these terms is one of the criteria for accepting the commercial bid. The Institute may deduct such damages from any money due to the supplier.

16. Execution of agreement

The successful bidder should enter into an agreement with the Institute within 07(seven) days of receipt of work order in stamp paper (to be arranged by the supplier) and no on-account payment will be released till the agreement is executed.

17. The supplier will have to conform to the provisions of all local laws/acts relating to work/labour and to the regulations and bye laws etc of the Govt. and local authorities and of any company with whose system the installations are proposed to be connected.

18. The supplier will remain bound to strictly follow the Institute's security norms. Materials movement in and out should positively be recorded in our security check post.

19. All legal disputes shall be subjected to Bangalore jurisdiction only.

TECHNICAL BID

(To be submitted in a separate sealed envelope)

For supplying HPC datacenter system to NCCRD at IISc

1.	Name of Tendering Company/Dealer with Registration No. & Date issued by appropriate authorities (Please enclose copy of certificate of registration)													
2.	Do you possess trade license issued by Competent authorities? If so, please enclose a copy.													
3.	Name of Proprietor / Director													
4.	Furnish following particulars of the Registered Office													
	a. Complete Postal Address													
	b. Telephone No.													
	c. Fax. No.													
	d. E-Mail Address													
5.	Furnish following particulars of the Bangalore Office, if the registered office is different													
	a. Complete Postal Address													
	b. Telephone No.													
	c. Fax. No.													
	d. E-Mail Address													
6.	Are you a dealer? If yes, please attach a copy of the Dealership certificate issued by the manufacturing company													
7.	PAN No. (Attach Attested Copy)													
8.	TIN No. (Attach Attested Copy)													
9.	Service Tax Regn. No. (Attach Attested Copy)													
10.	Financial turnover for the five financial Years. (Please attach copies of audited balance sheet and IT returns)													
	<table border="1"> <thead> <tr> <th>Financial Year</th> <th>Amount (In Lakhs)</th> <th>Remarks, if any</th> </tr> </thead> <tbody> <tr> <td>2012-13</td> <td></td> <td></td> </tr> <tr> <td>2013-14</td> <td></td> <td></td> </tr> <tr> <td>2014-15</td> <td></td> <td></td> </tr> </tbody> </table>	Financial Year	Amount (In Lakhs)	Remarks, if any	2012-13			2013-14			2014-15			
Financial Year	Amount (In Lakhs)	Remarks, if any												
2012-13														
2013-14														
2014-15														
	(Attach separate sheet if space provided is insufficient)													

11.	Give details of the major clients – Government or Corporate Bodies to whom datacenter systems have been supplied by the bidder during the last three years in the following format. Copies of the Purchase Orders / Indents should be attached for proof			
Sl. No.	Name & address of the client with details - Name of the contact person, telephone no., Fax no., e-mail id	Name & quantity of the Installation	Purchase Order/Indent No. & Date	Amount
(If the space provided is insufficient, a separate sheet may be attached)				
12.	Are you a regular authorized dealer or integrator for the type of Racks, UPS and cooling systems			
13.	Have you supplied and completed at least one single purchase order of value Rs. 50 lakh in the last three financial years (2012-13, 2013-14, 2014-15)? Please attach copies of supporting documents.			
14.	Was your annual turn over was Rs. 1.5 Crores in the last 3 financial years? Please attach copies of audited financial documents.			
15.	Details of Earnest Money Deposit D.D. No. & Date & Name of the Bank			
18.	Please specify the minimum time required to supply and commission the server soon from the date of receipt of the Purchase Order			
19.	Additional information, if any (Attach separate sheet, if required)			

Please attach a detailed technical proposal for the HPC cluster system meeting the specifications given in the following pages, along with the above information.

Technical specifications for NCCRD cluster server room

Supply and install equipment for housing computer servers, cooling and uninterrupted power supply system (UPS) within the NCCRD cluster server room. The scope of work includes the supply, installation, testing & commissioning of UPS based power supply for all servers and networking equipment, server racks, complete in rack cooling system and all necessary electrical wiring, plumbing and civil works needed to make the server room operational.

1.0 Server room layout

The layout of server room and placement of racks are provided schematically in figure 1. The figure is only indicative and the vendors *must* independently take all necessary measurements to estimate wiring and piping length requirements as well any other necessary parameters. The racks will be arranged in two rows of 3 racks each as shown in figure 1. Only the 3 racks on the right shown with solid line boundaries must be installed and operationalized as part of this tender. In addition, wiring, piping and other related civil works to install 3 additional racks at a later date as shown by the broken red boxes (labelled “future expansion”) in figure 1, must also be installed as part of this tender. The infrastructure needed for the 3 additional racks must be installed such that when future expansion takes place, no civil work, wiring, plumbing, heavy drilling etc. will be necessary within the server room.

A trench of width 30 cm and depth of 10cm must be provided between the middle two racks. The purpose of this trench is to be able to route IB cables between the two sets of racks when the future expansion takes place. The trench must be covered by metal plates that can withstand a load of upto 200 kgs without buckling. The covering plates must be screwed in such that they are flush with the floor level and do not pose a tripping hazard.

The UPS and batteries must be located on the side adjacent to the window in the room as shown in figure 1. The latter must be separated from the main server area using partition wall made of fire-retardant gypsum board that can withstand a fire for upto 2 hrs without collapsing.

Placement and routing of all equipment, pipes, cables and other items, including

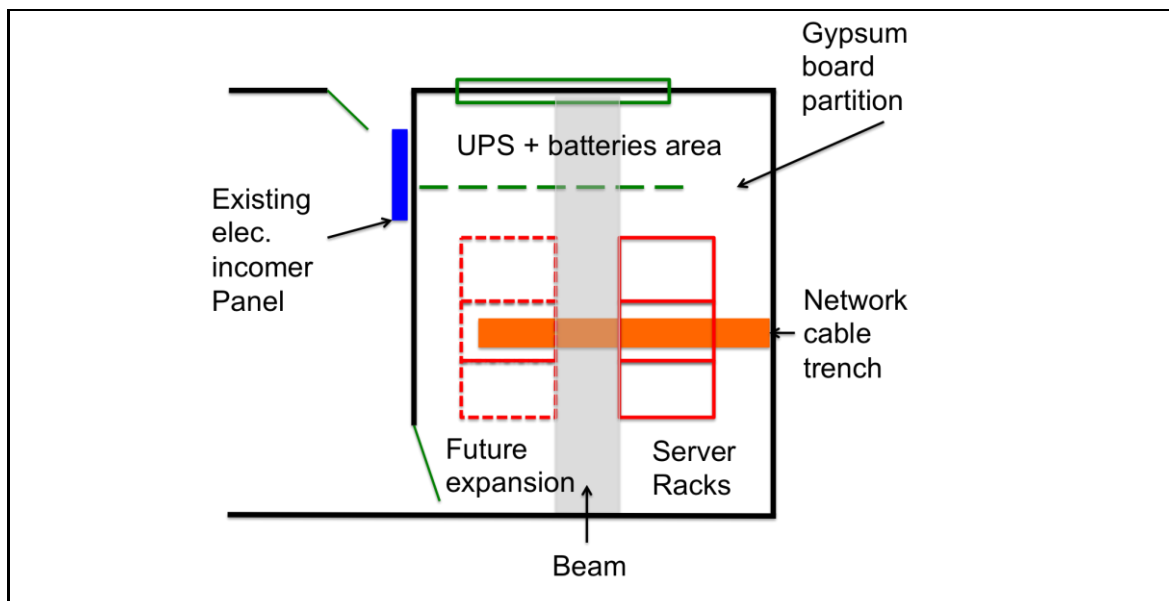


Figure 1: Schematic layout of datacenter server room

items to be placed outside the data centre, shall be done in consultation with and with the approval of ICER. Site constraints including dimensions, location and nature of existing construction, and all safety criteria are to be taken account while bidding. The vendor **must** conduct necessary site inspection on the date specified in the tender before submission of bid. Detailed design, drawing and layout plans for all equipment, cables, pipes and other items must be provided by the vendor along with the technical bid.

1.1 Specifications for material and works to be provided by the bidder

- Trench 30cm width x 10 cm depth. Length to be determined from measurements by the vendor at site
- Metal cover plates for the trench as described above
- Diagram showing layout of racks, trench and UPS area
- Gypsum board partition wall between the server rack area and the UPS area as described above.
- All materials and quantities needed must be itemized in the Bill of Materials accompanying the technical bid.

2.0 Server / Network Racks

Server racks will be used to house all server / network / storage devices in the data center. The vendor must supply 3 racks.

2.1 Specification for material and works to be provided by the bidder

- Server Rack dimensions (in mm) 600 Width x 1200 Depth
- Should have 42 units of rack space for mounting servers.
- Quantity : 3
- Both front and rear door should have a handle with locking options.
- Power and network cable entry should be such that climatic conditions inside the rack are not affected.
- All racks should have appropriate measures for grounding of the rack body to avoid electrocution hazards due to eddy currents.
- All materials and quantities needed must be itemized in the Bill of Materials accompanying the technical bid.

3.0 PDU (Power distribution unit):

3.1 Specifications to be met by the bidder

- Should be rack mountable without occupying space meant for servers and other IT equipment (Zero U)
- Quantity: 6 nos
- Current rating of each PDU: 32A
- Should have a minimum of 19 C13 sockets and a minimum of 3C19 sockets.
- The power supply cable should be atleast 3 meters in length and must be terminated with an IEC 320 industrial socket.
- All materials and quantities needed must be itemized in the Bill of Materials accompanying the technical bid.

4.0 Rack based cooling system

A rack based cooling system with redundancy and SMS/email capability for alerts for 24/7 cooling of the cluster must be commissioned. **The system must dump heat extracted from the server racks outside the building housing the facility.** The cooling system and components must be designed in such a way that in the event of any failure among N functioning units providing cooling, a spare unit will be turned on without operator intervention. Further, any alert messages about failures or abnormal states of the cooling system must be communicated via SMS to upto 3 numbers and 3 e-mail addresses. All measured temperatures outside the acceptable range for the same must be communicated and the measurements must be automatically logged as well. Status of the system must be made available for remote monitoring via a web-based interface that is password protected.

4.1 System specifications and material/works specifications to be provided by the bidder

- Total target IT heat load = 12 kW/rack and 36 kW total.
- Cold air delivery temperature: 24 deg. Celsius.
- Maximum acceptable ambient temperature in the room and outside the building should be 40 deg. Celsius.
- Temperature should be measured at cold air delivery and hot air extraction points.
- The system should support fail-safe operation as discussed above.
- The system should be able to provide SMS alerts on upto 3 numbers as well as e-mail alerts on upto 3 e-mail addresses as discussed
- **System should dump heat removed from the racks outside building.**
- All associated piping and electrical wiring should be installed to accommodate a total of 6 racks.
- Cooling and air handling equipment should be installed for 3 racks.
- Detailed sizing calculation for cooling capacity in BTU/hr and air flow rate in SCFM should be provided.
- All materials and quantities needed must be itemized in the Bill of Materials accompanying the technical bid.

5.0 UPS System

All servers and networking equipment installed in the racks should be provided with an uninterrupted power supply (UPS) system.

The cooling system should not be connected to the UPS.

5.1 Specifications to be met by the bidder

- UPS system must be of the online type only.
- The UPS system should have a minimum rating of 45 kVa with a battery pack capable of providing a backup of 30 minutes.
- The wiring, panels, MCCBs etc should be installed such that it is possible to install an additional 45 kV capacity at a later stage.
- Cabling must be performed from incomer panels to the UPS and from the UPS to the rack PDUs.
- All materials and quantities needed must be itemized in the Bill of Materials accompanying the technical bid.

6.0 Wiring and piping

- The vendor is responsible for all electrical wiring from the existing incomer panels to the various components of the cooling system as well as all wiring from the incomer panels to the UPS and UPS to the rack PDUs.
- All piping and wiring work as part of this tender should be performed to accommodate the installation and commissioning of 3 server racks as well as for a future expansion of upto 3 additional racks.
- Any wiring, piping etc. that will be used only as part of the future expansion must be properly terminated so as to not pose electrical and mechanical hazards to personnel physically accessing the facility.
- The vendor will be responsible for building and commissioning earth pits and taking other measures as necessary to ensure correct ground/neutral voltage for all electrical/IT equipment to be installed in the server racks.
- All wiring, panels switchgear etc. installed in the facility must be clearly labelled (at both connection endpoints for wiring) in order to facilitate future maintenance.
- Supply and return pipes that are part of the cooling system **should not use** mild steel (MS) and/or galvanized Iron (GI).
- All needed fittings also should be in Stainless Steel (SS) or Polypropylene (PPR) material only.
- Appropriate insulation of pipes carrying cold water/air/coolant etc. should be provided.
- All pipes and other connections must be labeled at all joints and the same labeling must be reflected in the final updated layout diagram supplied by the successful vendor on completion of the build.

6.1 Specifications for materials and works

- Detailed diagram showing details of all electrical wiring and other components of the electrical system such as panels, earth pits etc.
- The vendor must provide a detailed diagram showing the layout of the various components of the cooling system as well as the piping in the technical bid.
- A statement of all civil and other additional works needed.
- All materials and quantities needed must be itemized in the Bill of Materials accompanying the technical bid.

7.0 Delivery criteria

The server room system will be considered as having been delivered when the following requirements have been met.

1. Demonstrate that the cooling system is able to hold a temperature of 24 deg.c +/- 1 deg. C continuously over a period of 24 hrs with installed IT load drawing max. power.
2. Submission of a final updated wiring diagram upon completion of the build. This diagram should show the labelling of all components of the electrical system (i.e. switches, breakers, wires etc) installed.
3. Submission of a final updated piping diagram upon completion of the build showing the layout of all installed pipes. The diagram should show all pipe labeling these diagrams.
4. Successful verification that all components of the electrical system and piping have been labeled correctly as per the submitted layout diagrams and that the

labeling is robust and not likely to wear away over the course of at least 1 year. Any discrepancies that are noticed have to be rectified.

5. Trigger a fault in the cooling system and demonstrate that the SMS and e-mail alert system is functioning
6. Completion of training of designated staff of NCCRD/ICER in monitoring rack temperature and operation of the alarm system in the event of a failure in the cooling system.

CERTIFICATE OF ETHICAL PRACTICES

I / We assure the Institute that neither I / We nor any of my / our workers will do any act/s which are improper / illegal during the execution in case the tender is awarded to us.

Neither I / We nor anybody on my / our behalf will indulge in any corrupt activities / practices in my / our dealing with the Institute.

I / We will have no conflict of interest in any of our works / contracts at the Institute

Date

Signature of the Tenderer

COMMERCIAL BID

(To be submitted in a separate sealed envelope)

HPC Server room requirement with specifications

The basic price should be CIF, Bangalore International Airport for items being imported and FOR IISc for items sourced within India. Please indicate basic price, discount offered, Taxes, Duties, separately for each item.

SI · No		Specification	Qty in Nos	Rate Quoted per PieceRs.
1	Server Racks			
		TOTAL		
2	Rack based cooling system			
	Chiller/com pressor			
	Air handling unit			
	Control equipment			
	Monitoring equipment			
	Electrical panels			
	Any other items (use addnl. Rows if needed)			
3	UPS system			
	UPS			
	Batteries			
	Electrical panels			
	Any other items (use addnl. Rows if needed)			
4	Wiring/plumbing/civil works (please give an itemized breakup of total cost for this component as above)			

Annexure – III

FORMAT

SECURITY DEPOSIT BANK GUARANTEE

THIS DEED OF GUARANTEE made at Bangalore_____ day of month _____of (the year) by the Bank of (Bank's name and address) (hereinafter called the 'SURETY' which expression shall include its heirs, successors, administrators and assigns) of the ONE PART in favour of Indian Institute of Science (IISc), BANGALORE – 560 012. (Hereinafter called the 'PURCHASER' which term shall include its heirs, successors, administrators and assigns) of the OTHER PART.

WHEREAS M/s (Firm's name) registered under _____ having its Registered Office (Firm's address) (hereinafter called the 'CONTRACTOR' / 'SUPPLIER' which expression shall include its heirs, successors, administrators and assigns) have accepted an Order / entered into a Contract vide Ref. No. _____ dated _____(hereinafter called the said Order / Contract) with the purchaser for the supply, delivery at site, installation and commissioning of certain equipment, item, material etc. as stated in the said Order / Contract as per the terms and conditions provided in the Order / Contract. AND WHEREAS under the said Order / Contract the Contractor is required to furnish a Bank Guarantee for (currency / amount) (In words) being ten percent of the Order / Contract price of (currency / amount) as specified in the said Order / Contract for the execution of the said Order / Contract as per Order / Contract terms.

NOW THIS DEED WITNESSES AS FOLLOWS:

In pursuance of the terms and conditions of the said Order / Contract and on the request of the Contractor, we the Surety do hereby undertake to pay to the Purchaser on demand without any demur the sum of (currency/amount) (in words) being five percent of the Order / Contract price in the event of the Contractor failing to fulfill any of the terms and conditions of the said Order / Contract.

We, the Surety, do hereby agree that the Purchaser shall be the sole judge to decide whether the Contractor has committed a breach of any of the terms or conditions of the said Order / Contract and that the decision of the Purchaser will be final and binding on the Surety. The Purchaser and the Contractor shall be at a liberty to carry out any modifications in the said Order / Contract during the currency of the said Order / Contract and any extensions thereof and any such modifications will be duly intimated to the Surety. Any accounts settled between the Contractor and the Purchaser shall be conclusive evidence against the Surety of the amount due and shall not be questioned by the Surety.

We, the Surety, further agree that the guarantee herein contained shall remain in full force and effect for a period that would be taken for completion of the Order / Contract, by the Contractor under the said Order / Contract and that the guarantee shall continue

to be enforceable till all the obligations under or arising by virtue of the said Order / Contract have been fully discharged by the Contractor till the Purchaser certifies in writing that the terms and conditions of the said Order / Contract have been fully and properly carried out by the said Contractor.

We, the Surety, further undertake not to revoke this guarantee during the currency of the same except with the previous consent of the Purchaser in writing. We, the Surety, further agree that liabilities and obligations of the Surety arising under or by virtue of this bond shall not be discharged by any variation of the terms or conditions of the said Contract by any grant of time given or any indulgence shown by the Purchaser to the Contractor. It is agreed that the liabilities under this guarantee shall not exceed (currency/amount) (In words).

This guarantee shall remain in force till _____

Date:

Signature of a person duly
Authorised to sign on behalf of
the Bank with Seal of the Bank

- *VENDORS TO SUBMIT THIS SECURITY DEPOSIT BANK GUARANTEE ON NON-JUDICIAL STAMP PAPER OF RS. 100.00 FROM NATIONALISED / SCHEDULED BANK ONLY.*

Annexure - IV

PERFORMANCE BANK GUARANTEE

THIS DEED OF GUARANTEE MADE THIS _____ DAY OF _____ 2016 BY THE (Bank's Name & Address) hereinafter called "the Surety" (which expression shall unless excluded by or repugnant to the context, be deemed to include its successors in office and assigns) of the ONE part in favour of Indian Institute of Science, Bangalore 560 012, hereinafter called "THE PURCHASER" (which expression shall unless excluded by or repugnant to the context be deemed to include their heirs, successors in office and assigns) of the other part.

WHEREAS, (firm's name) registered under the Indian Companies Act, having its registered office at (Firm's address) (hereinafter called "THE CONTRACTOR") which term shall include its heirs, successors, administrators and assigns) have accepted an Order No. _____ dated _____ (hereinafter referred to as the said "Contractor") with the Purchaser for supply of certain goods stated in the said contract to Purchaser in good condition provided in the contract.

AND WHEREAS it is one of the terms of the said contract that Contractor shall furnish to the Purchaser a bank guarantee comprising _____ % of the value of the order amount to Rs. _____ (Rupees _____) for the satisfactory performance of the equipments supplied against the said contract at least for a period of _____ months from the date of supply, i.e. from _____ or for a period of _____ months from the date of commissioning of ship in which items/equipments are fitted whichever is later and WHEREAS the purchaser has agreed to accept such Bank Guarantee.

NOW THIS INDENTURE WITNESSETH AS FOLLOWS:-

- (1) In consideration of the above premises the Surety hereby unequivocally undertakes and agrees with the Purchaser to pay to the Purchaser upon demand in writing without any demur, protest and without referred to the Contractor, whenever required so by them so to do and within a fortnight from the date of such demand sum or sums not exceeding in the whole of Rs. _____ (Rupees _____).
- (2) We, the (Bank's Name) further agree that the purchaser shall be the sole judge to decide whether the Contractor has committed any breach of any of the terms or conditions of the said contract or the goods supplied by the contractor have failed in performance and that if any question arises as to whether any sum has become payable by the Contractor to the Purchaser by virtue of or arising out of the said contract and/or by such failure the decision of the Purchaser shall be final and binding on the Surety.
- (3) This guarantee shall come into force upon delivery of the equipments/items and shall remain in full force and effect till guarantee period of the said contract and till

the terms and conditions of the said contract and any modification or variation or amendment thereof have been properly fulfilled or till the Purchaser certifies in writing that the said contract and any modifications or variation or amendment of the said contract have been truly and faithfully performed. However, in case the Bank Guarantee is provided for a limited period, the validity of the same shall be automatically extended till the guarantee period of the said contract.

(4) We,.....(Bank's Name), undertake not to revoke this guarantee during its currency except with the previous consent of the Purchaser in writing. The guarantee herein contained shall not be revocable by notice or by reason of the dissolution or winding up of the business of the contractor or any change in the constitution or composition of the contractor's business.

(5) We,(Bank's Name), further agree with the Purchaser that the Purchaser shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said contract or to extend time of performance by the said contract, from time to time or postpone for any time to time any of the powers exercisable by the Purchaser against the said contractor and to forbear or enforce any of the terms and conditions relating to the said contract or of the modified or varied or amended contract and we shall not be relieved from liabilities by the reasons of any such modification or verifications or amendments or extensions being granted to the said contractor or for any forbearance, act or omission on the part of the Purchaser or any indulgence by the Purchaser to the said contractor or by any such matter or things whatsoever which under the law relating to securities would but for this provision have effect of so relieving us.

Notwithstanding anything contained hereinabove, our liability under this guarantee is restricted to _____ (Rupees _____). This guarantee shall be valid upto date and unless a claim or demand in writing is made on a bank within 6 months from the date of expiry of the bank guarantee the bank shall be released and discharged from all liabilities there under. We,(the Bank Name) agree to renew and extend the validity of this Bank Guarantee till the terms and conditions of modified or varied or amended contract have been properly fulfilled by the contractor to the satisfaction of the Purchaser.

In witness whereof the Bank Name, the surety has signed this deed on day and year first hereinabove written.

Date: