

INDIAN INSTITUTE OF TECHNOLOGY DELHI HAUZ KHAS, NEW DELHI – 110016

NOTICE INVITING E-TENDER IITD/WORKS(SP-1928)/2018

Executive Engineer [Electrical], Indian Institute of Technology Delhi, Hauz Khas, New Delhi – 100016 [Phone No. 011-26591746] on behalf of Board of Governors invites online **Item Rate Tender** from **Contractors of repute** as per details given below:

1	Name of Work	:	SITC of 1 x 100 TR Water Cooled Screw Chiller for Bharti School Building in IIT Delhi
2	NIT No.	:	9431/53/IITD/EW/2018-19
3	Estimated cost	:	Rs.29,18,768.00
4	Earnest Money	:	Rs.58,375.00
5	Period of completion	:	03 months
6	Last date & time of bid submission	:	Upto 3 PM of 26-11-2018
7	Performance Bank Guarantee	:	5% of the tendered amount

The bid forms and other details may be downloaded from Central Public Procurement Portal http://eprocure.gov.in/eprocure/app. Aspiring Bidders who have not enrolled / registered in e-procurement should enroll / register before participating through the website http://eprocure.gov.in/eprocure/app. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission '.

Bidders can access Quotation / tender documents on the website (For searching in the NIC site, kindly go to Quotation Search option and type 'IIT'. Thereafter, Click on "GO" button to view all IIT Delhi Quotations). Select the appropriate Quotation / tender and fill them with all relevant information and submit the completed Quotation / tender document online on the website http://eprocure.gov.in/eprocure/app as per the schedule given in the next page.

No manual bids will be accepted. All bids (both Technical and Financial should be submitted in the E-procurement portal).

			Executive Engineer [E], For & on Behalf of BOG, IIT Delhi
Ch. Head: Work code			
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Copy to: -

- 1. Assistant Executive Engineer [E]
- 2. D.A. (Works Accounts) for opening of tenders in the office of A.R. [SPS]
- 3. A.E.E. (E) Plg.
- 4. J.R. (A/Cs)
- 5. A.R. [SPS]
- 6. Notice Boards.
- 7. Office Copy
- 8. Web site Administrator, IITD



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SCHEDULE

1	Name of Organisation	:	Indian Institute of Technology Delhi
2	Tender / Quotation Type [open / limited / EOI / auction / single]	:	Open
3	Tender / Quotation Category [services / goods / works]	:	Goods & Works
4	Type / Form of Contract [work / supply / auction / service / buy / empanelment / sell]	:	Work & Supply; IITD-8
5	Product Category [civil works / electrical works / fleet management / computer systems]	:	Electrical Works
6	Is Multi Currency Allowed?	:	No
7	Date of issue / publishing /start	:	13-11-2018 at (17:00 Hrs)
8	Document download start date	:	13-11-2018 at (17:00 Hrs)
9	Document download end date	:	13-11-2018 at (15:00 Hrs)
8	Last date & time of uploading of bids	:	Upto 3 PM of 26-11-2018
9	Date & time of opening of Technical Bids	:	27-11-2018 at (15:00 Hrs)
10	Tender fee	:	Free of cost
11	EMD	:	Rs.58,375.00 [For EMD] (To be paid through RTGS/NEFT. IIT Delhi Bank details are as under: Name of the Bank A/C : IITD Revenue Account SBI A/C No. : 10773572622 Name of the Bank : State Bank of India, IIT Delhi, Hauz Khas, New Delhi- 110016 IFSC Code : SBIN0001077 MICR Code : 110002156 Swift No. : SBININBB547 (This is mandatory that UTR Number is provided in the online quotation/bid. (Kindly refer to the UTR Column of the Declaration Sheet at Annexure-II)
12	EMD Exemption	:	May be granted to NSIC / MSME registered firms who are registered for this particular type of work. However, document must be enclosed with Technical bid.
13	No. of covers [1/2/3/4]	:	02
14	Address for communication	:	Executive Engineer (Electrical), Works Organisation, Hauz Khas, IIT Delhi, New Delhi - 110016
15	Contact No.	:	011- 2659 1742
16	E-mail address	:	a26984@admin.iitd.ac.in; a26335@admin.iitd.ac.in





INSTRUCTIONS FOR ONLINE BID SUBMISSION

As per the directives of Department of Expenditure, this Quotation / tender document has been published on the Central Public Procurement Portal (URL:http://eprocure.gov.in/eprocure/app). The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at:

http://eprocure.gov.in/eprocure/app

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL:http://eprocure.gov.in/eprocure/app) by clicking on the link "Click here to Enroll". Enrolment on the CPP Portal is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their userID / password and the password of the DSC / e-Token.

SEARCHING FOR QUOTATION / TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active Quotations / Tender by several parameters. These parameters could include Quotation ID, organization name, location, date, value, etc. There is also an option of advanced search for Quotations, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a Quotation published on the CPP Portal.
- 2) Once the bidders have selected the Quotations they are interested in, they may download the required documents / Quotation schedules. These Quotations can be moved to the respective 'My Quotations' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the Quotation document.
- 3) The bidder should make a note of the unique Quotation ID assigned to each Quotation / Tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

1) Bidder should take into account any corrigendum published on the Quotation document before submitting their bids.

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- 2) Please go through the Quotation / Tender advertisement and the Quotation / Tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the Quotation document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black and white option.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the Quotation document.
- 3) Bidder has to select the payment option as "offline" to pay the Quotation fee / EMD as applicable and enter details of the instrument.
- 4) A standard BoQ format has been provided with the Quotation document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

OR

In some cases Financial Bids can be submitted in PDF format as well (in lieu of BOQ).

- 5) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 6) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- 7) The uploaded Quotation documents become readable only after the Quotation opening by the authorized bid openers.
- 8) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 9) Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

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ASSISTANCE TO BIDDERS

- Any queries relating to the Quotation document and the terms and conditions contained therein should be addressed to the Quotation Inviting Authority for a Quotation or the relevant contact person indicated in the Quotation.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 233 7315.

GENERAL INSTRUCTIONS TO THE BIDDERS

- 1) The Quotations will be received online through portal http://eprocure.gov.in/eprocure/app . In the Technical Bids, the bidders are required to upload all the documents in .pdf format.
- 2) Possession of a Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through https://eprocure.gov.in/eprocure/app . Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site https://eprocure.gov.in/eprocure/app under the link "Information about DSC".

Bidders are advised to follow the instructions provided in the 'Instructions to the Bidder for the e-submission of the bids online through the Central Public Procurement Portal for e Procurement at https://eprocure.gov.in/eprocure/app

C....Nil I....Nil O....Nil

D'Man /J.E. A.E.E / A.E. E.E.



INFORMATION AND INSTRUCTIONS TO BIDDERS FOR E-TENDERING

Executive Engineer (E), Indian Institute of Technology, Hauz Khas, New Delhi-16 (Phone No. 011-26591746) on behalf of Board of Governors invites online **Item Rate Tender** from **Contractors of repute** as per details given below:

SI. No.	N.I.T. No.	Name of work & Location	Estimated cost put to bid	Earnest Money	Period of completion	Last date & time of submission of bid (online mode)	Time & date of opening of Technical Bid	Time & date of opening of Financial Bid
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
1	9431/53/IITD/EW/2018-19	SITC of 1 x 100 TR Water Cooled Screw Chiller for Bharti School Building in IIT Delhi	Rs.29,18,768.00	Rs.58,375.00	03 months	Upto 3 PM of 26-11-2018	27-11-2018 at 3:00 PM	To be decided later

- 1. The successful bidders shall be required to submit a performance guarantee of 5% of the tendered amount in the form of Bank Guarantee or F.D.R. from a Nationalized / Scheduled Bank within fifteen days of issue of letter of intent before award of work. In case of failure by the Contractor to submit the performance guarantee within the specified period, full earnest money will be forfeited and the tender shall be treated as null and void. The performance guarantee shall be initially valid up to the stipulated date of completion plus Sixty days beyond that.
- 2. Contractors who fulfill the following requirements shall be eligible to apply. Joint ventures are not accepted.
 - i] Firms / Contractors should have satisfactorily completed one similar work of value not less than Rs.23,35,000.00 or two similar works each of value not less than Rs.17,51,000.00 or three similar

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works each of value not less than **Rs.11,68,000.00** during last 7 years ending previous day of last date of submission of bids.

- ii) **Earnest Money of Rs.58,375.00** to be deposited on-line as indicated in Schedule
- 3. Similar work means Supplying, Installation, Testing & Commissioning of Water Cooled Screw Chiller units of capacity not less than 80 TR in Buildings
- 4. The intending bidder must read the terms and conditions [both commercial & Additional] & IITD 6 carefully which will be the part of the Contract. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
- **5.** Information and Instructions for bidders posted on website shall form part of bid document.
- **6.** The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website e-procure.gov.in.
- 7. But the bid can only be submitted after depositing requisite EMD as specified in the schedule.
- 8. Certificate of work experience and other documents as specified in the Press Notice / web notice shall be scanned and up-loaded to the e-Tendering website within the period of bid submission. However, certified / original copy of all the scanned and up-loaded documents as specified in press notice web / notice shall have to be submitted by the lowest bidder only within a week physically in the office of e-tendering authority, if so desired.
- **9.** Online bid documents submitted by intending bidders shall be opened only of those bidders, who has deposited requisite EMD and other documents scanned and uploaded are found in order.
- **10.** Completion certificates are required to be got issued by an officer not below the rank of Executive Engineer of similar works completed by the Firm. The work experience certificates submitted by the bidders shall clearly indicate that:
 - a. The similar work executed shall be as '3' above
 - b. The completed cost of the work
 - c. Actual date of completion of the work
- **11.** Attested copy of registration certificates to be submitted. Registration of firms/ Contractors must be valid on the day of submission of Tenders or extended date of submission of Tenders whichever is later.
- 12. Work means only work under Government / Public Sector Undertaking / Central Autonomous bodies.
- **13.** The value of executed work shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of submission of financial bid.
- 14. IITD is committed to follow the principle of transparency, equity and competitiveness in public procurement. Before submission of bid, each bidder should sign integrity pact at respective places and submit the bid. If duly signed integrity pact is not submitted by bidder, such bid shall not be considered.
- **15.** Those contractors not registered on the website mentioned above, are required to get registered beforehand. If needed they can be imparted training on online bidding process as per details available on the website.
- **16.** When bids are invited in two / three stages systems and if it is desired to submit revised financial bid it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.



17. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.

18. The bid submitted shall become invalid if:

- a. The bidder is found ineligible.
- b. The bidder does not upload all the documents (including GSTIN registration) as stipulated in the bid document including the undertaking / declaration.
- c. EMD not deposited as specified
- d. Not registered with EPFO & ESIC

List of Documents to be scanned and uploaded within the period of bid submission:

- 1. Annexure 1 duly filled in and got signed
- 2. Annexure 2 [Technical Particulars] neatly typed
- 3. Attested certificate of work experience as desired
- 4. Certificate of Registration for GSTIN
- 5. Affidavit as per Notice Inviting Tender Condition [IITD-6] 1.2.2 [To be submitted on stamp paper]
- 6. Acceptance to execute INTEGRITY PACT [see integrity pact]
- 7. IITD 7 / 8 duly signed
- 8. EPFO & ESIC Registration proof with upto date Challan
- 9. NSIC / MSME Certificate, if bidder claims for exemption from deposition of EMD
- 10. Any other document as specified in the NIT

Executive Engineer [Electrical] For & on Behalf of BOG, IIT Delhi



IITD - 6

INDIAN INSTITUTE OF TECHNOLOGY DELHI NOTICE INVITING E-TENDER

- 1.0 Item rate tenders are invited on behalf of The Board of Governors, IIT Delhi, Hauz Khas, New Delhi 110016 from Contractors of repute as per details given below for the work of SITC of 1 x 100 TR Water Cooled Screw Chiller for Bharti School Building in IIT Delhi
 - 1.1 The work is estimated to cost **Rs.29,18,768.00**. This estimate, however, is given merely as a rough quide
 - 1.1.1 The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NITs for calling the bids. He will also nominate Division which will deal with all matters relating to the invitation of bids.

For composite bid, besides indicating the combined estimated cost put to tender, should clearly indicate the estimated cost of each component separately. The eligibility of bidders will correspond to the combined estimated cost of different components put to bid.

1.2 Intending bidder is eligible to submit the bid provided he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:-

Criteria of eligibility for submission of bid documents.

1.2.1 Criteria of eligibility for CPWD as well as non-CPWD contractors except OEM.

Three similar works each of value not less than **Rs.11,68,000.00** or two similar work each of value not less than **Rs.17,51,000.00** or one similar work of value not less than **Rs.23,35,000.00** in last 7 years ending previous day of last date of submission of bids.

- 1.2.2 To become eligible for issue of bid, the bidders shall have to furnish an affidavit as under :-
 - "I / We undertake and confirm that eligible similar works(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I / We shall be debarred for bidding in IIT Delhi in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee (Scanned copy to be uploaded at the time of submission of bid)"
- 2. Agreement shall be drawn with the successful bidders on prescribed Form No. IITD 7/8 which is available as IIT Delhi Publication. Bidders shall quote their rates as per various terms and conditions of the said form which will form part of the agreement.
- 3. The time allowed for carrying out the work is tentative and initially for 03 months from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
- **4.** Few sites for the work is available and some sites will be made available.

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- 5. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen from the web Site e-procure.gov.in.
- **6.** After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of tender as notified.
- 7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of tender as notified.
- **8.** If it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the tender submitted earlier shall become invalid.
- **9.** Earnest Money as specified to be paid through RTGS / NEFT.

IIT Delhi Bank details are as under:

Name of the Bank A/C : IITD Revenue Account

SBI A/C No. : 10773572622

Name of the Bank : State Bank of India, IIT Delhi,

Hauz Khas, New Delhi-110016

 IFSC Code
 : SBIN0001077

 MICR Code
 : 110002156

 Swift No.
 : SBININBB547

(This is mandatory that UTR Number is provided in the on-line quotation/bid. Kindly refer to the UTR Column of the Declaration Sheet at Annexure-II)

Interested contractors who wish to participate in the bid has also to make following payments within the period of bid submission:

- (i) Copy of Enlistment Certificate and certificate of work experience and other documents as specified in the press notice shall be scanned and uploaded to the e-tendering website within the period of bid submission.
- **10.** The bid submitted shall become invalid, if:
 - a) The bidder is found ineligible.
 - b) The bidder does not upload all the documents (including GSTIN Registration) as stipulated in the bid document.
 - c) EMD not deposited as specified
 - d) Not registered with EPFO & ESIC
- 11. The contractor whose bid is accepted will be required to furnish performance guarantee of 5% (Five Percent) of the bid amount within the period specified in Schedule F. This guarantee shall be in the form of Deposit at Call receipt of any scheduled bank / Banker' cheque of any scheduled bank/ Demand Draft of any scheduled bank/Pay order of any Scheduled Bank (in case guarantee amount is less than Rs.1,00,000/-) or Government Securities or Fixed Deposit Receipts or irrevocable Bank Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F' including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.
- 12. Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and subsoil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity



access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

- 13. The competent authority on behalf of the Board of Governors does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.
- **14**. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
- **15.** The competent authority on behalf of the Board of Governors reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.
- 16. The contractor shall not be permitted to bid for works in the IITD responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Gazetted officer in the IIT Delhi. Any breach of this condition by the contractor would render him liable to be debarred from bidding process in future in IIT Delhi.
- 17. No Engineer of Gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract liable to be cancelled, if, either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
- 18. The bid for the works shall remain open for acceptance for a period of ninety days from the date of opening of financial bids, if any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the IIT Delhi shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidder shall not be allowed to participate in the rebidding process of the work.
- 19. This notice inviting bid shall form a part of the contract document. The successful bidder / contractor, on acceptance of his bid by the Accepting Authority shall within fifteen days from the stipulated date of start of the work, sign the contract consisting of:
 - a) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - b) Standard IITD Form –7/8 or other Standard IITD Form as applicable.
- 20. In case any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as to be submitted physically in IIT Delhi, if so desired by the accepting authority, then the bid submitted shall become invalid and the IIT Delhi shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidder shall not be allowed to participate in the bidding process of the work.



INTEGRITY PACT

То												
			,									
Sub:	NIT No	. 9431/53/II T	TD/EW/2018-19 t		vork of " SIT ol Building i			R Water C	ooled \$	Screw Ch	iller for B	harti
Dea	ar Sir,											
cor			declared that c procurement.	IITD is	committed	to fol	low the	e principle	of tra	nsparenc	cy, equity	and
sigi sta	n the Inte	egrity Agreer	otice Inviting Ten nent, which is an he tendering pro	integra	I part of the	tender/l	oid docu	uments, fai	iling whi	ich the tei	the Bidde nder/bidde	r will r will
dee			n shall form par and signing of th						d signin	g of the	same sha	ll be
										·	Yours faith	tully,
										- Fyor	outivo Engi	noor
										Exec	cutive Engi	neer
CN	lil	I Nil	O Nil									



C....Nil

I..... Nil

[TO BE SUBMITTED DULY SIGNED BY THE BIDDER ALONGWITH BID DOCUMENTS]

То	
10	Executive Engineer (Elect.), IIT Delhi, Hauz Khas, New Delhi – 110016
Sub	oject: Submission of Bid for the work of " SITC of 1 x 100 TR Water Cooled Screw Chiller for Bharti School Building in IIT Delhi"
Dear Si	r,
Agre	I / We acknowledge that IITD. is committed to follow the principles thereof as enumerated in the Integrity element enclosed with the tender/bid document.
stan	I / We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I / We will the enclosed integrity Agreement, which is an integral part of tender / bid documents, failing which I / We will d disqualified from the tendering process. I / We acknowledge that THE MAKING OF THE BID SHALL BE GARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.
into	I / We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come existence when tender/bid is finally accepted by IITD. I / We acknowledge and accept the duration of the Integrity element, which shall be in the line with Article 1 of the enclosed Integrity Agreement.
	I / We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while mitting the tender/bid, IITD shall have unqualified, absolute and unfettered right to disqualify the tenderer /bidder reject the tender/bid is accordance with terms and conditions of the tender/bid.
	Yours faithfully,
(Dul	y authorized signatory of the Bidder)

O..... Nil

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[To be signed by the bidder and same signatory competent / authorized to sign the relevant contract on behalf of IITD]

INTEGRITY AGREEMENT

INTEGRIT AGREEMENT
This Integrity Agreement is made at on this day of
BETWEEN
The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 16 represented through Executive Engineer (Elect.) , IIT Delhi
'Principal/Owner',
AND
(Name and Address of the Individual/firm/Company) through
(Hereinafter referred (Details of duly authorized signatory) to as the "Bidder/Contractor" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)
<u>Preamble</u>
WHEREAS the Principal / Owner has floated the Tender (NIT No. 9431/53/IITD/EW/2018-19) (hereinafter referred to as "Tender/Bid") and intends to award, under laid down organizational procedure, contract for "SITC of 1 x 100 TR Water Cooled Screw Chiller for Bharti School Building in IIT Delhi" (Name of work) hereinafter referred to as the "Contract".
AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal / Owner

part and parcel of the Tender/Bid documents and Contract between the parties.

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - No employee of the Principal / Owner, personally or through any of his / her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - (a) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the

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CNil I	Nil) Nil



same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.

- (b) The Principal/Owner shall Endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PoC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.
- 3) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PoC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s) / Contractor(s)

- 1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of fraud or corruption or coercion or collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2) The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
 - a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
 - b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
 - c) The Bidder(s) / Contractor(s) will not commit any offence under the relevant IPC/PoC Act. Further the Bidder(s) / Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal / Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder(s) / Contractor(s) of foreign origin shall disclose the names and addresses of agents / representatives in India, if any. Similarly Bidder(s) / Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.



- e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practices means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.
- 5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal /Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

- 1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
- 2) Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- 3) Criminal Liability: If the Principal/Owner obtains knowledge of conduct a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal / Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or



action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.

3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub-contractors/sub-vendors.
 - 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
 - 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6: Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 6 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority of IITD.

Article 7: Other Provisions

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Head Quarters of the Division of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by Board Resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intensions.
- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8: LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

CNil	I Nil	O Nil
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Place:

Dated:

	WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first ove mentioned in the presence of following witnesses:
 (Fo	or and on behalf of Principal / Owner)
•	or and on behalf of Bidder / Contractor) TNESSES:
1.	
	(signature, name and address)
2.	(signature, name and address)



IITD - 7/8

INDIAN INSTITUTE OF TECHNOLOGY DELHI HAUZ KHAS, NEW DELHI - 110016

Percentage Rate Tender / Item Rate Tender & Contract for Works

Tender for the work of "SITC of 1 x 100 TR Water Cooled Screw Chiller for Bharti School Building in IIT Delhi"

- (A) (I) To be submitted online by Upto 3 PM of 26-11-2018
 - (II) To be opened on 27-11-2018 at 3:00 PM online

e-TENDER

I / We have read and examined the Notice Inviting Tender, schedule, A, B, C, D, E & F, Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, Clauses of Contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I / We hereby tender for the execution of the work specified for the Board of Governors, IIT Delhi within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for ninety (90) days from the due date of its opening / ninety days from the date of opening of financial bid in case tenders are invited on 2/3 envelop system (strike out as the case may be) and not to make any modification in its terms and conditions.

A sum of Rs.58,375.00 is hereby deposited in IIT Delhi Revenue Account No. 10773572622 as earnest money. If I / We, fail to furnish the prescribed performance guarantee within prescribed period I / We agree that the said The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 16 or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I / We fail to commence the work as specified, I / We agree that The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 16 or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form. Further, I / We agree that in case of forfeiture of Earnest Money & Performance Guarantee as aforesaid I / We shall be debarred for participation in the re-tendering process of the work.

I / We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I / We shall be debarred for tendering in IIT Delhi in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

I / We hereby declare that I / We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I / We am/are authorized to communicate the same or use the information in any manner

 $C.....\mathsf{Nil}$

I..... Nil

Tender Document for SITC of 1 x 100 TR Screw Chiller unit at IIT Delhi

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prejudicial to the safety of the State.	
Dated:	
	Signature of Contractor
Witness:	
	Postal Address
Address:	1 Ostal Address
Occupation:	
	CCEPTANCE
	ed in the letters mentioned hereunder) is accepted by me for an ni, Hauz Khas, New Delhi - 110016 for a sum of
The letters referred to below shall form part of thi	
(a)	
(b)	
(c)	
	For & on behalf of Board of Governors, IIT Delhi
	Signature
Dated:	Designation

O..... Nil



PROFORMA OF SCHEDULES

[Operative Schedules to be supplied separately to each intending tenderer]

SCHEDULE 'A'

Schedule of quantities (enclosed)

SCHEDULE 'B'

Schedule of materials to be issued to the contractor

S.No.	Description of item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of issue
-	Nil			→

SCHEDULE 'C'

Tools and plants to be hired to the contractor

S.No.	Description	Hire charges per day	Place of Issue
4	Nil—		-

SCHEDULE 'D'

Extra schedule for specific requirements/document for the work, if any.



SCHEDULE 'E'



Reference to General Conditions of contract [GCC]

1	Name of work	:	SITC of 1 x 100 TR Water Cooled Screw Chiller for Bharti School Building in IIT Delhi
2	Estimated cost of work	:	Rs.29,18,768.00
3	Earnest Money	:	Rs.58,375.00
4	Performance Guarantee	:	5 percent of tendered value
5	Security Deposit	:	5 percent of tendered value

SCHEDULE 'F'

GENERAL RULES & DIRECTIONS

: Officer inviting tender

	um percentage for quantity of items of work to be executed beyond where to be determined in accordance with Clauses12.2&12.3	:	See below
Definit	ions:		
2[v]	Engineer – in - charge	:	Executive Engineer [Elect]
2[vi]	Accepting Authority	:	Executive Engineer [Elect]
2[x]	Percentage on cost of materials and labour to Cover all overheads and profits	:	15 percent
2[xi]	Standard schedule of rates	:	Market Rate
2[xii]	Department	:	E & W, IIT Delhi
9[ii]	Standard IITD Contract Form		General Conditions of Contract 2010,IITD Form 7/8-2010 modified & Corrected up to date of submission of tender

Clau	se 1:		
[i]	Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance	:	Fifteen days
[ii]	Maximum allowable extension with late fees @ 0.1% per day of performance guarantee amount beyond the period provided in (i) above	:	1 to 15 days
Claus	e 2:		
Author	rity for fixing compensation under clause 2	:	Institute Engineer
Claus	e 2 A:		
Wheth	ner Clause 2A shall be applicable	• •	No
Claus	e 5:		
	er of days from the date of issue of letter of award for ning date of start	:	10 [ten] days

\sim	Nil	NIH	\sim	Nil
١.	13111	 IVIII		, 13111

SI. No.	Description of Milestone (Financial)		Amount to be with-held in case of non-achievement of mile stone
	N O T	APPLICABLE	

Time allowed for execution of work	:	03 months
Authority to decide:		
Extension of time	:	Executive Engineer [Engineer-in-charge]
Rescheduling of mile stones	:	Institute Engineer
Clause Applicable 6 or 6A:	:	Clause 6 A
Clause 7:		
Gross work to be done together with net payment / adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment	:	Not Applicable
Clause 10 A:		
List of testing equipment to be provided by the contractor at site lab	:	As desired by the Engineer-in-charge relating to the work
Clause 10B(ii):		
Whether Clause 10 B (ii) shall be applicable	:	No
Clause 10C:		
Component of labour expressed as percent of value of work	:	15 percent

Clause 10CA:

S.N.	Material covered under this clause	Nearest Materials (other than cement, reinforcement bars and the structural steel) for which All India Wholesale Price Index to be followed	Base Price of all Materials covered under clause 10 CA*
1			
2		Nil	
3			
4			

^{*} Base price of all the materials covered under clause 10 CA is to be mentioned at the time of approval of NIT.

Clause 10CC

O Nil



Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column	:	18 months
Schedule of component of other Materials, Labour, POL etc. for price escalation		
Component of civil (except materials covered under clause 10CA)/ Electrical construction Materials expressed as percent of total value of work		X _m : 75 percent
Component of Labour expressed as percent of total value of work	:	Y: 25 percent
Component of P.O.L. expressed as percent of total value of work	:	Not Applicable

Clause 11

Specifications to be followed for execution of work	:	The work shall be carried out as per CPWD
		General Specifications for HVAC works 2004 as
		amended upto date alongwith the following
		changes, CPWD general Specifications for
		Electrical Works Part – I, II & IV as amended
		upto date, relevant IE Rules and as per
		directions of Engineer-in-Charge. For electrical
		panels, CPWD General Specifications for
		Electrical Works Part-IV shall be applicable.

Clause 12

Type of work	:	Maintenance works including works of up gradation, aesthetic, special repair, addition/alteration
Clause 12.2. & 12.3		
Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for	:	30 percent
building work		
Clause 12.5		
Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for	:	100 percent
foundation work		

Clause 16

Competent Authority for deciding reduced rates	:	Executive Engineer [E]

Clause 18

List of mandatory machinery, tools & plants to be deployed by the contractor at site:

1	2	3
4	5	6
	5 NII	
	8	9
7		

Clause 36 (i)



Tender Document for SITC of 1 x 100 TR Screw Chiller unit at IIT Delhi

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Requirement of Technical Representative(s) and recovery Rate

S. No.	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical/ Technical Representative)	Minimum Experience (Years)	Number	made from event of not	which recovery shall be rom the contractor in the f not fulfilling provision of clause 36(i)	
			. toprocontain of			Figures	Words	

Assistant Engineers retired from Government services that are holding diploma will be treated at par with Graduate Engineers

C....Nil I....Nil O....Nil

D'Man /J.E. A.E.E / A.E. E.E.



ANNEXURE - 1

<< Organization Letter Head >> DECLARATION

I/W	/e,		hereby declare that all the information and data furnished by our					
orga	organization with regard to this tender specification are true and complete to the best of our knowledge. I / we have gone							
thro	through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of							
spe	cification.							
1	Name & Address of the bidder	:						
2	Phone	:						
3	E-mail	:						
4	Contact person name	:						
5	Mobile number	:						
6	TIN number	:						
7	PAN number	:						
8	UTR no. [for payment of EMD]	:						
	BANK DETAILS		Bidder shall enclose one cancelled cheque					
10	Bank name	:						
11	Branch address	:						
12	Branch telephone no.	:						
13	MICR Code of the bank	:						
14	IFSC code	:						
15	Bank Account no.	:						
16	Type of account	:						
17	Cancelled Blank Cheque enclosed	:	Yes / No					
	We further declare that our organization has not been blacklisted / delisted or put to any holiday by any Institutional agency / Govt. Department / Public Sector Undertaking in the last three years.							
	[Si	gnat	ture of the bidder]					
			Name:					
		Sea	al of the bidder					
C	Nil I Nil O Nil							



COMMERCIAL AND ADDITIONAL CONDITIONS

1 GENERAL

- **1.1** This specification covers installation and testing as may be necessary after installation of AC unit, all preparatory work, putting into operation of AC units.
- 1.11 Name of work & location: SITC of 1 x 100 TR Water Cooled Screw Chiller for Bharti School Building in IIT Delhi. The work shall be carried out as per Local Bye Laws, Relevant IE Rules and as per directions of Engineer-in-Charge.

These additional specifications and conditions are to be read in conjunction with above and in case of variations, specifications given in the Additional specifications and conditions shall apply. However, nothing extra shall be paid on account of these as the same are to be read along with schedule of quantities for the work.

- **1.2** The tenderer should in his own interest visit the site and get familiarized with the site conditions before tendering.
- 1.3 No T & P shall be issued by the Department and nothing extra shall be paid on account of this.

2 COMMERCIAL CONDITIONS

2.1 Type of contract

The work to be awarded by this tender shall be treated as indivisible works contract.

2.2 Submission of Tender:-

Bidder shall submit earnest money through RTGS, other documents as specified, price bid in prescribed manner as indicated in "INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING FORMING PART OF NIT AND TO BE POSTED ON WEBSITE"

- 2.3 The tenderers are advised not to deviate from the technical specifications / items, commercial terms and conditions of NIT like terms of payment, guarantee, arbitration clause, escalation etc.
- 2.4 The department reserves the right to reject any or all the price bids and call for fresh price tenders, as the case may be, without assigning any reason.

3.0 VALIDITY

Tenders shall be valid for acceptance for a period of 90 days from the date of opening of price bid.

4.0 SAFETY CODES AND LABOUR REGULATIONS

- (i) In respect of all labourers employed directly or indirectly on the work for the performance of the contractor's part of work, the contractor at his own expense, will arrange for the safety provisions as per the statutory provisions, B.I.S. recommendations, factory act, workman's compensation act, CPWD code and instructions issued from time to time. Failure to provide such safety is solely the contractor's responsibility. In addition the Engineer-In-Charge shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost from the contractor.
- (ii) Contractor shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause. The department shall not be responsible for any accident occurred or damage incurred or claims



arising there from during the execution of work. No extra payment would be made to the contractor due to the above provisions thereof.

5.0 PAYMENT TERMS

5.1 Unless otherwise specified in the additional conditions of the contract, the payment shall be made as per the relevant clauses of form IITD 8 forming a part of the tender document.

6.0 SECURITY DEPOSIT

Security deposit shall be deducted from each running bill as well as final bill of the contractor to the extent of 10 percent of the gross amount payable. However the maximum amount of security deposit will be 5 percent of the tendered value. The earnest money deposited shall be adjusted against this security deposit. Bank guarantee will not be accepted as security deposit.

7.0 PERFORMANCE GUARANTEE

The successful tenderer shall submit an irrevocable performance guarantee of 5 percent of the tendered amount in addition to other deposits mentioned elsewhere in the contract in the contract for his proper performance of the contract agreement within fifteen days of issue of letter of acceptance of tender. This guarantee shall be in the form of Demand draft / Pay order or irrevocable bank guarantee bond of any scheduled bank or the State Bank of India in the specified format or in the form of Government security, fixed deposit pledged in favour of Executive Engineer or as specified in the letter of acceptance of tender. The performance guarantee shall be initially valid up to the stipulated date of completion plus two months beyond. This bank guarantee shall be kept valid till the recoding of completion certificate for the work by the competent authority.

8.0 RATES

8.1 The rates quoted by the tenderer, shall be firm and inclusive of all taxes like GST, etc. as applicable, overhead charges, general liabilities / obligations and clearance from concerned authority, if any.

09.0 COMPLETION PERIOD

The completion period of 03 months as indicated in the tender documents is for the entire work of Supply, Installation, Testing and Commissioning to the satisfaction of the Engineer-in-charge.

10.0 COMPLIANCE WITH REGULATIONS AND INDIAN STANDARDS

- All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian Standards related to the works covered by this specification. In particular, the equipment and installation will comply with the following:
 - [a] Factories Act as applicable
 - [b] IE Rules as applicable
 - [c] BIS and other standards as applicable
 - [d] Workmen's Compensation Act as applicable
 - [e] Statutory norms prescribed by local bodies like CEA, Power Supply Co. etc. as applicable

11.0 MOBILIZATION ADVANCE:

No mobilization advance shall be paid for this work.

12.0 CLEAN UP WORKS AT SITE

CNil	I Nil	O Nil



During operation the contractor shall at all times keep the working and storage areas free from waste or rubbish. On completion of maintenance / servicing, if any required, he shall remove all temporary structures, debris and leave the premises clean to the full satisfaction of the department.

13.0 INTERPRETING SPECIFICATIONS

In interpreting the specifications, the following order of decreasing importance shall be followed in case of contradictions:

- [a] schedule of quantities
- [b] General specifications
- [d] Relevant BIS or other international code in case BIS code is not available
- [e] Local Bye Laws

14.0 COOPERATION WITH OTHER AGENCIES

The successful tenderer shall co-ordinate with other contractors and agencies in the site of work, if any, and exchange freely all technical information so as to make the execution of this work / contract smooth.

No remuneration should be claimed from the department for such technical cooperation. If any unreasonable hindrance is caused to other agencies and any completed portion of the work has to be dismantled and re-done for want of cooperation and coordination by the tenderer during the course of work, such expenditure incurred will be recovered from the successful tenderer if the restoration work to the original condition or specification of the dismantled portion of the work was not undertaken by the tenderer himself.

15.0 INDEMNITY

The successful tenderer shall at all times indemnify the department, consequent on this works contract. The successful tenderer shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising there from during the period of erection, construction and putting into operation the equipment and ancillary equipments under the supervision of the successful tenderer in so far as the latter is responsible. The successful tenderer shall also provide all insurance as may be necessary to cover the risk. No extra payment would be made to the successful tenderer on account of the above.

16.0 DEDUCTIONS

Income Tax, Labour Cess and other Taxes as applicable shall be deducted from the bill of the contractor.

17.0 GUARANTEE

All equipments shall be guaranteed for a period of 12 months from the date of acceptance and taking over of the installation by the department against unsatisfactory performance and / or breakdown due to defective design, material, manufacture, workmanship or installation. The equipment or component or any part thereof so found defective during the guarantee period shall be repaired or replaced free of cost to the satisfaction of the Engineer-in-charge. In case it is felt by the department that undue delay is being caused by the contractor in doing this, the same shall be got done by the department at the risk and cost of the contractor. The decision of Engineer-in-charge in this regard shall be final

18.0 CARE OF BUILDINGS

Care shall be taken by the contractor to avoid damage to the building during execution of his part of the work. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his costs all unwanted and waste materials arising out of his work from the site.



19.0 WORK IN OCCUPIED BUILDINGS

- [a] When work is executed in occupied buildings, there would be minimum of disturbances to the occupants. The work shall be programmed in consultation with Engineer-in-charge and the occupying department. If so required, the work may have to be done even before and after office hours.
- [b] The contractor shall be responsible to abide by the regulations or restrictions set in regard to entry into, and movement within the premises.
- [c] The contractor shall not tamper with any of the existing installations including their switching operations or connections there to without specific approval from the Engineer-in-charge.

20.0 WORKMANSHIP

Good workmanship is an essential requirement to be complied with. The entire work shall conform to sound engineering practice. Only quality materials of reputed make as specified in the tender will be used in work.

C....Nil I....Nil O....Nil

D'Man /J.E. A.E.E / A.E. E.E.



TECHNICAL SPECIFICATIONS

1. The work shall be carried out as per CPWD General Specifications for HVAC works 2004 as amended upto date alongwith the following changes, CPWD general Specifications for Electrical Works Part – I, II & IV as amended upto date, relevant IE Rules and as per directions of Engineer-in-Charge. For electrical panels, CPWD General Specifications for Electrical Works Part-IV shall be applicable.
Note: Any deviations from CPWD General Specifications for HVAC works 2004 may be given by the NIIT approving authority. In case there is no deviation, no deviations should be mentioned below this note.

LIST OF ACCEPTABLE MAKE OF MATERIALS / EQUIPMENT			
1	Screw Chiller Unit	Daikin / Blue Star / Voltas / Kirloskar / Carrier / TRANE	
2	Valves	Kirloskar / Audco / Leader / SANT / Trishul	
3	MS / GI Pipe	Jindal / TATA / Bansal / Nezone / Zenith / BST / JST	
4	Any other items	As per prior approval of the Engineer-in-charge	



DESIGN PARAMETERS

1.1 CHILLING UNIT

I]	Refrigerant [Screw type unit]	:	R-134a / 404a / 507a / 407C / 410A / 427A
II]	Suction Temperature	:	As per standard manufacturer design to suit duty of water chilling unit
III]	Condensing Temperature	:	Do
IV]	Condenser:		
[a]	Water temperature IN	:	32.2°C
[b]	Water temperature OUT	:	36.4°C
[c]	Temperature rise	:	4.2 deg C
[d]	Fouling factor	:	0.0002 [metric unit]
[e]	Maximum permissible pressure drop	:	8 metre of water head
V]	Chiller		
[a]	Water temperature IN	:	12.5 deg C
[b]	Water temperature OUT		
	Screw	:	7.0 deg C
[c]	Temperature drop		
	Screw	:	5.5 deg C
[d]	Fouling factor	:	0.0001 [metric unit]
[e]	Maximum permissible pressure drop	:	5 m of water head
VI]	1 KW / TR at full load shall not exceed		
	Screw	:	0.40

1.2 PIPING

I]	Maximum flow velocity	:	2.5 MPS
II]	Maximum friction		5 M / 100 M run

C....Nil I....Nil O....Nil

D'Man /J.E. A.E.E / A.E. E.E.



ANNEXURE 2

TECHNICAL PARTICULARS

[Bidder shall fill in the desired details in the respective columns, preferably typed]

[A] COMPRESSOR

FOR SCREW UNITS

1	Manufacturer	:	
2	Model	:	
3	Туре	:	
4	[a] Refrigerant	:	
	[b] Weight of refrigerant per unit	:	
5	Operating speed [RPM]	:	
6	Type of drive and speed ratio	:	
7	No. of impellers / no. of stages	:	
8	Output in TR end input power consumption in KW, at the selected operating conditions	:	
[A]	When input KW at 0.0002 [metric] fouling factor for condenser & 0.0001 [metric] fouling factor for chiller		
[a]	100% load	:	
[b]	75% load	:	
[c]	60% load	:	
[d]	50% load	:	
[e]	35% load	:	
[B]	When input KW at ARI fouling factors for condenser and chiller		
[a]	100% load	:	

CNil	I Nil	O Nil



[b]	75% load	:	
[c]	60% load	:	
[d]	50% load	:	
[e]	35% load	:	
9	Type of capacity control	:	
10	Capacity control range	:	
11	Type of lubrication	:	
12	Material of bearing	:	
13	Operating weight [kg]	:	
14	Overall dimensions of the machine	:	
15	Compressor motor		
[a]	Make	:	
[b]	Rated output	:	
[c]	Working voltage range	:	
[d]	Type of enclosure	:	
[e]	Class of insulation	:	
[f]	Speed	:	
[g]	Full load current	:	
[h]	Starting current	:	
[i]	Efficiency	:	
[j]	Power factor	:	
[k]	Temperature rise over ambient of 45 deg C	:	
16	List of safeties provided in the chiller unit [whether provided]		
[a]	Motor over current	:	
[b]	Over voltage	:	
[c]	Under voltage	:	



[d]	Single cycle dropout / intermittent power loss	:	
[e]	Baring oil high temperature	:	
[f]	Low evaporator refrigerant temperature		
[g]	High condenser refrigerant pressure		
[h]	High motor temperature		
[i]	Prolonged surge in compressor	:	
[k]	Compressor starter faults		
[1]	Start-to-start and stop-to-stop timers for motor protection against rapid recycling	••	
17	Details of all the functions of Microprocessor control system are to be enclosed. Whether enclosed –Yes / No		

[B] CONDENSER

1	Manufacturer	:	
2	Shell dia [mm]	:	
3	Type of fins, if any, in tubes	:	
4	No. of passes	:	
5	Water flow [LPM]	:	
6	Water velocity [MPS]	:	
7	Pressure drop at above velocity [M of water]	:	
8	Cord Temp [deg C]	:	
9	Tube material	:	
10	Tube outside diameter [mm]	:	
11	Tube thickness [mm]	:	
12	Tube length [mm]	:	
13	No. of tubes	:	
14	Tube surface, inside [sqm]	:	

CNil	I Nil	O Nil
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Tender Document for SITC of 1 x 100 TR Screw Chiller unit at IIT Delhi

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15	Tube surface, outside [sqm]		
16	Water temperature		
[a]	Entering – deg. C	:	
[b]	Leaving – deg. C	:	

[C] CHILLER

Manufactures		
wanutacturer	:	
Туре	:	
Shell dia [mm]	:	
Tube length [mm]	:	
No. of tubes	:	
Tube material	:	
Tube diameter [mm]	:	
Tube surface inside [sqm]	:	
Tube surface outside [sqm]	:	
Type of fin	:	
Refrigerant temperature [deg C]	:	
No. of passes	:	
Water flow [LPM]	:	
Water velocity [MPS]	:	
Pressure drop [M of water]	:	
Temperature of water		
Entering – deg. C	:	
Leaving – deg. C	:	
	Shell dia [mm] Tube length [mm] No. of tubes Tube material Tube diameter [mm] Tube surface inside [sqm] Tube surface outside [sqm] Type of fin Refrigerant temperature [deg C] No. of passes Water flow [LPM] Water velocity [MPS] Pressure drop [M of water] Temperature of water Entering – deg. C	Type : Shell dia [mm] : Shell dia [mm] : Tube length [mm] : No. of tubes : Tube material : Tube diameter [mm] : Tube surface inside [sqm] : Tube surface outside [sqm] : Refrigerant temperature [deg C] : No. of passes : Water flow [LPM] : Water velocity [MPS] : Temperature of water : Entering – deg. C : Shell was a simple of the surface outside [sqm] : Temperature of water : Shell was a simple outside [sqm] : Shell was a simple outsi

[D] REFRIGERANT PIPING

1	Material for pipes	••	
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CNil I	. Nil	O Nil
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Tender Document for SITC of 1 x 100 TR Screw Chiller unit at IIT Delhi

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2	Pipe wall thickness [mm]	:	
3	Material of fittings	:	
4	Material of valves	:	
5	Make of TX valve if provided	:	
6	Make of refrigerant float if provided	:	



I.S. SAFETY CODES

IS: 660	Safety code for mechanical refrigeration
IS: 659	Safety code for air-conditioning
IS: 3016	Code of practice for fire precautions in welding and cutting operations
IS: 818	Code of practice for safety and health requirements in electrical and gas welding and cutting operations
IS: 5216	Code for safety procedure and practice in electrical works
IS: 3696	Safety code for scaffolds and ladders

LIST OF RELEVANT INDIAN STANDARDS

IS: 3615	Glossary of terms used in refrigeration & air-conditioning
IS: 325	Three phase induction motors
IS: 1822	Motor starters of voltage not exceeding 1000 volts
IS: 3624	Bourdon tube pressure and vacuum gauges
IS: 2372	Timber for cooling towers
IS: 7403	Code of practice for selection of standard worm and helical gear boxes
IS: 1620	Horizontal centrifugal pumps for clear, cold, fresh water
IS: 996	Single phase small a.c. and universal motor
IS: 1239	Mild steel tubes, tubulars and other wrought steel fittings
IS: 3589	Electrically welded steel pipes for water, gas and sewage
IS: 6392	Steel pipe flanges
IS: 778	Gun metal gate, globe and check valves for general purpose
IS: 2592	Recommendation for methods of measurements of fluid flow by means of orifice plates and nozzles
IS: 277	Galvanised steel sheets
IS: 737	Wrought aluminium and aluminium alloy sheet and strip for general engineering purposes
IS: 655	Metal air ducts
IS: 732	Code of practice for electrical wiring and fittings for buildings



IS: 2516	AC circuit breakers
IS: 900	Code of practice for installation and maintenance of induction motors
IS: 1248	Direct acting electrical indicating instruments
IS: 2516	AC circuit breakers for voltages not exceeding 1000 volts
IS: 4047	Heavy duty air-break switches and composite units of air-break switches and fuses for voltage not exceeding 1000 volts
IS: 2208	HRC cartridge fuse links upto 650 volts
IS: 1554 [Part-I]	PVC insulated [heavy duty] electric cables for working voltage upto and including 1100 volts
IS: 8183	Specification for bonded glass wool / mineral wool
IS: 4671	Specification for expanded polystyrene for thermal insulation purposes
IS: 11561	Code of practice for testing of cooling towers
IS: 7896	Data for outside design conditions for air-conditioning for summer months
IS: 8148	Package air-conditioners
IS: 2370	Sectional cold rooms [walk-in type]
IS: 5111	Testing of refrigerant compressors
IS: 10594	Thermostatic expansion valve



IITD - 2010 CORRECTION SLIPS

In General condition of contract for IIT Delhi works department 2010 -

Reference	Existing	Modified
Clause 10B (ii), Para-2	Before any installment of advance is released, the contractor shall execute a Bank Guarantee Bond from Scheduled Bank for the amount of advance &valid for the contract period. This shall be kept renewed from time to time to cover the balance amount and likely period of complete recovery, together with interest.	Before any installment of advance is released, the contractor shall execute a Bank Guarantee Bond from Scheduled Bank for the amount equal to 110% of the amount of advance and valid for the contract period. This (Bank Guarantee from Scheduled Bank for the amount equal to 110% of the balance amount of advance) shall be kept renewed from time to time to cover the balance amount
Clause 3 (vii)	If the contractor shall obtain a contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering.	and likely period of complete recovery. If the contractor had secured the contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of Integrity Agreement.

Reference	Existing Provision	Modified Provision
Page 5, IITD 2010	Page 5, IITD 2010 4A. Applicable for Percentage Rate Tender only (IITD-7) In case of Percentage Rate Tenders,a tenderer shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Schedule of Quantities at Schedule-A, he will be willing to execute the work. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes.	Page 5, IITD 2010 4A. Applicable for Percentage Rate Tender only (IITD-7) In case of Percentage Rate Tenders, contractor shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Schedule of Quantities at Schedule-A, he will be willing to execute the work. The tender submitted shall be treated as invalid if:- 1. The contractor does not quote percentage above/below on the total amount of tender or any section/sub head of the tender. 2. The percentage above/below is not quoted in figures & words both on the total amount of tender or any section/sub head of the tender. 3. The percentage quoted above/below is different in figures & words on the total amount of tender or any section/sub head of the tender: Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for



Deference	Eviating Description	carrying out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes. New Para 4B is added as below: 4B: In case the lowest tendered amount (estimated cost + amount worked on the basis of percentage above/ below) of two or more contractors is same, such lowest contractors will be asked to submit sealed revised offer in the form of letter mentioning percentage above/below on estimated cost of tender including all sub sections/sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers. In case any of such contractor refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited. If the revised tendered amount of two more contractors received in revised offer is again found to be equal, the lowest tender, among such contractors, shall be decided by draw of lots in the presence of SE of the circle, EE(s) in-charge of major & minor component(s) (also DDH in case Horticulture work is also included in the tender), EE(P) or EE(HQ) of the circle & the lowest contractors those have quoted equal amount of their tenders. In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each contractor. Contractor(s), whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process of the work.
Reference	Existing Provision	Modified Provision
10A	In case of Percentage Rate Tenders only	In case of Percentage Rate Tenders only
C Nil	I Nil O Nil	



(page 6-7) percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy. However if the contractor has worked out the amount of the tender and if any discrepancy is found in the percentage quoted in words and figures, the percentage which corresponds with the amount worked out by the contractor shall, unless otherwise proved, be taken as correct. If the amount of the tender is not worked out by the contractor or it does not correspond with the percentage written either in figures or in words, then the percentage quoted by the contractor in words shall be taken as correct. Where the percentage quoted by the contractor in figures and in words tally but the amount is not worked out correctly, the percentage quoted by the contractor will, unless otherwise proved, be taken as correct and not the amount.

percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy.

(Remaining part deleted)

Reference

Existing Provisions

Modified Provisions

Deviations/ Variations Extent and Pricing

CLAUSE 12

The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do

CLAUSE 12

The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which



	the main works except as hereafter provided.	he agreed to do the main works except as hereafter provided. The completion cost of any agreement for Maintenance works including works of upgradation, aesthetic, special repair, addition/ alteration shall not exceed 1.25 times of Tendered amount.
Deviations, Extra Items, Pricing	In the case of extra items (items that are completely new and are in addition to the items contained in the contract), the contractor may within 03 months of receipt of order or occurrence of the item(s) claim rate, supported by proper analysis, for the work and the Engineer-in-charge shall within one month of the receipt of the claims supported by analysis after giving considerations to the analysis of the rates submitted by the contractor, determined the rates on basis of market rates and the contractor shall be paid in accordance with the rates so determined.	A. For Project and original works: In the case of extra items (items that are completely new and are in addition to the items contained in the contract), the contractor may within 03 months of receipt of order or occurrence of the item(s) claim rate, supported by proper analysis, for the work and the Engineer-in-charge shall within one month of the receipt of the claims supported by analysis after giving considerations to the analysis of the rates submitted by the contractor, determined the rates on basis of market rates and the contractor shall be paid in accordance with the rates so determined. B. For Maintenance including works of upgradation, aesthetic, special repair, addition/ alteration: In the case of Extra Item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plush cost index (at the time of tender) plus/minus percentage above below quoted contract amount. Payment of Extra items in case of non-schedule items (Non-DSR items) shall be made as per the prevailing market rate.
Deviation, Substituted Items, Pricing	In the case of substituted items (items that are taken up with partial substitution or lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following Para.	A. For Project and original works: In the case of substituted items (items that are taken up with partial substitution or lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in



- (a) If The market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted).
- (b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted)

the manner as mentioned in the following Para.

- (a) If The market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted).
- (b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted). For Maintenance including works of up-gradation, aesthetic, special repair, addition/ alteration:

In the case of Substitute Item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plush cost index (at the time of tender) plus/minus percentage above below quoted contract amount.

Payment of Extra items in case of nonschedule items (Non-DSR items) shall be made as per the prevailing market rate.

Deviation, Deviated Quantities, Pricing

In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within one month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates

A. For Project and original works:

In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within one month of



submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined. receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

B. For Maintenance including works of upgradation, aesthetic, special repair, addition/ alteration:

In the case of contract items, which exceed the limit laid down in schedule F, the contractor shall be paid rates specified in the schedule of quantities.

12.3 The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work excess of the limits laid down in Schedule F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.

12.3 A. For Project and original works:

The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work excess of the limits laid down in Schedule F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.

B. For Maintenance including works of upgradation, aesthetic, special repair, addition/ alteration:

In the case of decrease in the rates

Prevailing in the market of items for the the

work excess of the limits laid down in

Schedule F, and the

Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the



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		said period of fifteen days having regard to the market rates.
Schedule F	Clause 12	Clause 12
	No provision.	Type of work ***
		*** To be filled by NIT approving authority either Project and original work or Maintenance works including works of up gradation, aesthetic, special repair, addition/alteration.



BID SUBMISSION

ONLINE BID SUBMISSION:

The Online bids (complete in all respect) must be uploaded online in two Envelops as explained below:-

Envelope – 1 (Following documents to be provided as single PDF file)				
SI. No.	Documents	Content	File Types	
1	Technical Bid	Organization Declaration Sheet as per Annexure - I	.PDF	
2		Annexure 2 [Technical Particulars] neatly typed	.PDF	
3		Attested Certificate of work experience as desired	.PDF	
4		Certificate of registration for GSTIN	.PDF	
5		Affidavit as per NIT condition 1.2.2 on stamp paper	.PDF	
6		Acceptance to execute integrity pact	.PDF	
7		IITD 7/8 duly signed by the bidder	.PDF	
8		EPFO & ESIC Registration proof with upto date challan	.PDF	
9		NSIC / MSME Certificate, if the bidder claims for EMD exemption	.PDF	
10		Any other document as specified in the NIT	.PDF	
		Envelope – 2		
SI. No.	TYPES	Content		
1.	Financial Bid	Price bid should be submitted in BOQ format.	.EXL	



SCHEDULE OF QUANTITY

Name of work: SITC of 1 x 100 TR Water Cooled Screw Chiller for Bharti School Building in IIT Delhi

No. Description of work Qty Nate Offic Amount	Sr. No.	Description of work	Qty	Rate	Unit	Amount
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[MACHINERY]

- Supplying, Installing, Testing and Commissioning of screw type water chilling machine each having capacity of 30,2,400 Kcal / hour [100 TR] at chilled water inlet / outlet temperature of 12.5 deg C / 7 deg C with chilled water circulation rate of 900 LPM [nominal] and condenser water inlet / outlet temperature of 32 deg C / 36.4 deg C with circulation rate of 1400 LPM [nominal], suitable for operation on refrigerant 134a / 404a / 507a / 407C / 410A / 427A for screw type machine each comprising of the following complete as per specifications and as required.
- 1.01 1 no. screw type compressor opn / semi hermetic / fully hermetic complete with automatic capacity control, safety switches, speed increasing gears, forced feed lubrication system etc. as per specifications.
- 1.02 1 no. Suitable capacity squirrel cage induction motor with class B insulation suitable for operation on 415 +/-10% volts, 50 Hz, a.c. supply [for open type compressor motor HP shall be at least 10% higher than the compressor BHP requirement at full load]
- 1.03 1 no. Variable Frequency Drive starter suitable for compressor motor complete with ammeter with CTs, overload protection, under voltage protection, protection against phase reversal & independent single phase preventors etc. complete as required.
- 1.04 Necessary drive arrangement
- 1.05 1 set Lubrication device consisting of automatic electric pump, oil cooler, head tank, oil strainer, automatic pressure regulating valve, oil heater, oil heater thermal switch etc. as per specifications.
- **1.06** 1 no. Matching shell and tube water cooled condenser of MS shell and integrally finned copper tubes.
- **1.07** 1 no. Matching shell & tube flooded type chiller for screw type units of MS shell and copper tubes.



- 1.08 1 Lot Refrigerant piping fittings, valves and accessories to interconnect compressor, condenser, chiller and expansion valve.
- **1.09** 1 set Microprocessor based control panel complete with accessories as per specifications.
- 1.10 1 Lot Refrigerant line accessories comprising of safety valves, angle valve, liquid line indications, liquid level control etc.
- **1.11** 1 Lot Water flow switches at inlet and outlet of condenser & chiller, water drain & air purge valves wherever required.
- 1.12 1 Lot Suction line and chiller insulation with minimum 19 mm thick polyvinyl nitrile rubber insulation finished with 0.63 mm thick G.S.S. cladding complete as required.
- **1.13** 1 Lot Frame work for mounting the above condenser, chiller compressor and motor with base plate complete with antivibration pads / springs.
- **1.14** 1 Lot Initial / first charge of refrigerant gas and compressor oil
- **1.15** 1 Lot RCC / cement concrete foundation / fitment foundation on the existing foundation for the chilling unit as required.
- 1.16 1 Lot Dismantling and removing the existing defunct 60 TR Reciprocating chiller unit from its base including disconnection and removing of other accessories, pipes, etc. and plugging the pipes [parallely connected with other chiller units] for least disturbance to the existing running system etc. as required and as directed by the Engineer-in-charge.

1 Set

[Make: Daikin / TRANE / Blue Star / Voltas / Kirloskar / Carrier]

[PLUMBING]



C....Nil

I..... Nil

O..... Nil

Supplying, laying / fixing, testing and commissioning of following nominal sizes of chilled water piping inside the building [with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.] duly insulated with 80 kg/cum density resin bonded fiber glass or 144 kg/cum density mineral wool [non combustible] pipe section insulation covered with a layer of 120 gm/sqm polythene sheet [vapour barrier] and finally applying 0.63 mm aluminium sheet cladding complete with type 3, grade 1 roofing feltstrip [as per IS:1322 as amended upto date] at joints and repairing of damage to building etc. as per specifications and as required.

2.01	150 mm dia MS 'C' class [50 mm thick insulation] Supplying, fixing, testing d commissioning of following valves, strainers, gauges in the chilled water plumbing duly insulated to the same specifications as the connected piping and adequately supported as per specifications.	12	Metre
3.01	BUTTERFLY VALVE [Manual] with CI body SS Disc, Nitrile Rubber Seal & O-ring PN 16 pressure rating for chilled water / hot water circulation as specified.		
3.02	150 mm dia BALANCING VALVE WITH BUILT IN MEASURING FACILITY with CI body flanged construction with EPDM coated disc with long pitch with protected out pipe insulation & PN 16 pressure rating for chilled / hot water circulation as specified.	2	Each
3.03	150 mm dia NON - RETURN VALVE with duel plate of CI body SS plates vulcanized NBR seal flanged end &PN 16 pressure rating for chilled / hot water circulation including insulation as specified.	2	Each
3.04	150 mm dia Y - STRAINER of Ductile CI body flanged ends with stainless steel strainer for chilled / hot water circulation including insulation as specified.	2	Each
	150 mm dia	1	Each

D'Man /J.E. A.E.E / A.E. E.E.



4	Supplying,	fixing,	testing	and	commiss	sioning	of
	condenser v	vater pip	es of foll	owing	sizes of M	1S 'C' c	lass
	[as per IS1	239] alo	ngwith n	ecessa	ry clamp	s, vibra	tion
	isolators ar	nd fitting	s such	as be	nds, tees	s, etc.	but
	excluding v	alves, s	strainers,	gauge	es, etc.	adequa	ately
	supported	on rigio	l suppoi	rts du	ly painte	d as	per
	specification	and as	required	comple	ete in all re	espect	

4.01	150 mm dia	16	Metre
5	Supplying, fixing, testing and commissioning of following valves, gauges and strainers for condenser water circulation as per specifications.		
5.01	BUTTERFLY VALVE [Manual] with CI body SS Disc, Nitrile sheet & O-ring & PN 16 pressure rating as specified.		
6	150 mm dia Providing and Fixing following pressure gauges and	2	Each

switches etc. as required.

a] 100 mm dia in position pressure gauge
b] 100 mm dia in position temperature gauge
2 Each
Each

c] Flow switch 1 Each

TOTAL [Machinery & Plumbing]

[Less Credit for dismantling and buyback of following items; bidder shall not quote below Rs.65,000.00 under any circumstances]

1 1 x 60 TR Reciprocating chiller unit with associated piping

Lot

Total [A - B]

[N.B. Bidder should not quote rates here]

Executive Engineer [E]