

TENDER DOCUMENT

FOR

Tender Document for the Supply Installation Testing & commissioning of Air conditioning works at Lab Complex at Karaikal, Puducherry.

**PART-III
PRICE BID**

**HITES/IDS/16/14/JIPMER-II/KIK-11
July 2016**

HLL INFRA TECH SERVICES LIMITED

Contents		Page No.
1.	Commercial Conditions	03
2.	Special Conditions	06
3.	Testing of Installations	07
4.	Bill of Quantities	08

1. COMMERCIAL CONDITIONS

- 1.1 The tendered rate shall inter alia be deemed to include for the provision of all materials, process, operation and special requirements detailed in the particular specification irrespective of whether these are mentioned in the description of equipment schedule and Bill of quantities or not. It is an express condition of the contract that the tendered rates for various items in the Bill of Quantities shall be deemed to include for the full, entire and final condition of the contractor respective items of the works in accordance with the provision of the contract.
- 1.2 The tendered rate shall include for all taxes, duties, etc. as applicable and shall be quoted on the works contract basis for the Supply, Installation, Testing & commissioning of Air conditioning works at Lab Complex.
- 1.3 The tendered rate shall remain firm and free from variation due to rise in the cost of materials/equipment labour or any other reasons whatsoever during the contract period and valid extension.
- 1.4 The quantum of excise duty included in the tendered price, the rate at which they were assumed etc. shall be indicated in the tender.

2. UNIT RATES

- 2.1 Only approved work will be measured on completion and priced as per rates quoted against the respective items.

3. BRIEF DESCRIPTION OF PRICING

- 3.1 The tenderer shall furnish duly certified breakup of material and labour separately for each item of work. The same shall be attached separately along with the price bid.

4. PRO-RATA VALUE

The detailed break up of prices for various items of equipments and materials of the full system should be provided by successful tenderers within fifteen days from the date of letter of intent to facilitate the Employer for assessment and verification and to certify payment.

5. INCOME TAX

Any payment to the contractor as per contract, will be made after deducting income tax as per the rules and regulations.

6. SALES TAX AND EXCISE DUTY

The tenderer shall clearly indicate sales tax, Excise and works contract tax and other duties as applicable in his offer for carrying out this work.

The quoted price shall be inclusive of all taxes and duties whether payable by the contractor or to be deducted at source. This shall include those applicable among VAT, Sales Tax, Income Tax, Customs Duty, Excise Duty, Turnover Tax, Service Tax, Work Contract Tax, Octroi, Labour Welfare Cess or any Other Taxes and Duties prevailing in respect of this contract. ANY BID STATING THAT TAXES ARE EXTRA WILL BE SUMMARILY REJECTED.

7. SUBMISSION OF BILL

7.1 The contractor shall from time to time prepare and submit interim bills of the work executed and on completion of the contract, he shall prepare and submit the final bill. The measurements sheets in support of the interim and final bills shall be prepared by the contractor on the basis of measurements taken by him jointly with the project engineer and the said measurement sheets shall be submitted by him with the relevant bill.

8. EXTRA ITEMS

The contractor is bound to carry out any items of work necessary for the completion of the job even though such items may not have been included in the schedule of probable quantities or rates, such items being necessary or essential for completing the job. Variation order in respect of such additional items and their quantities will be issued in writing by the Employer.

All shavings, cuttings and other rubbish as it accumulates from time to time during the progress of work and on completion including that of the sub-contractors and special tradesman and all materials condemned by the project engineer shall be cleared and removed from the site by the contractor without any extra charge.

All measuring steel taps, scaffolding, ladders instruments and tools that may be required for taking measurements shall be supplied by the contractor.

9. OVER TIME WORK

If the contractor is required to work night or on holidays in order to maintain the time schedule he shall take prior approval from the Employer. He should also provide and maintain at his own cost sufficient lights as may be necessary to enable the work to proceed satisfactorily during the night.

- 9.2 The contractor shall give full facilities to all other contractors working on site. He shall also arrange his programme of work so as not hinder the progress of other trades. The decision of the Employers on any point of dispute between the various parties shall be final and binding.
- 9.3 It is specifically pointed out that the contractor shall not be entitled to any compensation whatsoever on account of delay in procurement or supply of controlled materials and the rates quoted in the contract are fixed till the completion of the contract.
- 9.4 The contractor shall co-operate with other agencies appointed by the Employer for the work to proceed smoothly with the least possible delay and to the satisfaction.
- 9.5 The owners shall provide a source for power supply at one convenient point at site. The contractor shall at his own cost install a separate meter at the said source and lay additional cables from the said source also at his own cost. For the electricity consumed by the contractor he shall pay the owner the actual cost at the rate charged by the local authority for power for constructional purposes. The contractor shall also obtain the necessary permit for utilizing power for constructional purposes.

10. TERMS OF PAYMENT

10.1 For equipments delivered and sorted at the site for the installation, the payment will be made by the HLL in accordance of this contract.

10.2 The rate of payment for the contract value under this contract shall be regulated and detailed below:

Payment terms

70% after supply of materials at site in good working condition on pro-rata basis.

20% after completion of installation in all respects.

Balance 10% will be paid after testing, commissioning & handing over to the HLL including all required statutory approvals.

11. SPECIAL CONDITIONS

11.1 EXECUTION WORK

11.1.1 The whole of the work as described in the contract (including bills of materials, specification and all drawings pertaining thereto) and as advised by the Owners/Employers from time is to be carried out and completed in all parts to the entire satisfaction of the Owners/Employers. Any minor details of construction which are obviously and fairly intended, or which may not have been definitely referred to in this contract, but which are usual construction practice and essential to the work, shall be included in this contract.

11.2 MAINTENANCE & TRAINING FOR PERSONNEL

11.2.1 The contractor shall without any extra cost carry out for a period of 12 months after the installation is taken over by the owners, all routine and special maintenance and attend to any difficulties and defects that may arise in the operation of the System

11.2.2 The contractor shall associate with the Employers' staff during erection and the maintenance period, in the maintenance/operation of the system

11.2.3 If required, by the Employers, the contractor shall also train members of the Employers' staff at their works/service station without any extra charge.

11.3 CERTIFICATE OF COMPLETION

11.3.1 The contractor shall intimate to HITES in writing as and when the works are completed and put into beneficial use in order to enable HITES to check certify to the Employer to take over the plants.

11.3.2 The work shall not be considered as completed and put into beneficial use until HITES have certified in writing that the same has been completed and put into beneficial use.

11.3.3 The defects liability period of one year shall commence from date of such completion or any specific date mentioned therein.

11.4 OPERATIONAL AND MAINTENANCE MANUALS

11.4.1 The contractor shall also furnish the prints of all up-dated handing over along with required set of operating/maintenance manuals/instructions.

11.5 STATUTARY APPROVALS

All statutory approvals pertaining installations including electrical inspectorate & all the required approvals shall be in the scope of the supplier.

THE ABSTRACT OF BILL OF QUANTITIES IN THE PRICE BID SHALL BE INVARIABLY FILLED. THOSE WHO BIDDERS DO NOT FILL WILL BE NON-RESPONSIVE AND WILL BE DISQUALIFIED FROM EVALUATION AND WILL BE TREATED AS TECHNICALLY NOT QUALIFIED.

**ALL ROWS SHALL BE FILLED, THIS IS MANDATORY
(IF NIL OR NA, THAT MAY ALSO BE SHOWN)**

BILL OF QUANTITIES

ABSTRACT

Sl No	Name of work	Amount in Rs
1	Supply, Installation, Testing & commissioning of Air conditioning works at Lab Complex, including all taxes & duties except service tax.	
a	Service tax component to be paid by the bidder	
b	Service tax component to be directly paid by the HITES in case the bidder is a Proprietary firm	
	GRAND TOTAL	

AIR CONDITIONING WORKS

Sl no	DSR item ref no	Item Description	Unit	Quantity	Rate in figures & words (in Rs.)	Amount in Rs.
PART A		MACHINERY				
1		Supply, installation, testing and commissioning (SITC) of 8.0 TR capacity aircooled Outdoor condensing unit with scroll compressor as per specifications complete with suitable capacity drive motor, air cooled condenser with all accessories, hermetically sealed scroll compressor, electronic microprocessor pendant controller with digital display, first charge R 22 refrigerant gas, vibration isolator pads and safety devices like thermal protector, pressure relief valve, over load relays single phase preventor, high-low pressure cut out, suitable for three phase 440V supply.	Nos	9.00		
2		Supply, installation, testing and commissioning of suitable hard drawn copper refrigerant piping for 8.0 TR machine with 13 mm nitrile rubber insulation interconnecting the condensing unit to evaporating unit for packaged units as per site condition	Rmt	72.00		

3		<p>SITC of DX type double skinned air handling units, ceiling suspended/floor mounting type 8.0 TR, 3200 cfm capacity complete with suitable DIDW blower (asper approved make), blower section, with suitable external static pressure, built in pre filter(EU4), fine filter(EU7)) and controls connected to condensing units, insulated SS drain pan, 6 row cooling coil, electric motor, belt drive package with TEFC motor class 'B' insulation, suitable for 3 phase, 415 V, 50Hz supply, suitable AHU panel & cabling, AHU temp & speed control panel , ARI certified, with 0.8mm double skinned 40mm thick PUF panel, belt guards, suitable supports for suspending from slab, vibration isolator, etc. conforming to specifications. The air handling units shall have 1 inlet refrigerant coils and 1 outlet refrigerant coils suitable for 1 numbers of 8.5 TR capacity ODU and shall conform to specifications.</p>	Nos	9.00		
4		<p>Supply, installation, testing and commissioning (SITC) of 6.0 TR capacity aircooled Outdoor condensing unit with scroll compressor as per specifications complete with suitable capacity drive motor, air cooled condenser with all accessories, hermetically sealed scroll compressor, electronic microprocessor pendant controller with digital display, first charge R 22 refrigerant gas, vibration isolator pads and safety devices like thermal protector, pressure relief valve, over load relays single phase preventor, high-low pressure cut out, suitable for three phase 440V supply.</p>	Nos	1.00		

5		Supply, installation, testing and commissioning of suitable hard drawn copper refrigerant piping for 6.0 TR machine with 13 mm nitrile rubber insulation interconnecting the condensing unit to evaporating unit for packaged units as per site condition	Rmt	12.00		
6		SITC of DX type double skinned air handling units, ceiling suspended/floor mounting type 6.0 TR, 2400 cfm capacity complete with suitable DIDW blower (asper approved make), blower section, with suitable external static pressure, built in pre filter(EU4), fine filter(EU7)) and controls connected to condensing units, insulated SS drain pan, 6 row cooling coil, electric motor, belt drive package with TEFC motor class 'B' insulation, suitable for 3 phase, 415 V, 50Hz supply, suitable AHU panel & cabling, AHU temp & speed control panel , ARI certified, with 0.8mm double skinned 40mm thick PUF panel, belt guards, suitable supports for suspending from slab, vibration isolator, etc. conforming to specifications. The air handling units shall have 1 inlet refrigerant coils and 1 outlet refrigerant coils suitable for 1 numbers of 8.5 TR capacity ODU and shall conform to specifications.	Nos	1.00		

7		Supply, installation, testing and commissioning (SITC) of 4.5 TR capacity aircooled Outdoor condensing unit with scroll compressor as per specifications complete with suitable capacity drive motor, air cooled condenser with all accessories, hermetically sealed scroll compressor, electronic microprocessor pendant controller with digital display, first charge R 22 refrigerant gas, vibration isolator pads and safety devices like thermal protector, pressure relief valve, over load relays single phase preventor, high-low pressure cut out, suitable for three phase 440V supply.	Nos	1.00		
8		Supply, installation, testing and commissioning of suitable hard drawn copper refrigerant piping for 4.5 TR machine with 13 mm nitrile rubber insulation interconnecting the condensing unit to evaporating unit for packaged units as per site condition	Rmt	12.00		

9		<p>SITC of DX type double skinned air handling units, ceiling suspended/floor mounting type 4.5 TR, 1800 cfm capacity complete with suitable DIDW blower (asper approved make), blower section, with suitable external static pressure, built in pre filter(EU4), fine filter(EU7)) and controls connected to condensing units, insulated SS drain pan, 6 row cooling coil, electric motor, belt drive package with TEFC motor class 'B' insulation, suitable for 3 phase, 415 V, 50Hz supply, suitable AHU panel & cabling, AHU temp & speed control panel , ARI certified, with 0.8mm double skinned 40mm thick PUF panel, belt guards, suitable supports for suspending from slab, vibration isolator, etc. conforming to specifications. The air handling units shall have 1 inlet refrigerant coils and 1 outlet refrigerant coils suitable for 1 numbers of 8.5 TR capacity ODU and shall conform to specifications.</p>	Nos	1.00		
10		<p>Supply, installation, testing and commissioning (SITC) of 4.0 TR capacity aircooled Outdoor condensing unit with scroll compressor as per specifications complete with suitable capacity drive motor, air cooled condenser with all accessories, hermetically sealed scroll compressor, electronic microprocessor pendant controller with digital display, first charge R 22 refrigerant gas, vibration isolator pads and safety devices like thermal protector, pressure relief valve, over load relays single phase preventor, high-low pressure cut out, suitable for three phase 440V supply.</p>	Nos	1.00		

11		Supply, installation, testing and commissioning of suitable hard drawn copper refrigerant piping for 4.0 TR machine with 13 mm nitrile rubber insulation interconnecting the condensing unit to evaporating unit for packaged units as per site condition	Rmt	12.00		
12		SITC of DX type double skinned air handling units, ceiling suspended/floor mounting type 4.0 TR, 1600 cfm capacity complete with suitable DIDW blower (asper approved make), blower section, external static pressure of 80mm, built in pre filter(EU4), fine filter(EU7) and controls connected to condensing units, insulated SS drain pan, 6 row cooling coil, electric motor, belt drive package with TEFC motor class 'B' insulation, suitable for 3 phase, 415 V, 50Hz supply, suitable AHU panel & cabling, AHU temp & speed control panel , ARI certified, with 0.8mm double skinned 40mm thick PUF panel, belt guards, suitable supports for suspending from slab, vibration isolator, etc. conforming to specifications. The air handling units shall have 1 inlet refrigerant coils and 1 outlet refrigerant coils suitable for 1 numbers of 8.5 TR capacity ODU and shall conform to specifications.	Nos	1.00		

13		<p>Supply, installation, testing and commissioning of Heat Recovery Ventilator (HRV) as per specifications. The HRV shall be of double skin construction and fitted with centrifugal blowers, drive motors and belt drive arrangement similar to the AHUs specified above, but with no Cooling Coil. Each HRV shall be provided with Two centrifugal blowers of the same capacity and suitable static, each with it's drive motor and drive arrangement. The casing shall be partitioned horizontally to form two separate air flow systems, one for exhausting the room air to the outside and the other for supplying fresh air into the AHU room without mixing of air. A Heat Recovery Wheel shall be provided in the centre of the casing. This HRW shall be capable of transferring a minimum of 85% of both Sensible and Latent Heat, between the two opposing air streams. The HRVof following capacity</p>				
13		3200CFM	Nos	1.00		

14		Supply, installation, testing and commissioning of Air Cooled High Wall mounted Split Air Conditioner of following capacity consisting of high wall mounted type room unit (fan coil) with cordless remote control and one number outdoor condensing unit comprising of energy efficient suitable rotary compressor for operation on single phase, 230 V, 50Hz supply, fixing the outdoor unit on a raised platform as per manufacturers recommendation and fixing of room (fan coil) unit on wall, standard 4 m distance refrigerant copper piping with 13mm nitrile rubber insulation, providing and making interconnection between room & condenser as per site conditions, comprising of 1" dia drain PVC pipe with insulation 4m, canvas connections, full electrical cabling from power plug near indoor unit and to outdoor unit, ODU MS stand, first charge refrigerant gas, suitable stabilizer etc complete as required.				
14.1		2 TR 5 star rated as per BEE	Nos	7.00		
14.2		1.5 TR 5 star rated as per BEE	Nos	4.00		
14.3		Additional Copper Piping Beyond 4M	Rmt	10.00		
15		Supply, Laying and Fixing of control cabling of suitable size required from the Indoor to outdoor units for all units as per specification.	Rmt	120.00		

16		Supply, installation, testing and commissioning PVC drain pipe of 25mm dia ISI marked, connecting the drain lines from the indoor units to floor sump, with 9mm nitrile rubber insulation as per specification	Rmt	120.00		
17		SITC of Humidity Controller electric strip heaters in supply air plenum complete with fixing arrangements humidistat and safety thermostat including all supports, terminations, power and control wiring	Nos	6.00		
		TOTAL FOR PART A				
PART B		AIR DISTRIBUTION				
18		Supply, installation, testing and commissioning of factory fabricated rectangular GSS sheet metal ducting for Supply/ return/ fresh air duct/ collar connecting to indoor unit as per ducting specifications and with suitable supports using MS angles, channels, rods, anchor bolts, etc to roof/ truss as per IS 655 and as per specifications.				
18.1	22 G		SQM	375.00		
18.2	24 G		SQM	825.00		
19		SITC of External thermal insulation on supply air ducts using min 13mm thick nitrile rubber class "O" closed cell type with antimicrobial protection as per specifications	SQM	1200.00		

20		Supply, installation, testing and commissioning of Acoustic duct lining using 10mm nitrile rubber insulation open cell type inside the ducts, antimicrobial protection at the outlets of all indoor units upto 4m distance from fan outlet as per spec provided.	SQM	81.00		
21		Supply, fabrication, installation, testing of flexible connections made out of fire resistant flexible double canvas sleeve.	Set	12.00		
22	16.17	SITC supply air diffusers of powder coated aluminium with aluminium volume control dampers with anti smudge ring & removable core.	SQM	30.00		
23	16.18	SITC Return air diffusers of powder coated aluminium without volume control dampers with anti smudge ring & removable core.	SQM	34.00		
24		SITC of Fire Control Damper made of 16G GSS sheet blade and frame with 165mm casing, heavy duty interlocking blades and fully enclosed blade linkage mechanism, SS lateral seal blade seals, self lubricating sintered bronze bushes, fire rating as per UL555-1995 tested as per BS-476 part 20 with 18G extended sleeve 450mm and with fusible link, spring mechanism.	SQM	10.00		
25		SITC of multi blade type volume control dampers made of extruded aluminium for ducts/ collars to be provided with suitable links, levers and quadrants for manual control of volume of air flow and for proper balancing of the air distributions system in main ducts, return ducts & other area as per specification.	SQM	7.50		

26		SITC of Non Return Damper for HRW as per specifications.	SQM	1.00		
27		SITC of Aluminium Extruded Fresh air louvers with wire mesh and birds screen for IDUs/AHUs as per specifications.	SQM	1.00		
28		SITC of Aluminium Extruded powder coated Exhaust air louvers of size with wire mesh and birds screen for IDUs/AHUs as per specifications.	SQM	1.00		
		TOTAL FOR PART B				