

NATIONAL INSTITUTE OF PUBLIC FINANCE AND POLICY
18/2, Satsang Vihar Marg
Special Institutional Area
(Near Jawaharlal Nehru University)
New Delhi 110 067

FINANCIAL BID
(PART - II)

Tender Document
(for Replacement of 20 HP Heat Pump VRF
modular type air-conditioning SIGMA
system
at the Institute)

To be put in separate sealed cover

Date and time of the opening of the Financial bid will be intimated
Separately only to the short listed vendors

**NATIONAL INSTITUTE OF PUBLIC FINANCE AND POLICY
NEW DELHI**

Name of work: Replacement of 20 HP Heat Pump type Variable
Refrigerant flow modular type air-conditioning SIGMA
system at NIPFP, New Delhi.

(BILL OF QUANTITIES)

S.No.	Description of work	UNIT	QTY	RATE in Fig	RATE in words	AMOUNT
A	SUPPLY PART-HITACHI MAKE					
I	VARIABLE REFRIGERANT FLOW SYSTEM-SETFREE					
	Supply of Variable Refrigerant Flow modular type air-conditioning SIGMA system of Hitachi make with DIP-IPM Inverter Control with stepless modulation for precise capacity control of frequency differential of 1 hz ,system should have two stage oil separation to ensure complete oil recovery & outdoor units should have minimum 20-27 steps in odu fan motor for the stability of suction and discharge pressure and quick response to idu temperature control ,inrconnected refrigerant piping , full charge of R-410 refrigerant gas & oil, control cabling etc.					
A	Supply of Outdoor Units					
	Supply of Modular type outdoor Hitachi make Sigma units equipped with highly efficient scroll compressors. Each outdoor unit is with special heat exchanger, 27 Steps speed control DC motor condenser fan , auto check function for connection error, auto address setting and in built Double Stage Oil Separation to ensure minimum oil entrachment and proper lubrication.The condensing units should be capable for outside ambient 52 Deg. C.					
	20 HP HEAT PUMP TYPE	Nos.	1			
2	Supply of Indoor Units					
	Supply of SETFREE Indoor units of Hitachi make address setting and capacity as mentioned below. multispeed motor, coil section with DX coil, outer cabinet, drain pan mechanism insulation, pipe connections, fresh air intake connector and individually controlled louver setting for cassettes and cancelled unit above 3 hp have higher air quantity of 400 cfm/tr etc. of various capacities as per Hitachi specifications.					

3	Hi Wall Indoor Units				
	2.0 HP	Nos	1		
4	Ductable Indoor Units				
	5.0 HP	Nos	4		
5	Corded Remotes for In the Ceiling	Nos	5		
C	Supply of refnets for above system	Nos	5		
	LOW SIDE INSTALLATION				
1	Installation of Outdoor Units				
	20 HP HEAT PUMP TYPE	Nos.	1		
2	Installation of Indoor Units				
	Hi Wall Indoor Units				
	2.0 HP	Nos	1		
	Ductable Indoor Units				
	5.0 HP	Nos	5		
3	Corded Remotes Installation	Nos	6		
4	Installation of refnets for above system	Nos	5		
5	REFRIGERANT PIPING WORK				
	Supply & Installation of hard/soft copper refrigerant piping, complete with fittings, elbows, bends, supporting arrangement on walls,				
	31.75 mm	Rmt	14		
	28.6 mm	Rmt	15		
	25.4 mm	Rmt	5		
	22.2 mm	Rmt	25		
	19.05mm	Rmt	8		
	15.9mm	Rmt	40		
	12.7mm	Rmt	5		
	9.53 mm	Rmt	40		
	6.4mm	Rmt	10		
6	Insulation for Refrigerant Piping				
	31.75 mm	Rmt	20		
	28.6 mm	Rmt	20		
	25.4 mm	Rmt	30		
	22.2 mm	Rmt	25		
	19.05mm	Rmt	30		
	15.9mm	Rmt	20		
	12.7mm	Rmt	40		
	9.53 mm	Rmt	40		

	6.4mm	Rmt	40			
7	<u>Drain Piping</u>					
	Rigid PVC piping complete with fittings, supports as per specifications and duly insulated with 6 mm thick closed cell nitrile rubber insulation.					
	32 mm dia	Rm	50			
	25 mm dia					
		Rmt	100			
8	<u>ELECTRICAL</u>					
	<u>Control & Transmission Wiring</u>					
	Providing & fixing control cum transmission Shielded Non-Polar wiring of 2 core x- 0.75 sqmm (Havells,KEI,Finolex make)copper in suitable conduits between indoor and out door unit.	Rm	150			
	<u>Electrical & Controller Wiring</u>					
a	Providing & fixing control wiring of 2 core x 1.5 sqmm(Havells,KEI,Finolex make) copper between indoor units and their wired remote.	Rm	150			
b	Providing & fixing Shielded wiring of 3.5 core x 16 sqmm (Havells,KEI,Finolex make) copper for Outdoor Units	Rm	10			
c	MCB 63 Amp (Schneider make)	No	3			
d	ELCB (Schneider make)	No	2			
e	Cable Tray 6"	Rm	5			
f	Cable Tray 8"	Rm	8			
g	Cable Tray 12"	Rm	8			
9	<u>Ducting</u>					
	24 SWG G.I.Ducts	Sq M	5			
	Duct Insulation 13 mm	Sq M	12			
	Canvas Connctions	Nos	3			
	Grills	Sq M	5			

10	Earthing					
11	Double earthing continuity conductors of 2X8 SWG copper wire between panel isolators equipment's as required.	Rm	50			
12	Gas - R-410	KG	10			
13	Earthing with copper earth plate 600X600X3mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and watering including char coal and salt etc as per IE rule complete as required.	2	set			
14	Providing and fixing of 25X5 mm copper strip on surface or in recess for connection etc as required	4	metre			
15	By back after Dismantling of Existing VRF machine,copper pipe,insulation cable tray etc.	one	Lot			
	TOTAL					

**NATIONAL INSTITUTE OF PUBLIC FINANCE AND POLICY
NEW DELHI**

Housekeeping Services at NIPFP, New Delhi

Financial Bid – Part – II

S.NO.	Details of Scope of work	Rs. Per month
1.	Man Power Wages as per details/quoted in Annexure I	
2.	Material charge (detailed under Scope of Work at pages 16 and 17 of Tender	
3.	Service charge	
4.	Any other charges (please specify, if any)	
5.	Service tax as applicable	
	Grand Total (Rs.)	

All the terms and conditions as detailed out in the Tender Document are acceptable to us.

Signature of authorized person of bidder

Address

Seal of the company

Dated

Validity period