## S. N. Bose National Centre for Basic Sciences

#### Block JD, Sector III, Salt Lake, Kolkata – 700098

(An autonomous national centre funded by the Department of Science & Technology, Government of India)

Tender No.SNB/PUR/OT/27/01

Date: 25<sup>th</sup> April, 2014.

#### **OPEN TENDER**

Sealed tender in two parts (separate technical bid and price bid) are invited in the name of Director, S. N. Bose National Centre for Basic Sciences from only reputed & original manufacturer or its authorized distributor/dealer with OEM certificate for supply, installation and Testing and Commissioning of Variable Refrigerant Flow type Air Conditioning system at S. N. Bose National Centre. The detailed technical specifications and terms & conditions can be obtained from the website: <a href="http://newweb.bose.res.in/InfoAnnouncements/Tender.jsp">http://newweb.bose.res.in/InfoAnnouncements/Tender.jsp</a> The sealed tenders must reach this office within 15<sup>th</sup> May, 2014.

 Registrar	

Abridged version of the tender published on 25<sup>th</sup> April, 2014 (Friday) in the following newspaper editions:

1.) TIMES OF INDIA: Kolkata, New Delhi, Mumbai, Chennai, Bangalore, Hyderabad and Pune editions.

Last date of submission of Tenders is on 15<sup>th</sup> May, 2014 (Thursday).

# S. N. Bose National Centre for Basic Sciences

### Block JD, Sector III, Salt Lake, Kolkata – 700098

(An autonomous national centre funded by the Department of Science & Technology, Government of India)

#### NOTICE INVITING TENDER

Tender No.SNB/PUR/OT/27/01

Date: 25<sup>th</sup> April, 2014

Sealed tenders are invited for supply and installation of the following material as per the details enclosed from the reputed, established and competent manufacturers / suppliers in two bids – technical and financial. The details of tender documents are as follows:-

1.	Name of office inviting tender	S.N. Bose National Centre for Basic Sciences				
		Block JD, Sector III, Salt Lake, Kolkata – 700098				
2.	Name of the equipment	Variable Refrigerant Flow type Air Conditioning system				
3.	Specifications of the equipments	Can be obtained / downloaded from our website address:				
		http://newweb.bose.res.in/ InfoAnnouncements/Tender.jsp				
4.	Separate bid for Part-A:	One large envelope having two smaller envelopes containing separately –				
	Technical and Part-B:	Part-A: Technical bid and Part-B: Commercial bid need to be submitted.				
	Commercial	Tender ref. no. and item name should be mentioned on top of the large				
		envelope. Two smaller envelopes should be superscribed Technical bid /				
		Commercial bid as the case may be.				
5.	Submission of Tender	The tender documents duly filled in arranged and sealed in aforesaid				
		manner should be sent to: The Director, at the address given under Sl.No.1				
		above so as to reach him within 15 <sup>th</sup> May, 2014 against Advt.				
		No.SNB/PUR/OT/27/01 dtd: 25 <sup>th</sup> April, 2014. The commercial bid of only				
		technical qualified tenders will be opened in presence of representative of				
		the bidders. The technical bids will be opened and evaluated by the Centre				
		internally.				
6.	Eligibility of bidder to	Original Equipment Manufacturer (OEM) or its Authorized Business				
	participate in the tender	Distributor/Dealer shall be able to bid with original authorization				
		from OEM. No assemble or reseller shall be considered.				
7.	Opening of Commercial bid	The Commercial bid will be opened in the presence of Tenderers/ their				
		representatives. Technically qualified bidders will be intimated after				
		technical selection internally.				
8.	Documents to be attached	All the documents mentioned in the tender document, Annexure I along				
	along with the tender	with a detailed users list of the quoted item including their names,				
		addresses, contact nos., email addresses etc. to be enclosed with the				
		technical bid.				

This Centre will not be responsible for postal or any other delay and the **Authority of the Centre** reserves the right to accept or reject any or all tenders without assigning any reason thereof. Tenders / offers sent by fax / email will not be considered and would be rejected.

#### **DIRECTOR**

S.N. BOSE NATIONAL CENTRE FOR BASIC SCIENCES

#### **General Terms & Conditions:**

- The bid should be submitted in two bid system each of which is to be submitted in separate envelope. Main envelope should contain the "**Technical Bid**" mentioning the detailed technical specification and terms & condition, except price and the "**Price Bid**" should be enclosed in another envelope containing price of the quoted item in the prescribed format only. Both the envelopes should be separately sealed and sent in a large envelope which should be marked with tender reference number and name of the equipment. Separate bid with applicable EMD should be submitted for each of the items in the technical bid.
- 2) The Tender should have high technical, financial reputation with sufficient experience and capable enough for satisfactory supply of similar type of equipment to actual users. Documentary evidence should be submitted in this respect with the technical bid.
- 3) Technical offer should be complete in all respect indicating detailed technical specifications of the offered items, make, model, duties, taxes, delivery period, gross and net weight of the consignment, together with the descriptive leaflet/catalogue/pamphlet/manufacturer's brochure, etc.
- 4) The offer shall remain valid at least for a period of 90 days. The period starts from the date of closing of tender submission.
- 5) The Institute shall not be responsible for delay, loss or non-receipt of the tender through post/Air Mail
- The aforesaid Open Tender is being issued with no financial commitment and purchaser reserves the right to change / vary any item or items thereof at any stage.
- 7) No tenderer shall be entitled for any compensation what so ever for rejection/non consideration of their tender.
- 8) Invitation of tender does not constitute any right or claim for issue of purchase order to the tenderer.
- 9) Only Price Bids will be opened in presence of the technically qualified bidders or their authorized representative who choose to attend on the date and time informed to them after opening of technical bids and its evaluation by the Centre internally.
- 10) The Centre will not be responsible for any misprinting by the newspapers concerned and inaccessibility of the downloading facility for any reason whatsoever and in that case the tenderer(s) should contact to the tendering authority to verify the fact in case of confusion.
- If any information furnished by the tenderer is found incorrect or false at a later stage he shall be liable to be debarred from awarding the contract.
- 12) A copy of full tender document is to be submitted along with technical bid duly signed & stamped on all pages as an acceptance of all terms & conditions mentioned in tender documents.
- Payment term: a) 80% should be released after satisfactory delivery of materials at site. b) Balance 20% may be release after successful installation, testing & commissioning.
- Vendors are requested to submit an Earnest Money Deposit (EMD) amount of Rs. 26,000.00, in the form of Demand Draft in favour of "S. N. Bose National Centre for Basic Sciences", payable at Kolkata. Bid without EMD will not be considered and shall be rejected. EMD should be enclosed with the technical bid only.

- 15) 5% of certified bill value will be retained as Security Deposit and the same shall be refunded without interest after expiry of Warranty period subject to satisfactory operation and maintenance by the vendor.
- EMD of unsuccessful bidder will be refunded without interest after opening of the Commercial bids of the technically qualified vendors. In case of successful bidder EMD will be retained as performance guarantee, which will be adjusted with security deposit and returned without any interest after warranty period.
- EMD will be liable to be forfeited if the vendor withdraws or found anything wrongful in the tender documents at any point of time after submission of bids.
- 18) Centre reserves the right to reject any or all bids without assigning any reason thereof.
- 19) Warranty: The items will be covered under comprehensive onsite replacement warranty for a period of 12 months from the date of commissioning of system at the Centre.
- 20) Annexure I of the tender document should be filled up, sealed & signed and submitted with the technical bid along with all relevant documents mentioned therein.
- 21) In case of any query please contact Mr.Ganesh Gupta, JE(Electrical) over phone or in person on any working day during office hours of the Centre.

#### Annexure I

- The following form should be submitted with the technical bid duly filled and signed.
- Relevant documents must be enclosed with the technical bid as per Sl. no. 01 to 13.

S/	PARTICULARS	Yes/No	REMARKS
N			
01	Technical bid & Price bid duly sealed & signed enclosed in separate envelopes		
02	as instructed.  Contents of Technical bid		
03	<ul> <li>(a) Technical details as per specification enclosed with technical bid ⇒</li> <li>(b) Technical Compliance Statement to be prepared in a separate sheet ⇒         (and any deviation should be mentioned specifically)</li> <li>(c) Literature/Manual of the offered item ⇒</li> <li>(d) Current Authorization Certificate from the Principal Manufacturer ⇒</li> <li>(e) Name, address, email &amp; ph. no. of users in India. ⇒</li> <li>Copy of Trade License, VAT, &amp; PAN enclosed with the technical bid.</li> </ul>		
04	Credentials of past experience for supply & installation of similar items.(enclosed)		
05	Income Tax Clearance Certificate / copy of income tax return filed / PAN Card		
06	Copy of Proprietary Certificate of the firm in case applicable.		
07	Open Tender no. should be mentioned on top of all quotation envelopes		
08	Validity of Quotation should not be less than 90 days.		
09	After sales maintenance procedure of the offered item to be mentioned		
10	Contact details of after sales service centres in West Bengal to be mentioned		
11	Bank details of the beneficiary to be mentioned		
12	In case of any defect found after receipt of material or in case of any deviation from the specifications or in case of any operational defect found during the warranty period, any part or the entire material is to be replaced by the supplier at no extra cost to the Centre.		
13	Whether your company has been blacklisted by any Central/State Govt. organization.		

**Note:** Offer received without any of the relevant information / certificate / document asked in the above sl. nos. 01 to 13 may not be considered. The Centre reserves the right to accept or reject offer of the tenderer. The Centre's decision shall be final and binding on the tenderer. Attached documents should be duly marked.

Date:	/	/2014.	
			Seal & Signature of the bidder



#### SATYENDRA NATH BOSE NATIONAL CENTRE FOR BASIC SCIENCES

[Funded by the Department of Science & Technology, Government of India] BLOCK JD, SECTOR III, SALT LAKE, KOLKATA- 700 098

PHONE: +91-(0) 33-2335 5706-08, 2335 3057/61, 2335 0312/1313

FAX: +91-(0) 33-2335 3477/1364 EMAIL: santosh@bose.res.in```

# Price Bid for Supply, Installatlion and Testing-Commissioning of the VRF type Air conditioning system ast SNBNCBS.

"Design, Engineering, Manufacture, Testing at Manufacturer's Works and Supply & Delivery to SNBNCBS."

SI. No.	Item Description	Quantity	Unit	Rate	Amount
1	Variable Refrigerant Flow System				
	Supply of the DC Inverter Technology with scroll compressor based 18 HP Capacity VRF Outdoor units with Only Cooling function. The Outdoor Unit should be designed as such there shouldn't be any Oil return cycle during the operation of the machine for maximum power saving. The unit should be suitable for non-ozone depleting refrigerant R410A.The units shall be suitable for input power supply of 3 phase, 415volts, 50Hz.				
a)	OUTDOOR UNIT -18 HP	2	Nos		
2	INDOOR UNIT				
a)	HIGH WALL				
	The unit has been designed with a flat front panal and a slim body. The front panel is easy to clean and should remain relatively dust free. Koukin Filter: This unique anti bacterial filter prevents bacterial growth in the air conditioner thus increasing the efficiency of the air conditioner. The units shall be suitable for input power supply of 1phase, 220-240volts, 50hz.				
i)	IDU HIGH WALL - 2.0 HP	2	Noo		
ii)	IDU HIGH WALL - 2.5 HP	1	Nos		
b)	4 - WAY CASSETTE				
	The "wide air flow wing" turns to both side of air outlet, allowing air distribution to all four corners of the panel. This result in an outstandingly comfortable air-conditioned environment without temperature irregularity. The shutter function is adopted to conceal the air outlet with the louvers when the operation is stopped. The louvers cover the air outlet horizontally and provide a neat appearance. The units shall be suitable for input power supply of 1phase, 220-240volts, 50hz.				
i)	IDU 4 - WAY CASSETTE 3.0 HP	11			
C.	Y Joints / Multi Kit	12	Nos		
D.	Remote (Cord Less)	14			

ting, shifting, and positioning of Outdoor & Indoor Units th necessary pressure testing & Gas charging.  DU DOOR UNITS & INDOOR UNITS  S STRUCTURAL WORK as required to make the outdoor its ready and complete for installation and functioning ontrol cable between the indoor units and the outdoor its.  DNDENSATE DRAIN PIPE ondensate Drain line shall be with following size heavy ty high wall thickness PVC pipes & fittings.  mm. Dia.	1 2 320	LOT Nos Rmt		
S STRUCTURAL WORK as required to make the outdoor its ready and complete for installation and functioning ontrol cable between the indoor units and the outdoor its.  DNDENSATE DRAIN PIPE ondensate Drain line shall be with following size heavy ty high wall thickness PVC pipes & fittings.  mm. Dia.	2	Nos		
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its.  DNDENSATE DRAIN PIPE  Indensate Drain line shall be with following size heavy ty high wall thickness PVC pipes & fittings.  mm. Dia.	320	Rmt		
ondensate Drain line shall be with following size heavy ty high wall thickness PVC pipes & fittings.  mm. Dia.				
ty high wall thickness PVC pipes & fittings. mm. Dia.				
	160			
mm. Dia.	50	Rmt		
FRIGERANT PIPE				
efrigerant piping with (19, 13mm thick) nitrile rubber sulation. Refrigerant pipes sizes shall be as below.				
a 34.9 mm	10			
a 28.6 mm	20	Rmt		
a 25.4 mm	60			
a 22.2 mm	50			
a 19.5 mm	60			
a 15.88 mm	130	Rmt		
a 12.7 mm	50			
a 9.52 mm	140			
a 6.35 mm	20			
stallation, Testing & Commissioning	1	Lot		
rges				
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y) to be specified				
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	1 22.2 mm 1 19.5 mm 1 15.88 mm 1 12.7 mm 1 9.52 mm 1 6.35 mm 1 tallation, Testing & Commissioning	1 22.2 mm 50 1 19.5 mm 60 1 15.88 mm 130 1 12.7 mm 50 1 9.52 mm 140 1 6.35 mm 20 tallation, Testing & Commissioning 1	22.2 mm	22.2 mm

<sup>❖</sup> Note: Centre is exempted from payment of Central Excise Duty against DSIR certificate. CEDEC will be provided with the Purchase Order if required.

Date:	/	/2014.	
			Seal & Signature of the bidder

DETAILED TECHNICAL SPECIFICATION
Preferred Make : Sanyo/Mitsubishi/Hitachi

No.   Item Description   City   Unit	C	Preferred Make: Sanyo/Mitsubisni/Hitachi	I	
Supply of the DC Inverter Technology with scroll compressor based 18 HP Capacity VRF Outdoor units with Only Cooling function. The Outdoor Unit should be designed as such there shouldn't be any Oll return cycle during the operation of the machine for maximum power saving. The unit should be suitable for non-ozone depleting refrigerant R410A. The units shall be suitable for input power supply of 3 phase, 415volts, 50Hz.  3	SI. No.	Item Description	Qty	Unit
units with Only Cooling function. The Outdoor Unit should be designed as such there shouldn't be any Oil return cycle during the operation of the machine for maximum power saving. The unit should be suitable for non-ozone depleting refrigerant R410A. The units shall be suitable for input power supply of 3 phase, 414volls, 50Hz.  a) OUTDOOR UNIT 18 HP 2 Nos Noor Unit 18 HP 2 Nos Nos Noor Unit 18 HP 19 Noor Unit 19 HIGH WALL 2. The unit has been designed with a flat front panal and a slim body. The front panal is easy to clean and should remain relatively dust free. Koukin Filter : This unique anti bacterial filter prevents bacterial growth in the air conditioner thus increasing the efficiency of the air conditioner. The units shall be suitable for input power supply of 1 phase, 220-240volts, 50hz.  b) IDU HIGH WALL 2.5 HP 1 Noor Noor Noor Noor Noor Noor Noor No	1	Variable Refrigerant Flow System		
INDOOR UNIT		Supply of the DC Inverter Technology with scroll compressor based 18 HP Capacity VRF Outdoor units with Only Cooling function. The Outdoor Unit should be designed as such there shouldn't be any Oil return cycle during the operation of the machine for maximum power saving. The unit should be suitable for non-ozone depleting refrigerant R410A. The units shall be suitable for input power supply of 3 phase, 415volts, 50Hz.		
A) HIGH WALL The unit has been designed with a flat front panal and a slim body. The front panel is easy to clean and should remain relatively dust free. Koukin Filter: This unique anti bacterial filter prevents bacterial growth in the air conditioner thus increasing the efficiency of the air conditioner. The units shall be suitable for input power supply of 1phase, 220-240volts, 50hz.  i) IDU HIGH WALL - 2.0 HP 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	a)	OUTDOOR UNIT -18 HP	2	Nos
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IDU HIGH WALL - 2.5 HP	i)		2	Nos
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IDU 4 - WAY CASSETTE 3.0 HP	0)	The "wide air flow wing" turns to both side of air outlet, allowing air distribution to all four corners of the panel. This result in an outstandingly comfortable air-conditioned environment without temperature irregularity. The shutter function is adopted to conceal the air outlet with the louvers when the operation is stopped. The louvers cover the air outlet horizontally and provide a neat appearance. The		
C.       Y Joints / Multi Kit       12       Nos         D.       Remote (Cord Less)       14         3       Lifting, shifting, and positioning of Outdoor & Indoor Units with necessary pressure testing & Gas charging.       1         A.       ODU DOOR UNITS & INDOOR UNITS       1       LOT         4       MS STRUCTURAL WORK as required to make the outdoor units ready and complete for installation and functioning       2       Nos         5       Control cable between the indoor units and the outdoor units.       320       Rmt         6       CONDENSATE DRAIN PIPE       2         Condensate Drain line shall be with following size heavy duty high wall thickness PVC pipes & fittings.       160         ii) 16 mm. Dia.       50         7       REFRIGERANT PIPE       50         Refrigerant piping with (19, 13mm thick) nitrile rubber insulation. Refrigerant pipes sizes shall be as below.       10         ii) Dia 28.6 mm       20         iii) Dia 25.4 mm       60         iv) Dia 19.5 mm       60         vi) Dia 19.5 mm       60         vii) Dia 19.5 mm       50         viii) Dia 9.52 mm       14         viii) Dia 6.35 mm       10	i)	IDU 4 - WAY CASSETTE 3.0 HP	11	
Lifting, shifting, and positioning of Outdoor & Indoor Units with necessary pressure testing & Gas charging.  A. ODU DOOR UNITS & INDOOR UNITS  MS STRUCTURAL WORK as required to make the outdoor units ready and complete for installation and functioning  Control cable between the indoor units and the outdoor units.  CONDENSATE DRAIN PIPE  Condensate Drain line shall be with following size heavy duty high wall thickness PVC pipes & fittings.  i) 25mm. Dia.  160  ii) 16 mm. Dia.  Refrigerant piping with (19, 13mm thick) nitrile rubber insulation. Refrigerant pipes sizes shall be as below.  ii) Dia 34.9 mm  10  iii) Dia 25.4 mm  50  vi) Dia 19.5 mm  50  vi) Dia 19.5 mm  50  vii) Dia 15.88 mm  130  viii) Dia 9.52 mm  140  ix) Dia 6.35 mm	Ć.		12	Nos
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5         Control cable between the indoor units and the outdoor units.         320         Rmt           6         CONDENSATE DRAIN PIPE         6         Condensate Drain line shall be with following size heavy duty high wall thickness PVC pipes & fittings.         160         160           ii) 25mm. Dia.         160         160         160         160           ii) 16 mm. Dia.         50         50         160	4	MS STRUCTURAL WORK as required to make the outdoor units ready and complete for installation	2	Nos
Condensate Drain line shall be with following size heavy duty high wall thickness PVC pipes & fittings.   160	5		320	Rmt
i)       25mm. Dia.       160         ii)       16 mm. Dia.       50         7       REFRIGERANT PIPE	6			
16 mm. Dia.   50		Condensate Drain line shall be with following size heavy duty high wall thickness PVC pipes & fittings.		
7         REFRIGERANT PIPE         Refrigerant piping with (19, 13mm thick) nitrile rubber insulation. Refrigerant pipes sizes shall be as below.         10           i) Dia 34.9 mm         10           ii) Dia 28.6 mm         20           iii) Dia 25.4 mm         60           iv) Dia 22.2 mm         50           v) Dia 19.5 mm         60           vi) Dia 15.88 mm         130           vii) Dia 12.7 mm         50           viii) Dia 9.52 mm         140           ix) Dia 6.35 mm         20	i)	25mm. Dia.	160	
Refrigerant piping with (19, 13mm thick) nitrile rubber insulation. Refrigerant pipes sizes shall be as below.   i) Dia 34.9 mm	ii)	16 mm. Dia.	50	
below. i) Dia 34.9 mm ii) Dia 28.6 mm iii) Dia 25.4 mm 60 iv) Dia 22.2 mm v) Dia 19.5 mm vi) Dia 15.88 mm vii) Dia 12.7 mm vii) Dia 9.52 mm ix) Dia 6.35 mm	7			
ii)     Dia 28.6 mm       iii)     Dia 25.4 mm       iv)     Dia 22.2 mm       v)     Dia 19.5 mm       vi)     Dia 15.88 mm       vii)     Dia 12.7 mm       viii)     Dia 9.52 mm       ix)     Dia 6.35 mm				
iii)       Dia 25.4 mm       60         iv)       Dia 22.2 mm       50         v)       Dia 19.5 mm       60         vi)       Dia 15.88 mm       130         vii)       Dia 12.7 mm       50         viii)       Dia 9.52 mm       140         ix)       Dia 6.35 mm       20	i)	Dia 34.9 mm	10	
iv)     Dia 22.2 mm     50       v)     Dia 19.5 mm     60       vi)     Dia 15.88 mm     130       vii)     Dia 12.7 mm     50       viii)     Dia 9.52 mm     140       ix)     Dia 6.35 mm     20	ii)	Dia 28.6 mm	20	
v)     Dia 19.5 mm     60       vi)     Dia 15.88 mm     130       vii)     Dia 12.7 mm     50       viii)     Dia 9.52 mm     140       ix)     Dia 6.35 mm     20	iii)			
vi)     Dia 15.88 mm     130       vii)     Dia 12.7 mm     50       viii)     Dia 9.52 mm     140       ix)     Dia 6.35 mm     20	iv)			
vii)         Dia 12.7 mm         50           viii)         Dia 9.52 mm         140           ix)         Dia 6.35 mm         20	v)			
viii)       Dia 9.52 mm       140         ix)       Dia 6.35 mm       20	vi)			Rmt
ix) Dia 6.35 mm 20	vii)			
<u> </u>	viii)			
8 Installation, Testing & Commissioning 1 Lot	ix)	Dia 6.35 mm		
	8	Installation, Testing & Commissioning	1	Lot

