



## NEW TOWN KOLKATA DEVELOPMENT AUTHORITY

(A Statutory Authority under Government of West Bengal)

3, Major Arterial Road • New Town • Kolkata – 700156

Ph. No. (033) 2324-2138 Email Id: ee1 @nkda.in

Memo. No. 1393/NKDA/Engg-36/2010(XII)

Date: 23/02/2022

### NOTICE INVITING ITEM RATE e-TENDER

#### Notice Inviting e-Tender No. WBNKDA/36/EE-I/NKDA/2021-22

Executive Engineer – I, New Town Kolkata Development Authority invites Item rate e-tender from resourceful, reliable, bona-fide and experienced manufacturer/ dealer / working contractors of KMDA, WBHIDCO, NKDA, PWD, PHED and other Govt. Departments having experience in supply & installation of VRF Air Conditioner System for similar nature of work as mentioned below & they are requested to submit their bid online.

Sl. No	Name of the work	Estimated Amount (Rs.)	Earnest Money (Rs.)	Price of Tender documents (Rs.)	Period of Completion
1.	Supply and Installation of VRF air conditioner system for 1 <sup>st</sup> and 2 <sup>nd</sup> floor Banquet Halls & Split Air Conditioner System for four nos. guest room, office room & lounges at mezzanine floor level of Community Centre – I, AA-IC, New Town, Kolkata.	Rate to be quoted by the bidders.	Rs. 2,00,000.00	As will be specified by the authority for each set, to be paid only by the successful bidder during the time of agreement	30 (Thirty) days Plus 01 (one) year maintenance.

- 1) In the event of e-filling, intending bidder may download the tender documents from the website <http://wbtenders.gov.in> directly with the help of Digital Signature Certificate. All the bidders will have to submit On-line Earnest Money & necessary Earnest Money will be deposited by the bidder through the following payment mode as per Finance Department Order No. **3975-F(Y)** dated 28<sup>th</sup> July, 2016 (Annexure-A).
  - (i) **Net Banking** (any of the banks listed in the ICICI Bank Payment gateway) in case of payment through ICICI bank payment gateway.
  - (ii) **RTGS / NEFT** through bank account in any bank. The EMD shall be deposited in favour of “**New Town Kolkata Development Authority**” payable at “**Kolkata**”.
- 2) Both **Technical Bid** and **Financial Bid** are to be submitted concurrently duly digitally signed in the website <http://Wbtender.gov.in>.
- 3) Tender documents may be downloaded from the website and submission of Technical Bid and Financial Bid will be done as per Time Schedule stated in Sl. No. 13 of this NIeT.
- 4) The **FINANCIAL OFFER** of the prospective qualified tenderer(s) will be considered only if the **TECHNICAL BID** of the tenderer(s) is found qualified by competent authority of New Town Kolkata Development Authority. The decision of the competent authority of New Town Kolkata Development Authority will be final and absolute in this respect. The list of Qualified Bidders will be displayed in the website.

**5) Eligibility criteria for participation in the tender.**

- a.
  - i) Working agencies having experience in supply & installation of VRF Air Conditioner System (document of proof required) to different Government Departments, NKDA, K.M.D.A, PHE, WBHIDCO, PWD etc. having satisfactorily completed (as prime contractor) at least 01(one) similar nature of work during the last 5 (five) years, having magnitude of at least **Rs.20.00 (Twenty) lakh**. Authentic documents in original, from the Engineer-in-charge of the work will have to be submitted in support of the above credential as non-statutory documents; or
  - ii) Intending tenderers should produce credential of 02 (two) similar nature of completed work, like signage job during the last 05 (five) years of magnitude **Rs. 15.00 (fifteen) lakh** each prior to the date of issue of the tender notice.
- b. Pan Card, Income Tax Acknowledgement Receipt for the last three Assessment year, P.T. Deposit Challan for the year 2021-22, GST Registration Certificate, are to be submitted as non-statutory documents.
- c. Trade Licenses, Registered Partnership Deed for Partnership Firms only along with Power of Attorney since executed under any Judicial Magistrate/First Class Magistrate is to be submitted. The company shall furnish the Article of Association and Memorandum as non-statutory documents.
- d. Agency should have experience to execute industrial Ductable type air condition works.
- e. **Joint Ventures/MOU will not be allowed.**

- 6) All materials are to be procured and supplied at site of work by the tenderer / firm at his / their own cost from approved reputed dealer / manufacturer. Departmental materials will not be issued under any circumstances unless any such provision is made and accepted latter by both the parties. Department unless otherwise stated means New Town Kolkata Development Authority.
- 7) Mobilisation advance, time / cost over run and consequent cost escalation for any material, labour, etc. will not be allowed.
- 8) The offer shall remain valid for 180 days from the date of opening of the tender.
- 9) On-going payments for work may be allowed to the executing agency as per existing rules and availability of fund. Subject to deduction of security deposit, progressive payment may be made against the completed or partly completed item of works. Such interim payments, shall be made as running account bill(s), however, shall not construed to mean that the respective items / components have finally been approved and accepted by NKDA and the contractor shall not be absolved of his responsibility to set right any deficiency of such paid items / components at his/ their own cost, for rectifying all defects which are subsequently being noted or found.
- 10) No claim for interest or compensation will be entertained in respect to any money or balance of payment which may be due or alleged to be due to the contractor owing to any dispute between the contractor and NKDA or in respect to any delay in making payment of progressive or final bill of the work, to the contractor.

Payment for the works done by the contractor will be based on recorded and accepted measurement put for payment to be invariably made by putting signature (with seal) of the contractor (or his/ their authorized representative). The contractor or his/ their authorized representative are advised to take measurements jointly with the officials of NKDA. In case of failure of his/their part either to take measurement jointly and /or acceptance of the recorded measurement, within a reasonable time, measurement taken by the department shall be considered as final for making payment. Similar acceptance is also essential for level records and survey data, field books etc.

**11) Idle labour, idle rent and hire charges etc.:**

No claim of any category and type, on this ground shall be entertained. The contractor and NKDA shall make every effort that such situation does not arise.

**12) Security Deposit:**

Retention money towards performance Security amounting to 1% (*one percent*) of the value of the work apart from the 2% earnest money of the quoted amount shall be deducted from the running account bill of the tenderer as per prevailing order. No interest will be paid on the money retained for Security Deposit.

**13) Date and Time Schedule:**

Sl. No.	Particulars	Date & Time
1.	Date of uploading of N.I.T. & other Documents (online) (Publishing Date)	24/02/2022
2.	Documents download start date (Online)	24/02/2022 from 5:00P.M.
3.	Documents download end date (Online)	11/03/2022 upto 5:00 P.M.
5.	Bid submission start date (Online)	24/02/2022 from 5:00P.M.
6.	Bid submission closing date (Online)	11/03/2022 upto 5:00 P.M.
7.	Bid opening date for Technical Proposals (Online)	14/03/2022 at 11:00 A.M.
8.	Last Date of uploading list for Technically Qualified Bidder(online)	Will be intimated in due course
9.	Date for opening of Financial Proposal (Online).	Will be intimated in due course

**14) (a)** Earnest Money for the successful tenderer will be retained and converted as Initial Security deposit. The Balance security deposit @ 1% will be deducted from on-going bills to cover 3% of the total value of work done.

**(b)** The security deposit for the original work of the successful tenderer will be refunded after defect liability period is over as stipulated in relevant clause of the tender document.

**15)** The tenderers are bound by the terms & conditions of WBF 2911(ii) along with specification, notice for calling Tenders, Special terms & condition, Information to Bidders, Schedule of works etc, which forms a part and parcel of this contract.

**16)** Income Tax, GST and others Taxes as admissible will be deducted as per Govt. orders issued from time to time and would be applicable on the date of making payment of the bills. Building & other construction workers cess @ 1.0% will be deducted from progressive bills in pursuance with G.O. no. 599A/ 4M – 28 / 06 dated 27/09/2006. The rate quoted would remain same throughout the period of contract and should be inclusive of **all taxes** which are and will also be applicable during the entire tenure of the contract.

**17)** The Bidder, at his own responsibility and risk is encouraged to visit and examine the site of works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for the work as mentioned in the Notice Inviting Tender, before submitting offer with full satisfaction. The cost of visiting the site, shall be at his own expenses.

**18)** The intending Bidders shall clearly understand that whatever may be the outcome of the present invitation of Bids, no cost of Bidding shall be reimbursable by the Department. New Town Kolkata Development Authority reserves the right to accept or reject any offer without assigning any reason whatsoever and is not liable for any reimbursement of any cost that might have been incurred by any Tenderer at any stage of Bidding.

- 19) Prospective applicants are advised to note carefully the eligibility criteria before tendering the bids.
- 20) **Conditional / Incomplete tender will not be accepted under any circumstances.**
- 21) **The intending tenderers are required to quote the rate *online*.**
- 22) Contractor shall have to comply with the provisions of (a) the contract labour (Regulation Abolition) Act. 1970 (b) Apprentice Act. 1961 and (c) minimum wages Act. 1948 of the notification thereof or any other laws relating there to and the rules made and order issued there under from time to time.
- 23) During scrutiny, if it comes to the notice of the tender inviting authority that the credential or any other paper found incorrect / manufactured / fabricated, that bidder would not be allowed to participate in the tender and that application will be rejected without any prejudice.
- 24) Before issuance of WORK ORDER, the Tender Inviting Authority may verify the credential and other documents of the lowest tenderer in original, if found necessary. After verification if it is found that the documents submitted by the lowest tenderer is either manufactured or false in that case work order will not be issued in favour of the said Tenderer under any circumstances and his/their offer will be treated as cancelled.
- 25) If any discrepancy arises between two similar clauses on different notification, the clause superseding others will be solely as per the discretion of the Tender inviting authority.
- 26) The successful Tenderer whose tender is accepted shall make formal agreement in WBF 2911 (ii) along with bid documents in triplicate, within 7 (seven) days from the date of issue of work order by Executive Engineer – I, New Town Kolkata Development Authority on payment of usual charges which is non-refundable under any circumstances and submit the same duly signed by him/them to this office. If the contractor fails to perform the formalities within the specified period the Tender is liable to be cancelled and the Earnest Money will be forfeited as per relevant clauses under memorandum of WBF 2911(ii).
- 27) **Qualification criteria:**

The tender inviting and Accepting Authority will determine the eligibility of each bidder. The bidders shall have to meet all the minimum criteria as stipulated in relevant clauses of this NIEt.

The eligibility of a bidder will be ascertained on the basis of the document(s) submitted in support of the minimum criteria. If any document submitted by a bidder is either manufactured or false, in such cases the eligibility of the bidder / tenderer will be rejected at any stage without any prejudice to take any penal action against him/them as may be deemed fit by the Tender Accepting Authority.
- 28) **No. price preference and other concession will be allowed as per order no 8648 – F(T) dated 12.10.2012.**
- 29) Agencies are required to give a work programme preferably in the form of a bar-chart and to approve it by the EIC (Engineer-in-Charge) before commencement of work and if progress of work abruptly differs from the given work program, the undersigned may terminate the work order at any point of time.

- 30) In case of any inadvertent typographical mistake in the specific price schedule of rates, the same will be treated to be so corrected as to confirm with the prevailing relevant schedule of rates and/or technically sanctioned estimate.
- 31) Intending tenderer should note that he will have to work simultaneously with other contractors already entrusted with other work or with contractors to be entrusted with other work in future in the same site. The contractor will have to work in close co-operation and harmony with all the contractors engaged in the project. Any claim for idle labour, for any reason whatsoever, will not be entertained under any circumstances.
- 32) NKDA will not be held responsible for making payment against any anticipated profit and/or compensation for any losses or price escalation whatsoever for the works as stated in the annexure of this NeIT. Rates should be quoted accordingly.
- 33) The address as furnished by the contractor shall be deemed as the postal address of this office. Any notice or instruction to be given to the contractor under the terms of contract shall be deemed to have been served if it has been delivered to his authorized agent (on the strength of authorization) or representative or sent by registered letter to his official address as furnished.
- 34) Arbitration clause of WBF 2911(ii) stands deleted, Settlement of disputes & arbitration shall be according to the 'Memorandum' for the modifications of clause relating to settlement of disputes under conditions of contract vide no. 8182-F(Y) dated: Kolkata, the 26<sup>th</sup> September, 2012 of Secretary to the Govt. of West Bengal, Finance Department, Audit Branch.
- 35) Any Corrigendum, notification in connection to this NIEt will be published in the official website of New Town Kolkata Development Authority ([www.nkdamar.org](http://www.nkdamar.org)) as well as <https://wbtenders.gov.in> . The applicants are requested to please follow the websites for such notifications, corrigendum etc.

**Executive Engineer-I**  
**New Town Kolkata Development Authority**

**Memo. No. 1393/1(8)/ NKDA / Engg – 36 / 2010 (XII)**

**Date: 23/02/2022**

Copy forwarded for information to:-

1. Chief Executive Officer, NKDA.
2. Chief Engineer, NKDA.
3. Finance Office, NKDA.
4. Assistant Engineer – II, NKDA.
5. Estimator/ Sr. Accountant / Cashier, NKDA.
6. P.A to the Chairman, NKDA.
7. Office Notice Board. NKDA.
8. Official Website of NKDA ([www.nkdamar.org](http://www.nkdamar.org)) & Govt. of West Bengal  
[www.wbtenders.gov.in](http://www.wbtenders.gov.in)

**Executive Engineer-I,**  
**New Town Kolkata Development Authority**

## Technical Specification for Inverter Driven Variable Refrigerant System

### General

#### BASIS OF DESIGN & EQUIPMENT SELECTION

Ambient Conditions	: 105F DB & 83F WB (Summer),
Inside Design Conditions	: 75 Deg F (23C+- 2) with RH around 60% General
Illumination	: 1.0 Watt/Sq-ft
Floor above	: Non- AC and insulated
Floor below	: Non AC

Scope of this section comprises of Design, supply, erection, testing and commissioning of Inverter Scroll VRF type system.

#### **INVERTER SYSTEM- TECHNICAL SPECIFICATION**

- i. The Air cooled direct expansion type Inverter unit shall be factory assembled, powder coated GI sheet metal cabinets, all hardware of anti rust quality, conformal coating on PCB to protect from duct & humidity, hydrophilic blue fin material for better corrosion resistance, top discharge type with Brushless DC Motor only. Outdoor Units must be as per site requirement.
- ii. The ODU capacity must be delivering actual capacity at 42 deg C, Please note, the mentioned capacity is actual capacity. The Individual units COP minimum 3.4 at 100% Load at 42 Deg C & COP minimum 6.0 at 50% Load at 35 Deg C.
- iii. The system must compatible with R410A green Refrigerant only. System must be pre-charged at Factory. If required additional, based on the site, then it will be charged additional at site.
- iv. Condenser Heat exchanger made of copper tubes, are inner grooved for high heat transfer. The condenser fans are fitted with high efficiency BLDC motor that regulate air flow depending on demand resulting more power saving.
- v. The system must be designed to operate across a WIDE Voltage range from 320V to 460V resulting in high uptime even in such erratic power conditions.
- vi. Each Indoor units must be connected (with Outdoor unit) by means of individual Copper Refrigerant network or Y distribution joints only. Bidder must upload design - drawing, showing IDU ODU location, piping layout, Ducting layout, with actual sizes also to be shown as per site requirement. Bidder to visit the site for drawing/design preparation.

### Design Data

The work of air-conditioning and indoor units as specified in BOQ .The specified design parameters are only tentative in nature, however, all efforts shall be made to achieve the following specified design parameters and if at any design stage need for higher capacity outdoor capacity is required, necessary approval shall be accorded based on design analysis and discussions on the subject

### **INDOOR UNITS:**

Floor mounted Type Packaged Indoor Unit:

The Unit shall be Packaged type (Floor mounted). The unit shall include pre-filter, fan section and DX-coil section. The housing of the unit shall be powder coated/heat treated galvanized steel. The unit shall have high static fan for ductable arrangement and it should also have suitable arrangement for drain water.

**The bidder must submit the following Technical Data sheet during Technical Bid Submission:**

**Technical Data Sheet:**

Details of Technical Requirement	To be filled up by Bidder
Bidder	
Model	
Combination of Base Model	
Actual Cooling Capacity at 42 Deg C (KW)	
Total Power Consumption at 42 Deg centigrade (KW)	
type of Power Supply	
Overall Dimension (w x d x h in mm)	
net weight (kg)	
type of Refrigerant	
Pre charged refrigerant Qty (kg)	
Number of Accumulator	
Type of Expansion Valve	
Type of Compressor	
Make & model number of individual compressors	
Compressor quantity	
cooling capacity of each compressors (kw)	
Input Power of Compressor motor (kw)	
Type of Condenser coil	
Type of Condenser Fan	
Type of Condenser Fan- Motor	
Total Number of Fans for specified capacity ODY	
Power input of Condenser Fan - Motor (kw)	

**Indoor Unit Technical Data sheet**

Details of Technical Requirement	To be filled up by Bidder
Model	
Type of Indoor Unit	
Nominal Cooling Capacity (KW)	
Input Power (KW)	
Overall Dimension (w x d x h in mm)	
net weight (kg)	
sound pressure level (db)	
Air Flow (CFM) in high / med / Low	
External Static Pressure (Pa)	

**Refrigerant piping:**

- i. The Refrigerant pipe material shall be of hard seamless copper tubes with pipes material being hard drawn copper pipe. Forged copper fittings shall be used for the

- refrigerant piping. The refrigerant piping arrangements shall be in accordance with good engineering practice as applicable to the air-conditioning industry, and shall include charging connections, suction line insulation and all other items normally forming part of proper refrigerant circuits except y joint/separation tubes.
- ii. Before joining any copper pipe or fittings, its internals shall be thoroughly cleaned by passing a clean cloth via wire or cable through its entire length. The piping shall be continuously kept clean of dirt etc. while constructing the joints. Subsequently it shall be thoroughly blown out using nitrogen gas.
  - iii. After completion of installation of the refrigerant piping, the refrigerant piping system shall be pressure tested using nitrogen gas at a suitable pressure as specified by OEM (Original Equipment Manufacturer). Pressure shall be maintained in the system for 48 hours. The system shall then be evacuated to a vacuum of not less than 700 mm Hg and held for 24 hours.
  - iv. The supplier of air-conditioning system shall choose sizes as designed and erect proper interconnections of the complete refrigerant circuit the thickness of copper piping shall not be less than 18 SWG for pipes upto 19.1 mm and 16 SWG for larger dia.
  - v. The suction line pipe size and the liquid line pipe sizes shall be selected according to the manufacturer's specified diameter. All refrigerant pipes shall be properly supported and anchored to the building/structure using steel hangers, fastener, brackets and supports which shall be fixed to the building/structure by means of inserts or expansion shields or anchor fasteners of adequate size and number to support the load imposed thereon.
  - vi. The refrigerant piping should be laid in such a way that it should not distort the interior of the room, wherever the refrigerant pipe has to be laid across the room, it should be laid in a concealed manner by making appropriate boxing arrangement matching with the interior of the room. All associated minor Civil Engineering works (like chasing on wall, ceiling & replastering and repainting etc.) related with the above items are included in the scope of work. The above scope does not include false ceiling wherever required.
  - vii. Entire liquid and suction refrigerant pipe lines including all fittings, valves and strainer bodies etc. Shall be insulated with 19-mm/ 13 mm thick elastomeric Nitrile rubber as specified in BOQ.

#### **AIR SIDE WORK:**

- Velocity of air in any section of duct shall not exceed 9 M/Sec.
- The general layout of the ducting and location of air handling units, grilles, diffusers etc., shall conform to the arrangement shown in the drawings enclosed with the specification.
- Ducting shall be fabricated at site from galvanized steel or aluminum as specified.
- The construction of ducts shall conform to IS: 655 in so far as applicable. All duct seams shall be filled with bitumastic cold emulsion or equivalent vapor seal.
- All duct supports shall be provided at centers preferably not exceeding 2.5 Meter. The duct supports shall consist of structural steel angles and if required flats and jointed by bolting. Whenever duct support angles are to be fixed with reinforced concrete roof/floor slab, the anchoring screw shall be connected with duct support angles by means of intermediate angle plates with bolted connection, so as to facilitate early erection and dismantling.
- For protecting the insulation from damage, duct support saddles of proper length shall be used at each support point for the entire width of the interface between insulated duct bottom surface and the top of the angle iron support member. The saddle plate shall be made from galvanized steel or aluminum.
- Canvas or equal flexible connection shall be provided at each connection between duct work and AHU so as to isolate vibration.
- Damper blades shall be manufactured of minimum 20 BWG Sheet Steel.



- All diffusers and grilles shall be made up of extruded aluminum section finished in powder
- coating of approved color.
- Design of diffusers, grilles etc. shall be made by the contractor matching the lighting fitting and the décor of the office.

#### **Technical-Compliance (Technical Bid)**

S.No	Description	Confirmation Required	Remarks Allowed	Documents Uploading
1	Outdoor unit should have inverter driven scroll compressor. 'TRANE/Blue Star/O-GENERAL/Daikin/Mitsubishi-ONLY.			Allowed (Mandatory)
2	a) Minimum COP at 100%load at ambient temperature 40-45 degree centigrade should be greater than or equal to 3.2 b) Minimum COP at 50%load at ambient temperature 40-45 degree centigrade should be greater than or equal to 5.5			Allowed (Mandatory)
3	operating voltage range of Inverter Packaged unit should be 350 V to 450 V			Allowed (Mandatory)
4	Thickness of ducting sheet should be as per IS 655			Allowed (Mandatory)
5	Complete Design and Drawing of Centralized AC along with Duct and Piping works in PDF Format			Allowed (Mandatory)

#### **Approved List of Make**

<u>Air Condition Unit:</u>	(Make:-Daikin/Mitsubishi-Heavy/O-General/Blue Star/Trane/Carrier/Toshiba)
<u>Indoor Unit:</u>	(Make:-Zeco/Edgetech/Waves/Citizen/Daikin/Mitsubishi-Heavy/O-General/Blue Star/Trane/)
<u>Remote Controller:</u>	(Make: As per OEM Specification)
<u>Distribution Joints:</u>	(Make:-Daikin/Mitsubishi-Heavy/O-General/Blue Star/Trane/Carrier/Toshiba)
<u>R410 Refrigerant:</u>	(Make: Dewpoint, HoneyWell )
<u>Hard Drawn Refrigerant Copper Pipes:</u>	(Make: Rajko/ Mandev/)
<u>Ducting Sheets:</u>	(Make: Sail/Tata/Jindal)
<u>Thermal Insulation:</u>	(Make: K-Flex/ Armaflex/ A-Flex/ Armacell)
<u>Acoustic Insulation:</u>	(Make: UP Twiga/ Owens Corning)
<u>Grills/Diffusers</u>	(Make: System Air, Premier)
<u>Communication Cable:</u>	(Make: RR/ Unitech)