## DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA MINISTRY OF HEALTH

# SUPPLY AND INSTALLATION OF 100% FRESH AIR PACKAGE TYPE AIR CONDITIONING UNITS AT TEACHING HOSPITAL – PERADENIYA

#### CONTRACT NO. THP/AD/11/2025

## **BIDDING DOCUMENT**

### Volume I

Section 01 – Instructions to Bidders

Section 02 – Standard Forms (Contract)

Section 03 – Conditions of Contract

#### Volume II – (For the use as "Original" document)

Invitation for Bid

Section 04 – Form of Bid and Qualification Information

Section 05 – Bidding Data and Contract Data

Section 06 – Specifications

Section 07 – Bill of Quantities

Section 09 – Standard Forms (Bid)

#### Volume III – (For the use as "Copy" of document)

Invitation for Bid

Section 04 – Form of Bid and Qualification Information

Section 07 – Bill of Quantities

#### **ENGINEER**

CENTRAL ENGINEERING CONSULTANCY BUREAU

NO.415,

BAUDDHALOKA MAWATHA,

COLOMBO 07.

#### **EMPLOYEE**

DIRECTOR,

 $TEACHING\ HOSPITAL,$ 

PERADENIYA

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## **INVITATION FOR BIDS**

#### **INVITATION FOR BIDS (IFB)**

MINISTRY OF HEALTH

## SUPPLY AND INSTALLATION OF 100% FRESH AIR PACKAGE TYPE AIR CONDITIONING UNITS

#### TEACHING HOSPITAL, PERADENIYA

CONTRACT NO. .....

1. The Director, Teaching Hospital, Peradeniya, on behalf of the Ministry of Health, "Suwasiripaya", 385, Rev Baddegama Wimalawansa Thero Mawatha, Colombo 10, invites sealed bids from eligible and qualified bidders for the "Supply And Installation Of 100% Fresh Air Package Type Air Conditioning Units At Teaching Hospital – Peradeniya", Contract No: THP/AD/11/2025 as described in document and estimated to basic cost of Rs. 36 Million (Excluding Contingencies and VAT). Construction period is 91 Days.

The Site is Located at the premises of Teaching Hospital, Peradeniya. Under this contract, Supply and Installation of 3 Nos of 100% Fresh Air Package Type Air Conditioning Units with necessary ancillary works should be done. For more information, please refer Specifications and Bill of Quantities. Bidders are advised to visit the site prior to price the bid. Work should be carried out without disturbing the day to day activities of the hospital.

- 2. Bidding will be conducted through **National Competitive Bidding Procedure**.
- 3. To be eligible for contract award, the successful bidder shall not have been blacklisted and shall meet the following eligibility criteria.
  - Grade EM 02 or above
  - Specialty Mechanical Ventilation and Air Conditioning (MVAC)
- 4. Qualification requirements to qualify for contract award include be eligible for contract award.
  - Average annual volume of construction work performed in the last five years shall be at least Rs. 53M.
  - Experience in the construction of at least one contract of a similar nature and to a value of not less than **Rs.15 Million** to the Works over 10 years. **Attach as an annex.**
  - The minimum amount of liquid assets and/or credit facilities as exclusive of any advance payments which may be not less than **Rs. 36M**. Credit facility should be addressed to Director, Teaching Hospital, Peradeniya and should be exclusive of this particular project.
  - Minimum persons with qualifications and experience.
  - As the estimate cost for the procurement exceeds the Rs.5 million the bidder shall register at the registrar of Public Contract Sri Lanka at the time of submission of bids (PCA 3) and forward the certificate.

#### **Managerial / Technical**

- 1. Engineer Assistant (Mechanical) (Full time) NDT, NDES, HNDE (Mechanical) Engineering or equivalent qualification with minimum 5 years Experience.
- 5. Interested bidders may obtain further information from Director, Teaching Hospital, Peradeniya Tel. No. 081-2388001 and can inspect the Bidding Document at the address given below from **09.00 hrs to 15.00 hrs**
- 6. A complete set of Bidding Documents in English language may be purchased by interested bidders on the

submission of a written application to the **Director**, **Teaching Hospital**, **Peradeniya**, from **2025.05.23** until **2025.06.12** from **09.00** hrs to **15.00** hrs. Upon payment of a non-refundable fee of **Rs. 4,000.00** to the **Shroff**, **Teaching Hospital**, **Peradeniya**. The method of payment will be cash only.

- 7. Bids shall be delivered to the address below, on or before **2025.06.13** at **14.00** hrs late bids will be rejected. Bids will be opened soon after closing in the presence of the Bidders or Bidder's representatives who choose to attend.
- 8. Bid shall be valid up to 91 days from Bid closing date **2025.06.13 (date)** or any extended period requested by client.

9.	All bids shall be accompanied by a "Bid security" of Rupees Five Hundred and Twenty Thousand
	Only (Rs. 520,000.00). Bid Security shall be valid up to 119 days from Bid closing date
	to(date)

The address referred to above is, **Director**, **Teaching Hospital**, **Peradeniya**. **Tel. No. 081-2388001** 

## **Section - 4**

## FORM OF BID AND QUALIFICATION INFORMATION

## FORM OF BID

### SUPPLY AND INSTALLATION OF 100% FRESH AIR PACKAGE TYPE AIR **CONDITIONING UNITS** TEACHING HOSPITAL, PERADENIYA

	CONTRACT NO
То:	Director, Teaching Hospital, Peradeniya.
	Gentleman,
1.	Having examined the Standard Bidding Document - Procurement of Works (CIDA/SBD/01-Second edition, January 2007) ,Schedule for Conditions of Contract, Specifications, Drawings and Bill of Quantities and Addenda for the execution of the above-named Works, we the undersigned, offer to execute and complete such Works and remedy any defect therein in conformity with the aforesaid Conditions of Contract, Specifications, Drawings, Bill of Quantities and Addenda for the sum of Sri Lankan Rupees
	Lankan Rupees
2.	We acknowledge that the Contract Data forms part of our Bid.
3.	We undertake, if our Bid is accepted, to commence the Works as stipulated in the Contract Data, and to complete the whole of the Works comprised in the Contract within the time stated in the Contract Data.
4.	We agree to abide by this Bid for the period of 91 days from the date fixed for receiving or any extended period and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
5.	Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
6.	We understand that you are not bound to accept the lowest of any Bid you may receive.
	Dated this
	(IN BLOCK CAPITAL)
Signa Ac	ldress :

Witness

**QUALIFICATION INFORMATION**(To be completed and submitted by the Bidder with the Bid)

ICTAD Registration	
Registration number	(Attach copies of relevant pages from the registration book) (if available)
Grade	EM 2 or Above
Specialty	Mechanical Ventilation and Air Conditioning (MVAC)
Expiry Date	
<b>Blacklisted Contractors</b>	
Have you been declared as a defaulted contractor by NPA or	
any other agency? (Yes/No)	
If yes provide details	
VAT Registration Number	
Legal status	(Attach relevant status copies, as annex)
Value of Construction works Performed in last 10 years	(Attach certified copies of certificate of completion, etc. and other documents such as profit-loss and income expenditure statement)
Year 2023	
Year 2022	
Year 2021	
Year 2020	
Year 2019	
Year 20	

Value of similar works completed in last 10 years (indicate only the three largest projects)	2. Value Rs 3. Value Rs	copies of L	Year
Credit Facility			
Qualification and experience of Key staff - Site & Head Office (Permanent, Contract Basis & Consultants)	Category, Experience and Qualifications	Required Nos.	Proposed by bidder (Name, experience and Qualifications)
	1. Engineer Assistant (Mechanical) (Full time) – NDT, NDES, HNDE (Mechanical) Engineering or equivalent qualification with minimum 5 years Experience.	01	(Attach certified copies of key staff attached to the project)

## SECTION - 07

## **BILL OF QUANTITIES**

#### PREAMBLE TO THE BILL OF QUANTITIES

- 1. The Conditions of Contract, the Specifications are to be read in conjunction with the Bill of Quantities.
- 2. The cost of complying with all conditions, obligations and liabilities described in the Conditions of Contract and the Specifications and the Bill of Quantities **including all overhead charges (excluding VAT), profit and Preliminaries** and carrying out the work as described shall be deemed to be spread over and included in the prices or sums stated by the Bidder in the Bill of Quantities. VAT should be separately added.
- 3. If the Bidder failed to price any Items in the Bill of Quantities then the cost of the work under such Item shall be held to be spread over and included in the prices given against other Items of work.
- 4. When trade names, brand and/or catalogue numbers are referred to, sole preference to any material or equipment is not intended. Any other material or equipment may be used, provided that the characteristics of type, quality, appearance, finish, method of construction and/or performance is equal to or superior to specify.
- 5. Whenever the method of measurement is not clear from documents available, the principles as given in the Sri Lanka Standard 573, 1999, Method of Measurement of Building Work shall be applicable.
- 6. All items of work shall comply exactly with the Contract unless otherwise approved by the Engineer and the rates and sums inserted in the Bill of Quantities shall be deemed to apply to the work as specified. If, for his convenience or reasons of availability, the Contractor proposes and the Engineer approves the use or provision of alternative items, materials or method of working, or equivalent or superior quality to those specified in the Contract, the rates and sums inserted in the Bill of Quantities shall not in any case be increased as a result.
- 7. The quantities set out in the Bill of Quantities are provisional and cover the approximate scope of the work which is anticipated to be performed by the Contractor. The actual quantities used for final measurement purposes will be determined by the Engineer by measurement of the work completed by the Contractor.
- 8. Where, for his own purposes or due to his own default, the Contractor carries out the Works in such a manner that the quantity of any Item of work in particular component to be measured for payment purposes differs from that directed by the Engineer, then payment shall be made according to the lesser of the actual quantity and that directed. An excess quantity in one part of the component shall not, however, be allowed to offset a deficit elsewhere in the same component for measurement purposes.
- 9. Where the determination for payment purposes of the quantity of any Item of work depends upon the measurement of existing features or ground levels and the like, then prior to carrying out any operations which might affect such measurement, the Contractor shall first take such levels and measurements as the Engineer may direct and, after the Engineer has had the opportunity to check the same, they shall be certified as agreed by both the Engineer and the Contractor.
- 10. In the event that the Contractor fails to observe the above procedure, the Engineer shall determine the quantity to be assumed for payment purposes using the best information available to him, and his decision in the matter shall be final.

- 11. Selected Bidder shall comply with the arrangement of work in the buildings and be ready to work part by part as required by the Authorities of Teaching Hospital, Peradeniya.
- 12. Rates in Bill of Quantities shall include all necessary material for supply, installation and testing & commissioning of Air Conditioning units etc.
- 13. Except where specifically stated, all costs associated with provision of all holes, openings, chases and ducts in other builders' work required for installation and make them good, shall be included in the rates.
- 14. All HVAC units and accessories should comply with ASHRAE Handbook, Manufacturer's guarantee should be produced.
- 15. The Bills of Quantities should therefore, be priced to reflect all factors that would affect the bid and the progress of the works.
- 16. All electrical accessories should comply with relevant BS/IEC standards. For electrical accessories, manufacturer's guarantee should be produced if necessary.
- 17. The wiring installation shall comply with the requirements of IEE Wiring Regulations, latest edition.
- 18. Bidder should pay special attention to the work to be carried out, causing minimum disturbance or hindrance to the normal functions and activities of the users of the Teaching Hospital, Peradeniya.
- 19. Screens should be provided to prevent dust escaping from working areas.
- 20. Metric units are used throughout the Bill of Quantities for measurement purposes unless otherwise indicated. Abbreviations used in the Contract are as follows:-

 $\begin{array}{ccccc} mm & - & Millimeter \\ m & - & Linear meter \\ kg & - & Kilogram \\ m^2 & - & Square meter \end{array}$ 

m<sup>3</sup> - Cubic meter

nr - Number

Rs. - Sri Lankan Rupees

Cts. - Cents

P. S. - Provisional sum

L. S. - Lump Sum

## SUPPLY & INSTALLATION, TESTING & COMMISIONING OF 100% FRESH AIR PACKAGE TYPE AIR CONDITIONING UNITS, TEACHING HOSPITAL PERADENIYA

### **BILL OF QUANTITY**

ITEM	DESCRIPTION	QTY	UNIT	RATE Rs. Cts.	AMOUNT Rs. Cts.
Note	The manufacturer of the equipment shall have at least ten (10) years experience in the design and manufacture of same type of equipments				
Note	The make of equipments offered shall have satisfactory proven service record in Sri Lanka at least for last five (5) years				
Note	Rate shall for all cost of supply including CIF, CID, PAL, clearing charges, transport charges, erection, factory testing, site testing, commissioning as per specification and drawings and profits etc.				
Note	Rate shall for cost of providing security bonds, guaranties, insurance of personnel, property, material against accidents, damage, trespass or theft.				
Note	Rate shall for the cost of all temporary works such as scaffolding etc. associated civil and electrical works related to the installation of all mechanical systems such as drilling of suitable holes in walls, breaking of any parts of walls and finishing works of the same such as plastering, painting, etc. electrical power / control wiring, services connections, etc.				
1.0	Remove existing 3 no of water cooled indoor package units and hand over to hospital with inventory list	Lot	Item		
	Water Cooled, 100% Fresh Air, Package Type Air Conditioners (Only Indoor Unit) - ORIGIN IN USA, EU OR JAPAN				
	Supply and installation of Water cooled, Packaged, Top discharge Indoor unit (Only indoor unit) having minimum cooling capacity <b>30Ton, 3000 cfm, 100%</b> fresh air type, in built filters [ pre, bag ] necessary pipe and duct connections including non return dampers and dehumidifiers etc. Heating coil capacity 20 kW, Minimum ESP - 250 Pa.(Inbuilt booster fan with VFD)				
2.0	(a) Supply Cost	3	nr		
3.0	(b) Installation Cost	3	nr		
4.0	Connecting the existing condensing water piping	Lot	Item		
	system to the new plants. (Modified the existing pipes)				

ITEM	DESCRIPTION		UNIT	RATE Rs. Cts.	AMOUNT Rs. Cts.
5.0	Connecting the existing ducting system (Modified the existing ducts)	Lot	Item		
6.0	Miscellaneous work		P/s		1,000,000.00
7.0	Testing and Commissioning		Item		
	Total cost of Air Conditioning System Carried to m				

## SUPPLY & INSTALLATION, TESTING & COMMISIONING OF 100% FRESH AIR PACKAGE TYPE AIR CONDITIONING UNITS, TEACHING HOSPITAL PERADENIYA

#### **BILL OF QUANTITIES**

#### **MAIN SUMMARY**

Bill No	DESCRIPTION	AMOUNT
DIII NO	DESCRIPTION	Rs Cts
Α	Supply and Installation of S100% Fresh Air Package Type Air Conditioning Units	
(a)	Sub Total 1	
(b)	Less: Provisional Sum	1,000,000.00
(c)	Sub Total II (a-b)	
(d)	Less: Discount if any ( %)	
(e)	Sub Total III (c-d)	
(f)	Add : Provisional Sum (b)	1,000,000.00
	TOTAL BID SUM WITHOUT VAT	•

Cotal Bid Sum to be taken in to Form of Bid ( Page No. 03) in words Rupees:			
	only.		
Amount of V.A.T.(Prevailing VAT) for the To	otal Bid Sum :- Rs.		
Bidder's VAT Registration No:			
Signature of Bidder			
Name and Address of Bidder:	Date		
Signature of Witness (1)	Signature of Witness (2)		
Name and Address of Witness (1)	Name and Address of Witness (2)		
Date	Date		

## TECHNICAL SCHEDULE

## SUPPLY & INSTALLATION, TESTING & COMMISIONING OF 100% FRESH AIR PACKAGE TYPE AIR CONDITIONING UNITS, TEACHING HOSPITAL PERADENIYA TECHNICAL SCHEDULE

Tana Na	Items	Particu	Remarks	
Item No	items	As specified	As offered	
1.0	100% Fresh air Pacakge Type			
	Air Condition			
1.1	General			
	Manufacturer's Name			
	Country of Origin	USA / EU / JAPAN		
	Model /Year			
	Туре			
	Refrigerant used			
	Refrigerant charge			
	Minimum Cooling Capacity (TR) at average local design conditions			
	Coefficient of Performance / (COP -kW Refrigeration / kW Electrical Power ):			
	Electrical Ratings			
	Rated Power Input / (kW)			
	Unit - Minimum Circuit Amp.			
	Capacity Control Steps			
	Condenser Evaporator Fouling Factor			
	Noise Level			
	Basic Dimensions			
	Overall Weight / (kg)			
	Vibration Absorbing Mountings			
1.2	Compressor			
	Manufacturer's Name			
	Country of Manufacture			
	Model /Year			
	Туре	Rotary screw		
	No. of Compressors			
	Speed / (rpm)			
	Rated Power Input / (kW)			
	Suction Temperature / (°C)			
	Discharge Temperature / (°C)			
	Minimum operating capacity			
	(percentage of total) / (%)			
	Number of cylinders			
	Lubrication system			
	Compressor protections			
	Efficiency/(%)			
	• • •			

## Specification Sheet for 100% Fresh Air, Water-Cooled, Vertical Top Discharge Package Unit.

No.	Item	Required Specification	Offered Specification
1	Type of Unit	100% Fresh Air, Water-Cooled, Vertical Top Discharge Package	
		Unit.	
	General		
2	Manufacturer's Name	To be specified by the bidder	
3	Country of Origin	Should be USA / EU / JAPAN	
4	Model / Year	Should be specified by the bidder, not older than 1 year	
5	Refrigerant Used	R-134a / R-410A or eco-friendly equivalent	
6	Refrigerant Charge	To be specified	
7	Minimum Cooling Capacity	Minimum 30 TR at local design conditions (35°C ambient).	
8	Airflow & ESP	3000 CFM with 250 Pa External Static Pressure (inbuilt VFD booster fan).	
9	Coefficient of Performance (COP)	Minimum 3.0 or above	
10	Sensible Heat Ratio (SHR):	≥ 0.90	
11	Electrical Ratings	400V / 3Ph / 50Hz	
12	Rated Power Input	≤ 36kW, To be specified (kW)	
13	Minimum Circuit Amp.	To be specified	
14	Capacity Control Steps	Should be VFD	
15	Fouling Factor (Cond/Evap)	To be specified	
16	Noise Level	≤ 45NR in occupied areas.	
17	Basic Dimensions	To be specified	
18	Overall Weight	To be specified (kg)	
19	Mountings & Vibration	Floor Standing (Should be compatible for existing arrangement)	
19	Preventions	& Required (rubber or spring type)	
20	Compressor	The second secon	
20	Make & Model of the compressor	To be specified	
21	Country of Manufacture	To be specified	
22	Compressor Type	Semi-Hermetic - Rotary screw Suitable for continuous-duty operation with low noise and vibration	
23	No. of Compressors	Minimum 2 for redundancy	
24	Compressor Speed	To be specified (rpm)	
25	Compressor Rated Power	To be specified (kW)	
26	Suction Temperature	To be specified (°C)	
27	Discharge Temperature	To be specified (°C)	
28	Minimum Operating Capacity	≤ 25% of total capacity	
20	Compressor Lubrication System	Oil-injected with auto oil return	
29	Compressor Protections	High/Low Pressure, Overcurrent, Overheat, Phase failure	
30	Efficiency	≥ 85%	
30	Filters	20370	
31	Pre-filter	Washable G4 or equivalent	
32	Coil Tube Material:	Copper (seamless)	
32	Con Tuoc Material.	Coils shall be suitable for continuous use in high-humidity and medical-grade environments.	
33	Fin Material:	Aluminum fins with anti-corrosive hydrophilic or epoxy coating (Blue Fin / Gold Fin preferred)	
34	HEPA Filter	≥ H13 efficiency	
35	Extra Set of Filters	One full extra set (Pre-filter + HEPA) must be supplied	
36	Others	, , , , , , , , , , , , , , , , , , , ,	
37	Control Display & Settings	Microprocessor-based with temperature, alarms display	
38	Remote Monitoring	Preferred (optional)	
39	Body Construction:	Cabinet shall be fabricated from minimum 1.0 mm thick galvanized steel sheet (G90) with epoxy-polyester powder coating, rated for at least 1000-hour salt spray resistance. All panels shall be insulated with minimum 40 mm thick CFC-free PUF or equivalent.  Drain pans and wet sections shall be constructed from SS304.  Base frame shall be hot-dip galvanized steel or SS304 to ensure rigidity and corrosion resistance.	
		The unit shall comply with AHRI, ASHRAE, and EN standards for healthcare-grade air handling systems.	
	Scope of Work		
40	Removal of Existing Units	Remove 3 existing water-cooled indoor units carefully and hand over to the hospital.	
41	Installation	Connect to existing condensing water piping (modified as	
		1	l

		needed).	
		Modify existing ductwork to integrate with new units.	
		Install vibration isolators, electrical wiring, and control panels.	
42	Testing & Commissioning	Factory and site testing of units and performance report	
		(pressure, leakage, airflow, and noise).	
		7-day trial operation with Engineer approval.	
	Warranty & Support		
43	Warranty Period	3 years comprehensive (parts + labour)	
44	Maintenance Contract	2-year maintenance contract post-warranty (priced separately).	
	Compliance & Safety		
45	Fire Safety	Materials compliant with NFPA 90A/204.5 for fire retardancy.	
46	Electrical Safety	All accessories comply with BS/IEC/IEEE standards; guarantee certificates required.	
47	Site Safety	100% responsibility of the contractor	
48	Site Visit	Required before installation	
49	Manuals	Operation & maintenance manuals (soft and hard copies)	
50	Spare Parts List	Minimum recommended spares with part numbers	
51	As-built Drawings	To be provided after installation	
52	Experience	Bidder Should have Minimum 5 years of experience with the	
		offered brand in hospitals or similar environments	
		Manufacturer must have 10+ years in designing/manufacturing	
		similar units.	
53	Reference Projects	At least 10 references with contact details	

## SERVICE AND MAINTENANCE AFTER FREE MAINTENANCE PERIOD FOR PACKAGE TYPE AIR CONDITIONING SYSTEM INSTALLATIONS

Annual fee for providing comprehensive maintenance service.

Total per annum

The work shall include the sending of Contractor's personnel **once every two months during normal working hours of a normal working day** to inspect, clean, oil, grease and replacement of spares where necessary, adjust the machinery and equipment and attending to emergency call back service immediately the owner notifies the contractor.

The amount quoted for servicing and maintenance shall include the cost of supply of all replacement spares, necessary oil, grease and cleaning materials. These prices will be considered for bid evaluation to arrive at a final evaluated bid price discounting to present value at the rate of 10% per annum.

(After free maintenance period)		
3 <sup>rd</sup> year 4 <sup>th</sup> year	Rs	
The bidder shall supply a sample of his proposed service and maintenance contract document.		
(Signature)		(Signature)
(Name)		(Name)