24th December, 2025

MINUTES OF PRE-BID MEETING FOR REPLACEMENT OF THREE (3) EXISTING 22 TR BLUEBOX AIR-COOLED CHILLERS WITH THREE (3) NEW 36 TR AIR-COOLED CHILLERS FOR HPC DATA CENTRE DUTY AT IUCAA PUNE - GEM BID NO.: GEM/2025/B/7015943

The Pre-bid meeting for the Tender for the **Replacement of three (3) existing 22 TR BlueBox air-cooled chillers with three (3) new 36 TR Air-Cooled chillers for HPC Data Centre duty at IUCAA, Pune - GeM Bid No.: GEM/2025/B/7015943** was held on 23rd December, 2025, at 1500 hrs. in Seminar Room A1.

The queries and their reply are attached at **Annexure–1.**

The representatives presented were satisfied with the replies given, and it was informed that the corrections/ additions/ clarifications given, as discussed during the pre-bid meeting, would be hosted on the GeM portal, and all the prospective bidders are required to take cognizance of the proceedings of the pre-bid meeting before submitting their bids as stipulated in the bidding documents.

The other terms & conditions of the notice issued on IUCAA website, and GeM portal will remain unchanged. No more correspondence in this regard will be entertained.

Annexure-1

Tender Condition	Query	Response to Query by IUCAA
	The tender specifies **36 TR Air-Cooled Scroll or Screw Chillers**. Please confirm which compressor type is to be considered. Scroll compressors do not support stepless capacity control or quick-start features, which are available only with screw chillers.	The intent of the RFP is to remain technology-agnostic while ensuring stable, efficient, and reliable operation under data-centre load conditions. Both scroll and screw compressor–based chillers are acceptable, provided the offered system meets the performance, part-load efficiency, restart, and control requirements specified in the RFP. Scroll chillers using multiple compressors with staged or digital modulation are acceptable. Screw chillers with variable capacity control are also acceptable. No preference is given to a specific compressor technology. No change in RFP clause.
	The specifications mention **A1 or A2L class refrigerants** such as R410A, R32, and R454B. Scroll chillers are generally available only with R410A. If a **Screw Chiller** is proposed, will **R134a** refrigerant be acceptable?	The RFP permits A1 and A2L class refrigerants to allow flexibility and future readiness. Refrigerants such as R410A, R32, R454B, or equivalent low-GWP alternatives are acceptable. No change in RFP clause.
	The specification calls for a **Plate Heat Exchanger (PHE)** type evaporator. Please clarify whether a **Direct Expansion (DX) shell-and-tube** type heat exchanger can be offered instead.	The intent of specifying a PHE evaporator is to ensure compact design, lower refrigerant charge, and improved efficiency. No change in RFP clause.
	Kindly clarify the requirements and scope of **"unified sequencing"** mentioned under the controls section.	Unified sequencing refers to a single master control logic responsible for staging and de-staging of chillers, coordination of pumps, lead–lag rotation, fault handling, and optimized part-load operation. The sequencing system shall be OEM-neutral and capable of operating mixed-OEM chillers. No change in RFP clause.
	Please confirm whether a **Chiller Plant Manager (CPM)** is	A proprietary OEM-specific Chiller Plant Manager is not mandatory. However, the bidder shall provide an

	required as part of the project scope.	equivalent master sequencing and control solution that fulfills all functional requirements specified in the RFP, including BMS integration. No change in RFP clause.
	Kindly advise whether there will be **load variation during operation**. If yes, please specify the **minimum and maximum percentage load** conditions.	Yes, load variation is expected. The system shall operate stably from approximately 20–30% minimum load up to 100% of installed capacity. The chiller system shall be capable of stable operation across this load range without short-cycling. No change in RFP clause.
	Please confirm whether the **pumps** are to be supplied as an **integrated/inbuilt part of the chiller package** or as **separate units**.	Chilled water pumps shall be supplied as separate units and not as an integrated part of the chiller package. Pump selection, VFD control, and sequencing integration shall be in the bidder's scope No change in RFP clause.
	Is it possible to obtain an **exemption or relaxation** for the **70 dB(A) noise level requirement at 10 meters distance**?	The specified noise limit of 58 dB(A) at 10 meters is based on site conditions. No change in RFP clause.
• Capacity: The chiller shall be rated for a nominal cooling capacity of 36 TR (±10%) at chilled water temperature of 20°C supply / 15°C return (ΔT = 5°C) in accordance with AHRI 550/590 or equivalent international standard (minimum certified performance). If the OEM's standard published ratings are based on different chilled-water temperatures or ΔT, the bidder shall submit certified performance correction curves and shall guarantee the delivered capacity at 20/15°C conditions without derating.	1. We are reading Nominal capacity 36TR as actual capacity. 2. 36 TR should be actual capacity at required duty conditions. 20/15 Chilled Water temp. and ambient of 42 Deg C (Pune N-20 Data for Data Center Application) Kindly change this clause to levarage rated capacity of chiller at ambient temprature 3. 10% would mean that one can deliver capacity of 32.4 TR which may not cater to the load of Data center, hence the variation has to be reduced to (±2%). 4. In Accordance does not mean AHRI/ EUROVENT certification, No AHRI/ EUROVENT certification asked for. This means specs are being diluted for performance, please make AHRI certificate as mandatory document	All Bidder should read **"The chiller shall be rated for a nominal cooling capacity of 36 TR (+10%)"** 36 TR shall be considered as rated cooling capacity at the specified design duty conditions of 20°C chilled water supply and 15°C return. Bidders shall submit certified performance data confirming delivery of minimum 36 TR at the duty point.

Condenser: Air-cooled, microchannel or Cu–Al fins, EC fans mandatory.	• Comments: Microchannel is not repairable like copper aluminum coils and can only be replaced leading to high cost of maintenance and longer downtime, Kindly mandate the CU-Al fins wich is better than the Microchannel.	Both microchannel and Cu–Al fin-tube condenser coils are acceptable. The offered condenser shall meet the specified performance, corrosion protection, and warranty requirements including spares and consumable. No preference is given to a specific technology. No change in RFP.
• Performance Metrics: The offered chiller shall meet the following minimum performance requirements at AHRI rating conditions: • Full-load COP ≥ 3.2 at design conditions • IPLV ≥ 4.5 as per AHRI 550/590 • NPLV ≥ 5.5 as per AHRI 550/590 OEM shall submit certified performance data from AHRI / Eurovent / manufacturer test reports.	1. We are proposing COP of 3.17 against 3.2, however our IPLV is 5.4 and NPLV is 6.1 which is much higher than what is asked. Even BEE star labeling asks for higher ESEER than COP on 100%. 2. Gives option for OEM to give non-Certified Chiller we would recommand to consider AHRI/EUROVENT certificate, wgich are 3rd party international bodoies wich gurranties performance of the chiller 3. In case, you planned to accept a non-certified chiller, it is recommended that the same should be tested for its performance in a NABL accredited manufacturing facility.	The specified COP establishes a baseline efficiency requirement. Offers marginally below the specified COP may be evaluated subject to compliance with IPLV/NPLV requirements and submission of certified performance data. No change in RFP.
Dimensions: The maximum allowable dimensions of the chiller unit shall not be more than: 3250 x 1120 x 2400 (mm) (L x W x H). The chiller shall fit within the existing available	Subject to actual capacity at duty conditions	Specified dimensions are indicative for space planning. Minor deviations are acceptable provided the equipment fits within available space and maintains installation and service clearances. No change in RFP.
• Anticorrosive coating on Condenser coil: Condenser coil shall be provided with factory-applied anticorrosive coating suitable for coastal/industrial environments, equivalent in performance to Ultracorr ACX 4000. The coating shall be OEM-certified, shall not reduce thermal performance,	Warranty can be offered of for compete product. Cannot be extended for specific components. This is generally pushed by one specific vendor giving Microchannel coil	Both microchannel and Cu–Al fin-tube condenser coils are acceptable. The offered condenser shall meet the specified performance, corrosion protection, and warranty requirements. No preference is given to a specific technology.

and shall carry a minimum 5-year corrosion warranty.		
Total duration: 6 weeks • Week 1: Approvals, engineering • Week 2–4: Supply of chillers & pumps • Week 5–6: Installation, Testing & commissioning	Total duration: 6 weeks • Week 1: Approvals, engineering • Week 2–4: Supply of chillers & pumps • Week 5–6: Installation, Testing & commissioning	No change in RFP.

NOTE:

For complete technical specifications, bidders are requested to refer to "REQUEST FOR PROPOSAL (RFP)" under "Buyer added Bid Specific Additional Scope of Work" on Page 7 of the GeM tender document.

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