

Minutes

30th September,2019.

PRE-BID MEETING FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF AIR-COOLED CHILLERS & ALLIED WORKS AT AUDITORIUM

The Pre-bid meeting for Supply, Installation, Testing and Commissioning of Air-Cooled Chillers & Allied Works at Auditorium was held on 20th September, 2019 at 1100 hrs in Bhaskara 1. The following members were present:

1. Mr. Nitin Ohol
2. Mr. B. V. Sawant
3. Mr. G. B. Gaikwad
4. Mr. Anand Deshpande- Consultant

The queries with responses are enclosed in Annexure – 1. There were total 8 number of representatives from various companies, the list of which is enclosed in Annexure – 2.

B. V. Sawant

Nitin Ohol

G. B. Gaikwad

Anand Deshpande

Annexure – 1

Following are the points discussed in pre-bid meeting on 20.09.2019 at 1100 hrs.

Sr. No.	Name of the Agency	Query	Clarification given by IUCAA
1	M/s. Swegon Blue Box Pvt. Ltd.- Mr.Sourabh Shetty (+91 9975023554) Email id :- sourabh.shetty@swegon.in	we M/s. Bluebox is also a European manufacturer having presence in India with Eurovent certified product. We request you to pl approve our brand in the approved make list.	Make can be accepted subject to compliance of technical specifications.
		we have also supplied chiller for IUCAA & are in operational	Noted,
		Pl advice on the exact compressor requirement whether inverter/ fixed speed. Or else pl specify any compressor offered by manufacturer shall be acceptable	Compressor in line with Tender technical Specifications & BOQ can be accepted.
		Incase of inverter chiller there are 2 options with all compressor as inverter & hybrid of 1 inverter & other fixed speed. Pl advice which is required to be quoted	Refer & follow Technical specifications & BOQ.
		The chiller will be with brazed plate heat exchanger only. Water quality needs to be provided & maintained by client for proper functioning of chiller.	Water quality requirement needs to be mentioned by the Vendor.
		If the sequencing of the chiller & pump needs to be done CPM will be required. CPM has to be installed separately at site based on requirement & accessories considered with compete details like sensor type, accuracy of sensor, sensing probe etc for quoting same	Considering the Project requirements CPM is not required. Only provision for the third party BMS connectivity should be provided.
		I/O point summary required for CPM selection & the features to be considered as without same CPM cannot be quoted	
		The structure of the unit is made of galvanized sheet-iron coated with polyester powder RAL 7035/5017 at 180°C, which makes it highly resistant to weather conditions. The structure is a load-bearing frame, with removable panelling lined with sound absorbing expanded polyurethane matting.	Please follow Tender technical & BOQ specifications.

		All screws and bolts are stainless steel.	
		The machine construction will be as per manufacturer standards as every manufacturer will have difference colour standard & gauge of manufacturing with material use.	Please follow Tender technical & BOQ specifications.
		The exchanger is a brazed plate type based on the manufacturer standard. Victaulic coupling is not provided with the heat exchanger as it cannot be provided.	Ok, Provide with standard accessories and as per Tender technical & BOQ specifications.
		Pl advice on the type of compressor to be used refrigerant will be with R410a refrigerant	Follow Technical & BOQ Specifications
		The air-cooled condenser shall be copper tube & aluminium fins.	Follow Technical & BOQ Specifications
		There cannot be separate circuit for sub-cooling. There is sub-cooling but not through separate circuit.	Follow Technical & BOQ Specifications
		we will be providing anti-rust coating for condenser coil as per manufacturer standard. As the specification mentions provide protection in mildly corrosive coastal and industrial environments pl advice if we need to consider anti-corrosive coating as the installation is in city limit & fresh environment	Follow Technical & BOQ Specifications
		we suggest to consider stepless speed variation instead of dual speed. Dual speed will have only 2 step speed whereas the stepless speed variation will not only maintain the condensing temperature but also save power	Follow Technical & BOQ Specifications
		The condenser fans will be single phase (1phase) & with IP 54 protection as per fan manufacturer. The safety features & bearing lubrication will be based on fan manufacturer	Follow Technical & BOQ Specifications

		The infinite capacity control is possible thru inverter scroll compressor only. Pl advice if we need to consider inverter compressor or scroll compressor. Also, the slide valve mechanism is not in possible in scroll compressor	Follow Technical & BOQ Specifications
		Hot gas mufflers cannot provide in the chiller. Also, the valves & components will be as per manufacturer specifications & standards as the manufacturer has the components based on his system design	Follow Technical & BOQ Specifications
		Electronic expansion valve (EEV) will be used with chiller. EEV cannot perform as solenoid valve. Pl advice if we need to provide solenoid valve with chiller	Follow Technical & BOQ Specifications
		IF the suction valve mentioned is for compressor then the insulation will be as per manufacturer standard & the piping cannot be provided with aluminium cladding as it is compact & will not be having space.	Follow Technical & BOQ Specifications
		The machine construction & control will be as per manufacturer standard. The display will be LCD type & not touch screen request for your approval as it will vary based on manufacturer to manufacturer. We request you to pl accept the same.	Follow Technical & BOQ Specifications
		The chiller will be with microprocessor controller with control panel & modes of operation. The modes will be based on manufacturer operational logic & will vary from manufacturer to manufacturer	Ok but should be in line with tender technical specification & BOQ.
		The machine will be factory end of line factory with running of the chiller at prevailing ambient demonstrating the alarms & safety in system. If the capacity & power consumption then performance test has to be done which will be having very high cost as it needs to be done in certified laboratory need to check its availability in	Refer Testing & commissioning parameters to be followed as per Tender specifications.

		India. The test will be carried out as per manufacturer standards	
		we request you to have software selection output of the chiller for capacity quoted & chiller certificate of certification like Eurovent/AHRI for the same. Same needs to be checked on website of the standards so link to be provided	
		The chiller will be with controller for controlling the chiller operation with microprocessor-based controller. DDC panel is with chiller plant manager (CPM) as explained above the details with I/O summary needs to be provided for quoting/selecting CPM with all required details. Machine will be provided with BMS card for remote monitoring (modbus card). Pl advice what is required so that it can be checked	DDC Panel not required, Equipment should be supplied with ready to further BMS connectivity arrangements. The product should provide support for monitoring various parameters of equipments over WEB and SNMP".
		The capacity of chiller demonstration will not be accurate at site as it will be dependent on various parameter like flow, ambient, water temperature, heat load present in the cooling application.	Refer Testing & commissioning parameters to be followed as per Tender specifications.
		We request you to pl consider certified chiller with software selection output as site testing will not be feasible for correct data.	Refer Testing & commissioning parameters to be followed as per Tender specifications.
		Also, pl advice if we need to install flow meter & BTU meter in the chilled water line permanently along with reqd accessories as these are costly items & will be not feasible to bring on rent	Refer Testing & commissioning parameters to be followed as per Tender specifications.

		The technical specification mentions the parameters to be calculated for capacity checking, it is not feasible to check all parameters & do testing at site	Refer Testing & commissioning parameters to be followed as per Tender specifications.
2	M/s. Sterling and Wilson Pvt. Ltd - Mr.Rajesh M. Wadagave (9112840845) Email id :- r.wadagave@sterlingwilson.com	We as a organization do not have Such OEM/Dealership certificate with us but we can offer you the SPECIFIED MAKES only as listed in Tender documents with Back-up Warranty and AMC Support. Please clarify can we participate in this tender.	As discussed during pre-bid the vendor should be either OEM / authorised dealer & this is tender qualification requirement of IUCAA.
3	M/s. Everest Air Systems & Solutions Pvt. Ltd.- Mr. Vinod Lokhande (9881002195) Email id:- sales@everestairsystems.com	Chiller- Request you to approve Blue Star for Chiller	As discussed during pre-bid meeting Make can be accepted subject to compliance of Tender technical & BOQ specifications.
		Chiller, pump, AHU civil foundation- Any type of civil work not in our scope	All the required works related Chiller, Pump, CHW piping, AHU as mentioned in BOQ / Tender specification are in vendor scope only including all the civil works as there is no other agency involved.
		CO2 Sensor with Modulating type damper for Fresh Air Control - Please clarify the location	CO2 sensor shall be placed in RA path & Fresh air damper shall be modulated accordingly.
		BOQ item no 6 (Testing & Balancing of the air side & water side)- Need to understand the exact scope and share the layout also.	Refer Testing & commissioning parameters to be followed as per Tender technical & BOQ specifications.
		Electrical Panel- Please share the electrical Panel SLD for better understanding	Only an incomer /cable shall be made available as per requirement further distribution as per requirement shall be in vendor scope. Vendor to make SLD as per tender requirements & submit to IUCAA for approval.
		BOQ sr no G & H (Existing unit dismantling & buyback equipments)- Please provide permission for a site visit to identify existing unit conditions	Site visit done post Pre-bid meeting.

		Performance test of every equipment-Please clarify which equipments & also confirm whether this cost should be considered in BOQ	Refer Testing & commissioning parameters to be followed as per Tender technical & BOQ specifications.
		registration with CPWD, MES, DRDO-whether mandatory or can be waived / deviated	It is Mandatory.
		Provide 3 major / best projects completed above Rs.80,00,000/- in last 3 years- 1. whether all 3 projects should be in chiller system	As per tender requirements.
		If joint venture with OEM in capacity of authorised dealer, then will OEM projects to be considered as eligibility	No
		whether jobs completed before 3 years to be considered	No
		Layouts- Please share the auto cad or PDF layout.	Site visit done after Pre-bid meeting.
4	M/s Fabtech Technologies International Ltd.- Mr. Rathod K Kumar (+918657549123) Email.id- kiran.rathod@fabtechnologies.com	1. Page 22 of Technical Bid, clause no 47 Payment. Please consider following payments a. 80 % against material delivery on pro-rata basis. b. 10 % against installation. c. 10 % against testing and commissioning.	30% of the Purchase order value will be released as advance against submission of Advance Bank Guarantee from nationalised bank only, which should be valid for the contract period. Balance 70% of the purchase order /final bill value will be released after successful completion of the project and after submission of Installation, Testing and Commissioning report.
		IUCAA shall made availability of water and electricity free of charge for installation, testing and commissioning.	Water & electricity will be provided free of cost by IUCAA
		IUCAA shall provide storage space in vicinity of the project.	Space will be provided by IUCAA. Necessary shade / chamber with lock and key arrangements & all responsibility of material will be in Vendors scope.

		Page No 9, Technical specifications, please review the Type of Chiller: Braze Plate Heat Exchanger because they are prone to the fouling.	We have verified different option and proposed option is selected based on the parameters and requirement. Follow Technical & BOQ Specifications.
		Please consider other HFC and CFC free refrigerants. As the operating pressures of the systems with R-410a are much higher compared to other refrigerant base systems and may have frequent failures. As well as the Global Warming Potential (GWP) of the R-410a is high around 2100.	As discussed during meeting CFC / HCFC free Refrigerant gas can be accepted.
		Item no 4, AHU. Please consider AHU's of reputed makes like Citizen, Zeco and Edgetech.	Follow Technical & BOQ Specifications
		Item no 4, AHU. Please review the insulation material of AHU's with Rockwool with PUF.	As discussed AHU with Rockwool is required.
		Chilled water pumps: Please consider make of Kirloskar	Follow Technical & BOQ Specifications
		Any other points if any may kindly be allowed to discuss during the pre-bid meeting.	
		With reference to Page No. 64 of Technical Specification, clause in Co-ordination between testing parties 1. Factory start-ups- all the costs associated with factory start-ups shall be included with the contract price All the arrangements of factory visit of IUCAA engineers & consultant - three engineers including stay-if required, shall be in the scope of vendor.	All the cost of factory inspection visits of IUCAA inspection team will be borne by IUCAA.
5	M/s. Blue Star Limited - Mr. Mahesh Shinde (+91 9607 475767) Email id. maheshshinde@bluestarindia.com	As per the technical specifications of tender, M/s Blue Star Ltd is not listed in the approved make of chillers. Hence request you to approve M/s Blue Star make chiller for this tender.	Any make can be accepted subject to compliance of Tender technical & BOQ specifications.

		R407C refrigerant for chiller as this is also a green refrigerant.	As discussed during meeting CFC / HCFC free Refrigerant gas can be accepted.
		Min Acceptable COP @ 100% 35 Deg C Ambient – 2.93	Chillers to perform at design ambient conditions.
		Min EER Btu/h / W - 10	Follow Technical & BOQ Specifications
		Condenser Fan Motor - Constant speed fan	Follow Technical & BOQ Specifications
		Please approve below make AHU's which are currently using in most of the government projects, Make - ZECO/ EDGETECH/SYSTEM AIR	Follow Technical & BOQ Specifications
		Please approve below Insulation material make a) Thermal Insulation - Armaflex Acoustic Insulation - Armasound	Follow Technical & BOQ Specifications
6	M/s. Vision Envsys Private Limited- Ms. Vidya Jadhavar (+91 9168657788) Email id: - vidya@visionenvsys.com	Sound DB not more than 66 DB at 1 m- Noise level of chiller will be as per manufacturing std	Refer tender technical & BOQ specifications for Chiller noise level & follow the same.
		Testing at site of chiller- Necessary arrangement is given by client like flow meter	All tools & tackles, arrangement, sensors/ meters, testing equipments etc as required for Site testing shall be in vendor scope.
		Platform and foundation -Client Scope	All Supporting, Platform, Foundation including civil works as required to install Chillers, Pumps at Terrace (location indicated during site visit) & AHU at Plant room needs to be provided by Vendor
		Pump RPM 1450/ 2920 RPM- 2920 RPM is considered	Follow Technical & BOQ Specifications
		Testing of pump -factory tested and TPI is not considered	As per tender all the pumps testing should be arranged at factory and site by the Vendor. Third Party Inspection is not required
		AHU - 45mm +/- 2mm thick of panel-We have considered 40 mm +/- 2 mm thk	Should be as per Technical & BOQ Specifications

		AHU Filter - EU -Efficiency and size not given of fine filter	Refer Technical & BOQ Specifications
		Valve PN rating-confirm the rating of valve PN10 / PN 16	PN16
		Technical bid -Tender documents can be obtained from our cash office during 09/09/2019 & 11/09/2019 between 11:30 hrs and 15:30 hrs or can be downloaded-Is it possible to buy directly	Date & time for purchase of tender document (hard copy) is over, hence, it is not possible to buy it directly from our cash office. Tender documents can be downloaded from our website only.
		Technical bid -Offer submission date - 3/10/19-Request for extension of 1 week	Request accepted and frsh date for submission of tender will be 11 th October 2019 at 1500 hrs.
		Technical bid-Vendor/Firm should be registered with CPWD, MES, DRDO in appropriate class and having experience in execution of similar nature of works. Proof of registration should be attached.is it necessary?	It is mandatory. PWD is also acceptable.
		Payment- As per tender, can we propose our one.	Payment will be made as per tender conditions only. However, if vendor needs any advance payment, it can be paid 30% of the Purchase order value against submission of advance Bank Guarantee from nationalised bank. which should be valid for the contract period. Balance 70% of the purchase order /final bill value will be released after successful completion of the project and after submission of installation, testing and commissioning report.

	IUCAA		Vendor should submit Datasheet along with technical bid. This is mandatory requirement. (Data sheet is attached along with pre-bid meeting minutes.)
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Annexure – 2

Sr. No.	Name of the Agency	Name of Representative	Mobile No.
1	M/s. Swegon Blue Box Pvt. Ltd	Mr.Sourabh Shetty	9975023554
2	M/s. Sterling and Wilson Pvt. Ltd	Mr.Rajesh M. Wadagave	9112840845
3	M/s. Everest Air Systems & Solutions Pvt. Ltd.	Mr. Vinod Lokhande	9881002195
4	M/s Fabtech Technologies International Ltd	Mr. Rathod K Kumar	9004319597
		Mr.Tejveer Singh	7738669984
5	M/s. Blue Star Limited	Mr. Mahesh Shinde	9607475767
		Mr. Alok K	9867103171
6	M/s. Vision Envsys Private Limited	Ms. Vidya Jadhavar	9168657788

