

Supply, Installation testing and commissioning of Centralized Chilled Water type A.C System including Annual Maintenance Contract (AMC) for five years after expiry of the guarantee period for OCAC Tower at Acharya Vihar, Bhubaneswar

MINUTES OF PRE-BID MEETING

Date: 30.03.2012

Venue: O/o Chief General Manager (Civil), IDCO, IDCO Tower, Janpath, Bhubaneswar

Referring to the pre bid meeting held on dt.30.03.2012, we confirm the following changes in the tender document. The pre-bid minutes will be a part of the bid documents.

A	General	
	<ol style="list-style-type: none"> The scope of the work includes total Supply, erection, testing and commissioning of the entire system. The rates quoted by the firm should be inclusive of Supply, erection, testing and commissioning of the entire system including all taxes and duties imposed by statutory authorities complete in all respect. Neither way bill nor any concessional tax form will be provided by the owner. Firm without VAT registration should not participate in the tender. Machine foundations in the basement and foundation for cooling tower will be done by the owner. 	
	Technical	
	PARTY "A"	
Sl.no.	Queries By M/s BlueStar Ltd	Reply
1.	Refer to Clause 1.13.1.2 (a) of Technical specification: Face velocity of AHUs shall be limited to 500 fpm.	As regard AHU, the velocity through the filter, face velocity of the coil and blower outlet velocity, the figure specified against clause 1.13.1.2 shall be applicable.
2.	Refer Clause 1.13.1.2 (c) of technical specification: Blower outlet velocity shall be limited to 10m/sec.	Blower outlet velocity requirement is mentioned as 1800 ft/min which is 9.15m/sec
3.	Refer Clause 1.13.1.2 9i) & 3.9.01 of Technical specification: Please note that since AHU room is a confined space it is not possible to maintain 50 dba inside the AHU room or 1 mtr from the AHU. However we confirm that sound level outside the AHU room shall be 5 dBA above the ambient dBA outside the AHU room.	Agreed
4.	Refer Clause 2.00.04 of Technical specification : Please note that we shall offer AHRI certified water cooled screw chiller and not UL leveled chiller.	UL level shall be applicable to the imported chillers
5.	Refer Clause 2.09.01 of Technical specification : Request you to kindly approve water cooled chiller capable of delivering 372TR actual capacity at 0.69 IKW/TR power consumption at 100% load at actual design condition. Please note that the same chiller is having a COP of 5.76 and IPLV of 0.52 IKW/TR (6.67 COP) at AHRI condition. The above mentioned efficiency levels of our chillers at AHRI rating condition is better than ASHRAE Standard 90.1 and ECBC	The chiller capacity shall be as specified in the Tender Document

	guidelines. ASHRAE Standard 90.1 and ECBC guidelines are used for selecting chillers for Green Building.																
6.	Refer Clause 4.08.01 & 5.08.01 of Technical specification : Pump motors shall be TEFC type and not SPDP type, since TEFC motors have better motor efficiency and can be used in humid and dusty environments.	The Pump Motors Shall be of TEFC type.															
7.	Refer clause 9.01.01 of Technical Specification : Ducting shall be fabricated with class VIII GI sheet, since class VI GI sheets not readily available in the market.	The G.I. Sheet shall be as specified															
8.	Refer list of approved equipment and material : Request you to kindly approve the following additional list of makes : a. Butterfly / Balancing / Check valves . Advance / Castle / C&R	As specified in the Bid Documents.															
9.	Refer BOQ item no 9, For cooling tower selection there is ambiguity of approach data given in specification and BOQ. As per specification approach has been indicated as 3 Deg C however as per BOQ the same is working out to 3.33 Deg C. please confirm which one to follow.	As per specification, 3°C a approach is for ambient W.B temperature in summer. The specified WB temperature in BOQ is higher than Summer WB temperature and as such it was indicated 3.33° C.. The condition stipulated against item 9 in BOQ is to be followed.															
10.	Refer BOQ item no. 13, please specify the AHUs which shall be floor mounted and ceiling suspended.	Item no. 13 (k), (j) are Ceiling suspended and others Floor mounted.															
11.	Refer BOQ item no. 17, we shall provide 2 way modulating control valve with linkage and actuator etc as per the list of approved makes in the tender.	The 2-Way Dynamic Modulating type control valve shall be as specified in the Bid Documents.															
12.	Refer BOQ item no. 28 (b), please confirm whether the quantity shall be 630 sqmtr or 5 sqmtr.	Quantities shall be 5 Sqmtr.															
13.	Refer BOQ item no. 28 (c), please confirm whether the quantity shall be 650sqmtr or 5 sqmtr.	Quantities shall be 5 Sqmtr.															
14.	Refer BOQ, please quantify the items mentioned under item no. 41,42, 50, & 51 of BOQ. These are mentioned as either 1 LS or 1 No., which need to be quantified.	<table border="1"> <thead> <tr> <th>Item no</th> <th>Quantity</th> <th>Unit</th> </tr> </thead> <tbody> <tr> <td>41</td> <td>1</td> <td>Job</td> </tr> <tr> <td>42</td> <td>20</td> <td>Set</td> </tr> <tr> <td>51</td> <td>Deleted</td> <td></td> </tr> <tr> <td>52</td> <td>Deleted</td> <td></td> </tr> </tbody> </table>	Item no	Quantity	Unit	41	1	Job	42	20	Set	51	Deleted		52	Deleted	
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42	20	Set															
51	Deleted																
52	Deleted																
15.	General : Please note that makes of materials shall be as per list of approved makes and not as per the single makes mentioned in the BOQ.	The specified make in the BOQ will be accepted. In case, specified makes in the BOQ are not available readily, other makes in the approved list may be considered subject to satisfaction of the specification requirement.															
16.	General : All measurements shall be as per relevant IS standard.	Yes															
17.	General : Request you to kindly provide	The drawings are uploaded for reference															

single line drawing for main MCC panel and typical AHU starter panel.

COMMERCIAL

SI. No.	Queries	Reply
Commercial		
1.	Refer SCC & GCC 13.2.3, Pg 45, performance BG will reduce to 50% from original performance security BG, immediately after commencement of AMC. Please note that it is not possible to keep validity of said BG for 5 years from the date of commencement of AMC. So we shall keep BG validity for 1 year and shall extend the same for subsequent years.	As specified in the Bid Document
2.	Refer SCC (GCC 26.2): Request you to kindly accept liquidated damages at the rate of 0.5% per week of delay subject to maximum of 5% of the contract value.	Accepted
3.	Refer special conditions of Contract . Appendix I . Terms of Payment : Request you to kindly approve the following terms of payment. For commissioning of plant & equipment 10% as advance along with the order against ABG valid till the completion of the project. 75% on prorata delivery of material at site. 7.5% on prorata installation of material at site. 7.5% against commissioning and handling over.	As specified in the Bid Document
4.	Refer special conditions of Contract . Appendix I . Terms of Payment: All payments shall be made to us within 30 days from the date of submission of invoice.	As specified in the Bid Document
5.	Refer GCC clause 11.2 pg 44, This contract shall be an unit rate contract. We shall be paid as per the actual measured work done at site.	As specified in the Bid Document
6.	General: Statutory variation of taxes and duties shall be applicable in case Govt enforced any new tax or in case there is any change in the present rate of taxes and duties.	As specified in the Bid Document
7.	General : Power and water required for installation, testing and commissioning shall be provided to us free of cost at site near the work front.	As specified in the Bid Document
8.	In view of the detailed working involved in preparing out techno-commercial offer, request you to kindly extend the tender submission date till 25 th April 2012 subject	As specified in the Bid Document

Sl. No.	Queries	Reply
	to condition we receive all the clarifications by 2 nd April 2012.	

PARTY "B"

2. ETA Engineering Pvt Ltd.

Sl. No.	Queries	Reply
Technical		
1.	Chiller to be tested as per ARI conditions at factory. Please specify the performance tests of chiller to be done at how many load points & to be witnessed by how many people.	Performance test of chillers shall be at two load points minimum.(At 100% and 75%).
2.	Please confirm the approved makes for Ozone injection system.	Ruks Engineering Ltd., Ontario, Canada is one of the reputed Manufacturer for metered Ozone injection system which can control zone concentration within Permissible limit specified by WHO, ASHRAE, and other International Regulatory Bodies. They have representation in India for Marketing, Engineering and Maintenance.
3.	We would request you to incorporate Belimo make motorized butterfly valve.	%Belimo+ is acceptable, if they can offer Pressure independent Dynamic Modulating type 2 . way valve.
4.	We would request you to incorporate ETA make AHU	AHUs manufactured by ETA & Edgetech will be acceptable.
5.	As per tender maximum sound pressure level measured at a distance of 1 meter from the AHU shall not exceed 50DB. But the standard manufacturer can offer 65-75 DB sound pressure level measured at a distance of 1 meter from the AHU.	Please refer reply to the queries at sl 1 of Party %A+
6.	Please confirm whether pump head calculation need to be done or we should go according to the tender.	Since the design of Heat-Exchangers of different manufacturers are different, Pump heads specified in the BOQ are to be cross checked by the bidders.
7.	We would request you to incorporate ABB / L&T make VFD	The make of VFD controls shall be of Donfoss / ABB/ Siemens.
8.	Please clarify whether foundation for equipment is in our scope or not.	As regard the scope of work, clause 1.14 (page . 122) may be referred.
9.	Please confirm the approved makes for water flow meter.	H. Guru
10.	We would request you to incorporate %Advance+ make butterfly valve & non return valve.	As specified in the Bid Documents.

Sl. No.	Queries	Reply
11.	We would request you to incorporate %haitan+ make Propeller fan.	
12.	Please confirm the length & size of cable tray.	The size of the cable tray shall be . 300mm to 450mm width as per requirement. Length shall be . 115 mtr.
13.	Please specify the make of cabinet type DIDW Centrifugal Fan.	Please refer SI no. 41 of List of equipment & material appended to the Bid.
14.	We would request you to accept Class VIII, 120 GSM GI sheet instead of Class VI, Class VIII, 120 GSM GI Sheet is easily available in the market.	Please refer reply to the queries at SI no. 7 of Party %A+
15.	We would request you to accept TEFC type 4-pole Sq. cage induction motor instead of SPDP type 4-pole Sq. cage induction motor.	Please refer reply to the queries at SI no. 6 of Party %A+
Commercial		
1.	We would request you not to deduct any retention money from our running bill. We will submit the BG equivalent to 5% of retention amount before submission of 1 st RA bill valid till the end of completion of project.	As per the Bid documents.
2.	Suggested Terms of Payment of Annual Maintenance Contract : <ul style="list-style-type: none"> • 50% as advance • Balance 50% against the end of Quarter 	As per the Bid documents.

PARTY 'C'

Sterling and Wilson Ltd.

Sl. No.	Queries	Reply
Technical		
1.	The air quantity mentioned in item 32 is not matching with BOQ item no. 13.	The indicated cfm against item 13 is 13,850 and against item 32 it is 13,830. cfm. It will not affect the equipment selection,
2.	The tender does not clarify the condenser water in / out temperature, which is required determine the chiller capacity.	The condenser inlet water temperature will be the sump temperature in the cooling tower (refer to item No. 9 in BOQ) . The outlet temperature depends on the Chiller selection.
3.	Please confirm the approved makes for Ozone Injection System.	Please refer reply to the queries at SI no- 2 of Party %B+
4.	We would request you to incorporate %Belimo+ make motorized control valves.	Please refer reply to the queries at SI no. 3 of Party %B+
5.	Please help us to understand the item No. 17	
6.	We request you to incorporate Nicotra / Kruger for ventilations fans in your approved list of makes	The make shall be as per the Bid
7.	Please confirm whether sequencing needs to	Refer to the item No. 3 & 4 of BOQ .

Sl. No.	Queries	Reply
	be done. If so, state the logic of sequencing, also confirm whether BMS required for chiller sequencing or it is done by the chiller plant manager.	Lead / Lag kit has been incorporated for equalization of running time. Motorized valves are incorporated at the Cooler & condenser outlet to stop water flow when chillers not operating.
8.	Please also clarify whether foundation of equipment is in the scope of the HVAC Contractor.	Please refer reply to the queries at Sl no. 8 of Party %B+
9.	Please confirm the approved makes for water flow meter.	Please refer reply to the queries at Sl no. 9 of Party %B+
10.	The MERV 13 filters with plenum are a part of AHU or it is to supplied separately as it is mentioned separately in.	Refer to clause No. 1.12.22 (pages 119 & 120) for details
11.	Please clarify whether 2 way modulating valve & 2 way dynamic balancing valves are same.	Please check the relevant manual
12.	We would request you to incorporate %Advance+make butterfly & NRV valves.	Please refer reply to the queries at Sl no.8 of Party %A+
13.	We would request you to consider Electro Allied Products, a CPRI approved vendor for MCC Control Panel for AHU & Control Console in our approved list of makes.	Accepted
14.	Please confirm the quantity and sizes of the cable tray	The size of the cable tray shall be . 300mm to 450mm width as per requirement. Length shall be . 115 mtr.
15.	We would request you to consider TEFC squirrel cage induction motor in place of SPDP motor as it is not available in the market.	Please refer reply to the queries at Sl no. 6 of Party %A+
Commercial		
1.	Proposed payment terms for : a. 10% of the contract value as mobilization advance against equivalent bank guarantee valid till the completion period. b. 80% of the contract value against supply of materials at site on pro-rata basis. c. 5% of the contract value against pro-rata installation. d. Balance 5% payment after successful testing & commissioning of the system against an equivalent bank guarantee valid till the defects liability period.	As per the Bid documents.
2.	We would request you to restrict the liquidated damages 0.5% per week to maximum upto 5% of the contract price.	Accepted
3.	We request you to kindly extend the last date of bid submission till the 30 th April, 2012.	Last date of submission of Bid extended till 20.03.2012 upto 16.00 Hrs. The technical bids will be opened on 21.03.2012 at 11.00 Hrs.

Additional Clause :-

- The following technical will be added as item 14.14.00 under Technical Specification.
- The technical detail as mentioned below for the I.D Cooling Tower shall be provided by each bidder with the bid

Technical Details for Cooling Tower

- (a) Make
- (b) Type
- (c) Model
- (d) Overall Dimension
- (e) Operating weight
- (f) No. of fans
- (g) Fan dia
- (h) Air quantity per fan
- (i) Fan motor HP & RPM
- (j) Fan motor starter (type)
- (k) Design WB Temperature
- (l) Nozzle inlet water temperature
- (m) Sump water Temperature
- (n) Water flow rate
- (o) Wind & Evaporation loss
- (h) Heat Rejection capacity at the specified design condition in BTU/ Hour.

Sd/-
05.04.2012
Chief General Manager (Civil),
IDCO, Bhubaneswar