



**Surat  
Municipal  
Corporation**

**ADDENDUM & CORRIGENDUM-8**

**REQUEST FOR PROPOSAL**

**FOR**

**SELECTION OF IMPLEMENTATION AGENCY FOR  
INTEGRATED COMMAND AND CONTROL CENTER  
(ICCC) IN SURAT CITY**

Last date for Price Bid Submission: **07.06.2019**



Invited by

Surat Smart City Development Limited

115, Smart City Cell, Surat Municipal Corporation,

Muglisara, Main Road, Surat - 395003, Gujarat.

**Surat Smart City Development Limited**

**ADDENDUM AND CORRIGENDUM-8**

**RFP Notification No.: SSCDL-ICCC-RFP-01-2019**

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The Bidder are requested to take note of the following changes made in the RFP documents, which are to be taken in to account while submitting the RFP. They shall be presumed to have done so and submitted the RFP accordingly.

- This Addendum and Corrigendum shall be the part of the RFP documents.
- All items specified in this Addendum and Corrigendum supersede relevant items to that effect as provided in the original RFP documents. All other specifications, terms and conditions of the original RFP document shall remain unchanged.
- Bidder shall read and consider following points, which shall be a part of the RFP documents.
- All the changes mentioned in this document should be read across the RFP, Addendum & Corrigendum, wherever applicable.

**• The queries raised and given by bidders, but the clarifications are not made in this Addendum and Corrigendum shall be considered to remain unchanged as per the terms and conditions mentioned in the original RFP documents.**

**Changes with respect to RFP Schedule**

Please note that with respect to tendering schedules, the following changes have been effected. Bidders are requested to take note of the same and adhere to the dates specified hereunder with regards to Price Bid Submission and Technical Bid Submission:

<b>Particular</b>	<b>Current Dates</b>	<b>Proposed Dates</b>
<b>Online Price Bid Submission Date</b>	03.06.2019 up to 18:00 hrs.	<b>07.06.2019</b> up to 18:00 hrs.
<b>Technical Bid Submission (in Hard Copy)</b> Filled-in Technical Bid along with Bid Fee, EMD and other documents	In sealed envelope strictly by RPAD/Postal Speed Post On or before 07.06.2019 up to 18:00 hrs. To the Chief Accounts, Surat Municipal Corporation, Muglisara, Surat – 395003, Gujarat by RPAD or Speed Post Only.	In sealed envelope strictly by RPAD/Postal Speed Post On or before <b>13.06.2019</b> up to 18:00 hrs. To the Chief Accounts, Surat Municipal Corporation, Muglisara, Surat – 395003, Gujarat by RPAD or Speed Post Only.

**ADDENDUM & CORRIGENDUM-8: RFP for Selection of Implementing Agency for Integrated Command Control Centre (ICCC) in Surat [RFP No.: SSCDL-ICCC-RFP-01-2019]**



**Other Changes**

#	Section	Page No.	Tender Reference	Existing Clause	Amended/New Clause
1.	11.3	8	Addendum & Corrigendum 5 <b>(11.3 Revised TQ_2: Format for Specifying the Make &amp; Model)</b>	Sr No 57. PAC System of 10 tonnes each	Please read as Sr No 57. PAC System of <b>20 tonnes</b> each
2.	12.3	11	Addendum & Corrigendum 5 <b>(12.3. Revised Commercial Bid Format)</b>	<b>A1. Capital Expenditure - Civil and Non IT for Data Center and ICCC</b> Sr No 48. PAC System of 10 tonnes each	<b>A1. Capital Expenditure - Civil and Non IT for Data Center and ICCC</b> Sr No 48. PAC System of <b>20 tonnes</b> each
3.	16.12	86	Addendum & Corrigendum 1	Precision Air Conditioning (Uniflair/Stulz/Emerson)	Please refer to <b>Annexure I</b> for revised Specifications

**Note:** Kindly read above changes across the RFP and subsequent Addendum & Corrigendum.

**ANNEXURE-I**

**16.12 Precision Air Conditioning (Uniflair/Stulz/Emerson)**

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Remarks, if any
1.	Scope	a. The Data Centres Area shall be provided with fully redundant, microprocessor-based, gas-based, Precision Air-Conditioning system b. Cool air feed to the Data Centres shall be bottom-charged or downward flow type using the raised floor as supply plenum through perforated aluminium tiles for airflow distribution c. The return airflow shall be through the false ceiling to cater to the natural upwardly movement of hot air d. Cooling shall be done by the Precision Air-Conditioning system only. Forced cooling using fans on the false floor is not acceptable e. Air conditioning shall be capable of providing sensible cooling capacities at the design ambient temperature and humidity with adequate airflow. The Precision Air-Conditioning system shall be capable to be integrated with the Data center Management System for effective monitoring		
2.	Capacity & Quantity	To provide 4 number of PACs each of minimum 20 tonnes capacity.		
3.	Temperature Requirement	a. The environment inside the Data Centres shall be continuously maintained between 20°C to 25 degrees Celsius. b. The temperature and humidity shall be controlled at desired levels.		

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#	Parameter	Minimum Specifications	Compliance (Yes/No)	Remarks, if any
		c. The necessary alarms for variation in temperatures shall be monitored on a 24/7 basis and logged for providing reports		
4.	Remote Monitoring	a. There should be provision of remote monitoring of PAC with Ethernet port RS282/RS485/MODBUS		
5.	Relative Humidity (RH) requirements	a. Ambient RH levels shall be maintained at 50% ± 5 non-condensing. b. Humidity sensors shall be deployed. c. The necessary alarms for variation in RH shall be monitored on a 24/7 basis and logged for providing reports		
6.	Temperature and Relative Humidity Recorders	a. Temperature and relative humidity recorders shall be deployed for recording events within the Data Centres. The records of events shall be presentable whenever required.		
7.	Air Quality Level	a. The Data Centres shall be kept at highest level of cleanliness to eliminate the impact of air quality on the hardware and other critical devices. b. The Data Centres shall be deployed with efficient air filters to eliminate and arrest the possibility of airborne particulate matter which may cause air-flow clogging, gumming up of components, causing short-circuits, or blocking the function of moving parts		
8.	Other Requirements	a. The precision air conditioners shall have two (2) independent refrigeration circuits, two(2) scroll compressors, two(2) condensers and dual blowers for flexibility of operations and better redundancy		
		b. The unit casing shall be in double-skin construction for longer life of the unit and low noise level.		

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#	Parameter	Minimum Specifications	Compliance (Yes/No)	Remarks, if any
		c. For close control of the Data Centres temperature and relative humidity (RH) environment conditions, the controller shall have proportional integration and differential (PID).		
		d. The precision unit shall be air-cooled, refrigerant-based system to avoid chilled water in critical space.		
		e. The internal rack layout design shall follow the cold aisle and hot aisle concept as recommended by ASHRAE.		
		f. The refrigerant used shall be environmentally friendly HFC, R-407-C/R-410a or equivalent in view of the long-term usage of the Data Centres equipment as well as the availability of spares and refrigerant.		
		g. The system shall include fully deployed Dynamic Smart Cooling with auto sequencing and auto power management features to switch the air conditioner on and off automatically and alternately as per preset/configuration for effective usage.		
		<del>h. Thermal and computational fluid dynamics (CFD) analysis diagrams shall be provided</del>		
		i. The fan section shall be designed for an external static pressure of 25 Pa. The fans shall be located downstream of the evaporator coil and be of the electronically commuted, backward, curved, centrifugal type, double-width, double-inlet, and statically and dynamically balanced. Each fan shall be direct-driven by a high efficiency direct current (DC) motor.		
		j. The evaporator coil shall be A-shape/ slant shape for		

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Remarks, if any
		down flow, incorporating draw-through air design for uniform air distribution. The coil shall be constructed of rifled bore copper tubes and louvered aluminium fins with the frame and drip tray fabricated from heavy gauge aluminium. Face area of coil shall be selected corresponding to air velocity not exceeding 2.5 m/sec.		
		k. Dehumidification shall be achieved by either solenoid valve arrangement / dew point method of control / fan speed control / ultrasonic control technology.		
		l. The humidifier and heaters shall be built-in features in each machine individually. Humidification shall be achieved by means of Steam electrode / ultrasonic / infrared.		
9	Microprocessor Features	<p><b>a. Room temperature and humidity</b></p> <ul style="list-style-type: none"> <li>• Supply fan working status</li> <li>• Compressor working status</li> <li>• Condenser fans working status (Optional)</li> <li>• Electric heaters working status</li> <li>• Humidifier working status</li> <li>• Manual/Auto unit status</li> <li>• Line voltage value(Optional)</li> </ul> <p><b>b. Temperature set point</b></p> <ul style="list-style-type: none"> <li>• Humidity set point</li> <li>• Working hours of main component i.e. compressors, fans, heater, humidifier.</li> <li>• Unit working hours</li> <li>• Current date and time</li> </ul>		

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#	Parameter	Minimum Specifications	Compliance (Yes/No)	Remarks, if any
		<ul style="list-style-type: none"> <li>• Type of alarm (with automatic reset or block)</li> <li>• The last 10 intervened alarms</li> </ul>		
10	Microprocessor Functions	<ul style="list-style-type: none"> <li>a. Testing of the working of display system</li> <li>b. Password for unit calibration values modification</li> <li>c. Automatic restart of program</li> <li>d. Cooling capacity control</li> <li>e. Compressor starting timer</li> <li>f. Humidifier capacity limitation</li> <li>g. Date and time of last 10 intervened alarm</li> <li>h. Start/Stop status storage</li> <li>i. Random starting of the unit.</li> <li>j. Outlet for the connection to remote system</li> <li>k. Temperature and humidity set point calibration</li> <li>l. Delay of general alarm activation</li> <li>m. Alarm calibration</li> </ul>		
11	Alarms Display on Microprocessor Screen	<ul style="list-style-type: none"> <li>a. Air flow loss</li> <li>b. Clogged filters</li> <li>c. Compressor low pressure</li> <li>d. Compressor high pressure</li> <li>e. Smoke /ire</li> <li>f. Humidifier low water level</li> <li>g. High/Low room temperature</li> <li>h. High/Low room humidity</li> <li>i. Spare external alarms</li> <li>j. Water under floor</li> </ul>		
12	Settable Features	<ul style="list-style-type: none"> <li>a. Unit identification number</li> <li>b. Start-up delay, cold start delay, and fan run on timers</li> <li>c. Sensor calibration</li> </ul>		



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#	Parameter	Minimum Specifications	Compliance (Yes/No)	Remarks, if any
		d. Remote shutdown and general alarm management e. Compressor sequencing f. Return temperature control g. Choice of modulating output types		
13	Protection	a. Single phasing preventers b. Reverse phasing c. Phase misbalancing d. Phase failure e. Overload tripping (MPCB or MCB) of all components		
14	Warranty & Support	a. The PAC will be with 5 years comprehensive onsite warranty and support. b. The warranty and support will include all parts including the gas filling during the contract period. c. SI will be required to carry out necessary preventive and breakdown maintenance including periodic service on a regular basis (atleast once a quarter) to ensure maximum uptime		
15	Specify the proposed Make			
16	Specify the proposed Model No			