

Minutes of the Pre-bid Meeting for “Agro Automatic Weather Station with data receiving and Processing System”.

The competent authority has constituted a Pre-bid committee of the following members for Tender Enquiry No. **DGM-HQ-32011(61)/1/2022-CPU-17500** Dated: 10/08/2022 – titled “Agro Automatic Weather Station with data receiving and Processing System”.

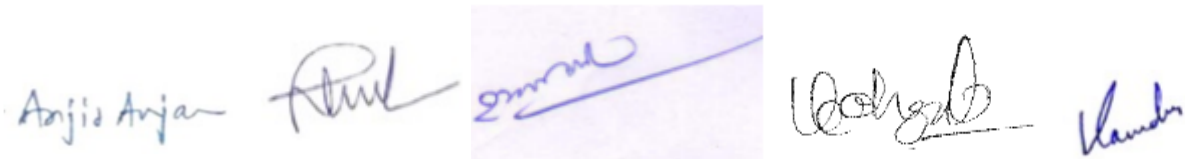
1. Shri K N Mohan, Scientist -E, IMD – Chairman
2. Dr V K Shegal, Professor & Principal Scientist, ICAR, Delhi , Member
3. Dr S L Singh, Ex IMD Scientist F , Ghaziabad (UP), Member
4. Shri R Balasubraminum, Scientist –E , IMD, Member
5. Shri Anjit Anjan, Scientist -E, IMD ,Member Secretary

The first meeting of pre-bid committee with the prospective bidders was held as per schedule on 26th August 2022. Most of the queries raised by the bidders were clarified during the meeting. However, the bidders were asked to submit their queries raised during the above meeting in writing by end of the day. Second Meeting was conducted on 02nd September, 2022 and discussed with queries raised by the bidders. Following bidders submitted their queries via email:


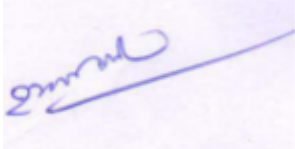


- I. M/s Astra Microwave Products Limited, Hyderabad
- II. M/s Azista Industries Private Ltd, Ahmedabad
- III. M/s Canarays Automation Pvt Ltd. Bengaluru
- IV. M/s Cellcom Solutions Ltd., Bengaluru
- V. M/s Hach DHR Pvt Ltd. New Delhi
- VI. M/s Ingen Technologies, Kanpur

In the queries submitted by the bidders, there were some queries on BG and payment related clauses. So, for clarifications of those clauses, the third and final meeting was held on 5th September 2022.

Response to the queries submitted by all the six bidders is tabulated below:

The image shows five handwritten signatures in blue ink. From left to right, they appear to be: 'Anjit Anjan', a signature that looks like 'R. Balasubraminum', a signature that looks like 'S. L. Singh', a signature that looks like 'V. K. Shegal', and a signature that looks like 'K. N. Mohan'. The signatures are written in a cursive style.

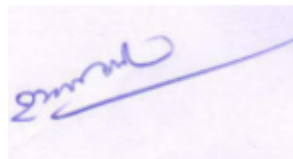
S. No	Page No	Clause No of Tender Document	Existing Clause Description	Request for Change/Query	IMD Response
M/s Astra Microwave Products Limited, Hyderabad					
1	Page no 30	Para 4	<p>For all sensors (except soil sensors) offered, valid certification or traceable from NIST (National Institute for Standards and Technology, USA) /IMD /WRC is to be submitted.</p> <p>For soil sensors, valid Certification from reputed International/ Indian institute/ OEM are to be submitted.</p>	kindly clarify for all the supplied sensors NIST/IMD certification is required or OEM certification is accepted	All the supplied sensors NIST traceable /IMD certification/ reputed International/ Indian institute/WRC.
2	Page No 29	Para 3.16	The entire system should run for 20 days continuously without charging through solar panel	Regarding demonstration of AWS system, kindly clarify the entire system should run for 20 days continuously without charging through solar panel	As per tender document

Anjia Anjan    

3	Page no 33	Para 4.6.2	Sensor technology (TDR/FDR)	Regarding soil moisture sensor technology we have to supply only TDR/FDR or any other technology sensor is accepted	As per Tender Document
4	Page no 35	Para XI	The DAS shall have suitable interface for 4G Dual SIM GPRS modem (3G Compatible). Bidder shall install two SIMs from two different service providers, whose signal strength is best available on respective site	Regarding Dual SIM Cards. Kindly clarify both the SIMs to be active (with different networks) or else we can active with single Network SIM	As per tender document (Both the SIMs to be active with two different service providers)
5	Page No 14 and Page No 30	Para 7 and Para 4	All Sensors quoted should be well proven sensors; its performance certificate from users is to be submitted in technical bids for last Five years	Kindly clarify, regarding local content class I supplier whether we can supply newly developed sensors or we should offer the proven sensors and established sensors	As per tender document
6	Page No 22	Para 9.4.1		The payments are being delayed, so we request you to consider advance payment against Bank guarantee	Payment terms as per tender documents


M/s Azista Industries Private Ltd, Ahmedabad

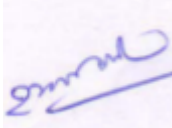
Anjia Anjan



1	Page No. 74	Annexure D: Terms and Conditions during Two years comprehensive warranty and five years comprehensive Annual Maintenance Contract Para 15	The bidder must be equipped with suitable Travelling standard kits as per WMO Guidelines	1. Kindly clarify Rain Calibration kit specifications and share detail of requirement for more clarity. 2. Qty not specified for travelling standard kit and no any separate line of item mentioned in list of deliverables. Please clarify.	As per tender document, the bidder has to purchase and equipped with Travelling standard kits as per WMO Guidelines. IMD will not purchase /keep their travelling standard kits.
2	Page No. 77	Annexure E: Terms and Conditions during Two years comprehensive warranty and five years comprehensive Annual Maintenance Contract For CDRPS, AWS WEBSITE, MPBILE APP and API at IMD Pune. Para 1	The successful bidder shall provide onsite Comprehensive Warranty for three years followed by comprehensive CAMC for five years of all AWS. The Warranty period shall start from the date of successful commissioning of the system. After expiry of two years Warranty; IMD will sign an agreement with the firm for	Kindly confirm comprehensive warranty period as apart from Annexure E, comprehensive warranty period mentioned is 2 years.	Two years comprehensive warranty followed by Five years compressive Annual Maintenance Contract


Anjia Anjan 

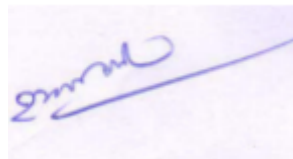






			comprehensive CAMC of entire Agro AWS for five years.		
3	Page No 80	Annexure F List of deliverables Para5	Rain gauge sensor (TBRG) with heater normal rain gauge with mounting accessories) Calibration Certificate of all sensor with validity certificate is required). Suitable power supply for heater through SMF Battery and charging it by solar panel	Kindly specify 1. Heater Activation period to define battery and solar panel capacity? Or please share requirement of battery and solar panel size.	As per tender document. The Rain gauge sensor (TBRG) with heater should have power supply and work for 20 days without charging battery by solar panel. The bidder should supply DC power supply for Heater.
4	Page No 100	Annexure VI List of deliverables and Price bid format Point5	Rain gauge sensor (TBRG) with heater + normal rain gauge with mounting accessories) Calibration Certificate of all sensor with validity certificate is required).	Is requirement for 20 NO'S TBRG with heater along with 20 NO'S normal TBRG? Kindly clarify.	TBRG sensor with Heater is 20 Nos. for snow prone locations only. It should measure both normal rain and snow.

Anjio Anjan 

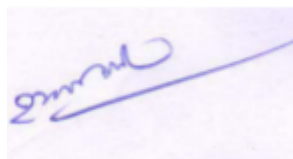






			Suitable power supply for heater through SMF Battery and charging it by solar panel Qty 20 sets		
5	Page no 36	Specification of DAS and GPRS Modem Para xix	Maximum Wind speed at interval of 15 minutes or desired interval in DAS from sample of 3 seconds moving average value logged in the DAS to disseminate to Central Server.	Kindly specify sampling interval to get 3 second moving average value.	As per tender document.
6	Page no 36	Specification of DAS and GPRS Modem Para xx	Average wind data at an interval - 1 minute, 3 minute and 10 minute and taking moving average sample of 3 seconds.	Kindly specify sampling interval to get 3 second moving average value.	As per tender document
7	Page No 38	Specification of DAS and GPRS Modem Point xxxvi	Check on Inter-sensor checks It is possible to make internal consistency checks of a variable against other	Kindly specify physical and Metrological principles formulas to be used for Check on Inter-sensor checks	As per tender document


Anjia Anjan 

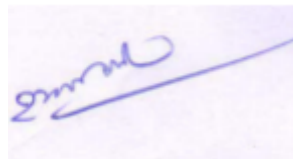






			variables, based upon established physical and meteorological principles.		
8	Page No 38	Specification of DAS and GPRS Modem Point xxxvii	Check on Monthly normal of Each Agro AWS site a) A look up table will be available for each station as per normal of those stations. b) MONTHLY NORMAL CHECK AT FIELD SITES WITH THE LOOK UP TABLE available with Data logger	Kindly clarify 1. Will the lookup table be provided by IMD? 2. Specify monthly normal checks method (acceptable deviations).	As per tender document (The look up table - text file for Agro AWS site will be provided by IMD)
9	Page no 82 Page No. 103	Annexure F List of deliverables Para 28 & 31 Annexure VI List of deliverables and Price Bid	Application software for central server at IMD Pune with license version and all its source code along with its maintenance updates and upgrades during two years warranty period and five	Please clarify the scope of work for Application software for central server at IMD Pune and Application software for Six RMC's.	As per tender document. Application software should be supplied, installed and maintenance support, upgradation etc. to the respective RMCs shall be provided by the bidder. Servers

Anjio Anjan 





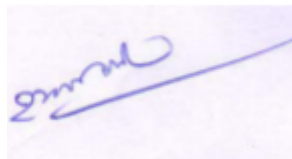


		format Para 29 & 32	years CAMC. Application software for Six RMCs with License version and all its source code along with its maintenance, updates and upgrades during two years warranty period and five years CAMC.		and associated Hardware will be purchased by IMD for Six RMCs.
--	--	----------------------------	--	--	--

M/s Canarays Automation Pvt Ltd. Bengaluru

1	page 19	Chapter3 Para 4	Onsite Warranty for 2 yrs. starts after successful commissioning of AWS systems and its subsystems	Our understanding of Warranty commencement is "as and when site is commissioned (lot of 30/50)".	As per tender document
2	Page 18	Chapter3 Para 3	Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence, and which is not foreseeable. Such events include,	"Pandemic" may be included.	As per tender document

Anjio Anjan 

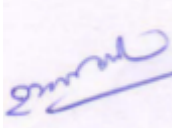






			but are not restricted to, acts of the purchaser either in its sovereign or contractual capacity, war or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts, and freight embargoes		
3	Page 18	Chapter3 Para 3	Force majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussion on either side.	"Beyond 60 days project can be terminated under mutual consent" - This period is not enough in reference to the recent Covid-19 and current semiconductor industry situation	As per tender document
4	Page 22	Chapter 3 Para 9.4.1(i)	60% payment on contract value of stores after receipt of goods at sites, successful installation at each Agro AWS site and Server installation (at Pune) with all	"60% payment on contract value of stores" - It is interpreted as 60% payment on Contract value and not only on Contract value of Stores". What is	As per tender document

Anjia Anjan 

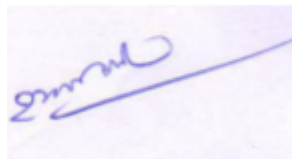






			its associated peripherals, software including application also.	the criteria for "successful installation" and the method of acknowledgement by IMD for claiming the payment of 60%.	
5	Page 22	Chapter 3 Para 9.4.1(ii)	"Server Installation (at Pune) with all its associated peripherals, Software including applications.	Repeated in point (i) & (ii)- does this indicate supplier can claim 90% payment after H/W and S/W commissioning?	As per tender document Second para may be read as Balance 30% after successful completion of the project (successful commissioning of all 330 Agro AWS and commissioning of Server and all its Application software with completion of the project in all respects as per tender & the pre-bid document).
6	Page 22	Chapter 3 Para 9.4.1(iv)	Retention of 20% payment for on account bills will be made towards warranty period performance and retention money will be released on submission of	We understand that 20% payment on account bills will be retained only from 30% component bill submitted after commissioning. Also, Warranty starts only after	As per tender document


Anjia Anjan 

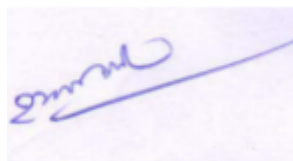






			unconditional irrevocable BG as per Format	commissioning as per Clause 4. If Lot wise BG shall be provided based on the lot specified and the BG shall be returned after completion of 2 yrs. of warranty period specific to that lot.	
7	Page 22	Chapter 3 Para 9.4.1(v)	First lot is defined as 30 sites, Subsequent supply lots defined as 50 sites.	First lot is defined as 30 sites, Subsequent supply lots defined as 50 sites.	As per tender document
8	Page 27	Chapter 4 Para 2.2	In future, if any of this technology becomes obsolete during comprehensive warranty and CAMC period, the same should be replaced with higher compatible version available free of cost.	"Free replacement of higher compatible version" during CAMC period is not acceptable as cost implication will be there. Also, generation compatible equipment may not be available in the country.	As per tender document
9	Page 27	Chapter 4 Para 2.5	Dismantling of Agro AWS with buyback policy	Buyback of material for reuse or scrap?	Material as scrap
10	Page 28 & 29	Chapter 4	Sunshine duration sensor mentioned should also be	Sunshine duration sensor mentioned in this clause is not	In the clause, It may be is read as


Anjia Anjan 

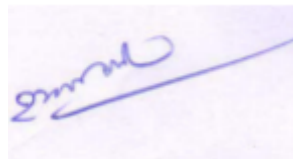






		Para 3.5	interfaced with DAS	shown in the list of deliverables Annexure F/BOQ.	Pyranometer sensors in place of Sunshine duration sensor
11	Page 29	Chapter 4 Para 3.5	Ensure support for Agro AWS systems and its sensors and spares for 10 years via a written undertaking on bidder's letter head.	Spare support for 10 years to be given undertaking - obsolescence management to be mutually agreed.	As per tender document
12	Page 31	Chapter 4 Para 4.4(b)	Collector area - specified Collector area should be between 314sq.cm	Area spec Range is incomplete. Kindly help us with complete information	It may be read as: "Collector Area: Specified collector area should be between 200 cm ² to 325 cm ² ".
13	Page 40	Chapter 4 Para 8.2	The two SIM Cards should be supplied by the successful bidder and installed by the field sites. All SIM Cards should be purchased in the name of supplier.	End user authorization letter to be issued by IMD to the ISPs as per statutory requirement	As per tender document
14	Page 55	Chapter 4 Para 16	Delivery of all equipments and accessories shall be done at respective sites	IMD should advise KVKs for secured storage locations for AWS equipment	As per tender document

Anjio Anjan 

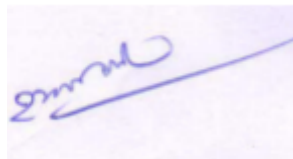






15	Page 71	Chapter 4 Annexure C	2 (a)The height of the fencing for the AWS (10m x 10m) must be 1.5 meters from the ground level. 2 (b) Length of the angle shall be 2.5 tr i.e. (0.5m below ground level)	2(a) mentions fencing height as 1.5 mtr. Whereas material proposed is 2.5mt long, out of which 0.5mtr goes below the ground. That means 2mtr above ground - which is correct. 1.5 or 2.0 mtr.	Para 2(a) may be read as “The height of the fencing for the AWS (10m x 10m) must be 2 meters from the ground level. 2(b) Length of the angle shall be 2.5 mtr i.e. (0.5m below ground level)”
16	Page 70& 71	Chapter 4 Annexure C	The mast shall be 10 m height and tiltable which is made of anodized Aluminium alloy suitable for coastal stations.	Specification indicates tiltable mast, whereas Annexure B Schematic shows triangular tower. To be clarified	As per Tender document.
17	Page 71	Chapter 4 Annexure D (15)	Mast Specification for AWS site	Mast accessories and detail of the material is not mentioned - Can this be GI	As per Tender document.
18	Page 72	Chapter 4 Annexure D (15)	Earthing details	Earthing details - Can we do Chemical earthing instead of ordinary earthing.	As per Tender document
19	Page 74	Chapter 4 Annexure D (15)	The Bidder must be equipped with	Please confirm if bidder has to invest	As per tender document

Anjio Anjan 





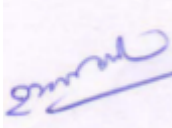


			suitable travelling standard kits as per WMO guidelines.	for calibration kits and if so, how many? Currently not in deliverables/BOQ.	
20	Page 77	Chapter 4 Annexure E (1)	The successful bidder shall provide onsite Comprehensive Warranty for Three years	Warranty mentioned as Three years whereas it should be Two years. (As per Chapter 3 clause (4).	It may be read as “Two years comprehensive warranty” .

M/s Cellcom Solutions Ltd, Bengaluru

1	Page 100/115)	Annexure VI List of deliverables and Price bid format Para5		TBRG with heater consumes more power than other sensors, hence, an external power supply (AC) is recommended. Kindly clarify the availability of AC power or can we consider an alternate power source for TBRG with the heater?	As per tender document. The Rain gauge sensor (TBRG) with heater should have power supply and work for 20 days without charging battery by solar panel. The bidder should supply DC power supply for the Heater.
2	(Page 75/115)	Annexure C	the height 2.5 meters (0.5 m below ground level). Can we consider the height of the fencing as 2 meters ie of fencing	Fencing for the AWS site with Gate – Annexure C (Page 75/115) Kindly clarify.	Para 2(a) may be read as “The height of the fencing for the AWS (10m x 10m) must be 2 meters from

Anjio Anjan 

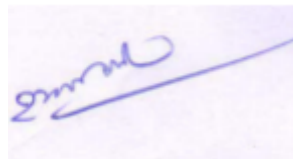






			must be 1.5 meters from the ground level and the length of the angle shall be. (1.5 meters from the ground level and 0.5 meters below ground level		the ground level. 2 (b) Length of the angle shall be 2.5 mtr i.e. (0.5m below ground
3	Page no 82 Page No. 103	Annexure F List of deliverables Para 28 & 31 Annexure VI List of deliverables and Price Bid format Para 29 & 32	Application software for central server at IMD Pune with license version and all its source code along with its maintenance updates and upgrades during two years warranty period and five years CAMC. Application software for Six RMCs with License version and all its source code along with its maintenance, updates and upgrades during two years warranty period and five years CAMC.	Please clarify, whether costing has to be considered for application software in all 6 RMCs in this bid or will orders be placed separately for application software as and when IMD requires.	As per tender document. Application software should be supplied, installed and maintenance support, upgradation etc. to respective RMCs shall be provided by the bidder. Servers and associated Hardware will be purchased by IMD for Six RMCs.

Anjia Anjan 



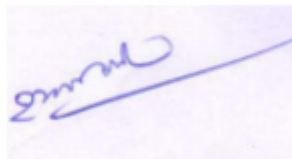




M/s Hach DHR Pvt Ltd. New Delhi

1	Page No 27	2. Scope of Tender (Para 2.5)	Dismantle of old Agro AWS including 10 m X 10 m fencing, Gate & 10 m mast with buyback policy. The cost of materials in buy back policy should not be less than 10% of the total cost of mast, gate and fencing materials quoted by the Bidders.	After dismantling where the items to be delivered are or it will be left at the sites itself. If it is left at sites, vendor will not be responsible for the security of the dismantled items. Kindly clarify.	After dismantle, all Dismantle items should be taken care by the bidder under buy back clause of the tender.
2	Page No 28	2. Scope of Tender (Para 2.14)	The Comprehensive AMC will be reviewed every year after completion of two years warranty and	Does this clause mean that P.O will be only for supply, installation, commission of	As per Tender document.


Anjia Anjan 

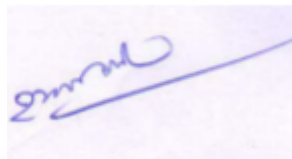






			can be extended depending upon the performance of the supplier during the previous year of CAMC period. In case of technology transitions, CAMC may not be extended and may even be terminated, if required.	AWS network and 2 years warranty? Every year AMC P.O will be release? Kindly clarify	
3	Page No 28	3. Overall requirements (Para 3.3)	All equipment should be qualified for MIL GRADE or better specifications and suitable for outdoor applications	Here MIL grade is defined. So do bidder need to provide Military connectors (like Amphenol) for sensor and enclosure has to be provided or the sensor cable can run through a cable gland into the datalogger enclosure. Kindly clarify.	As per Tender document
4	Pager No 29	3. Overall requirements (Para 3.14)	All the offered sensors (except soil sensors) of bidders shall be tested initially at test/calibration facility available at IMD Pune if TEC desires/ recommends	Here it is mentioned that TEC may recommend IMD for supplied sensors to be tested at IMD Pune which would be during evaluation after bid is submitted. This would	As per Tender document

Anjia Anjan 





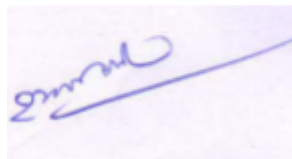


				<p>require, transportation to IMD lab and back, the time to get back the sensors resulting in delay in installation. Therefore, bidder need to know whether to consider this in the bid or not as the cost would be enormous and will impact the total bid price.</p>	
--	--	--	--	---	--

M/s Ingen Technologies. Kanpur

1	Page No 30	<p>4. SPECIFICATIONS OF SENSORS</p> <p>4.1.1 Air Temperature</p>	Sensor Type: Pt 100 RTD	Please allow Pt 100 RTD / Digital sensor of same specification.	As per tender document
2	Page No 31	<p>4. SPECIFICATIONS OF SENSORS</p> <p>4.4 Tipping Bucket rain Gauge</p>	Orifice Size/Collector Diameter: Specified Diameter of the collector RIM should be 200 mm	Please allow specified Diameter of the collector RIM to 203.2mm +/-0.2mm	As per tender document


Anjia Anjan 

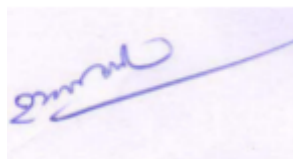






3	Page No 31	4. SPECIFICATIONS OF SENSORS 4.4 Tipping Bucket rain Gauge	Collector Area: Specified collector area should be between 314 sqcm	Please allow Specified collector area of between 314 sqcm to 325 sqcm	It may be read as “ Collector Area: Specified collector area should be between 200 cm ² to 325 cm ² ”.
4	Page No 33	4. SPECIFICATIONS OF SENSORS 4.7 Solar Irradiance Sensor	Sensor: Thermopile based Pyranometer	Please allow Photodiode based Pyranometer of the same range and specification	As per tender document
5	Page No 34	5. Power	Battery: Suitable Capacity SMF	Please also allow Li-cell Battery	As per tender document
6	Page No 35	6. SPECIFICATIONS OF DAS AND GPRS MODEM	xi) The DAS shall have suitable interface for 4G dual SIM GPRS modem (3G Compatible)	Please allow DAS having 4G single SIM	As per tender document


Anjia Anjan 



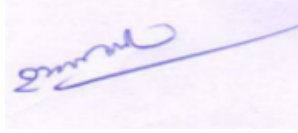




All the meetings ended with vote of thanks by the chair.



(Dr. V. K. Sehgal)



(Dr. S. L. Singh)



(R. Balasubraminum)



(Anjit Anjan)



(K. N. Mohan)

