

Minutes of the meeting of Pre-Bid for 10 Nos. of Wind Profiler systems (WPS) under 'Mission Mausam' held on 21.08.2025 at 1100 hours IST

The India Meteorological Department has invited bids vide Tender No. CPU/53/0825/1555 dated: 07.08.2025 for the procurement of 10 Nos. of Wind Profiler systems (WPS) under Mission Mausam through the CPP portal of the Government of India and the IMD website. Secretary, MoES has constituted the following Committee pertaining to the Pre-bid and technical and financial evaluation vide File No. DGM-HQ-24010/29/2024-UAID (Comp. No. 39141)vide Note#230 dated 18.08.2025 comprising the following members:

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| 1. Dr. T. Narayana Rao, Scientist-SG, NARL, Department of Space | Chairperson |
| 2. Dr. Soma Sen Roy, Head, Radar Division, IMD | Member |
| 3. Shri S. Gopal Krishna, Director (IFD), Ministry of Earth Sciences | Member |
| 4. Shri. Rajendra Kumar Kumhar, Director (Finance), IMD | Member |
| 5. Dr. Narendra Singh, Scientist-F, ARIES, Nainital | Member |
| 6. Dr. S.I. Laskar, Scientist-F, CPU, IMD | Member |
| 7. Shri. Sunil Narayan Thool, Scientist-E, Radar Division, IMD | Member |
| 8. Shri. Jan Mohommad, Scientist-D, Radar Division, IMD | Member-Secretary |

The representatives from the following firms attended the Pre-bid meeting:

1. M/s Electronics Corporation of India Ltd, Hyderabad
2. M/s Astra Microwave Products Limited, Hyderabad.
3. M/s Data Patterns (India)Private Limited, Chennai.
4. M/s LOTUS Microwave Technologies Pvt. Ltd, Hyderabad.
5. M/s Avantel Limited, Hyderabad.
6. M/s SGS Weather and Environmental Pvt. Ltd, Guru gram.
7. M/s Falconx Electro Technology Pvt. Ltd, Hyderabad.
8. M/s Scintec, Germany

The Pre-Bid meeting was held in hybrid mode on 21 Aug 2025 at 11:00 hours IST at DGM, Mausam Bhawan, New Delhi. The committee discussed and deliberated on all the Pre-Bid queries submitted by prospective bidders vis-à-vis the published tender requirement. The detailed response of the committee to the queries raised by various firms in writing via email is tabulated below:

| M/s Astra Microwave Product Limited, Hyderabad | | | | |
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| RFP Page # | RFP Clause No. | RFP Description | Queries | Remarks/Clarification |
| 135/242 | (3) Required Delivery Schedule | The supplier is to complete the supply, installation, & commissioning of all Wind Profiler System | Since there is a large civil work requirement in the scope of the vendor, invariably the system installation can start | As per the tender document. |

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| | | including civil, electrical works within 18 months from date of issue of Supply order. The supplier shall undertake the complete installation, and integration work on a turnkey basis. | only after the civil work completed and the site is dust free. We request you to kindly consider the first system shall be commissioned in 18 months and subsequently one system in every 2 months thereafter considering previous system commissioning and validation by IMD as well as vendor technical manpower deployment. | |
| 136/242 | (5) Scope of Supply – III & IV | <p>III. At least 250 KVA (or suitable capacity) Green Diesel Generator Set with AMF panel for automatic start when mains power fails, capable of supporting the load of all essential components and accessories of the Wind Profiler System required for operation. The DG set should be silent type with a separate canopy, suitable for operation in all weather conditions.</p> <p>IV. Three-Phase Air-Cooled Servo Voltage</p> | <p>The UPS suggested also 250KVA and Diesel generator also given 250 KVA. Hope required maximum load in radar system is supported by UPS system. In general, Airconditioning unit and other infrastructure is connected to AVR with higher capacity. Here the specification for Diesel generator and AVR is same as UPS. Kindly clarify UPS & Diesel generator of 250KVA.</p> | <p>1. Two online UPS, in redundant mode and each with a minimum capacity of 250 kVA or more as per the system requirement offered by the bidder are required for continuous operation of the entire WPS system, along with separate battery banks and changeover facility for switching to standby UPS. Each UPS should have at least 30 minutes' power back-up and should be capable of taking the full load of wind profiler. Catering to required voltage stabilizing with a power factor suitable for the system.</p> <p>2. A DG set of suitable capacity to support the entire building's powering requirement, including radar system, AC, lighting, etc., shall</p> |

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| | | Stabilizer, capacity 250 KVA (automatic), Input Voltage (phase to-phase) 240-480 V, Output Voltage (phase-to-phase) 415 V, with digital display. | | <p>be selected and installed. A minimum of 15 % of spare load shall also be considered while selecting the DG set. Auto changeover to the DG set in the event of line power supply failure or vice versa shall be arranged. Provisions shall be provided for the automatic shutdown of the radar system in the event of a minimum fuel level in the diesel tank. The DG set shall have a 4-star efficiency rating.</p> <p>3. Three-Phase Air-Cooled Servo Voltage stabilizer, capacity 250 KVA, requirement should be provided as per the tender documents .</p> <p>4. Automatic switching between the main power line, the DG set line and UPS 1, UPS 2 should be provided for uninterrupted operation of the WPS system.</p> |
| 151/242 | 1 5 CIVIL, AC, ELECTRICAL | 1 5 1 The Manufacturer shall take into consideration that the system is required to be installed on site on a building top with nominal height of around 10 meter upon which antenna array shall be installed and TR Modules will be | It is required to build antenna subsystem on roof top of a building, which is around 4.5m ceiling height. If it is required to be raised to 10m, building cost will be very high without getting any advantage. IMD may kindly suggest. | <p>a) The Manufacturer shall take into consideration that the system is required to be installed on site on a building top with nominal height (A minimum of 3.00 meter clearance shall be available from ground to bottom of TRMS after fixing in the ceiling) upon which antenna array shall be installed and TR modules will be hanging, with proper mechanical assembly, just beneath the</p> |

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| | | <p>hanging, with proper mechanical assembly, just beneath the roof top.</p> | | <p>roof top. b) Minimum one and a half meters around free space should be available around the antenna array for the free movement and accessibility to the antenna. Vendor shall consider the calibration of antenna during installation in the array before finalizing the distance between parapet wall & array boundary. c) The tentative building structure for the proposed WPS system is attached as Annexure-1. However, finalization for the civil, electrical and AC requirement will be done during DDR with the successful bidder. Rest of the requirements as depicted in sections 1.5.1 to 1.5.4 and 2.1.2 of Section VII: Technical Specifications and Quality Assurance should be strictly meet as per tender requirement.</p> |
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| M/s Data Pattern (India) Limited, Chennai | | | | |
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| S. No. | Clause No. | RFP Section | Queries | Remarks/Clarification |
| 1. | 10.1 | <p>Prices 1 Price Variation Clause If the Price Variation clause is applicable as per the contract, the price shall be subject to adjustment to take care of the changes in the cost of labour, material, and fuel / power components as per the price variation formula specified therein. The</p> | <p>We recommend that, fuel for DG is to be borne by IMD during commissioning and operation.</p> | <p>As per the Tender Document</p> |

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| | | amount payable on account of Price variation shall be settled every quarter | | |
| 2. | 9.2 | Part Supplies | Since Radars have to be developed at all sites in parallel, part shipments shall be allowed facilitating program progress. Antennae could be shipped earlier for installation on roof top, than the other system parts | Part Supplies are not acceptable. Delivery should be done as per tender requirement. |
| 3. | GCC 9.12 | Liquidated Damage (h) Successful bidder shall not be held responsible for delay in delivery of stores and their installation under the following reasons: | We request IMD not to consider LD in following cases, 1. Delay in WPC clearance 2. Delay in power supply availability at site 3. Delay in site availability / due to change of site based on site surveys | As per the Tender Document. |
| 4. | GCC 10.3.1, 10.3.2 | Terms and mode of payments | We request IMD to consider following payment terms, Payment against warranty (5%) and COAMC (20%) shall be paid on equal proportion across years, instead of ascending proportion, to manage the expenditures foreseen | As per the Tender Document. |
| 5. | Section: VI {Schedule of Requirements} 3 | Required Delivery schedule The supplier is to complete supply, installation, & | The mentioned delivery period of 18 Month is too short for this requirement. | As per tender document. |

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| | | commissioning of all Wind Profiler System including civil, electrical works within 18 months from date of issue of Supply order. The supplier shall undertake the complete installation, and integration work on a turnkey basis. | Hence, all infrastructure (Civil & Electrical) will require Government approvals (Local body) to even commence. We request to amend as follows, 1. Supply, Installation and Commissioning of First Radar in T0 + 24 Months 2. Sub Subsequent Radars will be Supplied, Installed and Commissioned in 1 radar in every 4 months | |
| 6. | 5 | Scope of supply | We request IMD to provide details of additional room other than UPS Generator are required in the Ground floor of the building. Eg: Toilets, Conference room, Reception, Rest room, Store room, Building management system for Fire etc, Camera / Intercom systems | Successful Bidder should consider these requirements while finalization of the civil structure. Detailing and finalization for this will be done during DDR time with successful bidder. A tentative drawing for the proposed civil structure is attached as Annexure-1 . However, finalization for the civil, electrical and AC and other requirement will be done during DDR with the successful bidder. Rest of the requirements as depicted in sections 1.5.1 to 1.5.4 and 2.1.2 of Section VII: Technical Specifications and Quality Assurance should be strictly meet as per tender requirement. |
| 7. | 5 | Scope of supply | Please provide us details of sub- | The electrical power supply will be provided |

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| | | | station for Power requirements for the Radar building will be provided by IMD, in addition to the power supply. | by IMD. with substation power of 440V (Phase to Phase). |
| 8. | 5 | Scope of supply | Please Confirm if any furniture storage rack, cupboards are required in the building. If required, Please specify. | Yes, furniture, storage racks, cupboard are required in the building. All required furniture should be provided as standard make of Godrej or equivalent. Furniture minimum requirement include the following: 1. Computer tables - 10 Nos 2. Office chairs - 20 Nos 3. Storage racks – 10 No 4. Cupboards – 10 No This comes under vendor scope and detailed requirement will be discussed during DDR time with successful bidder. |
| 9. | 5 | Scope of supply | Please confirm, fresh water lines for the building will be provided by IMD | Yes, but connection to the building is vendor's responsibility. |
| 10. | 5 | Scope of supply | Please confirm the approach road to the system will be taken care by IMD. If not confirm the approach distance, the bidder has to cater for | Min 50m approach road distance for the WPS system is in the scope of successful bidder. |
| 11. | 5 | IX Scope of supply | It is indicated to carry out the Refractive index analysis for the site before installation. Requesting IMD to clarify, if any site change will be recommended by IMD based on the | Successful bidder must carry out the analysis for refractive index for the proposed location in consultation with IMD. The required data will be provided by the IMD to carry out the analysis. In addition to this, noise survey and suitability of the site to be assured by |

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| | | | analysis. However, Since all the sites are under the purview of IMD, IMD is requested to carry out such analysis and declare the site compliance | the successful bidder in consultation with IMD. |
| 12. | 5 | Scope of supply | Preventive maintenance is indicated by IMD as once in 3 months. However, contractor will modify the preventive maintenance schedule, not limiting to only 3 months. | As per Tender Document |
| 13. | 7 | Tentative site locations | Though extra cost shall not be bared by IMD for reassigning of any site, we request IMD to consider clause for delivery timeline extension, due to the delay incurred in reassigning of any site | As per Tender Document |
| 14. | 1 1.18 | Accessories – Assembled RF cables (RG142 B/U) | Though sections 1.19 to 1.22, 1.24 & 1.25 explicitly represent the detailed requirements of RF cable assemblies – 100 sets, Section 1.18 once again represents assembled RF cables – 100 sets. Please clarify. | These are different cables required for connecting various subsystems with different lengths. Successful bidder should provide all cables as per tender requirements. Section 1.18 indicate the RG 142/B/U cable 100 nos. (10 Nos for each site) This high power cable with suitable connector form factor to be provided as per tender requirement. |

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| 15. | 1 1.28 | Accessories – Inter-series adaptors & terminations (up to 3GHz) | Though sections 1.29 to 1.41 explicitly represent the detailed requirements of accessories – 100/50 sets, Section 1.28 once again represents accessories – 50 sets. Please clarify | As per the system design all types of adaptors mentioned in the section 1.29 to 1.41 should be provided by the successful bidder. Similarly, if the designer will design the subsystem with different form factor of connectors then accordingly as per section 1.28 successful bidder should provide those adaptors as per tender requirement. |
| 16. | 1 1.29 & 1.30 | 50 Ohm Termination | Please clarify type of termination (connector interface polarity & power) | As per system requirements, successful bidder should provide the 50 ohms terminations with appropriate polarity. |
| 17. | 1 1.38 to 1.41 | Attenuators | Polarity is understood as M-F. Please confirm | As per system requirements, successful bidder should provide the Attenuators with appropriate polarity. |
| 18. | 1 | General Requirements p WPC clearance and Noise survey report to be submitted by the Firm. | We recommend IMD to apply for the WPC Clearance, well in advance for all the sites and not involve the bidder in getting the same. This is suggested, as it takes almost 01 year for getting the frequency clearance from WPC. As by this time, design, and fabrication of electronic items need to commence (as they are frequency dependent) to meet timelines. Further, the civil work for | As per Tender Document. However, IMD will provide all supporting documents for obtaining the WPC license. |

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| | | | antenna installation cannot take place at any site, till the time, the frequency of operation is decided and approved, well in advance. What would happen to all the procurement and products, if WPC clearance does not come about in time or is refused. It will be a very complicated situation. Please clarify | |
| 19. | 1 | p Site Survey | Towards clearing the frequency of operation, it is recommended that IMD to undertake the site survey at all locations, well in advance and decide the operating frequency, as Antenna and TR Module designs are frequency dependent | As per Tender Document. |
| 20. | 1 | p Site Surve | We request IMD to share Latitude Longitude co-ordinates of all sites. Also, arrange for a site visit for bidders to understand the surrounding terrain. If possible, IMD may also share the soil report conducted for any other purpose in | The details will be shared with successful bidder. |

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| | | | the past. | |
| 21. | 5 | Overall system requirements (Height resolution) | Resolution is indicated as min 37.5m, which is proportional to 0.25us. Can the bidder provide a better resolution option of say 30m, proportional to 0.2us. Please clarify | Yes, 37.5m or better resolution is acceptable without compromising on the quality of the spectrum, final wind product and max height coverage. |
| 22. | 22 | Overall system requirements (Pulse width) | Baud selection is indicated as 0.25, 0.5, 1us. Can the bidder provide a better baud selection in multiples of 0.2us. Please clarify | Yes, 0.25us or better baud is acceptable without compromising on the quality of the spectrum and final wind product. |
| 23. | 29 | Overall system requirements (Type of Receiver) | IMD has indicated on the number of receivers. However, from General terms and conditions (1.1.24) indicate that minimum 30 channels need to be routed to instrumentation room, from which it is inferred that minimum 30 receivers are required for the system. Please clarify | As per the tender document. The published tender requirement is for two operational mode DBS, SAD and min channel's requirements. Please refer technical specification at sr. no 30 at page no 136. of tender document. |
| 24. | 30 | Overall system requirements (Signal processing) | In Page no 136 system procedure – SAD mode is not a proven and only provision for SAD can be provided. | As per the tender document. The published tender requirement is for two operational modes DBS, SAD. Vendor has to supply software for DBS and SAD mode. Please refer technical specification at sr. no 30 at page no 136. of tender |

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| | | | | document. |
| 25. | 34 | Signal Processing Parameters Algorithms to remove aircraft, clutters, RFIs and any unwanted echoes gusting wind effects | Please provide us what type of Ecos are required. | The WPS is a clear-air atmospheric radar designed to detect clear-air echoes and the successful bidder should eliminate all unwanted artifacts, as specified in the tender document. The successful bidder must provide the necessary algorithms to achieve this functionality. Even during precipitation, when Rayleigh-scattered echoes are present, the system should be capable of extracting clear-air echoes effectively. |
| 26. | 1.1.1 | General terms and conditions Antenna shall be installed in roof top or ground as per availability of sites. | Please amend this point as Antenna shall be installed at roof top only | Antenna will be installed on roof top only. |
| 27. | 1.1.2 | General terms and conditions | Can the bidder plan for MS based railing on ceiling to fix TRMs, instead of SS, as such type of railing had been successful in already installed Radars. Please clarify | As per tender document. |
| 28. | 1.1.24 | General terms and conditions | Triangular grid is recommended, but Overall system requirements (16) indicates that the array grid could be triangular or square. Please confirm. | As per tender document. However, grid / aperture will be finalized during DDR with Successful bidder as per system WPS system design. |
| 29. | 1.1.26 | General terms and conditions | IMD has indicated a provision to bypass the TRM interlocks such as Excess | TR modules shall be designed with necessary protection interlocks like excess VSWR, excess temperature and |

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| | | | VWSR, Excess temperature and Excess duty. Such provision will lead to damage of TR modules. Hence IMD is requested to remove such provision requirements | excess duty. These interlock status to be available in RC GUI. |
| 30. | 1.2.5 | General terms and conditions (Archival of wind profiler system data) | We request IMD to confirm the number of displays and work stations for the system. Projection of additional displays and work stations required at each site | As per tender document. Following workstations are required Radar controller -1 no DSP system- 1 No Offline Data Processing- 1 No Redundant PC (RC/ DSP system) - 1 No Radar Display 65''- 1 No However, more technical details for the displays and workstation will be finalized during DDR with the successful bidder. |
| 31. | 2.3.2 | General terms and conditions (Spares, Consumables & Tools) | We recommend IMD that, vendor shall maintain the critical spares and cables at factory, instead of maintaining at each site, but however 95% up time will be ensured. | As per tender document. |
| 32. | 2.3.4 | General terms and conditions (Spares, Consumables & Tools) | Supply of Consumables by vendor for one year after commissioning shall not include fuel. It is better that IMD declare the list of consumables, to be supplied by vendor, for one year after commissioning, for | As per tender document. Please refer clause no 10 of SLA requirements of operational service at point no 10.2 and 10.6 , page no 154,156. |

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| | | | more clarity | |
| 33. | 3.1.1 | General terms and conditions (Acceptance Testing) | The scope of validation through GPS Radiosonde data or other means shall be handled by IMD, while the vendor's scope in the validation will be limited to providing of data from the Wind profiler | Validation of the wind profiler data with the GPS Radiosonde is the responsibility of the successful bidder to prove the field proven performance of WPS in clear air condition. |
| 34. | 3.1.1 | General terms and conditions (Acceptance Testing) | We request IMD to state the test run period for acceptance, as it is indicated by IMD that 'any interruption during the test run will offset the required period to the full period stated above'. | Yes, as per tender document. This particular clause is applicable during performance validation of the wind profiler system. |
| 35. | 1 i, c | Experience and Past performance Bidder may be manufacturer or integrator of TRMs, RF Frontend Receiver, digital systems and receiver, signal processing systems (Hardware and so_ware), Servo system, Antenna & Mechanical system, designed and developed for Wind Profiler Radar system. | IMD had indicated the servo system in the WPS. Please clarify as such system is not used in WPS | It should be read as - Bidder may be manufacturer or integrator of TRMs, RF Frontend Receiver, digital systems and receiver, signal processing systems (Hardware and software), Antenna & Mechanical system, designed and developed for Wind Profiler Radar system. |
| 36. | Form 2 | Description of Goods | Based on the architecture derived by the contractor, the number of line items could vary, not limiting to | As per the tender requirement. |

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| | | | the list provided in the Table. For example, an integrated common module could serve the purpose of both waveform generator and RF receiver. Hence the number of line items with respect to building blocks of Radar shall be modified by the contractor | |
| 37. | | BoQ General query on BoQ | In BoQ GST value is not multiplying in total Taxes column, Can we enter Total price in GST column | Clear instruction is provided in the BOQ sheet for filling the price in GST column. It was also demonstrated during pre-bid meeting. |

M/s Electronics Corporation of India Limited, Hyderabad

| S. No. | Tender ref/Page No. | Requirements as per Tender | Queries | Remarks/Clarification |
|--------|---|--|---|------------------------|
| 1. | TIS (Tender Information Summary, clause 10, ITB Clause 13.2.4) (Refer Pg No. 9) Section VIII: Qualification Criteria /Pg No 160 Clause: 3(iii ,iv, v) | Performance Security: Applicable @5% of Order value Bid Security (EMD) of Rs.6,04,80,000/- (Mentioned in CPPP portal) EMD | ECIL being a CPSU under DAE, Bid Security Declaration along with an Indemnity Bond shall be furnished against EMD requirement. Also IB in lieu of BG against Performance Security shall be provided. Please confirm on waiver of EMD amount of | As per Tender Document |

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| | | | Rs.6,04,80,000/- | |
| 2. | Section VIII: Qualification Criteria /Pg No 160 Clause: 1(iv) | Supporting documents submitted by the Bidder must be certified. | Are the documents self certified or through any agency? | All document to be signed by authorized signatory as per tender requirement. |
| 3. | Para 4/ Pg No. 127 | Required Terms of Delivery on DAP basis | Is this Incoterm applicable for domestic or foreign suppliers? | As per Tender Document |
| 4. | Terms of Delivery (Refer Pg. No 6) | All the 10 Wind Profiler Systems (WPS) to be delivered, installed, accepted and commissioned within 18 months from the date of issue of contract agreement. | The given time line of 18 months is very restrictive and short for project (10 systems) of Turnkey in nature. Therefore we request for amending the Delivery Schedule as First Radar system in 15 months and Installation & Commissioning within 18 months & then 2 months per system until all systems are complete. Total – 36 Months. | As per tender document |
| 5. | Schedule VII: General Terms & Conditions. Clause 1.1.37) (Refer Pg. No 141) | Vendor shall do necessary modifications in the design based on DDR committee suggestions & recommendations without extra cost. | Any design changes / modifications applicable may incur additional charges? Please clarify. | As per Tender Document |
| 6. | GCC 10.3.1 & 10.3.2 Payment Terms Pg. No | Balance Twenty Percent (20%) payment of the contract value(Cumulative to | Request to separate the payments for supplies and | As per Tender document |

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| | 112-113 | hundred Percent (100%) shall be made quarterly during the seven years COAMC Period, on a pro-rata basis. | services (COAMC). | |
| 7. | General | Bid Submission End Date :9th Sept, 2025 | For the preparation of comprehensive response confirming to the terms and conditions of the RFP, It is requested to extend due date of submission of bid for 6 weeks i.e. till 24th Oct 2025. | As per Tender document |

| M/s SGS Weather & Environmental Pvt. Ltd, Gurugram | | | | |
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| S. No. | RFP No | Specifications | Queries | Remarks/Clarifications |
| 1. | Page : 160 Section VIII: Qualification Criteria Point: 2 Financial Standing under all conditions | The average annual financial turnover of The bidder during the last three years, ending on 31st March, 2025, should be at least Rupees One hundred Twenty One Crore (INR121 Crore) per annum. In this regard audited annual balance sheet and profit or loss statement/reports, duly authenticated (by a Chartered Accountant / Cost Accountant in) of last three consecutive years | Since the MSE turnover limit as per the Government of India rules is 100 Cr. The Financial turnover limit should be exempted for MSE. The clause needs to be changed in coherence with the Govt of India policy which states "Registered MSEs are exempted from the requirement of "prior turnover" and "prior experience" in public procurement tenders subject to meeting technical and | As per Tender document |

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| | | <p>shall be submitted along with technical bid.</p> | <p>quality specifications in the bid.”</p> <p>Further “2. Manual for Procurement of Goods Second Edition, 2024 Page 25, Para 9. Specifications in Tenders and other procurement solicitations: Sub para b) Procuring entities shall endeavour to see that eligibility/ qualification conditions, including on matters like turnover, production capability, and financial strength, do not result in unreasonable exclusion of ‘Class-I local supplier’/ ‘Class-II local supplier’ who would otherwise be eligible beyond what is essential for ensuring quality or creditworthiness of the supplier.</p> <p>Request: The tender clause should be changed to encourage MSE companies by allowing exemption in Turnover. We sincerely hope our request will be considered in the spirit of</p> | |
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| | | | encouraging fair competition and promoting the Government's Make in India and Atmanirbhar Bharat initiatives. | |
| 2. | Page :160 Section VIII: Qualification Criteria Point: 2 Financial Standing under all conditions | Financial Standing under all conditions | Financial Standing “under all conditions” should be relaxed for MSE as per Govt. of India rules. | As per Tender document |
| 3. | Page :131 Section VII: Technical Specifications and Quality Assurance 1. General Requirement | j. Web browser-based access to GIS based Wind profiler system data display to be provided using web browsers such as Microsoft Internet Explorer, Firefox, Chrome etc. | What is the display format for GIS- based data? Should it be displayed on a map like the Windy service, showing wind patterns? Is GIS information utilized using Google Maps? | Please refer to the technical specifications requirement sr. No 40, 41 page no 138 of the tender documents. However, detailed discussion and finalization will be done during DDR with successful bidder. |
| 4. | Page :134 Overall System Requirements Point: 16 Antenna array | 16.e. Return loss better than -18dB | Since it is not possible to combine all the antenna to check the combined return loss as well as individual antenna return loss >20.8dB (VSWR 1.2:1) as per 18.e and hence the requirement may not be required. | Return loss better than - 18dB (VSWR 1.2:1) measurement will be carried out for the individual antenna. |
| 5. | Page :136 Overall System Requirements Point: 23 PRF | 100 Hz to 16KHz selectable (Pulse width & PRF subject to duty ratio limits of Tx) | The PRF range does not align with the overall system specifications related to operation. PRF 100Hz corresponds | PRF is selectable parameter to cater for unambiguous range as mentioned in the tender document. User will select the desired PRF as per observational requirement. Vendor should provide as |

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| | | | to a PRI (Pulse Repetition Interval) of 10ms, which theoretically supports an unambiguous range of about 1,500km. Value can be revisited. | per tender requirement. |
| 6. | Page: 136 Overall System Requirements Point: 27 Wind Profiler system sensitivity (without Processing)- | - 155 dBm (typical) | Does the proposed specification refer to the system sensitivity value that takes into account the total gain of the receive path and the dynamic range of the ADC? Bandwidth not mentioned. | -155 dBm is the system level sensitivity at the maximum height mentioned in the tender document. Band Width parameter will be designer part accordingly system noise BW can be restricted to achieve the - 155dBm sensitivity. |
| 7. | Page: 136 Overall System Requirements Point: 29 Type of Receiver | Direct Band width sampling Super heterodyne (including LNAs, DDS and DDC based) receiver with Programmable signal bandwidths for match filtering. | Is it also acceptable to propose an alternative method that is simpler in configuration than the proposed method while still ensuring the required performance? Can the supplier be given autonomy regarding this specification? | As per tender document. However, this requirement is designer prospective hence, it will be decided during DDR with successful bidder. |
| 8. | Page: 137 Overall System Requirements Point: 38 Wind profiler system controller | Wind profiler system controller shall have provision to record the data for all above mentioned parameters | Time Interval to be mentioned | Time interval for recording this data will be discussed during DDR time with successful bidder. |
| 9. | Page: 138 Overall System Requirements Point: 40 Data | Data storage: The storage device of the system should have capability to the store at least 12 | Does the 12-month stored data include I/Q raw data? This may be conducted to | No, However successful bidder should provide provision to capture, visualize and store IQ data as per user |

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| | products & storage | months of raw and first-level processed data. | finalize the storage capacity | requirement. |
| 10. | Page: 138 Overall System Requirements Point: 44 Output | Options for getting three moments with SNR in ASCII format with detailed header and footer. ASCII files must contain each profile with start and end time. Hourly average files must be created separately. Algorithms should be implemented to remove weather parameter effects on data sets | The time range for which the hourly average should be provided. The types of data for which hourly averages should be provided. Specified output file format. What are the specific types of weather parameters, and are these parameters provided separately? | As per tender document. However, details about time range of half hourly/hourly average data will be discussed during DDR time with successful bidder. |
| 11. | Page: 139 General Terms & Conditions 1.1.1 | Antenna shall be installed on the roof top or ground as per availability of sites with TR modules hanging, below from the roof, with proper mounting assembly from the roof below. The RF cables from each antenna will be brought down to the environmentally controlled room (around 30°C temperature) through an inverted J-shaped tube (capable of stopping rain water and dust entry to the room). | Since lot of cost is involved and civil structures are to be made, need clear approach for proposed building design. Need clarity on how many WPR are with building and how many are to be with ground based concept. Probable design of building to normalize among the vendors | Tentative building drawing attached as Annexure-1 is required for the installation of the proposed wind profiler. However, finalization for the civil, electrical and AC and other requirement will be done during DDR with the successful bidder. Rest of the requirements as depicted in sections 1.5.1 to 1.5.4 and 2.1.2 of Section VII: Technical Specifications and Quality Assurance should be strictly meet as per tender requirement. |
| 12. | Page: 139 General Terms & Conditions | Proper solid stainless-steel railing on the | Reference basket design if available, can be shared. | It will be decided during DDR with successful bidder. |

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| | 1.1.2 | ceiling to fix the TRMs shall be made available. For easiness in maintain TRMS, it is suggested to keep TRM in basket case holding in the steel railing. | Can the supplier be given autonomy regarding this specification? | |
| 13. | Page :142 General Terms & Conditions 1.2.3 | Provision to record, store and offline playback for analysis of I & Q data as well as Off-line processing of the data to derive the profiles of 3-dimensional winds and spectral characteristics using advanced adaptive algorithm. | Does it mean the development of software to generate and display the profiles specified in the specification from I/Q RAW data on a separate computer? | Yes. Separate offline software to be provided by the vendor to carry out off-line data analysis and generate all product using stored data, including raw I&Q data. |
| 14. | Page :144 General Terms & Conditions 1.6.1 | System shall have provision to automatically monitor the amplitude and phases of individual transmit/receive channels of the complete antenna array. Also, there should be provision for the correction of the residual phases and amplitude errors in both transmit/ receive individual lines to ensure coherent operation of the system. | Hope this functionality is used during the phase calibration. | Yes |

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M/s AVANTEL, Hyderabad

| S. No. | RFP No | Specifications | Queries | Remarks/Clarifications |
|--------|--------|--|--|---|
| 1. | BOQ | In RFP document there is no clear and detailed technical specification for below Items, kindly provide as earliest as possible | RF and simulation feeder network | This is system designer's perspective. As per system design RF and simulation feeder should be designed as per tender requirement. |
| 2. | BOQ | | RF receiver | This is system designer prospective. As per system design RF receiver should be designed as per tender requirement. |
| 3. | BOQ | | Waveform generator | This is system designer prospective. As per system design waveform generator should be designed as per tender requirement |
| 4. | BOQ | | Servers and displays | As per tender requirement |
| 5. | BOQ | | communication device including central server | As per tender requirement |
| 6. | BOQ | | Two – way Power dividers up to 1 GHz | As per system design and tender requirement, Two – way Power dividers up to 1 GHz should be provided as spare components |
| 7. | BOQ | | Directional Coupler (Up to 1 GHz) | As per system design and tender requirement Directional Coupler (Up to 1 GHz) should be provided |
| 8. | BOQ | | Suitable Green Diesel Generator Set with AMF panel | As per tender document. Please refer clause 1.5.4 in section VII: Technical Specifications and Quality Assurance for DG set requirement. |
| 9. | BOQ | | Three Phase Air Cooled Servo Voltage Stabilizer capacity of 250 KVA | As per tender document. Please refer clause no IV at Page no 128 of the tender document. |
| 10. | BOQ | | List and Technical Specifications Standard Test equipment and tool kit to be | Successful bidder has to supply all standard test equipment and toolkit required for operation and testing of WPS system. However, details about the standard equipment |

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| | | | supplied at each site | and toolkit will be decided during DDR time. |
| 11. | BOQ | | All Attenuators Technical Specifications | As per system design and tender requirement all Attenuators should be supplied. |
| 12. | EMD | | EMD Exemption : For this tender, the EMD amount specified is Rs 6,04,80,000/-, As M/s Avantel Limited is registered as a (MSME) under the Ministry of MSME, Government of India We, therefore, request your kind consideration to grant us exemption from submission of said EMD amount, for the above-mentioned tender in line with the provisions of the Public Procurement Policy for MSME. | As per Tender Document |
| 13. | BID submission date | | Extension of Bid Submission Deadline: We require additional time for analysis and study. Furthermore, we have requested necessary quotations from our sub-vendors, | As per Tender Document |

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| | | | which are critical for completing our proposal. In view of this, we kindly request an extension of the bid submission deadline by Two (02) weeks, until October 05, 2025. This extension will provide us with sufficient time to provide competitive proposal, | |
| 14. | ITB-clause 4.1.7 | Mandatory Joint venture with Indian Company ITB-clause 4.1.7 (Make in India Policy)- Yes | - | As per Tender document. |

| M/s LOTUS MICROWAVE TECHNOLOGIES, Hyderabad | | | | |
|--|---------------|--|---|--|
| S. No. | RFP No | Specifications | Queries | Remarks/Clarifications |
| 1. | 26 | TR Modules have to undergo the following Environmental Tests: | What percentage (%) of TRMs Modules should undergo each of these tests? | As per Tender documents. However, details about the % of TRMS and other subsystems that undergo environmental tests and EMI EMC tests will be discussed in detailed with successful bidder during DDR. |
| 2. | 1.1.14 | TR Modules, along with power supply, shall be subjected to endurance test, temperature cycling, dry heat test, damp heat test, EMI/EMC test, and vibration test. All environmental tests are to be carried out in the presence of IMD. | | |
| 3. | 1.1.24 | Antenna array shall be | Please confirm the required grid | As per tender document. However, grid / aperture |

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| | | configured with a basic triangular grid maintaining a minimum of 30 phase centers (sub-groups) | type – Triangle or Square. | will be finalized during DDR with Successful bidder as per system design. |
| 4. | 16 | Antenna Array | | |

In addition to the above, the committee noted the following observations in the tender document and proposed the corresponding corrections:

1. The updated Form 2 is enclosed as an Annexure-2.

The meeting ended thanking all the participants and the committee members.

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(T. Narayan Rao)

Soma Sen Roy

(Soma Sen Roy)

S. Gopal Krishna

(S. Gopal Krishna)

Agreed with financial aspects

Rajendra Kumar Kumhar

(Rajendra Kumar Kumhar)

Narendra Singh

(Narendra Singh)

S. I. Laskar

(S. I. Laskar)

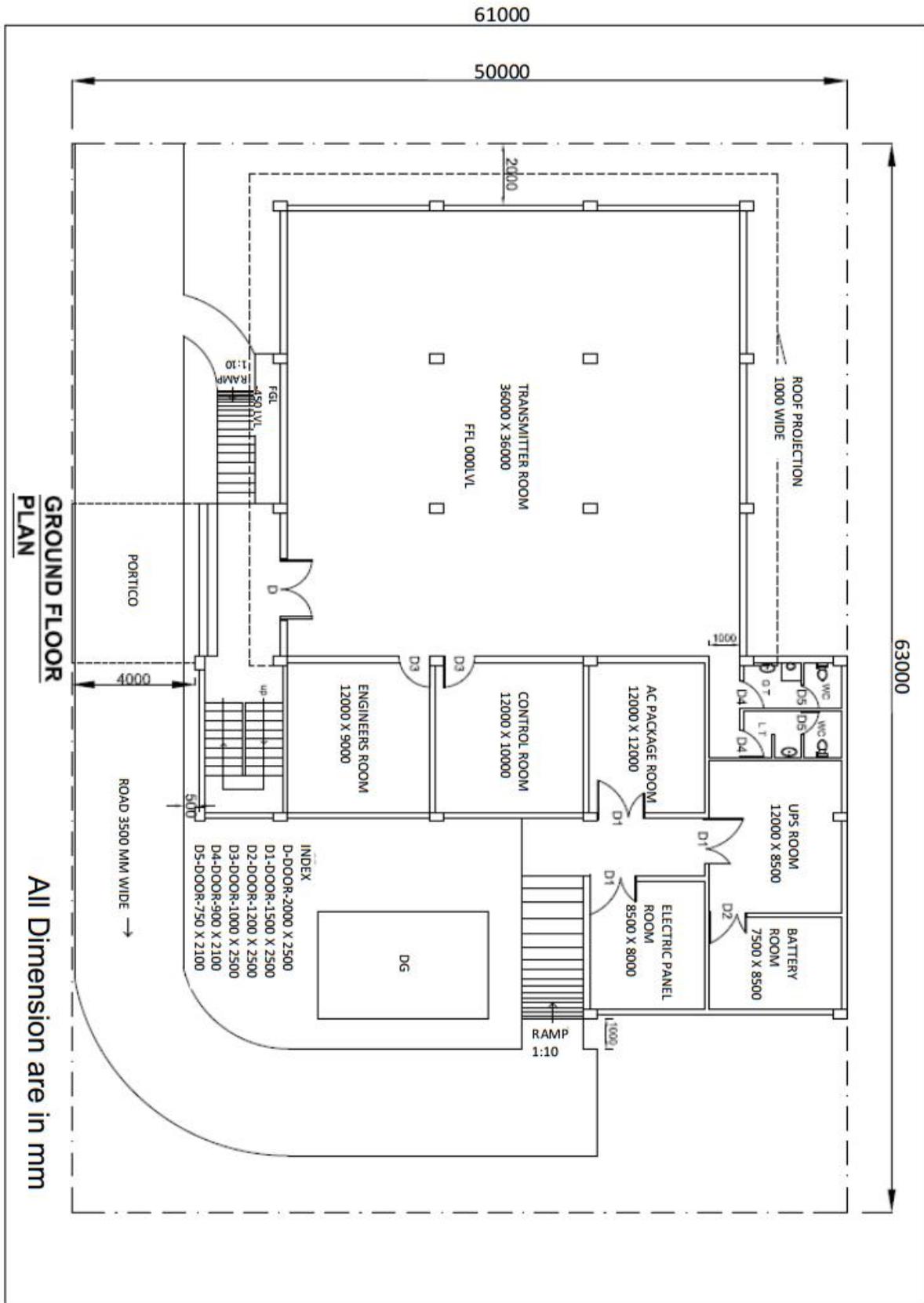
Sunil Narayan Thool

(Sunil Narayan Thool)

Jan Mohmmad

(Jan Mohmmad)

Tentative Drawing for the proposed Wind Profiler System



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Annexure-2

Form 2: Schedule of Requirements - Compliance Schedule of Requirements

(Ref ITB-clause 9.2, Schedule VI: Schedule of Requirements)

(To be submitted as part of Technical bid)

(on Company Letter-head)

Tender Document No. CPU/53/0825/1555; Tender Title: Procurement, Installation and Commissioning of Ten (10) numbers of Wind Profiler System (WPS)

Bidder's Name _____

[Address and Contact Details]

Bidder's Reference No. _____ Date.....

Note to Bidders: Fill up this Form regarding Section VI: Schedule of Requirements maintaining the same numbering and structure. Add additional details not covered elsewhere in your bid in this regard.

| Tender Title | | | | Procurement, Installation and Commissioning of Ten (10) numbers of Wind Profiler System (WPS) | | | | | | |
|----------------------------|---------|--|---------------------|---|----------|-------------------|-------------------|-----------------------|--------------------|-------|
| Tender Reference No | | | | CPU/53/0825/1555 | | | | | | |
| Schedule | Item Sr | Local Content (%) | Foreign Content (%) | Description of Goods | Quantity | Country of Origin | Units of Quantity | Delivery Requirements | Destination, State | GSTIN |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Schedule-1 | | Procurement, Installation and Commissioning of Ten (10) numbers of Wind Profiler System (WPS) | | | | | | | | |
| 1 | 1.1 | | | | | | | | | |
| 1 | 1.2 | | | | | | | | | |
| 1 | 1.3 | | | | | | | | | |

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- (1) Background of requirements:
- (2) Transportation:
- (3) Delivery Schedule:
- (4) Terms of Delivery:
- (5) Scope of Supply (Accessories, Spare Parts):
- (6) Incidental Works/ Services:

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Deviations from Schedule of Requirements

Note to Bidders: Highlight deviations, if any, from Section VI: Schedule of Requirements in this Form.

| Sl. No. | Ref of Tender Document Section, Clause | | Subject | Confirmation/ Deviation/ Exception/ reservation | Justification/ Reason |
|---------|--|--------------------|---------|---|-----------------------|
| | Section | Clause/ sub-clause | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

We shall comply with, abide by, and accept without variation, deviation, or reservation all requirements detailed in Section VI: Schedule of Requirements in the Tender Document, except those mentioned above. If mentioned elsewhere in our bid, contrary terms and conditions shall not be recognized and shall be null and void.

.....

(Signature with date)

.....

(Name and designation)

Duly authorized to sign bid for and on behalf of

.....

[name & address of Bidder and seal of company]

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