



Republic of the Philippines
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES

PHILIPPINE BIDDING DOCUMENTS

Supply and Delivery of Meteorological Instrument for Catbalogan Airport (RE-BID)

Bid No. 24-073-09 BRAVO

Government of the Republic of the Philippines

_____ 2024

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Glossary of Acronyms, Terms, and Abbreviations

ABC – Approved Budget for the Contract.

BAC – Bids and Awards Committee.

Bid – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender*. (2016 revised IRR, Section 5[c])

Bidder – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

Bidding Documents – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

Consulting Services – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

CDA - Cooperative Development Authority.

Contract – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

CIF – Cost Insurance and Freight.

CIP – Carriage and Insurance Paid.

CPI – Consumer Price Index.

DDP – Refers to the quoted price of the Goods, which means “delivered duty paid”.

DTI – Department of Trade and Industry.

EXW – Ex works.

FCA – “Free Carrier” shipping point.

FOB – “Free on Board” shipping point.

Foreign-funded Procurement or Foreign-Assisted Project – Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

Framework Agreement – Refers to a written agreement between a procuring entity and a supplier or service provider that identifies the terms and conditions, under which specific purchases, otherwise known as “Call-Offs,” are made for the duration of the agreement. It is in the nature of an option contract between the procuring entity and the bidder(s) granting the procuring entity the option to either place an order for any of the goods or services identified in the Framework Agreement List or not buy at all, within a minimum period of one (1) year to a maximum period of three (3) years. (GPPB Resolution No. 27-2019)

GFI – Government Financial Institution.

GOCC – Government-owned and/or -controlled corporation.

Goods – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term “related” or “analogous services” shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

GOP – Government of the Philippines.

GPPB – Government Procurement Policy Board.

INCOTERMS – International Commercial Terms.

Infrastructure Projects – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PhilGEPS - Philippine Government Electronic Procurement System.

Procurement Project – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

Supplier – refers to a citizen, or any corporate body or commercial company duly organized and registered under the laws where it is established, habitually established in business and engaged in the manufacture or sale of the merchandise or performance of the general services covered by his bid. (Item 3.8 of GPPB Resolution No. 13-2019, dated 23 May 2019). Supplier as used in these Bidding Documents may likewise refer to a distributor, manufacturer, contractor, or consultant.

UN – United Nations.

Section I. Invitation to Bid



INVITATION TO BID FOR
Supply and Delivery of Meteorological Instrument for Catbalogan Airport
Bid No. 24-073-09 BRAVO (RE-BID)

1. The **Civil Aviation Authority of the Philippines (CAAP)**, through the *DOTr-CAAP MOA dated 2021-02-04* For the Site Acquisition, Procurement and Implementation of Various Airport Projects (*Provision of ANF Equipment*) intends to apply the sum of **Nine Million Seven Hundred Seventy-Eight Thousand Seven Hundred Ninety-Eight Pesos & 61/100 (PhP 9,778,798.61)** being the ABC to payments under the contract for **Supply and Delivery of Meteorological Instrument for Catbalogan Airport (RE-BID)**. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The **CAAP** now invites bids for the above Procurement Project. Delivery of the Goods is required within 180 calendar days upon Supplier's receipt of the Notice to Proceed. Bidders should have completed, within five (5) years from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
3. Bidding will be conducted through open competitive bidding procedures using a non-discretionary "*pass/fail*" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA No. 5183.
4. Prospective Bidders may obtain further information from CAAP BAC Secretariat and inspect the Bidding Documents at the address given below during 8:00am to 5:00pm from Mondays to Fridays.
5. A complete set of Bidding Documents may be acquired by interested Bidders on **30 October 2024 until the deadline of submission of bids** from the address and/or website(s) below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of **Php 10,000.00 (exclusive of any and all taxes imposed by relevant government agencies)**. The Procuring Entity shall allow the bidder to present its proof of payment for the fees *to be presented in person*.

It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that Bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.
6. Upon payment of the bid documents, bidders must provide their respective email addresses to the BAC Secretariat. All communications, including but not limited to Notices, Resolutions, and Replies, among others, will be sent to the email address provided by the bidder/s. The date when such email was sent shall be considered the date of receipt of the bidder/s for purposes of complying with the requirements under RA 9184.
7. The **CAAP** will hold a Pre-Bid Conference on **06 November 2024 at 9:30 AM** at CAAP BAC Office and/or through video conferencing or webcasting via Google Meet, which shall be open to prospective bidders.



8. Bids must be duly received by the BAC Secretariat through manual submission at the office address indicated below, on or before **18 November 2024 at 9:30 AM**. Late bids shall not be accepted.
9. All Bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 14.
10. Bid opening shall be on **18 November 2024 at 9:30 AM** at the given address below and/or via *online conference thru Google Meet*. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
11. The **CAAP** reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised IRR of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
12. Bidders must also check the PhilGEPS website, CAAP website, and BAC Secretariat for any bid bulletins and announcements related to the bidding:
 - a. PhilGEPS website - <https://philgeps.gov.ph/>
 - b. CAAP website - <https://caap.gov.ph/bac-2024/>
13. For further information, please refer to:
ENGR. LEANDRO R. VARQUEZ
Head, BAC Secretariat
3rd Floor Supply, Procurement Building
Civil Aviation Authority of the Philippines
Old MIA Road corner Ninoy Aquino Avenue
Pasay City, Metro Manila 1300
Tel #: (02) 8246 4988 loc. 2236
Email: bac@caap.gov.ph

ATTY. DANJUN G. LUCAS

Chairperson, Bids and Awards Committee - Bravo

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, *Civil Aviation Authority of the Philippines*, wishes to receive Bids for the **Supply and Delivery of Meteorological Instrument for Catbalogan Airport (RE-BID)**, with identification number **BID NO. 24-073-09 BRAVO**.

The Procurement Project (referred to herein as "Project") is composed of **one (1) lot** the details of which are described in Section VII (Technical Specifications).

2. Funding Information

2.1. The GOP through the source of funding as indicated below for 2021 in the amount of *Nine Million Seven Hundred Seventy-Eight Thousand Seven Hundred Ninety Pesos and Sixty-One Centavos (PhP 9,778,798.61)* through the *DOTr-CAAP Memorandum of Agreement (DOTr Downloaded) CY2021*.

2.2. The source of funding is:

- a. NGA, the General Appropriations Act or Special Appropriations.

3. Bidding Requirements

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manuals and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or **IB** by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have verified and accepted the general requirements of this Project, including other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

4. Corrupt, Fraudulent, Collusive, and Coercive Practices

The Procuring Entity, as well as the Bidders and Suppliers, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex "I" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5. Eligible Bidders

5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.

5.2. b. Foreign ownership limited to those allowed under the rules may participate in this Project.

5.3. Pursuant to Section 23.4.1.3 of the 2016 revised IRR of RA No.9184, the Bidder shall have an SLCC that is at least one (1) contract similar to the Project the

value of which, adjusted to current prices using the PSA's CPI, must be at least equivalent to:

- a. For the procurement of Non-expendable Supplies and Services: The Bidder must have completed a single contract that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC.

- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.1 of the 2016 IRR of RA No. 9184.

6. Origin of Goods

There is no restriction on the origin of goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN, subject to Domestic Preference requirements under **ITB** Clause 18.

7. Subcontracts

- 7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than twenty percent (20%) of the Project.

The Procuring Entity has prescribed that:

- b. **Subcontracting is not allowed.**

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address and/or through video conferencing/webcasting as indicated in paragraph 6 of the **IB**.

9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

10. Documents comprising the Bid: Eligibility and Technical Components

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section VIII (Checklist of Technical and Financial Documents)**.
- 10.2. The Bidder's SLCC as indicated in **ITB** Clause 5.3 should have been completed within **Five (5) years** prior to the deadline for the submission and receipt of bids.
- 10.3. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines.

Similar to the required authentication above, for Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

11. Documents comprising the Bid: Financial Component

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section VIII (Checklist of Technical and Financial Documents)** and in **BDS**.
- 11.2. If the Bidder claims preference as a Domestic Bidder or Domestic Entity, a certification issued by DTI shall be provided by the Bidder in accordance with Section 43.1.3 of the 2016 revised IRR of RA No. 9184.
- 11.3. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.

12. Bid Prices

- 12.1. Prices indicated on the Price Schedule shall be entered separately in the following manner:
 - a. For Goods offered from within the Procuring Entity's country:
 - i. The price of the Goods quoted EXW (ex-works, ex-factory, ex-warehouse, ex-showroom, or off-the-shelf, as applicable);
 - ii. The cost of all customs duties and sales and other taxes already paid or payable;
 - iii. The cost of transportation, insurance, and other costs incidental to delivery of the Goods to their final destination; and
 - iv. The price of other (incidental) services, if any, listed in the **BDS**.
 - b. For Goods offered from abroad:
 - i. Unless otherwise stated in the **BDS**, the price of the Goods shall be quoted delivered duty paid (DDP) with the place of destination in the Philippines as specified in the **BDS**. In quoting the price, the Bidder shall be free to use transportation through carriers registered in any eligible country. Similarly, the Bidder may obtain insurance services from any eligible source country.
 - ii. The price of other (incidental) services, if any, as listed in the **BDS**.

13. Bid and Payment Currencies

- 13.1. For Goods that the Bidder will supply from outside the Philippines, the bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies, shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.

13.2. Payment of the contract price shall be made in:

- a. **Philippine Pesos.**

14. Bid Security

- 14.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 14.2. The Bid and bid security shall be valid *within 120 calendar days from the date of the opening of bids*. Any Bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

Bid Security, RA9184 Section 27.2

15. Sealing and Marking of Bids

Each Bidder shall submit one original copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

16. Deadline for Submission of Bids

- 16.1. The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 7 of the **IB**.

17. Opening and Preliminary Examination of Bids

- 17.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

- 17.2. The preliminary examination of bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

18. Domestic Preference

- 18.1. The Procuring Entity will grant a margin of preference for the purpose of comparison of Bids in accordance with Section 43.1.2 of the 2016 revised IRR of RA No. 9184.

19. Detailed Evaluation and Comparison of Bids

- 19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*," using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of the 2016 revised IRR of RA No. 9184.
- 19.2. If the Project allows partial bids, bidders may submit a proposal on any of the lots or items, and evaluation will be undertaken on a per lot or item basis, as the case maybe. In this case, the Bid Security as required by **ITB** Clause 15 shall be submitted for each lot or item separately.
- 19.3. The descriptions of the lots or items shall be indicated in **Section VII (Technical Specifications)**, although the ABCs of these lots or items are indicated in the **BDS** for purposes of the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184. The NFCC must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder.
- 19.4. The Project shall be awarded as **One Project** having several items that shall be awarded as one contract.
- 19.5. Except for bidders submitting a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation, all Bids must include the NFCC computation pursuant to Section 23.4.1.4 of the 2016 revised IRR of RA No. 9184, which must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder. For bidders submitting the committed Line of Credit, it must be at least equal to ten percent (10%) of the ABCs for all the lots or items participated in by the prospective Bidder.

20. Post-Qualification

- 20.2. Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS) and other appropriate licenses and permits required by law and stated in the **BDS**.

21. Signing of the Contract

- 21.1. The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

Section III. Bid Data Sheet

Bid Data Sheet

| ITB Clause | |
|------------|---|
| 5.3 | <p>For this purpose, contracts similar to the Project shall be:</p> <ol style="list-style-type: none"> a. Supply and Delivery of Meteorological Instruments. b. completed within five (5) years prior to the deadline for the submission and receipt of bids. |
| 7.1 | Subcontracting is not allowed. |
| 12 | The price of the Goods shall be quoted DDP at ANS Technical Center, CAAP, Old MIA Road, Pasay City , as defined in the latest International Commercial Terms (INCOTERMS). |
| 12.1 | <p>Prices indicated on the Price Schedule shall be entered separately for goods offered from within Philippines and from abroad using the respective Price Schedule forms provided by the GPPB.</p> <p>Price of other Incidental Services includes, if applicable, but are not limited to the following:</p> <ol style="list-style-type: none"> 1. All expenses for the processing of permits and licenses shall be part of the price schedule of the equipment. 2. Provision of cables, grounding, surge protection and other additional or auxiliary electronic/electrical adapter, signal converters, connectors, components, fixtures, interface, fittings/mounting kits, cable management, etc. for the different equipment to meet operational and functional requirements. Prices for these incidentals shall be incorporated to the equipment listed in the BOQ of the Schedule of Requirements to which it is primarily related, 3. Import Licenses / Permits; 4. Integration training; 5. Related equipment tests; 6. Installation, Operational, Maintenance and other forms of Manuals and System & Circuit Diagrams. <p><i>Price schedules in the accomplished financial form shall be consistent with and referenced to all plans, designs and layouts as submitted in the technical bid proposal.</i></p> |

| 14.1 | <p>The bid security shall be in the form of a Bid Securing Declaration, or any of the following forms and amounts:</p> <table border="1"> <thead> <tr> <th data-bbox="346 275 994 365">Form of Bid Security</th><th data-bbox="994 275 1398 365">Amount of Bid Security (Not less than the required percentage of the ABC)</th></tr> </thead> <tbody> <tr> <td data-bbox="346 365 994 454">a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.</td><td data-bbox="994 365 1398 636" rowspan="2"> <p>₱ 195,575.97 Two percent (2%)</p> </td></tr> <tr> <td data-bbox="346 454 994 636">b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, That it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.</td></tr> <tr> <td data-bbox="346 636 994 770">c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.</td><td data-bbox="994 636 1398 770"> <p>₱ 488,939.93 Five percent (5%)</p> </td></tr> </tbody> </table> | Form of Bid Security | Amount of Bid Security (Not less than the required percentage of the ABC) | a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank. | <p>₱ 195,575.97 Two percent (2%)</p> | b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, That it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank. | c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security. | <p>₱ 488,939.93 Five percent (5%)</p> |
|--|--|----------------------|--|--|---|--|--|--|
| Form of Bid Security | Amount of Bid Security (Not less than the required percentage of the ABC) | | | | | | | |
| a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank. | <p>₱ 195,575.97 Two percent (2%)</p> | | | | | | | |
| b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, That it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank. | | | | | | | | |
| c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security. | <p>₱ 488,939.93 Five percent (5%)</p> | | | | | | | |
| 15 | The bidder is requested to submit soft copies of the first and second components of its bid (two (2) separate files) in Portable Document Format (PDF) during post qualification evaluation. | | | | | | | |
| 19.2 | Partial Bid is not allowed. The goods are grouped in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation and contract award. | | | | | | | |
| 20.2 | <p>Additional requirements to be submitted within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid:</p> <ol style="list-style-type: none"> 1. Soft copies of the first and second components of its bid (two (2) separate files) in Portable Document Format (PDF); and, 2. For applicable items, the Bidder shall indicate (on a separate sheet using the form, Revised Annex A) the Brand, Type and/or Model/Version and Quantities/Unit of each of the proposed equipment/subsystems and ancillaries. This document shall be signed by the Bidder's authorized representative. | | | | | | | |
| 21.1 | <p>Additional Contract Documents:</p> <ol style="list-style-type: none"> 1. A Certification under oath attesting that the bidder has no pending case(s) against the Government; 2. Legal Clearance to be issued by the CAAP Enforcement and Legal Service with respect to the non-pendency of any cases of prospective bidders against the Authority. | | | | | | | |

Section IV. General Conditions of Contract

1. Scope of Contract

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

Additional requirements for the completion of this Contract shall be provided in the **Special Conditions of Contract (SCC)**.

2. Advance Payment and Terms of Payment

2.1. Advance payment of the contract amount is provided under Annex "D" of the revised 2016 IRR of RA No. 9184.

2.2. The Procuring Entity is allowed to determine the terms of payment on the partial or staggered delivery of the Goods procured, provided such partial payment shall correspond to the value of the goods delivered and accepted in accordance with prevailing accounting and auditing rules and regulations. The terms of payment are indicated in the **SCC**.

3. Performance Security

Within ten (10) calendar days from receipt of the Notice of Award by the Bidder from the Procuring Entity but in no case later than prior to the signing of the Contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR of RA No. 9184.

4. Inspection and Tests

The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Project specifications at no extra cost to the Procuring Entity in accordance with the Generic Procurement Manual. In addition to tests in the **SCC, Section IV (Technical Specifications)** shall specify what inspections and/or tests the Procuring Entity requires, and where they are to be conducted. The Procuring Entity shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.

All reasonable facilities and assistance for the inspection and testing of Goods, including access to drawings and production data, shall be provided by the Supplier to the authorized inspectors at no charge to the Procuring Entity.

5. Warranty

5.1. In order to assure that manufacturing defects shall be corrected by the Supplier, a warranty shall be required from the Supplier as provided under Section 62.1 of the 2016 revised IRR of RA No. 9184.

5.2. The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall, repair or replace the defective Goods or parts thereof without cost to the Procuring Entity, pursuant to the Generic Procurement Manual.

6. Liability of the Supplier

The Supplier's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Supplier is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

Section V. Special Conditions of Contract

Special Conditions of Contract

| GCC Clause | |
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| 1 | <p>Delivery and Documents –</p> <p>For purposes of the Contract, “EXW,” “FOB,” “FCA,” “CIF,” “CIP,” “DDP” and other trade terms used to describe the obligations of the parties shall have the meanings assigned to them by the current edition of INCOTERMS published by the International Chamber of Commerce, Paris. The Delivery terms of this Contract shall be as follows:</p> <p><i>[For Goods supplied from abroad]</i> “The delivery terms applicable to the Contract are DDP delivered at ANS Technical Center, CAAP, Old MIA Road, Pasay City, Metro Manila, Philippines, 1300. In accordance with INCOTERMS.”</p> <p><i>[For Goods supplied from within the Philippines]</i> “The delivery terms applicable to this Contract are delivered at ANS Technical Center, CAAP, Old MIA Road, Pasay City, Metro Manila, Philippines, 1300. Risk and title will pass from the Supplier to the Procuring Entity upon receipt and final acceptance of the Goods at their final destination.”</p> <p>Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in Section VI (Schedule of Requirements).</p> <p>For purposes of this Clause, the Procuring Entity’s Representative is:</p> <p style="text-align: center;"><u>ENGR. ERNESTO T. GAGTAN, JR.</u> <u>Contact No.: (02) 8246 4988 (loc. 2197)</u></p> <p>The Contractor shall be responsible for securing all necessary permits and licenses (i.e. Electrical/Civil work Permits, Permit to Import, NTC, Security Pass, other local permits, etc.) from respective offices that may be necessary prior to delivery of the equipment. The cost of acquiring such permits/licenses including its processing shall be borne by the Contractor.</p> <p>Incidental Services –</p> <p>The Supplier is required to provide all of the following services, including additional services, if any, specified in Section VI. Schedule of Requirements:</p> <ol style="list-style-type: none"> a. performance or supervision of on-site assembly and/or start-up of the supplied Goods; b. furnishing of tools required for assembly and/or maintenance of the supplied Goods; c. furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods; d. performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty |

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| | <p>obligations under this Contract;</p> <ul style="list-style-type: none"> e. training of the Procuring Entity's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods. f. The Contractor/Supplier shall warrant the entire equipment, assemblies, software and related deliveries for one (1) year Warranty Period (parts and service). <p>The Contractor/Supplier shall describe the proposed support provisions within the Warranty period.</p> <p>The Contractor/Supplier shall submit an OEM issued guarantee that the availability of spare parts for the equipment supplied shall be at least 10 years after the Project acceptance.</p> <p>The Contract price for the Goods shall include the prices charged by the Supplier for incidental services and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.</p> <p>Spare Parts –</p> <p>The Supplier is required to provide all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:</p> <ul style="list-style-type: none"> 1. such spare parts as the Procuring Entity may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under this Contract; and 2. in the event of termination of production of the spare parts: <ul style="list-style-type: none"> i. advance notification to the Procuring Entity of the pending termination, in sufficient time to permit the Procuring Entity to procure needed requirements; and ii. following such termination, furnishing at no cost to the Procuring Entity, the blueprints, drawings, and specifications of the spare parts, if requested. <p>The spare parts (or spare unit/s) and other components required are listed in Section VI (Schedule of Requirements) and the cost thereof are included in the contract price.</p> <p>The Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spare parts or components for the Goods for a period of 10 years.</p> <p>Spare parts or components shall be supplied as promptly as possible, but in any case, within 1 year of placing the order.</p> <p>The period for correction of defects in the warranty period is within fifteen (15) days.</p> |
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Packaging –

The Supplier shall provide such packaging of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in this Contract. The packaging shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packaging case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

The packaging, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified below, and in any subsequent instructions ordered by the Procuring Entity.

The outer packaging must be clearly marked on at least four (4) sides as follows:

Name of the Procuring Entity: **Civil Aviation Authority of the Philippines**

Name of the Supplier

Contract Description

Final Destination

Gross weight

Any special lifting instructions

Any special handling instructions

Any relevant HAZCHEM classifications

A packaging list identifying the contents and quantities of the package is to be placed on an accessible point of the outer packaging if practical.

If not practical, the packaging list is to be placed inside the outer packaging but outside the secondary packaging.

Transportation –

Where the Supplier is required under Contract to deliver the Goods CIF, CIP, or DDP, transport of the Goods to the port of destination or such other named place of destination in the Philippines, as shall be specified in this Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.

Where the Supplier is required under this Contract to transport the Goods to a specified place of destination within the Philippines, defined as the Project Site, transport to such place of destination in the Philippines, including insurance and storage, as shall be specified in this Contract, shall be arranged by the Supplier, and related costs shall be included in the contract price.

Where the Supplier is required under Contract to deliver the Goods CIF, CIP or DDP, Goods are to be transported on carriers of Philippine registry. In the event that no carrier of Philippine registry is available, Goods may be shipped by a carrier which is not of Philippine registry provided that the Supplier obtains and presents to the Procuring Entity certification to this effect from the

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| | <p>nearest Philippine consulate to the port of dispatch. In the event that carriers of Philippine registry are available but their schedule delays the Supplier in its performance of this Contract the period from when the Goods were first ready for shipment and the actual date of shipment the period of delay will be considered force majeure.</p> <p>The Procuring entity accepts no liability for the damage of Goods during transit other than those prescribed by INCOTERMS for DDP Deliveries. In the case of Goods supplied from within the Philippines or supplied by domestic Suppliers risk and title will not be deemed to have passed to the Procuring Entity until their receipt and final acceptance at the final destination.</p> <p>Intellectual Property Rights –</p> <p>The Supplier shall indemnify the Procuring Entity against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof.</p> |
| 2.2 | <p>This is a Turn-Key Project</p> <p>Payment shall be made only upon full delivery and CAAP acceptance.</p> |

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| 4 | <p>Inspections and tests to be conducted prior to acceptance are as follows:</p> <ul style="list-style-type: none"> a. Verification/Inspection of delivered items and conformity to Contract Specification and certification/s; b. Verification/Inspection of calibration certifications from PAGASA; c. Delivery Acceptance Testing (refer to Item E of Section VII. Technical Specifications and Annex B, Meteorological Equipment Test Form). |
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Section VI. Schedule of Requirements

Schedule of Requirements

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

| Item Number | Description | Qty. | Unit | Delivered (Weeks/Months) |
|-------------|---|------|------|---|
| I | Meteorological Sensor | 1 | lot | 180 calendar days upon receipt of NTP. Delivery at: ANS Technical Center, CAAP, MIA Road, Pasay City, Metro Manila, Philippines, 1300 (Project Site: Catbalogan Airport) |
| | Aviation Weather System complete with: | | | |
| | Wind speed and wind direction sensors | | | |
| | Temperature and relative humidity sensor | | | |
| | Digital barometric pressure sensor | | | |
| | Radiation Shield (for temperature and relative humidity sensor) | | | |
| | Shielded connection cables (minimum of 10 meters) | | | |
| | DOST-PAGASA Certification of Meteorological Sensors | | | |
| | Bird prevention kit and grounding kit (for ultrasonic wind sensor) | | | |
| | Operation, Maintenance, Technical manuals in English Language including diagrams | | | |
| | Accessories, Connectors, Configuration Tool & Mounting Kits | | | |
| | Testing & Personnel Training | | | |
| II | Data Collection and Central Processing | 1 | lot | |
| | Meteorological Data Collection Systems complete with: | | | |
| | Data Logging System | | | |
| | Stainless steel enclosure with NEMA 4X enclosure compliant (<i>located at the runway sensor site</i>) | | | |
| | Connection and Termination Box | | | |
| | Central Processing System (Workstation) | | | |
| | 19" inches cabinet rack | | | |
| | IT Equipment, LAN connectivity and conversion circuits | | | |
| | Maintenance Laptop | | | |
| | Meteorological Display Panel (<i>for ATCT cab</i>) | | | |
| | Transient Voltage Surge Suppressor (TVSS) | | | |
| | Uninterruptible Power Supply (UPS) with extra battery | | | |
| | Back-up external 2TB Hard disk drive (HDD) | | | |
| | Meteorological Software with unlimited (perpetual) licenses | | | |
| | Software Configuration, Integration, Testing & Documentation | | | |
| | Mounting Hardware, Mounting Kits and Accessories | | | |
| III | Telemetry Systems | 1 | lot | |
| | UHF Communication Radio Systems complete with: | | | |
| | UHF Radio Transceivers/Modem (<i>for control tower</i>) | | | |
| | UHF Radio Transceiver/Modem (<i>for runway sensor site</i>) | | | |
| | UHF Radio Combiner <i>or equivalent system</i> | | | |
| | UHF Directional Antenna Systems | | | |
| | UHF Antenna cable (<i>minimum of 10 meters per antenna</i>) | | | |
| | Surge Protection Device | | | |
| | UHF Frequency Licenses | | | |
| | Operation and Maintenance Manual | | | |
| | Accessories, Connectors & Mounting Kits | | | |
| | Testing & Personnel Training | | | |
| IV | Frangible 10 meters Mast with Lightning Protection and Obstacle Light | 1 | lot | |

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|------------|---|---|------|--|
| | ICAO Compliant Frangible 10m Mast complete with: | | | |
| | Foundation kits with plywood box | | | |
| | Provision for lightning rod | | | |
| | Passive Lightning Rod | | | |
| | LED Obstacle Lights | | | |
| | Universal Mounting Arm for wind sensor | | | |
| | Accessories, Connectors & Mounting Kits | | | |
| | Testing & Personnel Training | | | |
| V | Meteorological Equipment Power Source | | | |
| | Meteorological equipment power source, complete with: | | | |
| | Solar Power System (Main Power Source) | | | |
| | 12V _{DC} /52Ah (minimum) internal batteries | | | |
| | Battery regulator/charger | 3 | lots | |
| | Battery fuse and over-voltage protection device | | | |
| | AC/DC power supply | | | |
| | Direct Earth Burial (DEB) power cable | | | |
| | Surge Protection Device | | | |
| | Mounting Hardware, Mounting Kits and Accessories | | | |
| VI | DEB Power Cable and Accessories | | | |
| | Provision of direct burial power cable: | | | |
| | 800 meters 3-Cores 8mm-DEB Power Cable | 1 | lot | |
| | Accessories: | | | |
| | 3 rolls Caution tape, yellow with black lettering, 300m/roll. | | | |
| VII | Delivery, Acceptance Testing and Training | | | |
| | Delivery | 1 | lot | |
| | Acceptance Testing | | | |
| | Training (Equipment Orientation and Integration) | | | |

NOTE:

1. Refer to Technical Specifications for complete details.

Section VII. Technical Specifications

Technical Specifications

Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.

The Bidder shall also indicate the appropriate reference section including its page number in documents submitted to support the compliance statement indicated in the table of Technical Specifications. The Bidder shall indicate "Will Supply" if items required are to be supplied by the Bidder with corresponding prices indicated in the Financial Proposal.

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|----------|---|----------------------|---|
| A | GENERAL REQUIREMENT | | |
| A.1 | The Civil Aviation Authority of the Philippines (CAAP) intends to procure a brand-new aviation meteorological equipment and other ancillaries for the Catbalogan Airport in accordance with the International Civil Aviation Organization (ICAO) Standards and Recommended Practices (SARPs). The project intends to procure new state-of-the-art Meteorological (MET) Instrument which shall include wind speed & wind direction, barometric pressure, relative humidity & temperature, 10 meters frangible aviation mast, data collection system, wireless data links and other vital ancillaries. This procurement is for Supply and Delivery. (All installation works at Catbalogan Airport shall be performed by CAAP-ANS.) Conduct of acceptance testing and integration training shall be at ANS, CAAP Main Office. | | |
| A.2 | For non-OEM bidders (whether sole or JV partner), the CAAP requires that the bidder is an exclusive or authorized distributor of the meteorological equipment. | | |
| A.3 | The CAAP requires the equipment supplied by the contractor shall be brand-new and of latest version/model. | | |
| A.4 | The contractor shall assure that the supplied Meteorological (MET) System including subsystem are operational & functional and that no equipment is left non-operational or subject for replacement. Failure to do so shall be subject for immediate replacement of the defective unit or non-acceptance of the project. | | |
| A.5 | The Meteorological (MET) Instrument shall be of aeronautical standard type. Bidder shall submit with their bid proposal the appropriate references to support the compliance statement indicated including but not limited to the following: | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|------|--|----------------------|---|
| (a) | ISO Certificates (or its internationally recognized equivalent) of Company/OEM (e.g., ISO 9001 and 14001); | | |
| (b) | Certificate of Exclusive or Authorized Distributorship issued by the Original Equipment Manufacturer (OEM) of supplied equipment; | | |
| (c) | Frangibility Compliance Certificates of the mast from an internationally recognized certification agency; | | |
| (d) | Latest official OEM Equipment Technical Specification, Characteristics and/or Sales Materials reflecting all performance and functional specifications of their proposed equipment; | | |
| (e) | OEM issued guarantee that the availability of spare parts for the equipment supplied shall be at least Ten (10) years after the project acceptance. | | |
| A.6 | The scope of the project shall be supply, delivery and perform testing of MET system/equipment/sensors including the supply of necessary subsystem and components for MET system as specified in Section VI. Schedule of Requirements. | | |
| A.7 | Prior to delivery and testing, the contractor is required to acquire a calibration certification for the supplied meteorological instrument from PAGASA. Cost of the certification shall be borne by the Contractor. | | |
| A.8 | <p>The contractor shall facilitate and shoulder the cost of facilitation, registration and permits of UHF frequency license as per NTC regulation under the name of CAAP.</p> <p>The following UHF frequencies are used by CAAP for MET:</p> <ul style="list-style-type: none"> • 404.2 MHz • 404.4 MHz • 404.6 MHz • 404.8 MHz | | |
| A.9 | The contractor shall supply all the necessary bushing, grounding kits and passive lightning rods to prevent the aviation meteorological system from damages produced by lightning strikes. | | |
| A.10 | The contractor shall provide all the necessary connectors, mounting accessories and other ancillaries, interface cards, modules and/or data conversion circuit for the entire system. | | |
| A.11 | The contractor shall supply a service communication cable (<i>such as but not limited to RS485, RS232, and etc.</i>) that shall be able to interface the sensors with the ANS maintenance/service laptop. The contractor shall assure that the supplied service communication cable shall be fully compatible and/or of the same brand with the sensor and shall be at least two (2) meters in length. | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|----------------|--|----------------------|---|
| A.12 | Proper cable management and cable tagging shall be strictly enforced. The contractor shall provide documentation indicating the label, locations and terminations of the cables for purposes of installation activities by ANS. | | |
| A.13 | The contractor shall provide a (sticker) nameplate attached to the body of the equipment which clearly states the following labels: a. Civil Aviation Authority of the Philippines (CAAP) b. Name/type of Equipment c. Date of Acceptance (mm/dd/yyyy format) d. Location/Site/Facility e. Name of Contractor | | |
| A.14 | The nameplate shall be attached to the body of the unit using adhesives. The contractor shall assure that the attached nameplate shall last for the next five years regardless of continuous operation of the equipment or not. | | |
| | A warranty seal (sticker) containing the date accepted, warranty period and properly signed by the authorized representative shall be attached to the body of the instruments. | | |
| A.15 | The Acceptance Testing of meteorological instrument shall serve as proof and assurance that the meteorological equipment supplied by contractor is of its highest performance, reliability and availability. | | |
| A.16 | The bidder shall explain any deviation from the specification giving the rationale/benefit of offering such new technologies. The explanation shall be supported by references and shall not be of lesser or lower quality or performance to meet the objective of the project. | | |
| A.17 | The CAAP shall have the full authority to inspect, recommend, accept and reject materials and workmanship that will be found to be below the required minimum specifications and Philippine Standards. | | |
| B | METEOROLOGICAL INSTRUMENTS | | |
| B.1 | Meteorological Weather Sensor | | |
| B.1.1 | Ultrasonic Wind Speed and Wind Direction Sensors | | |
| B.1.1.1 | Performance Requirement | | |
| B.1.1.1.1 | The contractor shall supply an ultrasonic, robust, durable, high reliability and corrosion resistant wind speed and wind direction sensors. | | |
| B.1.1.1.2 | The contractor shall supply a bird prevention kit designed to minimize bird interference with the wind and rain sensors. It must have minimal impact on the accuracy of measurements. | | |
| B.1.1.1.3 | The supplied wind speed and wind direction sensor shall be maintenance-free and has a clear north indication. | | |
| B.1.1.1.4 | The contractor shall supply a wind speed and direction sensor with an Ingress Protection (IP65) or higher protection. | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|-------------|---|----------------------|---|
| B.1.1.1.5 | The contractor shall supply a manufacturer approved or recommended sensor mount (e.g., cross arm) which shall be used to attach the ultrasonic wind sensor to the mast. | | |
| B.1.1.1.6 | The supplied ultrasonic wind sensor shall have the capability to measure both wind speed and wind direction. The raw data collected shall be input to the data logging system and transmission via RF. | | |
| B.1.1.2 | Functional Specification | | |
| B.1.1.2.1 | Wind Speed Sensor (ultrasonic type) | | |
| B.1.1.2.1.1 | Measuring range : 0 - 75 m/s | | |
| B.1.1.2.1.2 | Accuracy : ± 0.5 m/s or better | | |
| B.1.1.2.1.3 | Resolution : ≤ 0.5 m/s or better | | |
| B.1.1.2.1.4 | Threshold : ≥ 0.01 m/s | | |
| B.1.1.2.1.5 | Units : m/s, knots, mph, km/h | | |
| B.1.1.2.2 | Wind Direction Sensor (ultrasonic type) | | |
| B.1.1.2.2.1 | Measuring range : $0^{\circ} \dots 360^{\circ}$ or $0^{\circ} \dots 359^{\circ}$ | | |
| B.1.1.2.2.2 | Accuracy : $\pm 5^{\circ}$ or better | | |
| B.1.1.2.2.3 | Resolution : $\geq 1^{\circ}$ or better | | |
| B.1.1.2.2.4 | Units : degrees | | |
| B.1.2 | Thermometer and Hygrometer (Temperature and Relative Humidity Sensors) | | |
| B.1.2.1 | Performance Requirement | | |
| B.1.2.1.1 | The contractor shall supply reliable and high stability temperature and relative humidity sensor that can withstand harsh environmental conditions with ingress protection rating of IP65 or better. | | |
| B.1.2.1.2 | The contractor shall supply a maintenance-free, UV-proof, naturally ventilated/aspirated, radiation shield that will serve as protection from scattered & direct sun exposure, precipitation and help achieve maximum performance of the sensor. | | |
| B.1.2.1.3 | The contractor shall supply a service communication cable that shall be able to interface the temperature & relative humidity sensor to a PC/laptop using USB port, and a Windows 11 compatible non-expiring licensed maintenance software in USB/CD/DVD. The contractor shall assure that the supplied service communication cable shall be fully compatible and/or of the same brand of the sensor. | | |
| B.1.2.2 | Functional Specification | | |
| B.1.2.2.1 | Relative Humidity Sensor | | |
| B.1.2.2.1.1 | Measurement range : 0 – 100% RH | | |
| B.1.2.2.1.2 | Accuracy (%) : $\pm 1.5\%$ or better | | |
| B.1.2.2.2 | Runway Surface Temperature Sensor | | |
| B.1.2.2.2.1 | Measurement range : $0^{\circ}\text{C} - 60^{\circ}\text{C}$ or wider range | | |
| B.1.2.2.2.2 | Sensor type : Pt100 RTD | | |
| B.1.2.2.2.3 | Accuracy ($^{\circ}\text{C}$) : $\pm 0.2^{\circ}$ at ($20^{\circ} - 40^{\circ}$) or better | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|-------------|---|----------------------|---|
| B.1.3 | Barometer (Barometric Pressure) | | |
| B.1.3.1 | Performance Requirement | | |
| B.1.3.1.1 | The contractor shall supply a digital barometer that can be interfaced via USB, ethernet, or a comparable port. | | |
| B.1.3.1.2 | The contractor shall supply the digital barometer in a NEMA 4 enclosure or equivalent. | | |
| B.1.3.1.3 | The contractor shall assure that the enclosure shall be properly sealed and the opening of the sensor shall be free from any foreign object intrusion. | | |
| B.1.3.1.4 | The contractor shall supply a digital barometer containing multiple sensors for reliability. | | |
| B.1.3.2 | Functional Specification | | |
| B.1.3.2.1 | Barometer | | |
| B.1.3.2.1.1 | Measurement range : 500 to 1100 hPa | | |
| B.1.3.2.1.2 | Resolution : 0.01 hPa | | |
| B.1.3.2.1.3 | Accuracy : less than 0.5 hPa | | |
| B.1.3.2.1.4 | Pressure Fitting : hose barb or barbed fitting | | |
| B.1.3.2.1.5 | Pressure Units : hPa, Pa, mmHg, inHg, psi, etc. | | |
| B.1.3.2.1.6 | Operating Temperature Range (°C) : 0° to +60° or wider range | | |
| B.2 | Data Collection and Central Processing System | | |
| B.2.1 | Meteorological Data Logging Equipment | | |
| B.2.1.1 | Performance Requirement | | |
| B.2.1.1.1 | The contractor shall supply a data logging system which will collect and pre-process all necessary raw data and transmit it for post processing and data display. | | |
| B.2.1.1.2 | The circuit board and/or data logging system shall be protected from electrostatic discharge (ESD) which may cause latent damage to electronic circuits. The contractor shall supply the said protective device. | | |
| B.2.1.1.3 | The data logging system shall be powered-up by either the solar PV system (as primary) and AC or local power source (as secondary). | | |
| B.2.1.1.4 | Each sensor inputs of the data logging system shall be protected against induced transient. Varistor or any equivalent technology shall be used by the contractor as protection device to each sensor inputs of the logging system. | | |
| B.2.1.1.5 | The data logging system shall be housed inside a stainless-steel enclosure together with battery, battery regulators, over-voltage protection device, radio modems, surge protection device and other vital ancillaries. | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|-------------|---|----------------------|---|
| B.2.1.1.6 | The contractor shall supply a stainless-steel enclosure with NEMA 4X compliant (or equivalent, i.e., IP65 with corrosion resistance) or better and painted in powder coated paint. | | |
| B.2.1.1.7 | The contractor shall supply a data logging system with a capability to manually reset in case the system shows abnormalities and inappropriate behavior. | | |
| B.2.1.1.8 | The data logging system shall be able to interface via UHF communication radios for data transmission and meteorological sensor. | | |
| B.2.1.1.9 | The enclosure shall use DIN rails for easy mounting & placement of equipment, proper tagging and labeling of the connection wires inside the enclosure is strictly observed. | | |
| B.2.1.2 | Functional Specification | | |
| B.2.1.2.1 | Data Logging Equipment | | |
| B.2.1.2.1.1 | Analog Channels : minimum of 10 inputs | | |
| B.2.1.2.1.2 | Memory : $\geq 2\text{MB}$ (RAM) and $\geq 1\text{MB}$ (built-in non-volatile memory/program) | | |
| B.2.1.2.1.3 | Serial Ports : one (1) RS232 and/or one (1) RS485 (optional) | | |
| B.2.2 | Central Processing System | | |
| B.2.2.1 | Performance Requirement | | |
| B.2.2.1.1 | The contractor shall supply a central processing system (workstation) capable of processing the data from the runway sensor sites for remote monitoring and maintenance. | | |
| B.2.2.1.2 | The contractor shall provide the workstation with redundant storage (i.e., RAID1 configuration) or equivalent. | | |
| B.2.2.1.3 | The workstation shall be capable of storing at least twelve (12) months of weather information in comma-separated value (CSV) file format. Each CSV file shall consist of daily weather information logged at regular intervals of one minute from 00:00 to 23:59. The filename of which shall reflect the current date and shall be stored on a folder of the current month. | | |
| B.2.2.1.4 | The data collecting system shall be located at the runway sensor site while the central processing system shall be located at the ANS equipment room. | | |
| B.2.2.1.5 | The workstation shall be installed on a standard 19 inches cabinet rack (or OEM approved enclosure), sized according to supplied systems. | | |
| B.2.2.1.6 | Cabinet rack with minimum of two (2) exhaust fans located at the rear portion and a detachable vented side panels is preferred. Any meteorological equipment manufacturer approved rack design with exhaust fans is acceptable. | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|-------------|--|----------------------|---|
| B.2.2.1.7 | The front door of the cabinet rack is preferably constructed with a flexi-glass. Any manufacturer approved rack design with lock and key is acceptable. | | |
| B.2.2.1.8 | The cabinet rack shall contain detachable side panels, with detachable vented swing backdoor with push lock; or any manufacturer approved rack design. | | |
| B.2.2.1.9 | The cabinet rack shall have provision for the required electrical outlet and power strip fuses rated for the purpose. | | |
| B.2.2.2 | Functional Specification | | |
| B.2.2.2.1 | Central Processing System (Workstation) | | |
| B.2.2.2.1.1 | Licensed Operating System | | |
| B.2.2.2.1.2 | Processor Clock Speed : ≥ 2.9 GHz | | |
| B.2.2.2.1.3 | Drive Bay : minimum of two (2) internal 3.5" bays | | |
| B.2.2.2.1.4 | Drive Capacity : minimum of two (2) 2TB SATA hot swappable drives. (7200rpm HDD or SSD or SAS) | | |
| B.2.2.2.1.5 | RAM : 8 GB DDR4 | | |
| B.2.2.2.1.6 | RAID Controller : capable of RAID 1 (or equivalent) | | |
| B.2.2.2.1.7 | Optical Drive : DVD-Writer | | |
| B.2.2.2.1.8 | Display : 21" HD LED Monitor | | |
| B.2.3 | Maintenance Laptop | | |
| B.2.3.1 | Performance Requirement | | |
| B.2.3.1.1 | The contractor shall supply one (1) laptop for field maintenance use. | | |
| B.2.3.1.2 | The supplied maintenance laptop for use by ANS shall contain highest level of access credentials and all the privileges to modify, adjust and alter MET critical configurations and settings. | | |
| B.2.3.1.3 | The maintenance laptop shall contain MET software with perpetual/unlimited license. All necessary meteorological software and installers shall be endorsed to the ANS Project Implementation Department by the contractor. All configuration files shall be stored in a USB or CD for safe keeping purposes. | | |
| B.2.3.1.4 | Configuration file & tools, software and documentation shall be provided by the contractor as part of the delivery. Failure to do shall result to disqualification or non-acceptance of the project. | | |
| B.2.3.2 | Functional Specification | | |
| B.2.3.2.1 | Laptop | | |
| B.2.3.2.1.1 | Operating System : Licensed Operating System | | |
| B.2.3.2.1.2 | Processor Clock Speed : ≥ 3.0 GHz | | |
| B.2.3.2.1.3 | Drive/Storage : ≥ 512 GB, NVMe | | |
| B.2.3.2.1.4 | RAM : ≥ 8 GB, DDR4 or better | | |
| B.2.3.2.1.5 | Graphics Card : as per OEM | | |
| B.2.3.2.1.6 | Screen Resolution : 1920x1080 or better | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|----------------|---|----------------------|---|
| B.2.3.2.1.7 | Display/Screen Size : 14" | | |
| B.2.3.2.1.8 | Accessories : Carrying bag, Power adaptor, USB optical mouse, Cables/connectors/interface necessary to connect with Data Logger/MET sensors for maintenance use. | | |
| B.2.4 | Meteorological Weather Display | | |
| B.2.4.1 | Performance Requirement | | |
| B.2.4.1.1 | The contractor shall supply a meteorological display panel that is able to display all meteorological information/fields needed by the ATC operations in real-time. | | |
| B.2.4.1.2 | The contractor may, at their option, supply a meteorological display that is not of the same brand/company as that of the meteorological sensors, provided, the supplied display shall be compatible with the central processing system and be able to display all required fields significant to ATC operations in accordance with the International Civil Aviation Organization (ICAO) Standards and Recommended Practices (SARPs). | | |
| B.2.4.1.3 | The contractor shall supply a meteorological weather display unit that is readable by the ATC controller in all lighting conditions. | | |
| B.2.4.1.4 | The meteorological weather display unit shall either consist of: <ul style="list-style-type: none"> a. an independent/standalone display panel that is capable of processing and display the weather information directly from the central processing system; or b. an LCD/LED monitor connected to the ATC Workstation Unit (WSU) that processes data from the central processing system. | | |
| B.2.5 | Transient Voltage Surge Suppressor (TVSS) | | |
| B.2.5.1 | Functional Specification | | |
| B.2.5.1.1 | The contractor shall supply a Transient Voltage Surge Suppressor (TVSS) device that will divert the excess voltage and current from transient/surge into grounding wire and prevents it from flowing through the electrical and electronic equipment while at the same time allowing the normal voltage to continue along its path. | | |
| B.2.5.1.2 | The surge protection device provided shall have minimum current handling capacity of 30kA or as per OEM design. | | |
| B.2.5.1.3 | The contractor shall supply transient surge protection device per rack that will serve as power line protection of the equipment. | | |
| B.2.6 | Uninterruptible Power Supply (UPS) | | |
| B.2.6.1 | Performance Requirement | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) | | | | | | | | |
|---|---|----------------------|---|---------------------------|--------|---|--------|--|--------|--|--|
| B.2.6.1.1 | The contractor shall supply uninterruptible power supply (UPS) that shall provide battery backup when the electrical power fails or drops to an unacceptable voltage level. | | | | | | | | | | |
| B.2.6.1.2 | The contractor shall supply an uninterruptible power supply (UPS) with a minimum runtime of 25 minutes during power outages. | | | | | | | | | | |
| B.2.6.1.3 | The minimum volt-ampere-hour capacity shall be in accordance with the supplied load. | | | | | | | | | | |
| B.2.6.1.4 | The UPS shall have audible alerts to alarm below performance such as low battery, etc. | | | | | | | | | | |
| B.2.6.1.5 | The UPS shall have a control console or a multi-function LCD display which indicates the status of the voltage level of battery, voltage level of AC source and other controls of the UPS. | | | | | | | | | | |
| B.2.6.1.6 | <div>The contractor shall properly observe the minimum number of the UPS for this project:<table><tr><th>Equipment</th><th>Number of UPS</th></tr><tr><td>Central Processing System</td><td>1 unit</td></tr><tr><td>Maintenance & Monitoring System Workstation</td><td>1 unit</td></tr><tr><td>ATC Cab Room Workstation or Display Unit</td><td>1 unit</td></tr></table></div> | Equipment | Number of UPS | Central Processing System | 1 unit | Maintenance & Monitoring System Workstation | 1 unit | ATC Cab Room Workstation or Display Unit | 1 unit | | |
| Equipment | Number of UPS | | | | | | | | | | |
| Central Processing System | 1 unit | | | | | | | | | | |
| Maintenance & Monitoring System Workstation | 1 unit | | | | | | | | | | |
| ATC Cab Room Workstation or Display Unit | 1 unit | | | | | | | | | | |
| B.2.6.2 | Functional Specification | | | | | | | | | | |
| B.2.6.2.1 | UPS | | | | | | | | | | |
| B.2.6.2.1.1 | Output capacity : 900 Watts/1.5KVA or as per MET OEM requirements | | | | | | | | | | |
| B.2.6.2.1.2 | Output frequency : 60Hz | | | | | | | | | | |
| B.2.6.2.1.3 | Input voltage : 220V | | | | | | | | | | |
| B.2.6.2.1.4 | Input Frequency : 60Hz ±3Hz (auto sensing) | | | | | | | | | | |
| B.2.6.2.1.5 | Output connections : minimum of eight (8) IEC-320 C13 | | | | | | | | | | |
| B.2.6.2.1.6 | Typical recharge time : three (3) hours | | | | | | | | | | |
| B.2.6.2.1.7 | Battery type : maintenance free, sealed lead-acid | | | | | | | | | | |
| B.2.7 | Lightning Protection Device | | | | | | | | | | |
| B.2.7.1 | Performance Requirement | | | | | | | | | | |
| B.2.7.1.1 | The contractor shall supply one (1) lightning protection device (for each mast) that is capable of protecting the sensors from the runway site and the UHF antenna at the ATC control tower. | | | | | | | | | | |
| B.2.7.1.2 | The contractor shall provide a provision for lightning protection device and separate/dedicated grounding wire shall also be provided. | | | | | | | | | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|----------------|---|----------------------|---|
| B.2.7.1.3 | The contractor shall supply lightning protection device that shall serve as protection against lightning strikes and prevent the weather sensors and other vital ancillaries from damage. | | |
| B.2.7.1.4 | The contractor shall supply tinned-copper wire connected from the lightning protection device and shall serve as passage of high current lightning strike directly to ground. | | |
| B.2.7.1.5 | The contractor shall assure that the tinned-copper wire shall be highly isolated from the aviation mast structure, weather sensors and other vital ancillaries at the runway sensor site. | | |
| B.2.7.1.6 | The contractor shall assure that the supplied lightning protection device shall be able to either prevent lightning strikes or handle multi-strikes without being damaged. | | |
| B.2.7.1.7 | The contractor shall supply three (3) grounding rods designed for installation at 120° radial separation. | | |
| B.2.7.1.8 | The supplied lightning protection device shall be rated with minimum ingress protection rating IP65 that will serve as protection against extreme weather conditions. | | |
| B.2.7.1.9 | The lightning protection device to be supplied must have mounting brackets for installation on the top-most portion of the aviation frangible mast. | | |
| B.2.8 | Obstruction Lights | | |
| B.2.8.1 | Performance Requirement | | |
| B.2.8.1.1 | The contractor shall supply LED obstruction light that shall serves as collision avoidance lighting systems, protecting the mast/structure and the passing aircraft from collision especially during night operation. | | |
| B.2.8.1.2 | The obstruction lights shall be made from Light Emitting Diode (LED) based technology. | | |
| B.2.8.1.3 | The obstruction lights shall have a luminous intensity greater than 10 candelas with aviation red color and a horizontal radiation pattern of 360°. | | |
| B.2.8.1.4 | The obstruction lights shall have a cable gland for easy chaining without external distribution boxes. | | |
| B.2.8.1.5 | The LED obstruction light shall be photo-controlled which shall automatically illuminate on low-light/overcast environmental condition. | | |
| B.2.8.1.6 | The obstruction lights shall have a colorless glass cover and protected against severe weather condition by an Ingress Protection (IP) 65 or higher protection. | | |
| B.2.8.1.7 | The contractor shall assure that the supplied obstruction lights shall be able to handle wind load in their respective ANF facility at installation. | | |
| B.2.8.1.8 | The minimum number of obstruction light shall be two (2) units per runway sensor site. | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|-----------|--|----------------------|---|
| B.2.8.1.9 | All the supplied obstruction light shall be installed on the top portion of frangible aviation mast. | | |
| B.2.9 | Surge Protector | | |
| B.2.9.1 | Performance Requirement | | |
| B.2.9.1.1 | The contractor shall supply a lightning surge protector that can give protection against dangerous surge signals on coaxial lines. | | |
| B.2.9.1.2 | The contractor shall supply a lightning surge protector complete with gas discharge tube. | | |
| B.2.9.1.3 | The contractor shall supply a surge protection device that shall be installed at the cable before the antenna of the UHF transceiver radio/modem. | | |
| B.2.9.1.4 | The contractor shall supply an additional/spare gas discharge tubes equivalent to the supplied surge protection device. | | |
| B.2.9.1.5 | The supplied surge protector shall have an ingress protection rating of IP65 or better. | | |
| B.3 | Telemetry Systems | | |
| B.3.1 | Performance Requirement | | |
| B.3.1.1 | The contractor shall supply a telemetry system that will serve as main communication protocol and shall encompasses data transfer of raw data from runway sensor site to the ANF equipment room for post processing. | | |
| B.3.1.2 | The contractor shall supply one set of Ultra High Frequency (UHF) transceiver radio/modem. | | |
| B.3.1.3 | The contractor shall supply a complete set of UHF transceiver radio designed for installation at the runway sensor sites and ATC control tower. The backbone at receiving end (<i>ATC control tower</i>) shall be fully redundant. | | |
| B.3.1.4 | The contractor shall supply a UHF radio combiner or its equivalent technology that shall be used to integrate all the received inputs or raw data from runway sensor sites. | | |
| B.3.1.5 | The contractor shall supply all the necessary accessories for the operation of the telemetry system including antenna cables, brackets, etc. | | |
| B.3.1.6 | The contractor shall supply directional antenna for use at sensor site. | | |
| B.3.1.7 | The contractor shall assure that the supplied telemetry system shall not be affected by light to moderate rains and/moderate wind. | | |
| B.3.1.8 | The contractor shall assure that the supplied UHF radios (<i>telemetry system</i>) of the meteorological system shall not cause interference and undesirable noise to the aeronautical frequency (<i>communication and navigational aids</i>). | | |
| B.4 | Frangible 10 meters Aviation Mast | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|---------|--|----------------------|---|
| B.4.1 | Performance Requirement | | |
| B.4.1.1 | The contractor shall supply frangible, lightweight, durable, robust and serviceable weather mast that shall hold and support the meteorological sensors and other aviation weather ancillaries. | | |
| B.4.1.2 | The supplied mast should be frangible in order to ensure that they will break, distort or yield if they are accidentally impacted by an aircraft. | | |
| B.4.1.3 | The contractor shall supply an aviation frangible mast with a height of 10 meters. | | |
| B.4.1.4 | The aviation frangible mast shall be corrosion-free, weather-proof and tiltable during preventive maintenance of sensors and other vital ancillaries. | | |
| B.4.1.5 | The contractor shall supply all mounting brackets, foundation bolts & kits, base frames and other ancillaries for the proper erection of the frangible aviation mast. | | |
| B.4.1.6 | The contractor shall supply a frangible mast made of fiber glass strips and powder-coated paint or any manufacturer approved mast compliant with ICAO Frangibility Requirements. | | |
| B.5 | Meteorological Equipment Power System | | |
| B.5.1 | Performance Requirement | | |
| B.5.1.1 | The contractor shall supply a meteorological equipment powered by solar photovoltaic (PV) system. This system shall act as the main power source of the equipment at sensor site including respective radio links. | | |
| B.5.1.2 | The solar PV system shall cater for main power requirements of wind, temperature and pressure sensors and its ancillaries installed at the MET mast. | | |
| B.5.1.3 | The solar PV system shall include a battery capable of at least 48 hours of continuous operation. | | |
| B.5.1.4 | The system shall comprise of a charger, regulator, and an automatic switch that transfers to AC or local power (secondary source) once the battery is drained and no sunlight is present. | | |
| B.5.1.5 | The system shall include a Battery Management System (BMS) that will avoid overcharging the battery. It shall be installed inside the enclosure. | | |
| B.6 | Provision of DEB Power Cable | | |
| B.6.1 | Performance Requirement | | |
| B.6.1.1 | The contractor shall supply 800 meters, direct earth burial (DEB) cable that shall serve as connection medium from the power source. | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|----------|--|----------------------|---|
| B.6.1.2 | The supplied direct burial power cable shall be a 3-core stranded copper wire with minimum of 8.00 mm. ² cross sectional area, XLPE or ERP/PCP insulation, 2kVA (or as per MET operating voltage), PVC jacketed and printed with manufacturers trademark throughout the length. | | |
| | <i>Intentionally left blank</i> | | |
| C | WORK SCHEDULE | | |
| C.1 | The Bidder shall include in their proposal a project activity schedule for the project starting from the Notice to Proceed. | | |
| C.2 | CAAP specifies that the project be completed within 180 calendar days . | | |
| C.3 | The preliminary Project Management Schedule shall be as detailed as possible highlighting the following project component activities: | | |
| C.3.1 | Equipment Manufacturing; | | |
| (a) | <i>Meteorological Weather Sensor</i> | | |
| (b) | <i>Data Collection and Central Processing System</i> | | |
| (c) | <i>Telemetry System</i> | | |
| (d) | <i>Frangible 10 meters Mast with Lightning Protection and Obstacle Light</i> | | |
| (e) | <i>Meteorological Equipment Power Source</i> | | |
| C.3.2 | Shipment and Delivery; | | |
| (a) | <i>Meteorological Weather Sensor</i> | | |
| (b) | <i>Data Collection and Central Processing System</i> | | |
| (c) | <i>Telemetry System</i> | | |
| (d) | <i>Frangible 10 meters Mast with Lightning Protection and Obstacle Light</i> | | |
| (e) | <i>Meteorological Equipment Power Source</i> | | |
| C.3.3 | Test Verification/Acceptance Testing | | |
| (a) | CAAP Main Office (local) inspection of delivered goods | | |
| (b) | Delivery Acceptance Testing. | | |
| C.3.4 | Equipment Integration Training | | |
| (a) | The training shall be conducted at ANS Technical Center, CAAP Main Office. | | |
| (b) | The training shall be attended by at least five (5) ANS personnel. | | |
| (c) | If not included in the manufacturers recommended course topics, the following should be covered in the training: Mast erection, sensor installation, radio antenna installation, sensor and equipment configuration, cabling/wiring, radio communications link installation/establishment, equipment operations and preventive maintenance procedures. | | |
| C.3.5 | Final Configurations | | |
| C.3.6 | Project Completion | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|----------|--|----------------------|---|
| | <i>Intentionally left blank</i> | | |
| D | SYSTEMS SUPPORT | | |
| D.1 | Quality Plan | | |
| D.1.1 | The Contractor shall be responsible for the quality assurance, configuration management integrity, and acceptance testing accuracy being in accordance with known standards and procedures. To be included in equipment orientation. | | |
| D.2 | Maintenance Plan | | |
| D.2.1 | The Contractor shall submit together with the Technical Proposal a plan on how the Contractor/OEM will conduct maintenance services during the warranty period and during the life cycle of the system. The plan shall detail the following procedures: | | |
| (a) | repair/replacement of defective hardware components; | | |
| (b) | software maintenance and repair; | | |
| (c) | help desk support; | | |
| (d) | management of components obsolescence. | | |
| D.3 | Training Plan | | |
| D.3.1 | The Contractor shall submit together with the Technical Proposal a plan for each of the identified training courses that include a description of the following elements: | | |
| (a) | Type of training; | | |
| (b) | Course Title; | | |
| (c) | Course Objectives; | | |
| (d) | Course Contents; | | |
| (e) | Duration in Days; | | |
| D.3.2 | All training materials and training aids shall be provided by the supplier in softcopy and hardcopy. | | |
| D.3.3 | The OEM shall issue a Training Certificate to ANS personnel who attended the training. The Certificate shall indicate the following: (a) name of the trainee, (b) course title, (c) place of training, (d) date and duration of the training with the OEM/contractor company logo. | | |
| D.4 | Documentations | | |
| D.4.1 | Aside from equipment delivery, the following documents shall be delivered: | | |
| (a) | 2 sets of operation manuals; | | |
| (b) | 2 sets of maintenance (hardware/software) manual; | | |
| (c) | 2 sets of software manual; | | |
| (d) | 2 sets of inventory list of equipment | | |
| D.4.2 | Softcopy of all delivered documents shall be provided in a CD or USB medium. | | |
| E | DELIVERY INSPECTION AND TESTING | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|----------|---|----------------------|---|
| E.1 | Delivery, Storage and Handling | | |
| E.1.1 | The Equipment shall be protected against extreme temperature, humidity, and shall be stored in a conditioned place to prevent corrosion and/or contamination. | | |
| E.1.2 | The Equipment shall be wrapped up in dust-tight covers and kept away from construction activities in order to be protected against dust and debris. | | |
| E.1.3 | Contractor shall be responsible for correct storage of the equipment under the conditions as specified. | | |
| E.1.4 | Contractor shall deliver, store, and handle the equipment and materials in accordance with the manufacturer's recommendations. | | |
| E.1.5 | Contractor shall be responsible for the delivery/shipment of equipment from the Contractor's premise up to the site of delivery. | | |
| E.2 | Delivery Acceptance Testing | | |
| E.2.1 | Prior to delivery, the Contractor shall submit a Factory Test Report of the equipment to be delivered in order to ensure that the Meteorological (MET) equipment will operate as intended and that it meets all the contractual requirements. (No CAAP personnel participation) | | |
| E.2.2 | A certified factory test data will be used as basis during the conduct acceptance testing. | | |
| E.2.3 | The CAAP requires that the Meteorological (MET) equipment and subsystems have passed all tests in the factory (OEM) prior to shipment. | | |
| E.2.4 | The delivery acceptance testing shall be witnessed by at least two (2) ANS technical personnel for the Meteorological (MET) equipment. The conduct of all test verification shall be performed before final acceptance. | | |
| E.2.5 | The contractor shall provide information on the following prior to delivery: <ul style="list-style-type: none"> i. Schedule and activities for the delivery acceptance test; ii. Schedule and activities for the integration training. | | |
| E.2.6 | Upon delivery, the contractor shall set up the equipment for acceptance testing. The tests to be performed shall include verification that the equipment for ATCT shall receive all data from the equipment at sensor site. Delivery acceptance test data to be recorded in the Acceptance Test Form (Annex B). | | |
| B.6.2 | The CAAP requires Acceptance Testing by ANS personnel for Meteorological (MET) delivered equipment prior to final acceptance. | | |
| F | PROJECT COMPLETION/ACCEPTANCE | | |

| Item | Specification | Compliance Statement | Reference to support statement (also indicate Page No.) |
|----------|---|----------------------|---|
| F.2 | A Certificate of Acceptance shall be issued by CAAP to the Contractor upon successful completion of the Project. | | |
| F.3 | The following documents (submitted in a binder with corresponding tabs) shall be the attachment for the approval of the Certificate of Acceptance: | | |
| (a) | Copy of approved Contract including the Terms of Reference; | | |
| (b) | Factory Test Report; | | |
| (c) | Delivery Acceptance Test Result; | | |
| (d) | List of Delivered Items; | | |
| (e) | Calibration Certificate of sensors (anemometer, thermometer, barometer and hygrometer) from PAGASA. | | |
| (f) | Copy of integration training attendance and training certificates of participants; | | |
| (g) | Operation/User and Service Manuals. | | |
| G | WARRANTY | | |
| G.1 | The CAAP requires one (1) year Warranty Period for both software and hardware components. | | |
| G.2 | Warranty shall commence from date of acceptance. | | |
| G.3 | The Contractor shall be responsible for the shipment of defective parts to the Manufacturer and vice-versa. Cost of which shall be borne by the Contractor for the duration of the Warranty periods. | | |
| H | OTHER REQUIREMENTS | | |
| H.1 | Permits | | |
| H.1.1 | The Contractor shall be responsible for securing all necessary permits (i.e. Permit to Import, NTC, Security Pass, other local permits, etc.) from respective offices that may be necessary for the supply/delivery of the equipment. The cost of acquiring such permits including its processing shall be borne by the Contractor. | | |

End of Technical Specifications

Section VIII. Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

- ☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) **in accordance with Section 8.5.2 of the IRR;**

Technical Documents

- ☐ (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- ☐ (c) Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided for in Sections 23.4.1.3 and 23.4.2.4 of the 2016 revised IRR of RA No. 9184, within the relevant period as provided in the Bidding Documents; **and**
- ☐ (d) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission **or** Original copy of Notarized Bid Securing Declaration; **and**
- ☐ (e) Conformity with the Technical Specifications, which may include production/delivery schedule, manpower requirements, and/or after-sales/parts, if applicable; **and**
- ☐ (f) Original duly signed Omnibus Sworn Statement (OSS) **and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

- ☐ (g) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC) **or** A committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation.

Class "B" Documents

- ☐ (h) If applicable, a duly signed joint venture agreement (JVA) in case the joint venture is already in existence **or** duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

II. FINANCIAL COMPONENT ENVELOPE

- ☐ (i) Original of duly signed and accomplished Financial Bid Form; **and**
- ☐ (j) Original of duly signed and accomplished Price Schedule(s).

Other documentary requirements under RA No. 9184 (as applicable)

- ☐ (k) *[For foreign bidders claiming by reason of their country's extension of reciprocal rights to Filipinos]* Certification from the relevant government office of their country stating that Filipinos are allowed to participate in government procurement activities for the same item or product.
- ☐ (l) Certification from the DTI if the Bidder claims preference as a Domestic Bidder or Domestic Entity.

REVISED ANNEX A

Name of the Project : _____

Name of Bidder : _____

Calendar Year : _____

| (1) Item | (2) Country of Origin | (3) Description | (3.1) Brand | (3.2) Type / Model / Version | (4) Quantity | (4.1) Unit |
|-------------|--------------------------|--------------------|----------------|---------------------------------|-----------------|---------------|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

[signature over printed name]

[in the capacity of]

Duly authorized to sign Bid for and on behalf of _____

Date _____

NOTE: All equipment/items offered must be reflected in this form.
Columns 3.1 & 3.2 for applicable items.
Provide additional sheets as necessary.

ANNEX B

This form shall be completed together with the OEM provided/recommended acceptance/commissioning test form.

Meteorological Instrument Readings Sampling Form (Supply and Delivery – No Installation/Commissioning)

Date: _____

| Sensor | Serial Number | Unit | Data (Readings taken from) | | | Remarks |
|----------------|---------------|-------|----------------------------|--------------------|--------------|---------|
| | | | Data Logger* | Maintenance Laptop | ATCT Display | |
| Wind Speed | | knots | | | | |
| Wind Direction | | 0° | | | | |
| Pressure | | (hPa) | | | | |
| Temperature | | (°C) | | | | |

* sensor site (for data loggers with display).

| UPS (Serial Number) | Output Voltage (Volts AC) | frequency (60Hz ±3Hz) | Backup Time (≥25 minutes) | Remarks |
|------------------------|------------------------------|----------------------------|--------------------------------|---------|
| | | | | |
| | | | | |
| | | | | |

| Solar Controller / Power Supply / Battery Charger (Serial Number) | DC Input Voltage (V _{IN}) | Charging Voltage (V _{CH}) | Output Voltage (V _{OUT}) | Remarks |
|--|--|--|---------------------------------------|---------|
| 1 | | | | |
| | | | | |
| | | | | |

| Solar Panel (Serial Number) | Open Circuit Voltage (V _{OC}) | Short Circuit Current (I _{SC}) | Maximum Voltage (V _{MPP}) | Maximum Current (I _{MPP}) | Remarks |
|--------------------------------|--|---|---|---|---------|
| | | | | | |
| | | | | | |
| | | | | | |

Performed by: (Suppliers' Representative/s)

Witnessed by: (ANS/CAAP Representative/s)

Signature over printed name
Designation

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